CHEVROLET

PERFORMANCE
VEHICLES / PARTS / RACING

Retail Price $5.00
PP Number 33
P/N 19420958
Supersedes All Previous Catalogs

2021 CATALOG

BUILD IT!
THERE'S NO BETTER TIME

NEW! LS427/570 7.0L DELIVERS MORE!
LS7 with wet-sump oiling and hotter cam for easier install and more power!

CONNECT & CRUISE!
80+ Engine and Transmission Packages!

Now including the new SuperMatic 10L90 10-speed for Gen V LT Engines!

NEW ENGINES & PARTS!
Budget 350/265 Small-Block, LS Long Blocks, L8T Iron Block and more choices for your build!

NEW TEN-SPEED AUTOMATIC *NEW 6.6L CAST IRON BARE BLOCK* *NEW 265 HP BUDGET CRATE ENGINE*

CHEVROLET | PERFORMANCE
VEHICLES / PARTS / RACING

Build Your Project and Drive It!

We are driving out of one of the most unique and (for many) challenging years in recent memory, with our eyes on the road ahead.

It's an open road with almost endless possibilities. And we know a great many enthusiasts dug into their projects and made great strides in building them. It was an encouraging sign in a tumultuous year.

Our engineers kept busy, too, planning, building and testing new products that debut in this catalog, including the all-new LS427/570 crate engine. It combines all the racing-derived high-performance design and componentry of the incomparable LS7 and adds a hotter cam, boosting output to 570 horsepower, as well as a wet-sump oiling system that makes an easier, more affordable installation. It's a great new LS crate engine.

That's not all. We've also added:

- The SuperMatic™ 10L90 10-speed automatic transmission, which is based on the 10-speed transmission offered in today's Camaro and Silverado models, but strengthened to support higher-output engine combinations.
- The L8T cylinder block – a sturdy, cast-iron foundation for building larger displacement Gen V engines.
- New LS long-block assemblies for the LS3, LS376/480 and LS376/525. Each is built with the proven internals of the complete crate engines but offered in long-block configurations to allow the builder to fit the induction system and accessories of his or her choice.
- LT4 injector kit. We've made it more convenient to purchase the LT4 engine's high-flow fuel injectors, packaging them in kits of eight injectors.
- The budget-minded 350/265 Base Engine. It's our most economical Small-Block engine assembly and offers a great alternative to rebuilding Gen 0-type 265-400-cubic-inch cores.

These great new engines and parts add to our existing, comprehensive roster of crate engines, transmissions, control systems and supporting performance parts—including inclusive Connect & Cruise combinations and E-Rod packages that have been granted CARB Executive Orders for use in certain vehicles. We have just about everything you need to finish your project and get it running sooner.

Whether your new engine is already resting on the mounts in your vehicle's chassis or you're picking up this catalog for the first time in order to find the right crate engine for your project, the Chevrolet Performance team encourages you to dig in, finish your build and drive it!

There's never been a better time.

We look forward to seeing you and your project on the road, at shows and on the track!

The Chevrolet Performance Team

CHEVROLET | PERFORMANCE

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CHEVROLET PERFORMANCE PARTS COMPLIANCE WITH EMISSIONS STANDARDS

Motor vehicle emissions standards are intended to help achieve and maintain air quality goals that benefit human health and the environment. U.S. federal and state and Canadian law prohibits knowingly removing, modifying, or making inoperative, or causing someone to remove or render inoperative, or otherwise tampering with, any part or element of design installed in compliance with motor vehicle emission standards on a motor vehicle or nonroad vehicle, or otherwise modifying any required emission and noise control system. Unless specifically noted to the contrary herein, vehicles equipped with Chevrolet Performance Parts may not meet emissions laws and regulations and should not be operated on public roads or used for any other use. The parts listed in this catalog are intended primarily for use in vehicles that are NOT:

(1) "motor vehicles" designed for street use; or

(2) off-road vehicles used for anything but competition.

U.S. federal and state and Canadian provincial agencies have the authority to administer substantial monetary penalties against individuals and companies who do not comply with these laws. Chevrolet Performance customers are responsible for ensuring their use of Chevrolet Performance Parts complies with applicable federal, state/provincial and local laws, regulations and ordinances, and for ensuring that modified vehicles are operated in a manner that complies with applicable laws. In an effort to help consumers maintain compliance with emissions regulations, the product descriptions for many parts include emissions-related warnings and notices. This page summarizes the emissions-related information that you may see in this catalog.

PARTS INTENDED FOR COMPETITION USE ONLY

The Chevrolet Performance Catalog includes parts that are intended exclusively for use in competition vehicles that will only be driven on a track or off-road course. By "competition vehicles," GM means vehicles (i) used exclusively for competitions organized and sanctioned by a local or private body and (ii) not designed for use on public streets or highways. Consumers are strongly advised not to install parts accompanied by this warning on vehicles that will be driven on public roads, as they are not designed for that purpose. The product descriptions for such parts are accompanied by the following warning icon:

WARNING: NOT EMISSIONS LEGAL FOR STREET USE
Because of their effect on a vehicle's emissions performance, certain parts in the Chevrolet Performance Catalog are intended exclusively for use in competition vehicles. The "Checkered Flag" icon means a part is designed and intended for use in vehicles operated exclusively for competition: in racing or organized competition on courses separate from public streets or highways. Installation or use of this part on a vehicle operated on public streets or highways is likely to violate U.S., Canadian, and state and provincial laws and regulations relating to motor vehicle emissions.

PARTS THAT HAVE RECEIVED A CALIFORNIA EXECUTIVE ORDER

Manufacturers of add-on and modified emissions-related parts (aftermarket parts) that sell their product for use in California vehicles must obtain an exemption from the California Air Resources Board (CARB). This exemption is called an Executive Order (EO) and allows the part or modification to be installed on specific emission-controlled vehicles and used in vehicles driven on public streets and highways. An exemption is granted if the product has been determined not to cause an increase in vehicle emissions from the production vehicles for which the part is intended, nor otherwise cause vehicles to be noncompliant with the vehicle emissions certification and anti-tampering laws.

Every EO part or modification comes with a unique assigned number and comes with limitations and restrictions on the installation and use of the part. The EO number will appear on a special exemption label affixed to the part or its packaging. Consumers are advised to familiarize themselves with the EO and its limitations and restrictions to ensure that such parts are installed and used properly. The product descriptions for some parts listed in the Chevrolet Performance Catalog are accompanied by the "50 State" icon and the following notice:

The "50 State" icon means that this part has undergone an evaluation by CARB and that CARB has determined that the part or modification has been shown to not increase vehicle emissions when installed and used properly in the application(s) identified in the product description and EO. CARB policy authorizes consumers to install and use these parts in vehicles driven on public streets and highways. Parts that have an exemption include the EO number and a link to the CARB website so that customers are informed of the requirements and limitations of installation and use contained in the EO.

FOR MORE INFORMATION

General Motors is committed to performance parts development that allows enthusiasts to modify their vehicles and remain compliant with emissions requirements. The information provided here is intended to provide general guidance of interest to most consumers, and may not apply to all vehicles or all situations.

For more information, visit the General Motors Performance Parts Website at ChevroletPerformance.com

PERFORMANCE CENTER NEWS

Camaro Rolling Chassis

LS427/570 7.0L Wet Sump Engine

L8T 6.6L Cast Iron Block

Supermatic™ 10L90-E 10-Speed Automatic Transmission

350/265 Base Crate Engine

NEW FOR 2021!

ADVANCED SUPERMATIC™ 10L90 10-SPEED AUTOMATIC

IS DESIGNED FOR PERFORMANCE BUILDS

The new SuperMatic™ 10L90-E 10-speed automatic transmission **(P/N 19420480)** offers a technologically advanced balance of performance and efficiency when matched with Chevrolet Performance's Gen V crate engines, including the LT1, LT4 and LT5.

Based on the same robust transmission offered in the Camaro SS ZL1, as well as the latest full-size trucks and SUVs, our SuperMatic 10L90-E transmission kit is enhanced with specific internal components that contribute to a higher output torque rating of 715 lb.-ft. It also features a slip yoke-type tail shaft, allowing it to be used with the conventional prop shaft design used in most older vehicles. That makes it easier to install on LT engine swaps into vintage cars, trucks and SUVs.

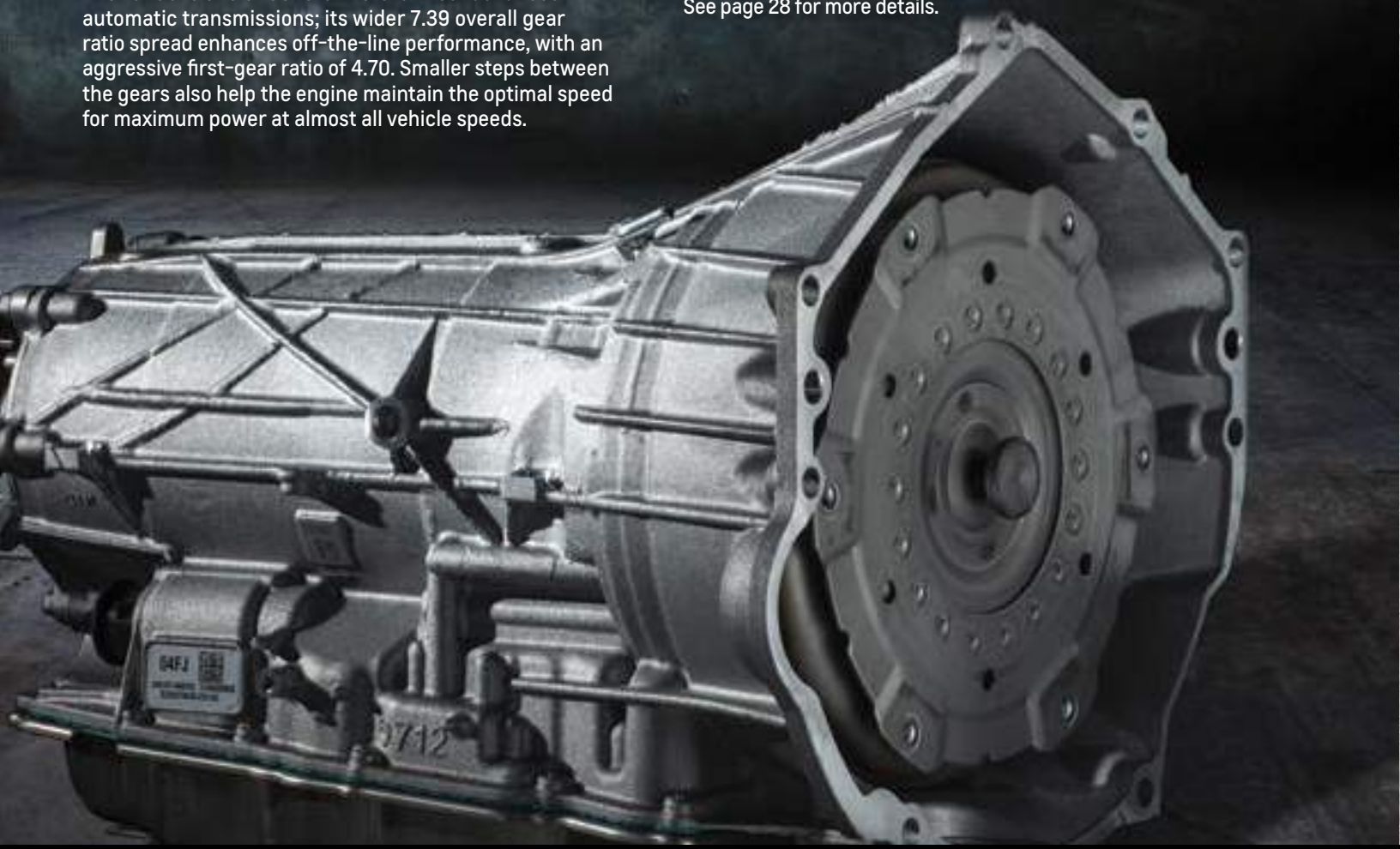
The 10L90 is one of General Motors' most advanced automatic transmissions; its wider 7.39 overall gear ratio spread enhances off-the-line performance, with an aggressive first-gear ratio of 4.70. Smaller steps between the gears also help the engine maintain the optimal speed for maximum power at almost all vehicle speeds.

Its design includes four simple gear sets and six clutches: two brake clutches and four rotating clutches. That's only one more clutch than GM's eight-speed, despite having two more forward gears. This contributes to the compact packaging while also improving spin losses. A unique triple-clutch assembly in the middle of the 10-speed's architecture is a primary enabler for packaging 10-speed content in the same space as GM's six- and eight-speed transmissions.

There are three overdrive gears in the 10-speed, enabling lower-rpm driving and allowing your resto-mod or Pro Touring classic to deliver a great balance of performance and efficiency.

Our new SuperMatic™ 10L90-E includes the torque converter and controller.

See page 28 for more details.



ALL-NEW LS427/570!®

OUR NEW WET-SUMP LS7-BASED CRATE ENGINE WITH 570HP

When it debuted in the C6 Corvette Z06, the 7.0L LS7 was immediately hailed as a benchmark engine from Chevrolet and it remains the pinnacle of naturally aspirated horsepower—and a popular choice for LS swaps.

With the new LS427/570 crate engine **(P/N 19421004)**, Chevrolet Performance has taken the very best of LS7 and made it even better for builders, starting with a new wet-sump oiling system that eliminates the need to fabricate the supporting oil tank and feed/return lines required with the production-based LS7 engine.

Even better, we've added a new, higher-lift camshaft and complementing valve springs to help push output to 570 horsepower. That's a 65-horsepower gain! The camshaft also has more duration and a tighter lobe separation angle, which contributes to a tougher-sounding exhaust note. It's an engine that will remind you of every one of those 570 horses while it's idling.

The other important details of the engine include:

- ***It uses a fourth-generation F-body aluminum oil pan, along with a specific wet-sump oil pump.***
- ***It comes with the production LS7 intake manifold, fuel rails, injectors and throttle body installed.***
- ***A specific engine controller must be used with it. The GM part number is 19420000 and it's not included with the crate engine kit.***

The rest of the engine is the same racing-derived package as the production engine, which means a forged crankshaft and titanium connecting rods — and deck plate-honed cylinders that have always been part of the LS7's build. The CNC-ported heads feature 2.20-inch titanium intake valves and 1.61-inch sodium-filled exhaust valves.

More power and easier installation. They're the only two things that could have improved the LS7. Chevrolet Performance has delivered with the new LS427/570! See page 66 for complete details.

Parts intended for competition use only. See page 2 for details.

BUDGET SMALL-BLOCK POWER

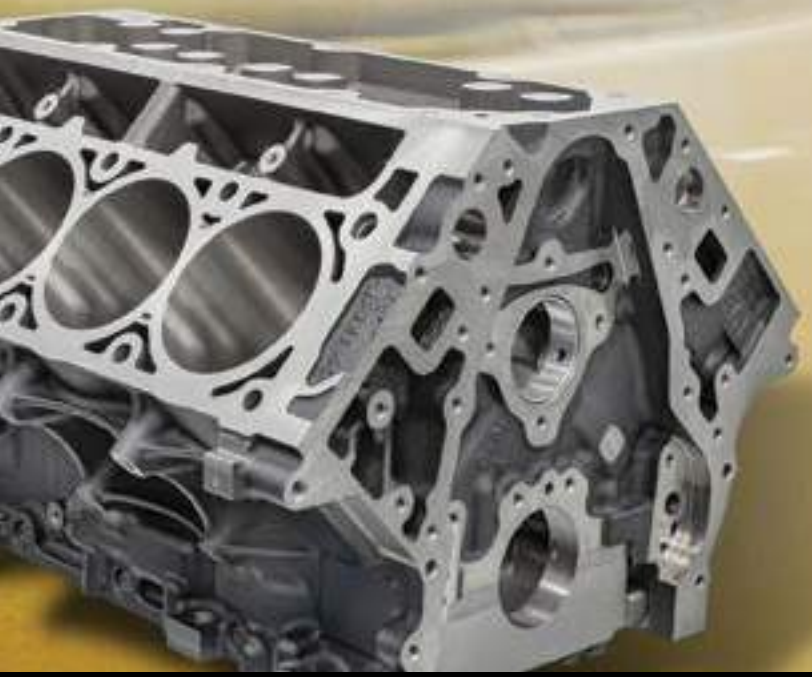
WITH THE NEW 350/265 BASE ENGINE®

Chevrolet Performance's new 350/265 Base engine assembly **(P/N 19420194)** offers an economy-minded alternative to rebuilding Gen 0-type 265-400-cubic-inch Small-Block engines. It is assembled with all-new, premium components, including a brand-new block with four-bolt main caps—a strength-enhancing feature most original and core 350 engines don't have. Its mild 8.0:1 compression ratio is suited for performance at all elevations, while a hydraulic camshaft reduces the need for periodic maintenance.

This all-new assembly is delivered with the oil pan and timing cover, enabling builders to transfer more take-off components from their original engine. This helps make the new 350/265 Base an even more affordable option for re-powering their vehicle. It is internally balanced and features the pre-1986-style two-piece rear main seal. See page 123 for more information.

L8T CYLINDER BLOCK®

A RIGID FOUNDATION FOR LT ENGINE BUILDS



Chevrolet Performance now offers the unique cast iron cylinder block from the L8T 6.6L gas engine that's standard in Silverado HD trucks. It's a foundation that can be used with LT performance parts to build unique high-performance engine combinations.

The L8T block **(P/N 19420904)** is finished with 4.06-inch cylinder bores and uses a 3.86-inch-stroke crankshaft in the production engine to deliver 400 cubic inches. That's the largest-displacement engine in the LT family. We deliver the block bare, leaving the builder to add the crankshaft and other rotating components of his or her choosing.

Build the L8T block your way and discover where LT performance can take you. See page 92 for more information.

NEW LS LONG-BLOCK ASSEMBLIES®
FROM CHEVROLET PERFORMANCE!

New LS long-blocks from Chevrolet Performance offer builders all the performance capabilities of complete crate engines but at a lower cost . With fewer components, this is for those who want to finish off their engine with their own intake manifold and other accessories. Three new long-block assemblies are available:

LS3 (P/N 19420382) – Based on the production LS3 engine, the engine uses L92-style rectangular-port heads to produce 430 hp and 425 lb.-ft. with the production intake manifold and other accessories.

LS376/480 (P/N 19420384) – Mixing the LS3 with the race-bred LS Hot Cam (with .525-in. lift) increases output to 495 hp and 473 lb.-ft., when used with the production LS3 intake manifold assembly.

LS376/525 (P/N 10420386) – With an even more aggressive camshaft, featuring a tight 110-degree lobe separation angle, the LS376/525 is designed for high-rpm performance, delivering 525 hp at 6,200 rpm and 486 lb.-ft. at 5,200 rpm, when used with the production LS3 intake manifold assembly.

Each new long-block assembly is delivered without the intake manifold, throttle body, fuel rail, injectors, exhaust manifold or other accessories. They are available from Chevrolet Performance. Mix and match the parts to take your LS performance engine to the next level! See pages 53, 57, and 61 for more information.

NEW LT4 INJECTOR KIT®

Chevrolet Performance has made it more convenient to purchase high-flow LT4 fuel injectors, bundling them into a kit containing eight injectors **(P/N 19420801)**. These injectors fit other LT engines and offer higher flow capability than production LT1 fuel injectors. One kit is required for a complete engine. Supporting fuel system enhancements and tuning may be required when using LT4 injectors in non-LT4 engines. See page 116 for more information.

Parts intended for competition use only. See page 2 for details.

CAMARO ROLLING CHASSIS (CRC)

P/N 20209563

The Camaro Rolling Chassis (CRC) is designed to make building a competitive drag race car more attainable for more racers, with a professionally assembled race car body, chassis and suspension system that requires little or no additional fabrication. The customer adds the powertrain, rear axle drive gear and other complementing details.

The Camaro Rolling Chassis is built on the same production line and to the same specs as the limited-production COPO Camaro race cars and it's NHRA-certified, with a roll cage approved for 8.5-second ETs. It weighs a little more than 2,000 pounds, as delivered.

Available exterior colors include Summit White, Red Hot, Steel Gray and, for an extra charge, Garnett Red Tintcoat.

To complete the race car, the customer must add the hood, engine and engine mounts, engine controller, headers and exhaust system, air inlet and filter, crankcase breather system, coolant hoses, transmission (including torque converter), driveshaft, differential third member/gear set and battery. Chevrolet Performance offers most of the parts required to finish the assembly, including the range of COPO Camaro racing engines and lightweight hood.

The Camaro Rolling Chassis is a special-built race car. It does not carry a Vehicle Identification Number or regular-production safety equipment and it is not legal for road use. It is intended only for off-highway drag racing, and there is no warranty.

Chevrolet Performance is building the Camaro Rolling Chassis in limited numbers. Check with your Chevrolet dealer for availability and ordering details.

Standard features include:

- Strange four-link rear suspension
- Bogart racing wheels
- Hoosier drag racing tires
- Racing seat
- Switch panel
- NHRA-approved roll cage

JOIN THE

CONVERSATION

CHEVROLET | PERFORMANCE

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Follow the Official @ChevroletPerformance social channels for the latest on new products, exclusive content and more!

CRATE ENGINES
AND ENGINE COMPONENTS

Many Choices, Many Possibilities!

Chevrolet Performance offers approximately 50 production-based and specialty high-performance Small-Block, Big-Block, LS, LSX and LT crate engines — along with hundreds of supporting engine parts, transmissions, controllers and more.

That means we have almost everything you need to build your project, but it all starts with the engine.

Our latest is the LS427/570 (page 66). It's based on the dry-sump LS7, but we've added wet-sump oiling to make it easier to install, and we swapped in a hotter camshaft to push its performance to 570 horsepower!

And for those who want to handle more of the engine's final assembly themselves, we've added to LS3, LS76 and LS376/515 long blocks, as well as a new, economical 350/265 Small-Block partial engine. There's even the new L8T iron cylinder block from the Silverado HD's new 6.6L gas engine. It makes the perfect foundation for an LT-based build-up.

To make things even easier, check out Chevrolet Performance's innovative Connect & Cruise powertrain systems, which match our crate engines with complementing transmissions and all the necessary controller and installation kits for the ultimate in selection convenience. We even offer options that are street legal for use in all 50 states.

With literally dozens of options and virtually unlimited installation possibilities, your toughest decision will be deciding which Chevrolet Performance crate engine is just right for your project!

350/265 Base Crate Engine

L8T 6.6L Cast Iron Block

Supermatic™ 10L90-E 10-Speed Automatic Transmission

LS 427/570 Connect & Cruise with 6L80 E-Automatic Transmission

Crate Engine Quick Reference Charts

Chevy LS-Series Small-Block V-8

Part Number	Description	Engine Size	Weight	hp	Torque	Trans*	Page	Warranty
19416591	L96 6.0L – Doscontinued – No Longer Available	6.0L	614	360	380	A	50	
19419862	LS3 6.2L – Corvette Gen IV V-8	6.2L	415	430	425	A	52	
19420382	LS3 Long Block	6.2L	N/A	430	425	A	53	
19370163	LS364/450	6.0L	N/A	452	441	B	54	
19419864	LS376/480 – EFI LS3 Gen IV V-8	6.2L	415	495	473	B	56	
19420384	LS376/480 Long Block	6.2L	N/A	495	473	B	57	
19419868	LS376/515 – carbureted LS3 Gen IV V-8	6.2L	415	533	477	B	58	
19419866	LS376/525 – EFI LS3 Gen IV V-8	6.2L	415	525	486	B	60	
10420386	LS376/525 Long Block	6.2L	N/A	525	486	B	61	
19329008	DR525 with Gen 4 F-Car Oil Pan	376 cu in	415	525	498	B	62	
19370418	DR525 with Muscle Car Oil Pan	376 cu in	415	525	494	B	62	
19329246	LS7 7.0L – Camaro Z/28 and Corvette Z06	7.0L	440	505	470	B	64	
19421004	LS427/570 – wet sump F-car oil pan	7.0L	440	570	540	B	66	
19370850	LSA 6.2L SC – Doscontinued – No Longer Available	6.2L	435	556	551	E	68	

Chevy LT-Series Small-Block V-8

Part Number	Description	Engine Size	Weight	hp	Torque	Trans*	Page	Warranty
19329997	LT1 6.2L with dry sump	6.2L	425	460	465	C	72	
19418843	LT1 6.2L with wet sump	6.2L	425	455	455	C	72	
19416595	LT4 6.2L SC with dry sump	6.2L	450	650	650	N/A	74	
19418844	LT4 6.2L SC with wet sump – for Connect & Cruise/8 speed auto.	6.2L	450	650	650	D	74	
19417105	LT5 6.2L SC with dry sump	6.2L	625	755	715	N/A	76	

Chevy LSX-Series Small-Block V-8

Part Number	Description	Engine Size	Weight	hp	Torque	Trans*	Page	Warranty
19417355	LSX376-B8	6.2L	531	476	475	E	84	
19417356	LSX376-B15	6.2L	539	473	444	E	86	
19417357	LSX454	7.4L	525	627	586	E	88	

NOTE: *SuperMatic™ 6L80E is optional with all LS, LSX engines*

Chevy Small-Block V-8

Part Number	Description	Engine Size	Weight	hp	Torque	Trans*	Page	Warranty
19355659	350/290 Deluxe	350 cu in	518	308	347	A	122	
19420194	350/265 Base	350 cu in	352	265	351	A	123	
19355658	350/290 Base	350 cu in	352	308	347	A	123	
19419992	350 HO Turn-Key – with iron Vortec Heads	350 cu in	575	333	381	A	124	
19420874	350 HO Deluxe – with iron Vortec Heads	350 cu in	481	333	381	A	125	
19420873	350 HO Base – with iron Vortec Heads	350 cu in	298	333	381	A	125	
19417619	Ram Jet 350 – PFI with iron Vortec Heads	350 cu in	517	345	396	A	126	
19418190	SP350/357 Turn-Key	350 cu in	575	357	407	A	128	
19420871	SP350/357 Deluxe	350 cu in	450	357	407	A	129	
19420870	SP350/357 Base	350 cu in	300	357	407	A	129	
19419994	SP350/385 Turn-Key	350 cu in	410	385	405	A	130	
19417781	SP350/385 Base	350 cu in	510	385	405	A	131	
12670966	SP/ZZ Partial Engine	350 cu in	540	N/A	N/A	A	131	
19419995	ZZ6 Turn-Key	350 cu in	410	405	406	A	132	
19419205	ZZ6 Base	350 cu in	405	405	406	A	133	
19368150	ZZ6 EFI Turn-Key	350 cu in	430	420	408	A	134	
19417782	ZZ6 EFI Deluxe	350 cu in	410	420	408	A	135	
19355720	HT383	383 cu in	405	323	444	B	136	
19355719	383 Partial Engine	383 cu in	335	N/A	N/A	B	137	
19418656	HT383E	383 cu in	450	323	444	B	138	
19418657	SP383 Deluxe	383 cu in	410	435	445	B	140	
19420597	SP383 EFI Turn-Key	383 cu in	430	450	436	B	142	
19418640	SP383 EFI Deluxe	383 cu in	410	450	436	B	143	

Warranty Information

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance Parts include a 12-month/unlimited mile limited warranty.

Chevrolet Performance Racing Crate Engines are purpose-built for racing only, and have no warranty.

GM Parts Engines offer a 36-month or 100,000-mile limited warranty when the engine is installed in a recommended application.

Parts intended for competition use only. See page 2 for details.

Crate Engine Quick Reference Charts continued

Chevy Circle Track Racing Engines

Part Number	Description	Engine Size	Weight	hp	Torque	Trans*	Page	Warranty
19418602	CT350	350 cu in	451	350	396	N/A	145	
19370604	CT400	350 cu in	466	404	406	N/A	146	
19418211	CT525	376 cu in	415	533	477	N/A	147	

Chevy Big-Block V-8

Part Number	Description	Engine Size	Weight	hp	Torque	Trans*	Page	Warranty
19331572	ZZ427/480	427 cu in	520	480	490	E	174	
12568774	454 HO – with iron heads and roller cam	454 cu in	590	438	500	E	176	
12498778	454 Partial Engine	454 cu in	361	N/A	N/A	E	177	
19419001	ZZ454/440	454 cu in	522	469	519	E	178	
88890534	HT502 – truck replacement engine	502 cu in	557	406	541	E	180	
12568778	502 HO – with iron heads and roller cam	502 cu in	602	461	558	E	182	
12568782	502 Partial Engine	502 cu in	402	N/A	N/A	E	183	
19419003	ZZ502/502 Deluxe – with aluminum heads	502 cu in	611	508	580	E	184	
19331583	ZZ572/620 Deluxe	572 cu in	580	621	645	E	186	
19331581	ZZ572/620 Base	572 cu in	514	621	645	E	187	
19331585	ZZ572/720R Deluxe	572 cu in	677	727	680	E	188	

*Recommended Transmissions

Trans	Part Number	Description	Page
A	19368611	SuperMatic™ 4L65-E Four-Speed Automatic	24
B	19368613	SuperMatic™ 4L70-E Four-Speed Automatic	24
C	19368614	SuperMatic™ 4L70-E Four-Speed Automatic – LT1	24
D	19368615	SuperMatic™ 4L75-E Four-Speed Automatic	24
E	19300175	SuperMatic™ 4L85-E Four-Speed Automatic	25
F	19366637	SuperMatic™ 6L80-E Six-Speed Transmission – 2400-2800k stall converter	26
G	19417102	SuperMatic™ 6L80-E Six-Speed Transmission – 3000-3400k stall converter	26
H	19419798	SuperMatic™ 8L90-E Eight-Speed Automatic – LT1	27
I	19419799	SuperMatic™ 8L90-E Eight-Speed Automatic – LT4	27
J	19419800	SuperMatic™ 8L90-E Eight-Speed Automatic – LT5	27

Engine Power and Torque Ratings Test Procedures

All Chevrolet Performance crate engines were tested in a controlled environment on a dynamometer following the Society of Engineers (SAE) standard test procedures J1349 for net power testing or J1995 for gross power testing. Atmospheric correction factors for J1349 use a temperature of 77°F and a barometric pressure of 29.31 inHg. The J1995 correction factors are derived from SAE test J607 correcting to standard temperature and pressure conditions of 60°F and 29.92 inHg. Formally declared values meet the requirements within SAE test standard J2723.

Different Levels of Engine Assemblies

Recognizing that each customer has unique needs, Chevrolet Performance offers four distinct levels of Crate Engines, covering the gamut from starter partial engines to complete Turn-Key engines that are ready to be dropped into your favorite vehicle. This variety gives builders the opportunity to customize an engine as much or as little as they need to meet their expectations.

Partial Engine

This is for the builder who wants to start essentially from the block up. These engines typically include the block and reciprocating assembly. This allows the builder to choose the heads, cam and intake combination he/she wants.

Base

The Base engine assembly typically includes block, crank, pistons, cam, heads and valve covers, but allows builders to pick the carburetor/injection system and intake manifold they desire.

Deluxe

The Deluxe crate engines are essentially ready to fire up, as they ship with the distributor installed, harmonic balancer bolted on and the carburetor in the crate. All you need to do is put the parts together and go!

Turn-Key

We told our engineers to have some fun and assemble engines the way they think it should be done ... we then took their combinations, built them up and put them in a crate that ships right to your dealer. The Turn-Key engines represent an outstanding value, and they are perfect for enthusiasts who have built a chassis and need reliable power.

PERFORMANCE

UPGRADES & ACCESSORIES

LET YOUR IMAGINATION RUN WITH CHEVROLET!

With vehicle-specific portfolios ranging from suspension upgrades to exhaust systems that add real horsepower, Chevrolet Performance offers Corvette, Camaro, Silverado, Colorado and now, Tahoe and Suburban owners everything they need to customize their vehicle for any performance style.

For full product portfolios, visit Chevy.com/Accessories to purchase or Chevrolet.com/Performance to find a dealer.

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Camaro pg. 16

Silverado pg. 17

Tahoe & Suburban pg. 18 (Suburban shown)

Colorado pg. 19

Corvette Stingray Performance Upgrades

A. 6.2L Engine Covers

- Enhances the mid-engine with a stylish appearance upgrade
- Features a Grained Insert With Embossed Corvette Lettering
- One-piece engine cover, provides insulation while helping protect from dirt and debris
- Features the Crossed Flags Logo

Part Number	Description
12697368	6.2L Engine Cover in Edge Red
12697373	6.2L Engine Cover in Silver (not shown)

A

B. Premium Indoor Car Cover with Fully Rendered Corvette C8.R NEW!

84865964

- Helps to protect the exterior surface of your vehicle from the elements
- Custom car cover designed for your vehicle
- For indoor use and protection against dust and debris
- Contains a layer of micro-porous film and an inner cotton layer for breathable protection
- Includes storage bag

B

C. Jake Logo Floor Liners NEW!

84534619

- Precision engineered to meet the exact fit and appearance standards of your interior, featuring high-friction backing for outstanding traction
- Deep-patterned, molded grooves help channel debris, snow and water away from the vehicle's carpeting, as well as your feet and clothing
- Custom-designed, raised sides provide maximum carpet coverage and a barrier to help contain mud, snow and other debris for easy cleaning
- Three-dimensional design featuring crossed flags and embossed Jake Racing logos specifically developed for your vehicle

C

D. Performance Wheels

- Personalize your vehicle with these Chevrolet Accessories Wheels validated by GM specifications. Use only GM-approved wheel and tire combinations
- See Chevrolet.com/accessories for important wheel and tire information

Part Number	Description
84787695/ 84787697	Pewter Front (19x8.5)/ Pewter Rear (20x11)
23417380/ 84735859	Black Front (19x8.5)/ Black Rear (20x11)
NOTE: Center Caps, Tires, Lug Nuts, Tire Pressure Monitors, and Wheel Locks sold seperately.	

D

E. High Wing Spoiler

- Gives your vehicle a more aggressive look with performance-inspired design
- Specifically designed for your vehicle

Part Number	Description
84857312	Arctic White
84857293	Torch Red
84857283	Black
84857289	Dark Shadow Gray
84857318	Carbon Flash Metallic

E

F. Ground Effects Kit in Visible Carbon Fiber

84254456

- Precision built for a perfect fit
- Expertly tested to meet GM's water intrusion, stone impingement and solar UV requirements.
- Includes front splitter and rocker panel moldings
- Helps create additional downforce and reduce air pressure underneath the vehicle to reduce drag and increase traction

F

Gen 6 Camaro Performance Upgrades

A. Front 6-Piston Brembo® Brake Upgrade System in Red

- Six-piston monoblock aluminum calipers with performance brake pads and two-piece, 14.6-inch x 1.3-inch (370mm x 34mm) vented and slotted Duralife™ rotors (cast-iron braking rings with aluminum hats)
- Duralife™ rotors feature a hardened surface to reduce corrosion and provide quieter braking with less vibration
- Available for LS, LT and SS Camaro models without 1LE Package
- 4-Piston Brembo® Brake Calipers
- Color matched to pair with the Front 6-piston Brembo Brake Upgrade System
- Available for Camaro SS

Part Number	Description
84236462	Front 6-Piston Brembo® Brake Upgrade System in Red
84300395	Rear 4-Piston Brembo® Brake Calipers in Red

A

B. ZL1 1LE Spec High Wing Spoiler - Carbon Fiber

84712513

- Increases rear aero downforce on Camaro SS by up to 284% while only increasing drag by 9% in static wind tunnel testing
- Includes all mounting hardware and requires no drilling

B

C. Suspension Lowering Upgrade System

- Lowers vehicle's ride height by up to 20mm

Part Number	Description
84203549	Camaro SS Coupe (without Magnetic Ride Control)
84188728	Camaro SS Convertible (without Magnetic Ride Control)
84225252	Camaro LS/LT Coupe (with 20" wheels)
84225256	Camaro LS/LT Convertible (with 20" wheels)

C

D. Sway Bar Suspension Upgrade System

84401188

- Enhances road-handling performance
- Includes front and rear stabilizer bars and front handling links
- Vehicle roll reduced by 18%, when combined with the Lowering Suspension Upgrade System
- Available for: 2016+ Camaro SS Coupes, Requires Lowering Suspension Upgrade System

D

E. Camaro SS Strut Tower Braces

- Increases strut tower lateral stiffness up to 47%
- Enhances chassis stiffness
- Contributes to a more direct steering response
- Built from lightweight, 6061 T6 aluminum

Part Number	Description
84247228	6.2L Black Strut Tower Brace (Coupe and Convertible)
84125309	6.2L Aluminum Tower Brace (Camaro SS Coupe)

E

F. Calibrations

SS 1LE eLSD Calibration Upgrade *(Dealer Install Only)*

- Faster turn in and faster power application on turn exit
- Decouples the differential at a faster rate based on accelerator pedal position and steering wheel angle to enable faster yaw rotation at corner entry
- Faster coupling upon corner exit to enable power to be delivered sooner to both rear wheels

ZL1 eLSD Calibration *(Dealer Install Only)*

- Enables more consistent burnout performance for improved drag strip launches
- Doubles the differential coupling torque during burnout and drag launch scenarios by increasing the pressure applied to the clutch pack in order to prevent relative slip between the clutch plates
- As a result, burnouts warm both tires evenly

NOTE: This calibration is for drag racing purposes only. The eLSD Drag Performance Calibration will only be enabled when the vehicle is in Traction Control System Off.

NOTE: Driving vehicle on public roads with traction control system and electronic stability control system disabled is dangerous and not recommended for any operator.

F

Silverado 1500 Performance Upgrades

A. Front and Rear 4-Corner Brake Upgrade

FRONT:
- 410 mm x 32 mm (16.1-inch x 1.3-inch) Duralife™ rotors
- Hardened rotor surface to reduce corrosion and provide quieter braking with less vibration.
- Bright Red Chevrolet Performance Brembo® 6-piston fixed aluminum calipers
- 22% increase in rotor area over stock
- 89% increase in brake pad area to increase system thermal capacity

REAR:
- Designed to compliment the Front Big Brake System
- Maintains complete integration and works seamlessly with the vehicle's brake system

Part Number	Description
84766666	Front
84434801	Rear

A

B. Exhaust Upgrade System

- Bolt-on cat-back system
- Fabricated with premium 304 stainless steel for improved corrosion protection
- No calibration needed
- Available in single side-exit and dual rear-exit configurations

B

Part Number	Description
84527234	Silverado 6.2L Dual Exit Exhaust Upgrade System (Crew Cab Short Box & Double Cab Standard Box)
84527232	Silverado 6.2L Dual Exit Exhaust Upgrade System (Crew Cab Standard Box)
84173604	Silverado 5.3L Cat-Dual Exit Exhaust Upgrade System (Crew Cab Short Box & Double Cab Standard Box)
84173605	Silverado 5.3L Cat-Dual Exit Exhaust Upgrade System (Crew Cab Standard Box)
84173601	Silverado 5.3L Single Exit Exhaust Upgrade System with Polished Tip and Bowtie Logo (Crew Cab Short Box & Double Cab Standard Box)
84173594	Silverado 5.3L Single Exit Exhaust Upgrade System with Polished Tip and Bowtie Logo (Crew Cab Standard Box)

Description	Horsepower Gain/Torque Gain	Backpressure Reduction	Combined Performance Exhaust & Air Intake*
6.2L V8 Dual Exit Exhaust System	Up to 13 hp / 8 lb.-ft.	Up to 40%	up to 15 hp / 9 lb.-ft.
5.3L V8 Dual Exit Exhaust System	Up to 10 hp / 6 lb.-ft.	Up to 41%	up to 12 hp / 6 lb.-ft.
5.3L V8 Single Exit Exhaust System	Up to 7 hp / 4 lb.-ft.	Up to 35%	up to 9 hp / 5 lb.-ft.

**Cold Air Intake available as Limited Production Option only as part of new vehicle order.*

C. Steel Leaf Spring Kit NEW!

84855892

- Enables the installation of a Chevrolet Performance 2-Inch Lift Kit (sold separately) on MY2019+ Silverado 1500 trucks factory equipped with composite overload leaf springs
- Full Steel Leaf Spring Kit offers a direct replacement for the production composite leaf spring packs
- Not intended for standalone installations
- Required to support the installation of the Chevrolet Performance 2-Inch Lift Kit on MY2019+ L84 (5.3L V8) LT Trim and MY2019+ LM2 (3.0L Turbo Diesel) 2WD, Crew Cab and Short Bed LT Trim equipped trucks

C

D. 2" Suspension Lift Kit

- Developed by the same vehicle-level engineers who built the truck; the system was tested under the same grueling conditions
- Front and rear passive monotube dampers specifically tuned to the chassis
- Includes an exclusive dealer-installed Front Camera Reconfiguration and Electronic Power Steering calibration so that all driver assist systems can continue to function seamlessly
- Read the vehicle owner's manual for important driver-assist system feature limitations and information

Part Number	Description
84768243	4WD 2" Suspension Lift Kit
84649982	2WD 2" Suspension Lift Kit

D

Tahoe/Suburban Performance Upgrades

A. Front and Rear 4-Corner Brake Upgrade NEW!

FRONT:
- Front 6-piston Brembo® calipers in Red feature the Chevrolet Performance logo
- Duralife™ rotors feature a 22% increase in rotor area over stock rotors, with a hardened surface to help reduce corrosion and vibration
- Brake pad area is increased by 89% over stock for increased system thermal capacity

REAR:
- Color-matched rear calipers designed to complement the Front Big Brake System
- Maintains complete integration
- Works seamlessly with the production parking brake system

Part Number	Description
84766666	Front
84436255	Rear

A

B. Exhaust Upgrade System NEW!

- Bolt-on cat-back system
- Fabricated with premium 304 stainless steel for improved corrosion protection
- No calibration needed
- Available in single side-exit and dual rear-exit configurations

Part Number	LPO	Description
84888291	WBC	Tahoe 6.2L Dual Exit Exhaust Upgrade System
84888292	WBC	Suburban 6.2L Dual Exit Exhaust Upgrade System
84460758	WBC	Tahoe 5.3L Cat-Dual Exit Exhaust Upgrade System
84488076	WBC	Suburban 5.3L Dual Exit Exhaust Upgrade System
84460752	WBC	Tahoe 5.3L Single Exit Exhaust Upgrade System with Polished Tip and Bowtie Logo
84460753	WBC	Suburban 5.3L Single Exit Exhaust Upgrade System with Polished Tip and Bowtie Logo

B

Description	Horsepower Gain	Torque Gain	Backpressure Reduction
6.2L V8 Dual Exit Exhaust System	Up to 11 hp	6 lb.-ft.	Up to 30%
5.3L V8 Single Exit Exhaust System	Up to 7 hp	4 lb.-ft.	Up to 30%
5.3L V8 Dual Exit Exhaust System	Up to 4 hp	2 lb.-ft.	Up to 19%

COMBINED PERFORMANCE: EXHAUST SYSTEM AND COLD AIR INTAKE

Description	Horsepower Gain	Torque Gain
6.2L V8 Single Exit Exhaust System + Cold Air Intake Upgrade System*	Up to 13 hp	7 lb.-ft.
5.3L V8 Single Exit Exhaust System + Cold Air Intake Upgrade System*	Up to 8 hp	4 lb.-ft.
5.3L V8 Dual Exit Exhaust System + Cold Air Intake Upgrade System*	Up to 5 hp	3 lb.-ft.

**Cold Air Intake available as Limited Production Option only as part of new vehicle order.*

C. Exhaust Tips NEW!

- Available in multiple finishes for a personalized touch
- Adds a sporty appearance to the exterior of your vehicle
- Dual-Wall Angle-Cut Design

Part Number	Description
84513870	5.3L Black Chrome
84439200	5.3L Polished Stainless
84513857	5.3L Carbon Fiber
84513872	3.0L Diesel Black Chrome Stainless Steel Exhaust Tip
84524664	3.0L Diesel Polished Stainless Steel Exhaust Tip
84513865	3.0L Diesel Carbon Fiber Exhaust Tip

C

Colorado Performance Upgrades

A. 3.6L Cold Air Intake

- Reduces air intake restriction up to 20%
- Rigorously tested to GM standards for durability, corrosion and performance

The following parts have been granted Executive Order (E.O.) from the California Air Resources Board E.O.D-126-39 (2015-2016), E.O.D.-126-53 (2017-2020)

Part Number	Description
84655710	Performance Air Intake – Colorado with 3.6L V-6 (LGZ) 2017–2020
23342235	Performance Air Intake – Colorado with 3.6L V-6 (LFX) 2015–2016
23353916	Service Replacement Filter

A

B. 3.6L Cat-Back Single Exhaust Upgrade System with Polished Tip

- Up to +10 horsepower increase
- Increased 3-inch diameter piping
- 304 stainless steel, including a highly polished 4-inch exhaust tip with Chevrolet Bowtie logo

Estimated power based upon SAE test procedure J1349

Part Number	Description
84179065	Colorado with 3.6L V-6 (LWB) 2015–2016
23460296	Colorado with 3.6L V-6 (SWB) 2015–2016
84179065	Colorado with 3.6L V-6 (LWB) 2017–2021
84179066	Colorado with 3.6L V-6 (SWB) 2017–2021

B

C. 1" Front Leveling Kit

84608728

- Increases front ride height by up to 1 inch, leveling vehicle stance
- Provides a greater approach angle for increased clearance over off-road obstacles
- Enables the use of popular off-road tire combinations
- Use only GM-approved wheel and tire combinations
- See Chevrolet.com/accessories for important wheel and tire information
- Constructed of e-coated steel (upper spacer) and polyurethane (lower spacer)
- Not available for ZR2 or 2WD models or vehicles with 20-inch wheels

C

D. 2.8L Diesel Exhaust Tip Relocation Kit

- Increases exhaust tip ground clearance by up to 2 inches
- Improves the exhaust tip departure angle by up to 9 degrees
- 304 stainless steel, featuring 2.75" OD tubing and a single wall high-polish 4-inch slash cut tip

Part Number	Description
84506201	Polished
84842915	Black Chrome

D

E. ZR2 Spec Underbody Protection

- Helps protect the vehicle's underbody
- Made of 5000 series aluminum

Part Number	Description
84751654	Front Skid Plate 2021
84352136	Front Skid Plate 2016-2020
84401188	Mid Skid Plate

Front Skid Plate

Mid Skid Plate

E

TRANSMISSIONS AND COMPONENTS

Factory-Matched Choices for Chevrolet Performance Crate Engines

Selecting a strong, durable transmission to complement your high-performance crate engine is easy with Chevrolet Performance's range of factory-engineered transmissions, installation kits and components.

Each transmission kit is engineered with factory-matched torque capacity ratings, helping ensure the transmission you purchase will stand up to the power of your engine—and every Chevrolet Performance automatic transmission is backed by a 12-month limited warranty.

The transmission lineup also includes manual gearboxes, including kits that adapt our modern six-speed transmission kits to all LS engine families.

Our transmission controller kits complement the transmissions with quick plug-and-play operation.

IMPORTANT! *Chevrolet Performance does not include a torque converter with four-speed automatic transmissions. A variety of torque converters for 4L60- and 4L80-series transmissions tailored for the wide variety of our crate engines' performance specifications are available. Select the transmission that's just right for your project and select the torque converter to match its performance.* *See page 22 for more details.*

NOTE: *Chevrolet Performance's electronically controlled transmissions are not compatible with the mechanical speedometers in older vehicles. An aftermarket signal converter or electronically compatible replacement speedometer is required.*

SUPERMATIC™ TRANSMISSION FAMILIES

Chevrolet Performance's Hydra-Matic automatic transmission families include the 4L60-E and 4L80-E series of four-speed transmissions, along with the 6L80-E six-speed and 8L90-E eight-speed transmissions. All are electronically controlled.

4L60-E Series

The 4L60/4L65/4L70/4L75 series is differentiated primarily by gearset design and torque capacity. The planetary gearset of the 4L60-E has four pinion gears, while the 4L65-E, 4L70-E and 4L75-E have five pinion gears. The external dimensions and mounting provisions are identical for each version. The maximum torque capacity for each includes:

4L60-E – 380 lb.-ft. | 4L65-E – 430 lb.-ft.

4L70-E – 495 lb.-ft. | 4L75-E – 650 lb.-ft.

NOTE: *Chevrolet Performance does not sell a 4L60-E transmission*

4L80-E Series

The Hydra-Matic 4L80 and SuperMatic™ 4L85-E series is differentiated primarily by gearset design and torque capacity. The planetary gearset of the 4L80-E has four pinion gears, while the 4L85-E has five pinion gears. The external dimensions and mounting provisions are identical for each version. The maximum torque capacity for each includes:

4L80-E – 440 lb.-ft. | 4L85-E – 685 lb.-ft.

NOTE: *Chevrolet Performance does not sell a 4L80-E transmission*

6L80-E Series

The 6L80-E is based on the design offered in a number of rear-wheel-drive production vehicles, but enhanced with specific internal components that contribute to a higher output torque rating of 650 lb.-ft. Designed for use in LS-based engines in 2WD applications, this electro-hydraulically controlled transmission has a modular arrangement that represents a significant departure in the design and operation from other transmissions such as the 4L60E and 4L80-E Series, including clutch-to-clutch shift operations rather than conventional bands. The SuperMatic™ 6L80-E is unique in that the transmission controller is internal. The transmission kit includes a torque convertor, with a choice of two stall speeds. Also included are the wire harness, vent tube and oil cooler line adapter. A laptop connection and software allow the transmission to be configured for optimal performance and drivability.

8L90-E & 10L90-E Series

Chevrolet Performance adapted the production-based 8L90-E eight-speed and 10L90-E 10-speed automatic transmissions for use with our LT-series crate engines. Each features four gearsets and five (8L90-E) or six (10L90-E) clutches plus creative packaging designs that enable these advanced automatics to fit the same approximate space as GM's family of six-speed automatics. Extensive use of aluminum and even magnesium make it lightweight, too. A torque converter and controller is included with each transmission and the kit is calibrated for the respective engine it is matched with in the powertrain.

NOTE: *Chevrolet Performance's four-speed automatic transmissions are remanufactured to General Motors' specifications. Chevrolet Performance six-speed, eight-speed and 10-speed transmissions and manual transmissions are brand new.*

The majority of components in Chevrolet Performance transmissions are new. In some cases, individual components are no longer manufactured by General Motors. In these few cases, reclaimed components are rebuilt to perform to General Motors' specifications and high quality standards.

Shown from top:
Super Magnum Six-Speed Manual,
SuperMatic™ 6L80-E Six-Speed Automatic,
SuperMatic™ 10L90-E Ten-Speed Automatic

PERFORMANCE SUPERMATIC™ TORQUE CONVERTERS

The SuperMatic™ Torque Converters from Chevrolet Performance are designed to provide long life when matched with a SuperMatic™ Transmission. Each converter incorporates the following features:

- Steel billet front cover
- Custom stator
- Fully furnace-brazed pump and turbine
- Designed for Chevrolet Performance crate engines and automatic transmissions
- "Heavy-duty" lock-up clutch
- All internal components static balanced
- Fully vector balanced as an assembly
- No external adapters needed to fit Chevrolet Performance crate engines

NOTE: *Must use 14-inch (168-tooth) flexplate with Supermatic torque converters unless noted.*

Part Number	Stall Range	Application
19299800	2,400–2,800 rpm stall	4L60/65/70/75-E (late "LS" V-8 transmission) mate to early Gen 1 SB/BB (dual bolt pattern – 10.75" and 11.5")
19299801	3,000–3,400 rpm stall	4L60/65/70/75-E (late "LS" V-8 transmission) mate to early Gen 1 SB/BB (dual bolt pattern – 10.75" and 11.5")
19299802	2,400–2,800 rpm stall	4L60/65/70/75-E (late "LS" V-8 transmission) mate to LS V-8 engine (single bolt pattern – 11.062")
19299803	3,000–3,400 rpm stall	4L60/65/70/75-E (late "LS" V-8 transmission) mate to LS V-8 engine (single bolt pattern – 11.062")
19299804	2,400–2,800 rpm stall	4L80-E/4L85-E – mate to early Gen 1 SB/BB (dual bolt pattern – 10.75" and 11.5")
19299805	3,000–3,400 rpm stall	4L80-E/4L85-E – mate to early Gen 1 SB/BB (dual bolt pattern – 10.75" and 11.5")
19299806	2,400–2,800 rpm stall	4L80-E/4L85-E – mate to LS V-8 engine (extended pilot, single bolt pattern – 11.062")
19299807	3,000–3,400 rpm stall	4L80-E/4L85-E – mate to LS V-8 engine (extended pilot, single bolt pattern – 11.062")
19367360	2,400–2,800 rpm stall	6L80-E – mate to LS V8 engine (extended pilot, single bolt pattern - 281mm)
19367362	3,000–3,400 rpm stall	6L80-E – mate to LS V8 engine (extended pilot, single bolt pattern - 281mm)

Converters are a kit that includes converter-to-flexplate bolts and instructions.

BUILDER'S TIP

Slip Yoke Sizing

Installation of a Chevrolet Performance automatic transmission may require a new driveshaft. There are online resources to help determine the proper measurements for the length of the new driveshaft, but the manufacturer will also need to know the details for the slip yoke—the splined receiver at the front of the driveshaft that slides on to the output shaft of the transmission. Generally, they'll need the shaft diameter (also known as the barrel or seal diameter) and spline count for it. Here are the specs for Chevrolet Performance's automatic transmissions.

Transmission	Shaft Diameter	Spline Count
4L65-E, 4L70-E and 4L75-E	1.176-in.	27-spline
4L85-E	1.886-in.	32-spline
6L80-E	1.886-in.	32-spline
8L90-E	1.886-in.	internal 32-spline
10L90-E	N/A	28-spline with key
6-Speed Manual	N/A	26-spline input, 31-spline output

Torque Converter Quick Reference Chart

Automatic Transmission Torque Converter Match Listing

Engine P/N	Description	Displac.	hp	Torque	4L60 Family		4L80 Family	
					Fits SuperMatic 4L65-E, 4L70-E (LS bell) and 4L75-E		Fits SuperMatic 4L85-E	
					Converter P/N	Stall Range	Converter P/N	Stall Range
Chevy Small-Block V-8								
19355659	350/290 Deluxe	350 cu in	308	347	19299800	2,400–2,800	N/A	N/A
19419992	350 HO Turn-Key	350 cu in	333	381	19299800	2,400–2,800	N/A	N/A
19417619	Ram Jet 350	350 cu in	345	396	19299800	2,400–2,800	19299804	2,400–2,800
19420870	SP350/357 Base	350 cu in	357	407	19299800	2,400–2,800	19299804	2,400–2,800
19420871	SP350/357 Deluxe	350 cu in	357	407	19299800	2,400–2,800	19299804	2,400–2,800
19418190	SP350/357 Turn-Key	350 cu in	357	407	19299800	2,400–2,800	19299804	2,400–2,800
19417781	SP350/385 Base	350 cu in	385	405	19299801	3,000–3,400	19299805	3,000–3,400
19419994	SP350/385 Turn-Key	350 cu in	385	405	19299801	3,000–3,400	19299805	3,000–3,400
19419205	ZZ6 Base	350 cu in	405	406	19299801	3,000–3,400	19299805	3,000–3,400
19419995	ZZ6 Turn-Key	350 cu in	405	406	19299801	3,000–3,400	19299805	3,000–3,400
19417782	ZZ6 EFI Deluxe	350 cu in	420	408	19299801	3,000–3,400	19299805	3,000–3,400
19368150	ZZ6 EFI Turn-Key	350 cu in	420	408	19299801	3,000–3,400	19299805	3,000–3,400
19355720	HT383	383 cu in	323	444	19299800	2,400–2,800	19299804	2,400–2,800
19418657	SP383 Deluxe	383 cu in	435	445	19299801	3,000–3,400	19299805	3,000–3,400
19418640	SP383 EFI Deluxe	383 cu in	450	436	19299800	2,400–2,800	19299804	2,400–2,800
19420597	SP383 EFI Turn-Key	383 cu in	450	436	19299800	2,400–2,800	19299804	2,400–2,800
Chevy LS/LT/LSX V-8								
~~19416591~~	~~L96 6.0L DISCONTINUED N/A~~	~~6.0L~~	~~360~~	~~380~~	~~19299802~~	~~2,400–2,800~~	~~19299806~~	~~2,400–2,800~~
19419862	LS3 6.2L	6.2L	430	425	19299802	2,400–2,800	19299806	2,400–2,800
19421057	LS3 6.2L – E-ROD Kit Automatic	6.2L	430	425	19299802	2,400–2,800	19299806	2,400–2,800
19419864	LS376/480	6.2L	495	473	19299803	3,000–3,400	19299807	3,000–3,400
19419866	LS376/525	6.2L	525	486	19299803	3,000–3,400	19299807	3,000–3,400
19329008	DR525 with Gen IV F car oil pan	6.2L	525	498	N/A	N/A	N/A	N/A
19370418	DR525 with muscle car oil pan	6.2L	525	494	N/A	N/A	N/A	N/A
19329246	LS7 7.0L	7.0L	505	470	19299803	3,000–3,400	19299807	3,000–3,400
	Optional LS7 (depending on application)	7.0L	505	470	19299802	2,400–2,800	19299806	2,400–2,800
19421004	LS427/570 7.0L	7.0L	570	540	19299803	3,000–3,400	19299807	3,000–3,400
~~19370850~~	~~LSA 6.2L SC (w/4L75-E) DISCONTINUED N/A~~	~~6.2L~~	~~556~~	~~551~~	~~19299802~~	~~2,400–2,800~~	~~19299806~~	~~2,400–2,800~~
~~19370850~~	~~LSA w/4L85-E DISCONTINUED N/A~~	~~6.2L~~	~~556~~	~~551~~	~~19299806~~	~~2,400–2,800~~	~~19299806~~	~~2,400–2,800~~
19416892	LSA – E-ROD w/4L75-E	6.2L	556	551	19299802	2,400–2,800	N/A	N/A
19416893	LSA – E-ROD w/4L85-E	6.2L	556	551	19299806	2,400–2,800	19299806	2,400–2,800
19332312	LSX376-B8	6.2L	476	475	19299802	2,400–2,800	19299806	2,400–2,800
19417356	LSX376-B15	6.2L	473	444	N/A	N/A	N/A	N/A
19417357	LSX454 (with 4L75-E)	7.4L	627	586	19299803	3,000–3,400	19299807	3,000–3,400
19329997	LT1 6.2L with dry sump	6.2L	460	465	19299802	2,400–2,800	19299806	2,400–2,800
19418843	LT1 6.2L with wet sump	6.2L	455	455	24290217	N/A	24290217	N/A
19417593	LT1 – E-ROD with wet sump (w/8L90-E)	6.2L	455	455	INC	N/A	N/A	N/A
19418256	LT1 – E-ROD with wet sump (w/4L70-E)	6.2L	455	455	19299802	2,400–2,800	N/A	N/A
19416595	LT4 6.2L SC with dry sump (w/4L75-E)	6.2L	650	650	19299802	2,400–2,800	19299806	N/A
19418844	LT4 6.2L SC with wet sump	6.2L	650	650	19299802	2,400–2,800	24280634	N/A
19356048	LT4 E-ROD with wet sump (w/4L75-E)	6.2L	650	650	19299802	2,400–2,800	19299806	N/A
19417727	LT4 E-ROD with wet sump (w/8L90-E)	6.2L	650	650	INC	N/A	N/A	N/A
Chevy Big-Block V-8								
19331572	ZZ427/480 Deluxe	427 cu in	480	490	19299801	3,000–3,400	19299805	3,000–3,400
12568774	454 HO	454 cu in	438	500	19299800	2,400–2,800	19299804	2,400–2,800
19419001	ZZ454/440 Deluxe	454 cu in	469	519	19299800	2,400–2,800	19299804	2,400–2,800
88890534	HT502	502 cu in	406	541	19299800	2,400–2,800	19299804	2,400–2,800
12568778	502 HO	502 cu in	461	558	19299800	2,400–2,800	19299804	2,400–2,800
19419003	ZZ502/502 Deluxe	502 cu in	508	580	19299801	3,000–3,400	19299805	3,000–3,400
19331583	ZZ572/620 Deluxe (w/4L85-E)	572 cu in	621	645	19299803	3,000–3,400	19299805	3,000–3,400
19331585	ZZ572/720R Deluxe (w/4L85-E)	572 cu in	727	680	N/A	N/A	19299805	3,000–3,400

SPECIAL NOTE: *SuperMatic™ 6L80-E transmissions from Chevrolet Performance are shipped with a torque converter and transmission control module installed. Works with LS and LSX engines only. There are two stall speed options. See page 26 for transmission part numbers with desired stall speed.*

Automatic Transmissions & Components

4L65 & 4L70-SERIES AUTOMATIC TRANSMISSIONS

19368611

SuperMatic™ 4L65-E Four-Speed Automatic Transmission – LS-Series V-8 (remanufactured)

- Similar in design to the 4L60-E
- Electronically controlled four-speed overdrive transmission
- Features four-pinion gearsets, heat-treated stator shaft splines, induction-hardened turbine shaft, seven-plate 3.4 clutch
- Gear ratios: 1st: 3.06, 2nd: 1.62, 3rd: 1.00, 4th: 0.70
- Use SuperMatic™ converter for direct bolt up to Gen I and Gen II engines
- Tested up to 430 lb-ft of torque
- Does not include torque converter (see pages 22–23 for options)

NOTE: *Use with electronic controller P/N 19332775 for carbureted and Ram Jet applications. Use with electronic controller P/N 19302405 with Chevrolet Performance LS fuel-injected applications.*

19368612

SuperMatic™ 4L70-E Four-Speed Automatic Transmission (remanufactured)

- Based on the 4L60-E/4L65-E
- Increased horsepower and torque capacity over 4L60-E and 4L65-E
- Features five-pinion gearsets, heat-treated stator shaft splines, induction-hardened turbine shaft, seven-plate clutch and specific valve-body calibration
- Gear ratios: 1st: 3.06, 2nd: 1.62, 3rd: 1.00, 4th: 0.70
- Torque converter not included (see pages 22–23)
- Tested up to 495 lb-ft. of torque

Part Number	Description
19368612	Four-Wheel Drive
19368613	Two-Wheel Drive (not shown)
19368614	Two-Wheel Drive, 2014–2015 LT1 (not shown)

NOTE: *Use with electronic controller P/N 19332775 for carbureted and Ram Jet applications. Use with electronic controller P/N 19302405 with Chevrolet Performance LS fuel-injected applications.*

19368615

SuperMatic™ 4L75-E Four-Speed Automatic Transmission (remanufactured)

- Based on the 4L65-E/4L70-E
- Tested up to 650 ib-ft. of torque
- Features five-pinion gearsets, heat-treated stator shaft splines, induction-hardened turbine shaft, 8-friction-plate 3–4 clutch and specific valve-body calibration
- Unique, high-strength input housing
- Higher-capacity servo than 4L65E and 4L70E
- Performance 2–4 band
- Gear ratios: 1st: 3.06, 2nd: 1.62, 3rd: 1.00, 4th: 0.70

NOTE: *Use with electronic controller P/N 19332775 for carbureted and Ram Jet applications. Use with electronic controller P/N 19302405 with Chevrolet Performance LS fuel-injected applications.*

4L60- & 4L70-SERIES INSTALLATION COMPONENTS

Gen V LT1 A/T Bell Housing Kit

Transmission Installation Kit – 4L60/4L70 Series

Transmission Adapter Kit

Part Number	Description	Technical Notes
19125817	Bell Housing Kit – LT Engine	Unique bell housing kit enables 1996–later 4L60, 4L65, 4L70 and 4L75 four-speed automatic transmissions to be matched with the Gen V LT1 engine; Use with 8-bolt flexplate kit P/N 19329416
19259117	Transmission Installation Kit – 4L60/4L70 Series	Use with 4L60, 4L65, 4L70 and 4L75-E transmissions on LS engines with 6-bolt crankshaft flange; Includes flexplate, flexplate covers, fasteners and instruction sheet; Does not fit LSA, LSX454, LS9, LT1 or LT4 engines
19420473	Transmission Installation Kit – 4L60/4L70 Series	Same as 19259117 but includes flex plate and attachment bolts
19329416	Transmission Installation Kit – 4L60/4L70 Series (not shown)	Use with 4L60, 4L65, 4L70 and 4L75-E transmissions on LS engines with 8-bolt crankshaft flange; Includes flexplate, flexplate covers, fasteners and instruction sheet; Fits LSA, LSX454, LT1, LT4
19332781	Transmission Installation Kit – 4L60/4L70 Series (not shown)	Use with 4L60, 4L65, 4L70 and 4L75-E transmissions on Small-Block and Big-Block crate engines with 6-bolt crankshaft flange; Designed to be used with SuperMatic™ converters; Does not include flexplate
19154766	Transmission Adapter Kit	Allows installation of Gen III/IV-style 4L60-E/4L65-E transmission onto Gen I and II engines using production-style torque converter; Includes spacer ring, shims, dowels, bolts and flexplate; Works on one-piece rear main seal engines only (e.g. Ram Jet 350)
24502513	4L60/700R4 Transmission Swap Kit (not shown)	Adapts the 4L60 or 700R4 automatic transmission (non-electronic version) for use in early model vehicles, with or without an engine management computer; Includes instruction sheet, throttle valve spring for carbureted engines, a normally closed fourth-gear clutch switch and wiring connector for the torque converter ***NOTE**: For individual flywheel and flexplate components see pages 107, 163 and 203.*

4L85 AUTOMATIC TRANSMISSION

19300175

SuperMatic™ 4L85-E Four-Speed Transmission

- Modified valve body for firmer shifts than production 4L85-E
- Direct bolt-on for Gen I Small-Block and all Big-Blocks
- Does not include torque converter (see pages 22–23 for options)
- Includes additional clutch plates
- Gear ratios: 1st: 2.48, 2nd: 1.48, 3rd: 1.00, 4th: 0.75
- Tested up to 690 lb-ft of torque

***NOTE:** Use with electronic controller P/N 19332780 for carbureted and Ram Jet applications. Use with electronic controller P/N 19302410 with Chevrolet Performance LS fuel-injected applications. Torque converter not included. See automatic transmission torque converter match listing chart on page 23.*

4L80-SERIES INSTALLATION COMPONENTS

19259119

Transmission Installation Kit – 4L80 Series

- Use with all LS engines to mate transmission fully with the engine
- Includes flywheel cover, hardware and fastener torque specs
- Does not include flexplate
- Use flexplate P/N 12654640 for 6-bolt crankshaft engines and SuperMatic™ converters
- Use flexplate P/N 12636325 for 8-bolt crankshaft engines and SuperMatic™ converters
- All production converters must use crankshaft adapters (see kits page 27)

19420956

Transmission Installation Kit – 4L80 Series (not shown)

- Use with all Big-Block crate engines to mate transmission fully with the engine
- Includes flywheel cover, hardware and fastener torque specs
- Designed to be used with SuperMatic™ Convertors
- Does not include flexplate

6L80-E SIX-SPEED AUTOMATIC TRANSMISSIONS

SuperMatic™ 6L80-E Six-Speed Transmission

19366637 *2400–2800k stall converter (included)*

19417102 *3000–3400k stall converter (included)*

Developed with upgraded internal components, Chevrolet Performance's SuperMatic 6L80-E six-speed automatic transmission offers an exceptional torque rating of 650 lb.-ft.—a 45-percent increase over regular-production versions of the six-speed automatic. A deep 4.02:1 first gear enables strong launch performance, while the 0.67:1 top gear supports balanced performance on the highway. It is designed for use with Chevrolet Performance's LS and LSX crate engines in 2WD applications. Additional highlights:

- Electro/hydraulic controls with clutch-to-clutch shifting
- Output torque rating: 650 lb.-ft.
- Gear ratios: 1st: 4.02, 2nd: 2.36, 3rd: 1.53, 4th: 1.15, 5th: 0.85, 6th: 0.67
- Lightweight die-cast aluminum case contributes to dry weight of approximately 195 lbs.
- Approximately 23.5" long
- Uses DEXRON VI premium fluid
- Does not include dipstick
- Includes production vent tube assembly
- Includes truck-style production oil pan (use Shallow Pan Kit P/N 19418242 for increased ground clearance)
- Kit includes controller and harness, with calibrations for street and track; harness also includes paddle-shift connection
- Kit includes transmission bulkhead connector that supports aftermarket gear indicator displays, electronically controlled shifters and more
- Chevrolet Performance-specific design includes provisions for an aftermarket transmission cooler, including -6AN fittings

19418242

SuperMatic™ 6L80-E Shallow Oil Pan Kit

Chevrolet Performance's Shallow Oil Pan Kit increases the ground clearance for lower-profile vehicles by replacing the standard oil pan on the SuperMatic 6L80-E six-speed automatic transmission (P/N 19366637 or 19417102) with one that is approximately 1.2 inches (30.7mm) shorter. Additional highlights:

- Production-style pan originally used on the Pontiac G8
- Includes oil fill plug (eliminates dipstick)
- Kit includes oil pan, filter and gaskets
- Includes cooler line adapter to -6AN fitting

19420358

LS Engine Attachment Kit for SuperMatic™ 6L80-E Transmission (not shown)

Chevrolet Performance's installation kit for the Supermatic 6L80-E six-speed automatic transmission is designed to be used with LS and LSX crate engines. Includes the flexplate, necessary covers and bolts.

- Kit includes required flexplate
- Includes attachment bolts, torque converter bolts and flexplate attachment bolts
- A dipstick is not included

IMPORTANT NOTE:

There has been a running change in the High Fuel Pressure Sensor on LT1, LT4 and LT5 production engines. It is critical that the correct engine part number and the correct engine controller be paired to ensure proper operation of the transmission. (See chart below.)

Engine Controller/Transmission Compatibility for LT1, LT4 and LT5

Engine Description	Engine P/N	Fuel Pressure Sensor	Transmission Type	Engine Controller Kit P/N
LT1 Wet Sump	19418843	3 Pin	4-Speed Automatic or 6-Speed Super Magnum	19418587
LT1 Wet Sump	19418843	3 Pin	8-Speed Automatic SuperMatic™	19418589
LT4 Wet Sump [Camaro ZL1]	19418844	4 Pin	4-Speed Automatic or 6-Speed Super Magnum	19419241
LT4 Wet Sump [Camaro ZL1]	19418844	3 Pin	8-Speed Automatic SuperMatic™	19419242
LT5 Dry Sump	19417105	3 Pin	8-Speed Automatic SuperMatic™	19418244
LT5 Dry Sump	19417105	3 Pin	6-Speed Super Magnum Manual	19418270

8L90-E EIGHT-SPEED AUTOMATIC TRANSMISSIONS

SuperMatic™ 8L90-E Eight-Speed Transmission

Chevrolet Performance has adapted the production-based 8L90-E eight-speed automatic transmission for use with the LT1 , LT4 and LT5 crate engines. A numerically high 4.56 first gear ratio offers strong take-off performance while a wide 7.0:1 overall ratio helps enhance cruising efficiency. Additional highlights:

- Compatible with 3-pin LT design engines only
- Four gearsets for efficiency
- Five clutches: two brake clutches and three rotating clutches
- Friction-reducing features include synthetic fluid
- Gear ratios: 1st: 4.56, 2nd: 2.97, 3rd: 2.08, 4th: 1.69, 5th: 1.27, 6th: 1.00, 7th: 0.85, 8th: 0.65, reverse: 3.82
- Controller and harness included
- Torque converter included (engine specific)
- Output torque rating: 715 lb.-ft.
- Includes cooler line adapter to -6AN fitting
- Includes production-style vent tube

Part Number	Description	Technical Notes
19419798	SuperMatic™ 8L90-E Transmission for LT1 Crate Engine	Use with LT1 crate engines P/N 19418843 (3-pin design) and P/N 19417593 LT1 E-ROD; Includes torque converter, controller and harness; Must be used with compatible engine controller (see page 118 for engine controller applications)
19419799	SuperMatic™ 8L90-E Transmission for LT4 Crate Engine	Use with LT4 crate engines P/N 19418844 (wet sump) or P/N 19416595 (dry sump); P/N 19417727 LT4 E-ROD; Includes torque converter, controller and harness; Must be used with compatible engine controller (see page 118 for engine controller applications)
19419800	SuperMatic™ 8L90-E Transmission for LT5 Crate Engine	Use with LT5 crate engine P/N 19417105 (dry sump); Includes torque converter, controller and harness; Requires 8-bolt flexplate (P/N 19418408) for LT engines; Must be used with compatible engine controller (see page 118 for engine controller applications)

8L90-E INSTALLATION COMPONENTS

19417103

LT Engine Attachment Kit for SuperMatic™ 8L90-E Transmission (not shown)

Chevrolet Performance's installation kit for the SuperMatic™ 8L90-E eight-speed automatic transmission is designed to be used with LT1, LT4 and LT5 crate engines. It includes the necessary covers, bolts, cooler line and more.

- LT1 and LT4 crate engines include a flexplate compatible with the SuperMatic™ 8L90-E
- The LT5 engine includes a flywheel for a manual transmission. It must be replaced with 8-bolt flexplate P/N 19418408 for use with the SuperMatic™ 8L90-E
- A dipstick is not included. An aftermarket dipstick must be used

NOTE: *The pre-programmed transmission controller and wiring harness are specific to each SuperMatic™ 8L90-E transmission part number and are included with the transmission kit.*

19148408

8-Bolt Flexplate Kit for LT Engines

- Required when using SuperMatic™ 8L90-E automatic transmission P/N 19418254 with the LT5 crate engine P/N 19417105 (replaces factory-installed flywheel)
- Kit includes flexplate and fasteners
- Compatible with LT1 and LT4 engines, but not required, as each includes a factory-installed flexplate

CRANKSHAFT ADAPTERS

19125597

8-Bolt Crankshaft Adapter Kit – LSA/LSX454

- Use with LSA, LSX454 and LSX454R crate engines with 8-bolt crankshaft flange
- Includes flexplate, adapter hub and hardware
- Provides the correct converter pilot support for production 4L80/85 style torque converters
- Conventional 6-bolt flexplates do not bolt up to LSA and LSX454 engines

6-Bolt Crankshaft Adapter Kit – LS Engine

- For use with Gen I style (Turbo 350/400, 700R4, 4L60, 4L60-E and 4L85-E) transmission on Gen III and Gen IV engines
- Flexplate 19260102 has only 11.5" (4L80-style) torque converter bolt pattern. Other applications may need to modify flexplate to use

For 6-Bolt Crankshaft Adapter, order the following parts:

Part Number	QTY	Part
12563532	1	Crankshaft Spacer
19260102	1	Flexplate
19257940	6	Mounting Bolts

NOTE: *Only 11.5" bolt circle. For individual flywheel and flexplate components see pages 107, 163 and 203.*

10L90-E TEN-SPEED AUTOMATIC TRANSMISSIONS

19420480 NEW
SuperMatic™ 10L90-E 10-speed Automatic Transmission

Chevrolet Performance's SuperMatic™ 10L90-E 10-speed automatic transmission offers a technologically advanced balance of performance and efficiency when matched with LT crate engines, including the LT1, LT4 and LT5. The kit features a slip yoke-type tail shaft, allowing it to be used with the conventional prop shaft design used in most older vehicles.

Additional highlights:

- Electro/hydraulic controls with clutch-to-clutch shifting
- Four gearsets and six clutches: two brake clutches and four rotating clutches
- 7.39:1 overall gear ratio spread
- Aggressive 4.70:1 first gear for enhanced off-the-line performance
- Three overdrive gears, with 0.64:1 top gear ratio
- Output torque rating of 650 lb.-ft.
- Includes torque converter and controller
- Includes cooler line adapter with #6 AN fittings
- Includes production-style vent tube

19420810 NEW
10L90 installation kit (not shown)

Includes covers, cover attachment bolts, transmission attachment bolts, torque converter bolts and unique yoke.

TRANSMISSION CONTROL SYSTEMS

SuperMatic™ Transmission Control Systems for LS and LT

SuperMatic™ Transmission Control Systems for Carbureted Small-Block, Big-Block and Ram Jet Engines

SuperMatic™ Transmission Control Systems for LS and LT

- Pre-programmed — provides full function transmission operation after completing connections
- No laptop programming required
- Only compatible with E-67 and E-92 based Chevrolet Performance electronic LS and LT engine control systems
- Optional features for personal preferences
  - Gearshift timing
  - Multiple shift patterns
  - Manual shift mode
  - Supports most wheel-mounted paddles
  - On-board data logging
- Connect & cruise: simple connections with no additional wiring required. Connect the clearly marked leads to the engine control harness, and you're ready to cruise!

19302405 (shown)
- 1996–2008 4L60-E family transmissions
- Compatible with P/N 19368611, 19368613, 19368612, 19368615 and 19368614 Chevrolet Performance SuperMatic™
- Revised, more compact design for easier installation in smaller areas
- Enhanced shift pressure performance for improved shift control
- Compatible with OBD-II code readers

19302410
- 1993–up 4L80-E family transmissions
- Compatible with P/N 19300175 Chevrolet Performance SuperMatic™
- Revised, more compact design for easier installation in smaller areas
- Enhanced shift pressure performance for improved shift control
- Compatible with OBD-II code readers

SuperMatic™ Transmission Control Systems for Carbureted Small-Block, Big-Block and Ram Jet Engines

- Pre-programmed — provides full function transmission operation after completing connections
- No laptop programming required
- Only compatible with carbureted or Ram Jet engine applications
- Optional features for personal preferences
  - Gearshift timing
  - Multiple shift patterns
  - Manual shift mode
  - Supports most wheel-mounted paddles
  - On-board data logging
- Plug and play: Simple connections with no additional wiring required. Connect the clearly marked leads to the engine control harness, and you're ready to cruise!

19332775 (shown)
- 1996–2008 4L60-E family transmissions
- Compatible with P/N 19368611, 19368613,19368612, 19368615 and 19368614 Chevrolet Performance SuperMatic™
- Revised, more compact design for easier installation in smaller areas
- Enhanced shift pressure performance for improved shift control
- Compatible with OBD-II code readers
- For carbureted Small-Block, Big-Block and Ram Jet engines

19332780
- 1993–up 4L80-E family transmissions
- Compatible with P/N 19300175 Chevrolet Performance SuperMatic™
- Revised, more compact design for easier installation in smaller areas
- Enhanced shift pressure performance for improved shift control
- Compatible with OBD-II code readers
- For carbureted Small-Block, Big-Block and Ram Jet engines

Manual Transmissions & Components

SIX-SPEED SUPER MAGNUM TRANSMISSION

19352208
Super Magnum Six-Speed Manual Transmission

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. The exterior case is similar to fourth-generation F-body transmission with the stronger, high-capacity gear sets, input shaft and output shaft used in the TREMEC TR6060.

- 700 lb.-ft. maximum torque capacity
- 26-spline input shaft
- 31-spline output shaft
- Gear ratios: 2.66 (1), 1.78 (2), 1.30 (3), 1.00 (4), 0.80 (5), 0.63 (6)
- Slip-yoke design
- 40-tooth reluctor ring that's necessary for use with electronic vehicle speed sensors used with Chevrolet Performance controllers
- Two-position shifter plate included, with third position built into the transmission
- Kit includes shifter handle and Chevrolet Performance-logo ball-type shift knob (see page 31)
- Approximately 33.6 inches long with bell housing attached (bell housing included in separate installation kits)

MANUAL TRANSMISSION INSTALLATION COMPONENTS

19329025
Bell Housing Kit – Small-Block and Big-Block Engines

- Allows six-speed Super Magnum transmission P/N 19352208 to bolt up to a Gen I Small-Block and all Big-Block engines
- SFI steel bell housing
- Includes Block-Saver Plate and attaching hardware
- 5.950" deep
- Clutch kit not included. Use clutch kit P/N 19329633 for Small-Block and P/N 19329634 for Big-Block
- Designed for hydraulic concentric slave cylinder release bearing P/N 24264182 (see page 31)

19329620
Bell Housing Kit – LS and LT Engines

- Allows six-speed Super Magnum transmission P/N 19352208 to bolt up to any Gen III/Gen IV LS engine or Gen V LT engine
- SFI steel bell housing
- Includes Block-Saver Plate and attaching hardware
- 5.555" deep
- Clutch kit not included. Use clutch kit P/N 19329635 for engines with 8-bolt flange, including LT engines; P/N 19331082 for engines with 9-bolt flange; and P/N 19331079 for engines with 6-bolt flange
- Designed for hydraulic concentric slave cylinder release bearing P/N 24264182 (see page 31)

19301625
Transmission Installation Kit – Six-Speed Super Magnum for LS Engines with 6-bolt flange

- Use with six-speed Super Magnum transmission P/N 19352208 and LS engines except LSA, LSX376-B15, LSX454 and LSX454R
- LS7-style flywheel with 6-bolt flange
- LS7-style high-strength clutch and pressure plate
- Fourth-generation F-body-type bell housing and clutch release bearing included
- Kit includes dust covers, hardware and instructions

19329633
Clutch Kit – Small-Block Engines

- High-performance single-disc clutch that fits production Small-Block flywheels
- Rated for 450 lb.-ft. of torque
- Fits 168-tooth flywheel P/N 14088648
- Kit includes pressure plate and additional hardware

Manual Transmission Installation Components continued

19329634
Clutch Kit – Big-Block Engines

- High-performance single-disc clutch that fits production Big-Block flywheels
- Rated for 650 lb.-ft. of torque
- Fits 168-tooth flywheel:
  - P/N 14096987 - 454 & 502 crate engines (externally balanced)
  - P/N 12582964 - 427 & 572 crate engines (internally balanced)
- Kit includes pressure plate and additional hardware

19329635
Clutch Kit – LS/LT Engines, 8-Bolt Crank

- High-performance dual-disc clutch and flywheel package for LS and LT engines with 8-bolt flywheel flange
- Will not fit LS engines with 6-bolt flange
- Rated for 800 lb.-ft. of torque
- Kit includes flywheel, pressure plate, clutch disc and additional hardware

19331082
Clutch Kit – LS9 Engine, 9-Bolt Crank (not shown)

- High-performance dual-disc clutch and flywheel package for LS9 engines with 9-bolt flywheel flange
- Rated for 800 lb.-ft. of torque
- Kit includes flywheel, pressure plate, clutch disc and additional hardware

19331079
Clutch Kit – LS3/LS7 Engines, 6-Bolt Crank (not shown)

- High-performance dual-disc clutch and flywheel package for all LS engines with 6-bolt flywheel flange
- Rated for 800 lb.-ft. of torque
- Kit includes flywheel, pressure plate, clutch disc and additional hardware

19329900
Transmission Installation Kit – Six-Speed Super Magnum for Small-Block

- Use with six-speed Super Magnum transmission P/N 19352208 Small-Block engines with one-piece rear main seal
- Not for use with 350/290 HP (P/N 19355658) and 350/290 HP Deluxe (P/N 19355659) crate engines, which use a two-piece main seal
- Use transmission installation kit P/N 19329902 for 350/290 HP engines with two-piece main seal
- Super Magnum bell housing
- 1986–later flywheel
- High-strength clutch and pressure plate
- Kit includes dust covers, pilot bearing, hardware and instructions

19329901
Transmission Installation Kit – Six-Speed Super Magnum for 454 and 502 Big-Block

- Use with six-seed Super Magnum transmission P/N 19352208 and 454 and 502 crate engines (externally balanced)
- Not for use with 427/572 engines that are internally balanced
- Super Magnum bell housing
- Externally balanced flywheel
- High-strength clutch and pressure plate
- Kit includes dust covers, pilot bearing, hardware and instructions

19329902
Transmission Installation Kit – Six-Speed Super Magnum for 427 and 572 Big-Block (not shown)

- Use with six-speed Super Magnum transmission P/N 19352208 and 427 and 572 crate engines (internally balanced)
- Use also with 350/290 HP crate engines with two-piece main seal
- Not for use with 454 and 502 engines that are externally balanced
- Super Magnum bell housing
- Internally balanced flywheel
- High-strength clutch and pressure plate
- Kit includes dust covers, pilot bearing, hardware and instructions

19329912
Transmission Installation Kit – Six-Speed Super Magnum for LS/LT engines with 8-bolt flange

- Use with six-speed Super Magnum transmission P/N 19352208 and LSA, LSX376-B15, LSX454 and LSX454R engines
- Use with six-speed Super Magnum transmission P/N 19352208 and new LT1 crate engine P/N 19329997 (dry sump), and LT4 crate engines P/Ns 19418844 (wet sump) and 19332702 (dry sump)
- Super Magnum bell housing
- High-strength clutch and pressure plate
- Kit includes dust covers, pilot bearing, hardware and instructions

19331080
Transmission Installation Kit – Six-Speed Super Magnum for LS engines with 6-bolt flange (not shown)

- Use with six-speed Super Magnum transmission P/N 19352208 and all LS engines
- Super Magnum bell housing
- High-strength clutch and pressure plate
- Kit includes hydraulic slave cylinder, pilot bearing, hardware and instructions

19331083
Transmission Installation Kit – Six-Speed Super Magnum for LS9 engines with 9-bolt flange (not shown)

- Use with six-speed Super Magnum transmission P/N 19352208 and LS9 engines
- Super Magnum bell housing
- High-strength clutch and pressure plate
- Kit includes hydraulic slave cylinder, pilot bearing, hardware and instructions

19301622
Chevrolet Performance Shifter Handle Kit

- Includes a black shifter handle and installation hardware

24264182
Hydraulic Concentric Slave Cylinder Release Bearing

- Gen 4 F-Car (LS1) release bearing
- Used for Chevrolet Performance bell housings and clutch packages

19301623
Chevrolet Performance-Logo Shifter Ball Kit

- Give your Tremec® Super Magnum six-speed-equipped project a distinctive, heritage-inspired look with a classic ball-style shift knob emblazoned with the Chevrolet Performance logo
- Includes the Chevrolet Performance logo ball-style shift knob and installation hardware

TR6060 SIX-SPEED MANUAL TRANSMISSION

92246731
TR6060 Six-Speed Manual Transmission

- A direct replacement transmission for your Camaro SS
- Rated to handle 420 lb.-ft. of torque
- Works with any Chevrolet Performance LS crate engines except LSA and LSX454
- Equipped with 26-spline input shaft and a fixed-yoke production-style output shaft
- Includes release bearing
- Use with installation kit P/N 19259271
- Requires body-mounted shifter (not included)

24264047
TR6060 Six-Speed Manual Transmission (not shown)

- High-torque-capacity transmission used in the Cadillac CTS-V Series with the 556-hp/551-lb.-ft. LSA supercharged 6.2L engine
- Direct fit with LSA and LSX454 crate engines with 8-bolt crankshaft flange
- Includes release bearing
- Equipped with 26-spline input shaft and a fixed-yoke production-style output shaft
- Use with installation kit P/N 19259270
- Requires body-mounted shifter (not included)

TR6060 INSTALLATION COMPONENTS

Transmission Installation Kit – TREMEC TR6060 (MG9), 8-Bolt Flange

Transmission Installation Kit – TREMEC TR6060 (MG10), 6-Bolt Flange

LSX/LS7 Clutch Kit

Part Number	Description	Technical Notes
19259270	Transmission Installation Kit – TREMEC TR6060 (MG9), 8-Bolt Flange	Use with TR6060 six-speed transmission P/N 24264047 only with LSA, LSX454 and LSX454R engines; Includes flywheel with 8-bolt flange, high-strength clutch and pressure plate, dust covers, hardware and instruction sheet; Clutch release bearing is included with the transmission assembly
19259271	Transmission Installation Kit – TREMEC TR6060 (MG10), 6-Bolt Flange	Use with TR6060 six-speed transmission P/N 92246731 on all LS engines except LSA, LS9, LSX454 and LSX454R; Includes flywheel with 6-bolt flange, high-strength clutch and pressure plate, dust covers, hardware and instruction sheet; Clutch release bearing is included with the transmission assembly
24255748	LSX/LS7 Clutch Kit	11.5" clutch single disc; Fits 26-spline shaft; Pressure plate and clutch disc
24260226	LS9 Clutch Kit (not shown)	10.5" clutch dual disc; Fits 26-spline shaft; Dual-mass clutch and pressure plate for LS9 Corvette ZR1
12570806	LS2 Clutch Kit (not shown)	11.5" clutch single disc; Fits 26-spline shaft; Flywheel, clutch and pressure plate kit for LS2 GTO engines
12581650	LS1 Clutch Kit (not shown)	11.5" clutch single disc; Fits 26-spline shaft; Flywheel with pressure plate and disc for LS1 Camaro engines
24266013	Release Bearing (actuator) (not shown)	Included with Transmission Kit P/N 92246731

CONNECT & CRUISE

CRATE POWERTRAIN SYSTEMS

LT4 6.2L Connect & Cruise System with 8-Speed Automatic

Factory-Matched Performance Engine-and-Transmission Combos

Chevrolet Performance's innovative Connect & Cruise factory-matched engine-and-transmission combinations reduce the time and hassle of picking the parts to power your project vehicle.

Each system matches one of our performance Small-Block, Big-Block and LS/LT crate engines with a complementing transmission, as well as the supporting calibrated controllers, torque converters (for automatic transmissions) and installation kits. Simply review the charts on the accompanying pages to find the engine-and-transmission combo that's right for your project, along with all the required part numbers.

Last year we have added the new 6L80 SuperMatic™ Six-Speed Transmission to our Connect & Cruise portfolio (see page 26 for more details). All Connect & Cruise systems are backed by a 24-month/50,000-mile limited warranty. (See ChevroletPerformance.com or your Chevrolet Performance retailer for complete details.)

With Chevrolet Performance's Connect & Cruise combinations, it's never been easier to pick your project powertrain!

Connect & Cruise Builder's Guide

Each Chevrolet Performance Connect & Cruise Crate Powertrain System includes:

- ***Instruction sheet***
- ***Brand-new crate engine***
- ***Automatic or manual transmission***
- ***Transmission Installation Kits***
- ***SuperMatic™ transmission control module and harness (automatic transmission only)***
- ***Calibrated engine control module***
- ***Two oxygen sensors and mounting bosses (for installation in the exhaust system)***
- ***Mass airflow meter and mounting boss (for installation in the air intake system)***
- ***Throttle pedal assembly (for use with the electronically operated throttle)***
- ***Assembled wiring harness with fuse box and necessary cam sensor and MAP sensor jumpers***

NOTE: *E-ROD C&C package includes rear oxygen sensors, catalytic converters, air inlet filter and purge canister.*

NOTE: *LT kits include fuel line pressure sensor.*

NOTE: *All components, engines, transmissions, transmission installation kits, torque converters and controllers are ordered and delivered separately.*

To facilitate a complete installation, the builder will need to source additional components to complete the engine assembly and get the vehicle running, including:

- Fuel tank and fuel lines (re-circulating or returnless)
- Fuel pump: 58 psi (400 kPa) for all engines except 65 psi (450 kPa) for LSA and LT5
- Air induction system that incorporates the mass airflow sensor
- Starter and exhaust systems

Additionally, all engines require a Front-End Accessory Drive system. The instruction manual included with each kit offers recommendations, and Chevrolet Performance offers several configurations to suit different applications. Each allows the installer to easily delete air conditioning. See page 108 for applications and part numbers.

Chevrolet Performance recommends the LS1 Engine Installation Guide P/N 88959384, which illustrates basic procedures and offers helpful tips on installing an LS engine in older vehicles.

About Chevrolet Performance Engine and Transmission Controllers

The Connect & Cruise engine controller and SuperMatic™ transmission controller are designed for true stand-alone performance in older vehicles. All that's needed to get a vehicle running with the engine controller are power and ground sources, a high-pressure fuel pump and electric cooling fans. For all engines except the LSA and LS9, Chevrolet Performance recommends a 58-psi (400 kPa) fuel pump. The LSA, LS9, LT1, LT4, and LT5 require a 65-psi (450 kPa) pump.

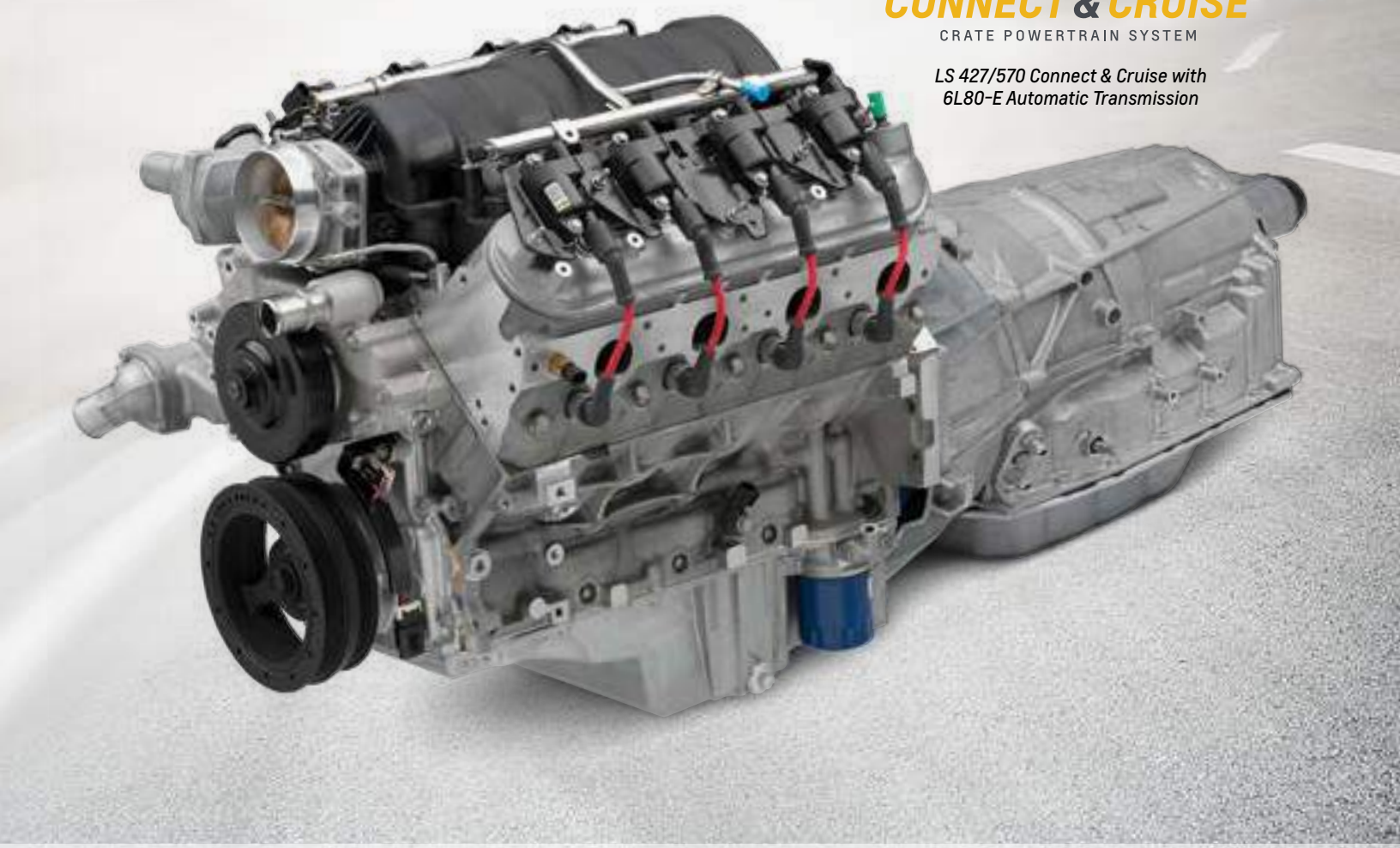
Chevrolet Performance's specially calibrated engine controller does not utilize a number of features associated with production-model systems, eliminating the possibility of "trouble codes" being set. It also includes a SES (service engine soon) LED indicator embedded in the fuse box.

The SuperMatic™ transmission controller is the most fully integrated and user-friendly transmission control system on the market. Only a few connections are required to get the transmission ready for operation in your vehicle—and it is designed for tuning-free compatibility with the Connect & Cruise systems' engine control modules.

NOTE: *Installing an electronically controlled automatic transmission in an older vehicle with a mechanical speedometer requires an aftermarket signal converter.*

Fuel Injected Engines with Automatic Transmissions

CONNECT & CRUISE
CRATE POWERTRAIN SYSTEM



LS 427/570 Connect & Cruise with 6L80-E Automatic Transmission

Chevrolet Performance's Connect and Cruise systems make it simple to optimize performance and minimize hassle. Our engineers have paired the right engine, transmission and controllers with the right LS/LT crate engine to take the guesswork out of your build. It is the easy, economical way to get you going quickly!

Select your Crate Powertrain System from the chart on the following page.

NOTE: *All components, engines, transmissions, transmission installation kits, torque converters and controllers are ordered and delivered separately. This part is intended for competition use only.* *See page 2 for details.*

Chevrolet Performance Connect & Cruise Crate Powertrain Systems include a 24-month or 50,000-mile (whichever comes first) limited warranty. E-ROD Connect & Cruise Crate Powertrain Systems include a 36-month or 50,000 mile (whichever comes first) limited warranty. See dealer for details.

LS/LT-SERIES

Connect & Cruise System	Engine	Engine Controller	Transmission Installation Kit	Transmission	Torque Converter	Transmission Controller
~~L96 6.0L 2WD w/4L65-E~~	~~19416591 DISC. N/A~~	~~19418490~~	~~19259117~~	~~19368611~~	~~19299802~~	~~19302405~~
~~L96 6.0L 4WD w/4L70-E~~	~~19416591 DISC. N/A~~	~~19418490~~	~~19259117~~	~~19368612~~	~~19299802~~	~~19302405~~
~~L96 6.0L w/6L80-E~~	~~19416591 DISC. N/A~~	~~19418490~~	~~19420358~~	~~19366637~~	~~included with trans.~~	~~included with trans.~~
LS3 6.2L 2WD w/4L65-E	19419862	19354328	19259117	19368611	19299802	19302405
LS3 6.2L 4WD w/4L70-E	19419862	19354328	19259117	19368612	19299802	19302405
LS3 6.2L 2WD w/4L70-E	19419862	19354328	19420473	19368613	19299802	19302405
LS3 6.2L w/6L80-E	19419862	19354328	19420358	19366637	included with trans.	included with trans.
LS3 6.2L E-ROD w/4L65-E	19421057	included with E-ROD kit	19259117	19368611	19299802	19302405
LS3 6.2L E-ROD 2WD w/4L70-E	19421057	included with E-ROD kit	19259117	19368613	19299802	19302405
LS3 6.2L E-ROD w/6L80-E	19421057	included with E-ROD kit	19420358	19366637	included with trans.	included with trans.
LS376/480 6.2L w/4L70-E	19419864	19354330	19259117	19368613	19299803	19302405
LS376/480 6.2L w/6L80-E	19419864	19354330	19420358	19417102	included with trans.	included with trans.
LS376/525 6.2L w/6L80-E	19419866	19354332	19420358	19417102	included with trans.	included with trans.
LS376/525 6.2L w/4L70-E	19419866	19354332	19259117	19368613	19299803	19302405
LS376/525 6.2L w/4L75-E	19419866	19354332	19259117	19368615	19299803	19302405
~~LSA 6.2L SC w/4L75-E~~	~~19370850 DISC. N/A~~	~~19369381~~	~~19259117~~	~~19368615~~	~~19299802~~	~~19302405~~
~~LSA 6.2L SC w/4L85-E~~	~~19370850 DISC. N/A~~	~~19369381~~	~~19259119~~	~~19300175~~	~~19299806~~	~~19302410~~
~~LSA 6.2L w/6L80-E~~	~~19370850 DISC. N/A~~	~~19369381~~	~~19420358~~	~~19366637~~	~~included with trans.~~	~~included with trans.~~
LSA 6.2L SC E-ROD w/4L75-E	19416892	included with E-ROD kit	19329416	19368615	19299802	19302405
LSA 6.2L SC E-ROD w/4L85-E	19416892	included with E-ROD kit	19259119	19300175	19299806	19302410
LSA 6.2L SC E-ROD w/6L80-E	19416892	included with E-ROD kit	19420358	19366637	included with trans.	included with trans.
LS7 7.0L w/4L70-E	19329246	19354334	19259117	19368613	19299802 or 19299803[2]	19302405
LS7 7.0L w/4L75-E	19329246	19354334	19259117	19368615	19299802 or 19299803[2]	19302405
LS7 7.0L w/6L80-E	19329246	19354334	19420358	19366637 or 19417102[2]	included with trans.	included with trans.
LS427/570 7.0L w/4L70E	19421004	19354334	19259117	19368613	19299803	19302405
LS427/570 7.0L w/4L75E	19421004	19420000	19259117	19368615	19299803	19302405
LS427/570 7.0L w/6L80E (3000k)	19421004	19420000	19420358	19417102	included with trans.	included with trans.
LT1 6.2L Wet Sump w/4L70-E	19418843	19418587	19329416	19368614	19299802	19302405
LT1 6.2L Dry Sump w/4L70-E	19329997	19418585	19329416	19368614	19299802	19302405
LT1 6.2L Wet Sump w/8L90-E	19418843	19418589	19417103	19419798	included with trans.	included with trans.
LT1 6.2 L E-ROD Wet Sump w/4L70-E	19418256	included with E-ROD kit	19329416	19368614	19299802	19302405
LT1 6.2 L E-ROD 6.2 Wet Sump w/8L90-E	19417593	included with E-ROD kit	19417103	19419798	included with trans.	included with trans.
LT4 6.2L SC E-ROD Wet Sump w/4L75-E	19356048	included with E-ROD kit	19329416 +19125817[1]	19368615	19299802	19302405
LT4 6.2L Dry Sump w/4L75-E	19416595	19419241	19329416 +19125817[1]	19368615	19299802	19302405
LT4 6.2L SC Wet Sump w/4L75-E	19418844	19419241	19329416 +19125817[1]	19368615	19299802	19302405
LT4 6.2L SC Wet Sump w/8L90-E	19418844	19419242	19417103	19419799	included with trans.	included with trans.
LT4 6.2L SC E-ROD Wet Sump w/8L90-E	19417727	included with E-ROD kit	19417103	19419799	included with trans.	included with trans.
LT5 6.2L Dry Sump w/8L90-E	19417105 +19418408[3]	19418244	19417103	19419800	included with trans.	included with trans.

SMALL-BLOCK

Connect & Cruise System	Engine	Engine Controller	Transmission Installation Kit	Transmission	Torque Converter	Transmission Controller
ZZ6 EFI Deluxe w/4L65-E	19417782 + 19419371[4]	included with engine	19420473	19368611	19299801	19332775
ZZ6 EFI Turn-Key w/4L65-E	19368150 + 19419371[4]	included with engine	19420473	19368611	19299801	19332775
SP383 EFI Deluxe w/4L70-E	19418640 + 19419371[4]	included with engine	19420473	19368613	19299800	19332775
SP383 EFI Turn-Key w/4L70-E	19420597 + 19419371[4]	included with engine	19420473	19368613	19299800	19332775

[1]Bell Housing Kit
[2]See Torque Converter Reference Chart (page 23) for stall range requirements
[3]LT5 Engine shipped with manual flywheel. Automatic Flexplate P/N 19418408 required for installation.
[4]Thottle Position Sensor

Carbureted Engines with Automatic Transmissions

CONNECT & CRUISE
CRATE POWERTRAIN SYSTEM

ZZ572/620 Connect & Cruise with 4L85-E Automatic Transmission

Chevrolet Performance has expanded the Connect & Cruise Powertrain lineup with new systems, pairing Gen I Small-Block, Big-Block and even carbureted LS engines. If you are looking to power your project vehicle, Chevrolet Performance has the Crate Powertrain System to help meet your needs!

Select your Crate Powertrain System from the chart on the following page.

NOTE: *All components, engines, transmissions, transmission installation kits, torque converters and controllers are ordered and delivered separately. This part is intended for competition use only. See page 2 for details.*

Chevrolet Performance Connect & Cruise Crate Powertrain Systems include a 24-month or 50,000-mile (whichever comes first) limited warranty. E-ROD Connect & Cruise Crate Powertrain Systems include a 36-month or 50,000 mile (whichever comes first) limited warranty. See dealer for details.

LS-SERIES

Connect & Cruise System	Engine	Transmission Installation Kit	Transmission	Torque Converter	Transmission Controller
LS 376/515 w/4L70-E	19419868	19259117	19368613	19299803	19332775

SMALL-BLOCK

Connect & Cruise System	Engine	Transmission Installation Kit	Transmission	Torque Converter	Transmission Controller
350 HO Turn-Key w/4L65-E	19419992	19332781	19368611	19299800	19332775
Ram Jet 350 w/4L65-E	19417619	19420473	19368611	19299800	19332775
SP350/357 Turn-Key w/4L65-E	19418190	19420473	19368611	19299801	19332775
SP350/385 Turn-Key w/4L65-E	19419994	19420473	19368611	19299801	19332775
ZZ6 Turn-Key w/4L65-E	19419995	19420473	19368611	19299801	19332775
SP383 Deluxe w/4L70-E	19418657	19420473	19368613	19299801	19332775

BIG-BLOCK

Connect & Cruise System	Engine	Transmission Installation Kit	Transmission	Torque Converter	Transmission Controller
ZZ427/480 w/4L70-E	19331572	19332781	19368613	19299801	19332775
ZZ502/502 Deluxe w/4L85-E	19419003	19420956	19300175	19299805	19332780
ZZ572/620 Deluxe w/4L85-E	19331583	19420956	19300175	19299805	19332780
ZZ572/720R Deluxe w/4L85-E	19331585	19420956	19300175	19299805	19332780

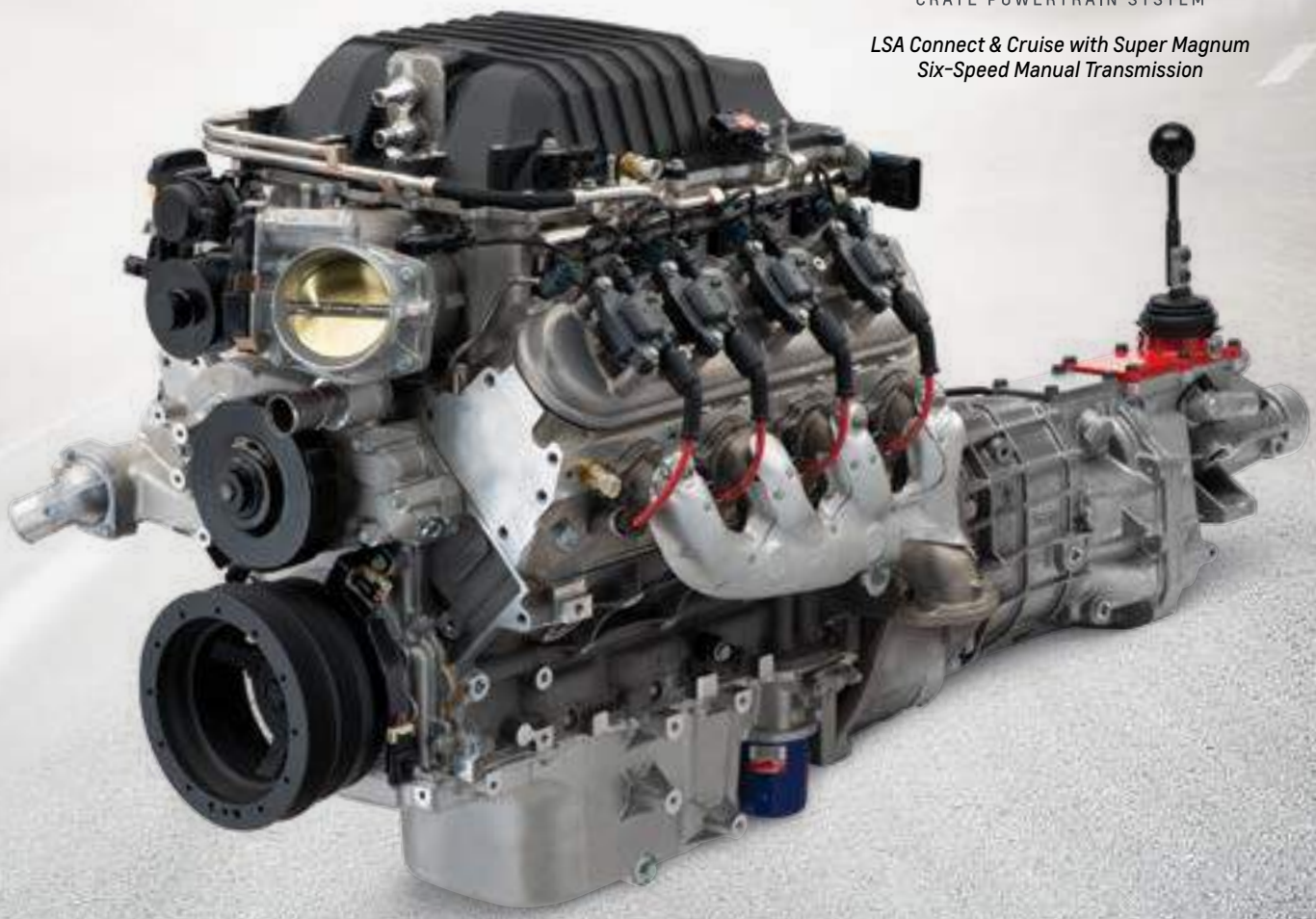
CONNECT & CRUISE
CRATE POWERTRAIN SYSTEM

ZZ6 Turn-Key Connect & Cruise with 4L65-E Automatic Transmission

Carbureted & Fuel Injected Engines with Manual Transmissions

CONNECT & CRUISE
CRATE POWERTRAIN SYSTEM

LSA Connect & Cruise with Super Magnum Six-Speed Manual Transmission



Chevrolet Performance knows there are a lot of enthusiasts who like to do their own shifting. So our engineers have developed a full line of packages that pair LS, LT and a wide range of our Small- and Big-Block engines with our robust Super Magnum Six-Speed Manual Transmission.

Select your Crate Powertrain System from the chart on the following page.

NOTE: *All components, engines, transmissions, transmission installation kits, clutch/flywheel kits and controllers are ordered and delivered separately. This part is intended for competition use only. See page 2 for details.*

Chevrolet Performance Connect & Cruise Crate Powertrain Systems include a 24-month or 50,000-mile (whichever comes first) limited warranty. E-ROD Connect & Cruise Crate Powertrain Systems include a 36-month or 50,000 mile (whichever comes first) limited warranty. See dealer for details.

LS-SERIES

Connect & Cruise System	Engine	Engine Controller	Transmission Installation Kit	Transmission
~~L96 w/6-Speed~~	~~19416591 DISC. N/A~~	~~19418490~~	~~19301625~~	~~19352208~~
LS3 6.2L w/6-Speed	19419862	19354328	19301625	19352208
LS3 6.2L E-ROD w/6-Speed	19421057	included with E-ROD kit	19301625	19352208
LS376/480 w/6-Speed	19419864	19354330	19301625	19352208
LS376/515 w/6-Speed	19419868	N/A	19301625	19352208
LS376/525 w/6-Speed	19419866	19354332	19301625	19352208
~~LSA 6.2L SC w/6-Speed~~	~~19370850 DISC. N/A~~	~~19369381~~	~~19329912~~	~~19352208~~
LSA 6.2L SC E-ROD w/6-Speed	19416892	included with E-ROD kit	19329912	19352208
LS7 7.0L SC w/6-Speed	19329246	19354334	19301625	19352208
LS427 7.0L w/6-Speed	19421004	19420000	19301625	19352208
LT1 6.2L Wet Sump w/6-Speed	19418843	19418587	19329912	19352208
LT1 6.2L Dry Sump w/6-Speed	19329997	19418585	19329912	19352208
LT1 6.2L E-ROD Wet Sump w/6-Speed	19418256	included with E-ROD kit	19329912	19352208
LT4 6.2L SC Wet Sump w/6-Speed	19418844	19419241	19329912	19352208
LT4 6.2L SC Dry Sump w/6-Speed	19416595	19419241	19339912	19352208
LT4 6.2L SC E-ROD Wet Sump w/6-Speed	19356048	included with E-ROD kit	19329912	19352208
LT5 6.2L Dry Sump w/6-Speed	19417105	19418270	19329912	19352208

SMALL-BLOCK

Connect & Cruise System	Engine	Engine Controller	Transmission Installation Kit	Transmission
SP383 Deluxe w/6-Speed	19418657	–	19329900	19352208
SP350/357 Turn-Key w/6-Speed	19418190	–	19329900	19352208
SP350/385 Turn-Key w/6-Speed	19419994	–	19329900	19352208
Ram Jet 350 w/6-Speed	19417619	–	19329900	19352208
ZZ6 Turn-Key w/6-Speed	19419995	–	19329900	19352208
ZZ6 EFI Turn-Key w/6-Speed	19368150	–	19329900	19352208
ZZ6 EFI Deluxe w/6-Speed	19417782	–	19329900	19352208
SP383 EFI Turn-Key w/6-Speed	19420597	–	19329900	19352208
SP383 EFI Deluxe w/6-Speed	19418640	–	19329900	19352208

BIG-BLOCK

Connect & Cruise System	Engine	Engine Controller	Transmission Installation Kit	Transmission
ZZ427/480 w/6-Speed	19331572	–	19329902	19352208
ZZ502/502 Deluxe w/6-Speed	19419003	–	19329901	19352208
ZZ572/620 Deluxe w/6-Speed	19331583	–	19329902	19352208

SMALL-BLOCK

LS-SERIES

CRATE ENGINES

Gen IV LS Power for Your Project

Versatile, adaptable and offering almost unlimited potential from Chevrolet Performance's crate engines and performance parts, the LS engine family is a new standard for high-performance engine installations. Chevrolet Performance has the controller, with engine-specific calibration, and harness kit to help the installation go smoothly and get running quicker, without additional tuning.

Check out the following pages to find the Chevrolet Performance LS-Series Engine that's right for you!

NOTE: *Engines may not come with all the parts shown in photo. See your dealer for more details.*

Engines shown from left:
LS3, LS427/570, LSA

The LS/LT Engine Family Tree

Everything you wanted to know about GM's 21st-century Small-Block, but were afraid to ask!

LS HERITAGE

The engine family commonly called the LS series debuted in 1997. General Motors called it the Gen III Small-Block, with the iron-block versions in trucks and the all-aluminum LS1 version introduced in the then-new C5 Corvette. A year later, the LS1 replaced the Gen II LT1 Small-Block in Camaros and Firebirds. The LS1 displaced 5.7 liters, similar to the previous-generation Small-Block, but the cubic-inch measurement differed slightly: 346 for the LS1 vs. the traditional 350 cubes.

In 1999, the Gen III platform spawned the higher-performance LS6 that was standard in the Corvette Z06. In 2005, the Gen IV branch of the LS family was born, differing from the Gen III with cast-in provisions for fuel-saving cylinder deactivation, larger displacements and revised camshaft sensing. The performance versions of the Gen IV include the LS2, LS3, LSA supercharged, LS9 supercharged and LS7.

GM has continued to refer to its modern V-8 engine family as Gen III and Gen IV, but to the enthusiasts who quickly grasped the tremendous performance potential of the engines, every engine based on the platform is nicknamed "LS." The range of production engines from the LS platform is wide. On the truck side, iron-block engines have included 4.8L and 5.3L versions, as well as all-aluminum 6.0L and 6.2L premium engines. Car engines include 5.3L, 5.7L, 6.0L, 6.2L and 7.0L displacements, including some configured for front-wheel drive.

GEN III VS GEN IV

Despite some significant differences between Gen III and Gen IV cylinder blocks, all LS engines share common traits that include:

- 4.400" bore centers (like the original Small-Block)
- 6-bolt, cross-bolted main bearing caps
- Center main thrust bearing
- 9.240" deck height
- 4-bolt-per-cylinder head bolt pattern
- 0.842" lifter bores
- Distributorless, coil-near-plug ignition system

The most distinguishing differences between Gen III and Gen IV cylinder blocks are larger bores (on some engines), different camshaft position sensor locations—front timing cover area on Gen IV blocks and top-rear position on Gen III blocks—and, on most Gen IV blocks, cast-in provisions for GM's Active Fuel Management cylinder deactivation system.

There is great interchangeability between all LS engines, including between Gen III and Gen IV versions. Cylinder heads, crankshafts, intake manifolds and more can be mixed and matched—but the devil is in the details. Not every head matches every intake manifold and not every crankshaft works with every engine combination. Will Handzel's "How to Build High-Performance Chevy LS1/LS6 V-8s"—P/N 88958786—is a great reference source that outlines the more specific differences and interchangeability among Gen III-based engines.

LS1/LS6

LS1 5.7L (346 cu in) engines were produced between the 1997 and 2004 model years in the United States (Corvette, Camaro, Firebird and GTO) and stretching into 2005 in other markets (primarily Australia). The LS6 was introduced in 2001 in the Corvette Z06 and was manufactured through 2005, where it also was found in the Cadillac CTS-V. The LS1 and LS6 share a 5.7L displacement, but the LS6 production engine uses a unique block casting with enhanced strength, greater bay-to-bay breathing capability and other minor differences. The heads, intake manifolds and camshaft also are unique LS6 parts.

LS2/L76/L77

In 2005, the LS2 6.0L (364 cu in) engine and the Gen IV design changes debuted. In GM performance vehicles, it was offered in the Corvette, GTO and even the heritage-styled SSR roadster. It was the standard engine in the Pontiac G8 GT (L76) and it was the V-8 offered in the Chevrolet Caprice Police Pursuit Vehicle (L77). This engine is one of the most adaptable in the LS family, as LS1, LS6, LS3 and L92/L94 cylinder heads work well on it.

LS3/L99

Introduced on the 2008 Corvette, the LS3 brought LS-based performance to an unprecedented level: 430 horsepower from 6.2L (376 cu in). The LS3 block not only had larger bores than the LS2, but a strengthened casting to support more powerful applications, including the LS9 supercharged engine of the Corvette ZR1. The LS3 was also the standard engine in the fifth-generation Camaro SS and was offered in the Pontiac G8 GXP. The L99 version was equipped with GM's fuel-saving Active Fuel Management cylinder deactivation system and was standard on fifth-gen Camaro SS models equipped with an automatic transmission. A unique version of the LS3 used in some Corvette Grand Sport applications incorporated a dry-sump oiling system.

LS4

Perhaps the most unique application of the LS engine in a car, the LS4 was a 5.3L version used in the front-wheel drive Chevrolet Impala SS and Pontiac Grand Prix GXP. The LS4 had an aluminum block and unique, low-profile front-end accessory system, including a "flattened" water pump, to accommodate the transverse mounting position within the Impala and Grand Prix. It was rated at 303 horsepower and 323 lb.-ft. of torque.

LS7

A legend in its own time. The LS7 was the standard engine in the C6 Corvette Z06 and fifth-generation Camaro Z/28. Its 7.0L displacement (427 cubic inches) made it the largest LS engine offered in production vehicles. Unlike LS1/LS6, LS2 and LS3 engines, the LS7 uses a Siamese-bore cylinder block design, which was required for its big 4.125-inch bores. Competition-proven heads and lightweight components, such as titanium rods and intake valves, made the LS7 a street-tuned racing engine with 505 horsepower. Chevrolet Performance's crate engine reflects the Camaro Z/28 version, which features a unique Tri-Y exhaust manifold design.

LS9

The LS9 was the 6.2L supercharged and charge-cooled engine of the C6 Corvette ZR1, rated at 638 horsepower. The LS9 used a strengthened 6.2L block with stronger Rotocast cylinder heads and a sixth-generation 2.3L Roots-type supercharger. Like the LS7, it used a dry-sump oiling system.

LSA

This supercharged 6.2L engine powered the 2009–2015 Cadillac CTS-V series and the 2012–2015 Camaro ZL1. Although similar to the LS9 in design, it was built with several differences, including hypereutectic pistons vs. the LS9's forged pistons and a smaller 1.9L supercharger. It also has an eight-bolt flywheel vs. the LS9's nine-bolt pattern. The LSA has a unique charge-cooler design on top of the supercharger, with differences between the Cadillac and Camaro ZL1 applications. It was rated at 556 horsepower in the CTS-V and 580 horsepower in the Camaro ZL1.

GEN III & GEN IV VORTEC TRUCK ENGINES

Although performance car engines have typically carried "LS" designations, truck engines built on this platform have been dubbed Vortec. They are generally distinguished by iron cylinder blocks and smaller displacements than car engines. Interestingly, a 5.7L Vortec "LS" engine has never been offered. Here's a quick rundown of the previous and current-production LS truck engines:

- 4.8L – The smallest-displacement LS engine (293 cu in); it uses an iron block with 3.78-inch bores and aluminum heads.
- 5.3L – The most common LS truck engine. It uses the same iron block with 3.78-inch bores as the 4.8L, but with a larger 3.62-inch stroke (327 cu in). Later versions equipped for Active Fuel Management and 2010-and-newer versions feature variable valve timing (cam phasing). Manufactured with iron and aluminum cylinder blocks.

Gen III, IV, Small-Block Crate Engines

Part Number	Description	Liters	CID	Block Material	HP	Torque	Bore	Stroke
19165628 (discontinued)	LS327/327	5.3	327	CI	327	347	3.780	3.622
17801267 (discontinued)	LS1	5.7	346	AL	350	365	3.898	3.622
19165484 (discontinued)	LS2	6.0	364	AL	400	400	4.000	3.622
17802134 (discontinued)	LS364/440	6.0	364	AL	440	404	4.000	3.622
19370163	LS364/450	6.0	364	CI	450	441	4.000	3.622
19416591	L96	6.0	364	CI	360	380	4.000	3.622
19419864	LS376/480	6.2	376	AL	495	473	4.065	3.622
19419868	LS376/515	6.2	376	AL	533	477	4.065	3.622
19419866	LS376/525	6.2	376	AL	525	486	4.065	3.622
19419862	LS3	6.2	376	AL	430	425	4.065	3.622
19370850	LSA	6.2	376	AL	556	551	4.065	3.622
19260165 (discontinued)	LS9	6.2	376	AL	638	604	4.065	3.622
19418211*	CT525	6.2	376	AL	533	477	4.065	3.622
19329246	LS7	7.0	427	AL	505	470	4.125	4.000
19421004	LS427/570	7.0	427	AL	570	540	4.125	4.000
19332312	LSX376 B-8	6.2	376	CI	476	475	4.060	3.622
19417356	LSX376 B-15	6.2	376	CI	473	444	4.060	3.622
19417357	LSX454	7.4	454	CI	627	586	4.185	4.125
19260835 (discontinued)	LSX454R	7.4	454	CI	776	649	4.185	4.125

**For circle-track racing only. Not for street use.*

- 6.0L – Used primarily in 3/4-ton and 1-ton trucks, the 6.0L (364 cu in) uses an iron block (LY6) or aluminum block (L76) and aluminum heads, with provisions for Active Fuel Management; some are equipped with variable valve timing.
- 6.2L – Commonly referred to by its L92, L9H or L94 engine codes, the 6.2L (376 cu in) engine uses an aluminum block and heads and incorporates advanced technology, including variable valve timing. The L92 is used primarily as a high-performance engine for the Cadillac Escalade and GMC Yukon Denali.

MORE ABOUT THE VORTEC 5.3L

With more than 10 years in service in millions of Chevy and GMC trucks, vans and SUVs, the Vortec 5.3L engine is poised to become the classic 350 Small-Block of the LS engine family. With millions in service, it is readily available and affordable on the used-engine market. Most feature iron cylinder blocks, but some have an aluminum engine block that is about 80 pounds lighter. Adapting a 5.3L to a hot rod project is easier with Chevrolet Performance's 5.3L controller kit, P/N 19369180. It covers 2007–2009 applications (non-cam-phased) with the following engine codes:

- LC9 (2007–2009)
- LH8 (2008–2009)
- LMG (2007–2009)
- LY5 (2007–2009)
- LMF (2008–2009)

LSX CRATE ENGINES

Chevrolet Performance LSX series of crate engines is based on the LSX Bowtie Block and uses a number of production-based and LSX high-performance parts to deliver ultimate-performance engines that were never offered in production vehicles. They include:

- LSX376-B8 – An economical crate engine that uses the LSX block, LS3 rotating parts and the LS3 cylinder heads. It is offered without an oil pan or induction system, so that it can be tailored for the project vehicle.
- LSX376-B15 – Designed to accommodate additional power adders or boost up to 15 PSI. Includes forged pistons, forged crank and 6-bolt LSX-LS3 cylinder heads.
- LSX454 – The displacement of the classic Big-Block, with an all-forged rotating assembly and LSX-LS7 six-bolt cylinder heads. It is rated at 627 hp with a carburetor and 580 with an LS7 fuel injection system.
- LSX454R – A high-compression (13.1:1) version of the LSX454 designed for drag racing, featuring a mechanical roller cam, high rise intake and more. It is capable of more than 750 horsepower.

NOTE: *Discontinued in 2018 (N/A)*

NON-PRODUCTION CYLINDER BLOCKS

C5R: Developed for the factory-backed Corvette racing program, the C5R cylinder block has been manufactured in comparatively small quantities since 2000. They are manufactured with a unique aluminum alloy for greater strength and undergo a variety of specialized machining and inspection processes, including "hipping" to increase strength and X-raying that ensures against unacceptable porosity. A Siamese bore design with 4.117-inch finished bores enables 7.0L (427 cu in) displacements. The C5R uses billet steel main caps with premium 4340 fasteners. Racing-quality head studs are also included. All LS series heads will work with the C5R block, but maximum performance depends on maximum airflow.

LSX Bowtie Block (standard and tall-deck): Introduced in 2007, the LSX Bowtie Block is a durable and affordable cast-iron casting that was designed to support extreme high-performance combinations, including provisions for six-bolts-per-cylinder head fastening. It has a Siamese bore design with 3.880-inch bores that must be finished to 3.898 inches, with a 4.200-inch recommended maximum bore. Maximum stroke can reach 4.25 inches, but rotating assembly interference on the cylinder must be taken into account for strokes greater than 4.125 inches. Heavy metal is required for crankshaft balancing of larger-stroke combinations. Standard versions feature decks 0.020-inch taller than LS production blocks, with the tall-deck version manufactured with a 9.720-inch semi-finished deck height. The oiling system is a true priority-main system and all LS Small-Block heads work with the engine. Higher-airflow heads, such as LS7, LSX-DR, LSX-CT and C5R, are recommended.

CRANKSHAFTS

Generally, LS crankshafts are similar in design, with identical 2.100-inch rod and 2.560-inch main journal sizes and a common rear main seal. All LS engines use iron crankshafts except the LS7, LS9, LSA and LSX454; they used forged steel cranks (4.00-inch stroke on the LS7; 3.62-inch stroke on the LS9 and LSA; and 4.125-inch on the LSX454).

The crankshaft sensing function of the distributorless ignition system depends on reading the toothed reluctor wheel on the crankshaft. Early LS engines mostly used 24-tooth (also known as 24Xe) wheels and upgraded a few years ago to 58-tooth (also known as 58X) wheels. When building an LS engine, it is imperative the correct reluctor wheel is used with the compatible crankshaft position sensor and ignition controller.

The crankshafts are mostly interchangeable, but the snouts on LS7 and LS9 crankshafts are approximately 1 inch longer to accommodate their two-stage oil pumps, which work with the engines' dry-sump oiling systems. The same goes for certain Corvette applications of the LS3, which was available with a dry-sump system as well. These forged crankshafts can be used on wet-sump engines by using a few specific components and/or modifications.

The LS/LT Engine Family Tree continued on next page

The LS/LT Engine Family Tree continued

A *Cathedral Intake Port and Bolt Pattern*

B *LS3 Intake Port and Bolt Pattern*

CYLINDER HEADS – INTAKE PORT DESIGN

Cylinder head interchangeability enables great parts-mixing to build custom LS engine combinations, but the heads must be matched with intake manifolds that have compatible intake port configurations. The port sizes and shapes include:

Cathedral port

Introduced on the LS1 engine and used also on the LS6 and LS2, cathedral-port heads are named for the unique shape of the top of the intake port. Intake manifolds for LS1, LS2, LS6 and Vortec engines with cathedral-port heads are mostly interchangeable. (Photo A)

Rectangular port – LS7-style

The second LS intake runner design debuted on the Corvette Z06's LS7 engine. This rectangular design supports the straight-through airflow design of the heads. They feature 270cc intake ports and the ports and combustion chambers are CNC-ported from the factory. Use only with the LS7 intake manifold. The LSX-LS7 head features the same port design, but with six-bolt clamping vs. the production four-bolt pattern. (Photo C)

Rectangular port – L92/LS3 style

Similar to the LS7 design, but the ports are a little taller and a little narrower. They flow more than cathedral-port heads, but not as much as LS7 heads. In addition to the L92 6.2L engines, this port shape is also used on LS3 engines and some 6.0L truck engines, as well as the Corvette ZR1's LS9 and Cadillac CTS-V's LSA supercharged engines. Intake manifold bolt patterns are unique to this port design. (Photo B)

C5R heads

These heads pioneered the rectangular-port design, but because they are designed for professional finishing, their final shape and size depends on whomever is performing the porting (not shown).

CYLINDER HEADS – VALVES AND RECOMMENDED APPLICATIONS

Each LS cylinder head has specific valve sizes, locations and valve angles. Here's an overview of them:

Cathedral-port heads

Designed for smaller-displacement engines, these heads have the smallest valves: 2.000-inch intake and 1.500-inch exhaust. They're held at a 15-degree angle. They also have the closest valve spacing, which limits the maximum valve size. LS6 valves include lightweight hollow-stem intake and sodium-filled exhaust parts; all others in this family feature solid-stem construction. (Photo A)

LS Compatibility—Heads vs. Intakes

INTAKES				HEADS						
Engine	Part Number	Manifold Type	Port Type	12559855 Std LS1	12564824 (discon.) Std LS6/LS2	12562319 Std LQ9	88958622 (discon.) CNC LS6	12629064 Std L76/L92	12629063 Std LS3	88958758 CNC LS3
LS1/LS6	88894339 (discon.)	EFI	Cathedral	Yes	Yes	Yes	Yes	No	No	No
LS2/LQ4	88958675	4-bbl	Cathedral	Yes	Yes	Yes	Yes	No	No	No
LS3	12679928	EFI	L92	No	No	No	No	Yes	Yes	Yes
L92/LS3	25534416	4-bbl w/inj	L92	No	No	No	No	Yes	Yes	Yes
L92/LS3	25534401	4-bbl	L92	No	No	No	No	Yes	Yes	Yes
L92/LS3	19244037	LSX 4-bbl	L92	No	No	No	No	Yes	Yes	Yes
L92/LS3	19244035	LSX 4-bbl	L92	No	No	No	No	Yes	Yes	Yes
LS7	12644568	EFI	LS7	No	No	No	No	No	No	No
LS7	25534413	4-bbl w/inj	LS7	No	No	No	No	No	No	No
LS7	25534394	4-bbl	LS7	No	No	No	No	No	No	No
LSX-CT	19257854	LSX 4-bbl	LSX-CT	No	No	No	No	No	No	No
LSX454R	19257851	LSX 4-bbl	LSX-DR	No	No	No	No	No	No	No

No=not compatible *Yes=direct compatibility*

C *LS7 Intake Port and Bolt Pattern*

D *LSX-CT and LSX-DR Ports*

L92/LS3 heads

Similar in design to the LS7 head, the L92 heads don't flow quite as much and the valves are correspondingly smaller: 2.165-inch on the intake side and 1.590-inch on the exhaust side. They are held at a 15-degree angle and also require offset rocker arms. These heads/valves require at least a 4.00-inch bore, but work best on an engine with a 4.065-inch bore. Valve-to-piston clearance must be checked when using them on an engine originally equipped with cathedral-port heads. (Photo B)

LS7 heads

Using LS-Series' largest production valves—2.200-inch on the intake side and 1.610-inch on the exhaust—the LS7 heads offer tremendous airflow, but they require an engine with no less than 4.100-inch bores. The intake valves are made of titanium and the exhaust valves are sodium-filled; they are held at a 12-degree angle. That and their large size require offset rocker arms on the intake side. Valve-to-piston clearance must be checked when using these heads with pistons not designed for the LS7 engine. (Photo C)

C5R

Designed for engines with at least 4.125-inch bores, these heads can accommodate 2.200-inch intake and 1.650-inch exhaust valves; they are held at an 11-degree angle and their spacing is unique. When using on an engine not originally designed for C5R pistons, valve-to-piston clearance must be checked. (not shown)

LSX-CT and LSX-DR

CT and DR are in-line heads, with a valve angle of 11 degrees. The CT head was designed specifically for 410 CID sprint car applications, with 2.200-inch intake and 1.610-inch exhaust valve sizes and valve placement modified and optimized for 4.125-inch bores. DR heads were designed for 410-plus CID, high-rpm drag racing applications. Valve placement was spread from the CT to allow up to 2.280-inch and 1.620-inch valves. Larger valve sizes require a 4.165-inch minimum bore. (Photo D)

The LS/LT Engine Family Tree continued on next page

LS Compatibility—Heads vs. Intakes (continued)

INTAKES				HEADS						
Engine	Part Number	Manifold Type	Port Type	19354245 LSX-L92 Small Bore	19354243 LSX-LS3	19354244 LSX-LS9	12578450 Std CNC LS7	19354239 LSX-LS7	19330896 LSX-CT	19330894 LSX-DR
LS1/LS6	88894339 (discon.)	EFI	Cathedral	No	No	No	No	No	No	No
LS2/LQ4	88958675	4-bbl	Cathedral	No	No	No	No	No	No	No
LS3	12674428	EFI	L92	Yes	Yes	Yes	No	No	No	No
L92/LS3	25534416	4-bbl w/inj	L92	Yes	Yes	Yes	No	No	No	No
L92/LS3	25534401	4-bbl	L92	Yes	Yes	Yes	No	No	No	No
L92/LS3	19244037	LSX 4-bbl	L92	Yes	Yes	Yes	No	No	No	No
L92/LS3	19244035	LSX 4-bbl	L92	Yes	Yes	Yes	No	No	No	No
LS7	12644568	EFI	LS7	No	No	No	Yes	Yes	No	No
LS7	25534413	4-bbl w/inj	LS7	No	No	No	Yes	Yes	No	No
LS7	25534394	4-bbl	LS7	No	No	No	Yes	Yes	No	No
LSX454	19354465	LSX 4-bbl	LS7	No	No	No	Yes	Yes	No	No
LSX-CT	19257854	LSX 4-bbl	LSX-CT	No	No	No	No	No	Yes	Yes
LSX454R	19257851	LSX 4-bbl	LSX-DR	No	No	No	No	No	Yes	Yes

No=not compatible *Yes=direct compatibility*

The LS/LT Engine Family Tree continued

A *LS6 Rockers*

B *L92 Rockers*

VALVETRAIN

LS-Series valvetrain systems are very universal. All production engines use investment-cast rockers with roller trunnions. They attach to a bolt-down mounting bracket (except for LS7 and LSX applications that have machined pedestals) that makes installation fast and easy. All production engines feature 1.7-ratio rockers, except the LS7, which uses 1.8-ratio rockers. Rockers are specific to their cylinder head families. Here's a look at the various applications:

Cathedral-port heads

Use interchangeable rockers on the intake and exhaust sides (P/N 10214664). (Photo A)

L92/LS3 heads

Use specific, offset intake rockers P/N 12569167 and non-offset exhaust rockers P/N 10214664. (Photo B)

LS7 heads

Use specific, offset intake rockers P/N 12579615 and non-offset exhaust rockers P/N 12579617. (Photo C)

LSX-SC heads

Designed for LS7-style offset intake rockers P/N 12579615 and non-offset exhaust rockers P/N 12579617, but can be machined for shaft-mount rocker system. (Photo D)

LS Compatibility—Heads vs. Blocks

BLOCKS			HEADS						
Engine	Part Number	Bore Size	12559855 (discon.)Std LS1	12564824 (discon.) Std LS6/LS2	12562319 Std LQ9	88958622 (discon.) CNC LS6	12629064 Std L76/L92	12629063 Std LS3	88958758 CNC LS3
LS1/LS6	12561166 (discon.)	3.890"	Yes	Yes	Yes	Yes	No	No	No
LS2/L76	12602691	4.000"	Yes	Yes	Yes	Yes	Yes	Yes	Yes
L92/LS3	12673475	4.065"	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LSA	12673476	4.065"	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LS9	12623969	4.065"	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LS7	19213580	4.125"	Yes	Yes	Yes	Yes	Yes	Yes	Yes
C5R	12480030	4.120"–4.160"	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LSX Std. Deck[1]	19417351	3.890"	*	*	*	*	*	*	*
LSX Tall Deck[1]	19417354	3.890"–4.200"	*	*	*	*	*	*	*
LSX376	19417352	4.085"	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LSX454	19260099	4.185"	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*No=not compatible Yes=direct compatibility *4.00" minimum bore*

[1]LSX Semi-Finished - needs finish bore/hone and deck height machined

BUILDERS TIP

Ensuring Windage Tray Clearance on LS Engines

When building a custom LS engine combination, care must be taken to make sure the connecting rods don't interfere with the windage tray. To do that, set the windage tray over the installed rotating assembly carefully and rotate the crankshaft. If any of the connecting rods touch the tray, you'll have to use a specially designed windage tray for longer-stroke cranks.

C *LS7 Rockers*

D *LSX-SC Rocker Mounting Stand Pads*

HEAD-TO-BLOCK COMPATIBILITY

Because of their comparatively small bores—3.89 inches—LS1 and LS6 engines can only use LS1, LS6 and LS2 heads. Using heads designed for larger engines will cause valve-to-block interference. The larger 4.00-inch bore of the LS2 enables it to use LS1/LS6 heads as well as L92-style heads (including LS3, LS9 and LSA engines). The 6.2L engines (LS3, L92, etc.) can use any head, except for the LS7 and C5R, while the 7.0L LS7 and C5R blocks can use any LS-series head. LS7 blocks should be matched with heads designed for at least 4.10-inch bores; 4.125-inch bores are preferred.

Most LS production cylinder blocks share the same cylinder head bolt pattern and the same size head bolts—four 11mm bolts per cylinder (20 in total) and five upper 8mm bolts. Early LS1 and LS6 engines used different-length 11mm bolts, but engines from 2004 and later use same-length bolts. LS9 engines use stronger 12mm head bolts.

Non-production blocks, such as Chevrolet Performance's LSX block and the C5R, offer the same head-bolt pattern as production blocks. All LS heads will bolt up to them, but care must be taken to select the most compatible heads based on the appropriate bore size. Because of their large bores, heads designed for at least 4.10-inch bores should be used and 4.125-inch bores are preferred, such as the L92/LS3 or LS7 heads.

Chevrolet Performance's LSX cylinder heads use ten 11mm and thirteen 8mm head bolts, or eight more than a regular-production LS head. That's more than 50 percent more head bolts than production heads, supplying superior clamping strength.

All cylinder heads used with the LSX tall-deck block require the appropriate intake manifold designed for tall-deck applications because the higher deck of the block widens the dimension between the heads' manifold-mounting positions.

The LS/LT Engine Family Tree continued on next page

LS Compatibility—Heads vs. Blocks (continued)

BLOCKS			HEADS						
Engine	Part Number	Bore Size	19354245 LSX-L92	19354243 LSX-LS3	19354244 LSX-LS9	12578450 Std CNC LS7	19354239 LSX-LS7	19330896 LSX-CT	19330894 LSX-DR
LS1/LS6	12561166 (discon.)	3.890"	Yes	No	No	No	No	No	No
LS2/L76	12602691	4.000"	Yes	Yes	Yes	No	No	No	No
L92/LS3	12673475	4.065"	Yes	Yes	Yes	No	No	No	No
LSA	12623968	4.065"	Yes	Yes	Yes	No	No	No	No
LS9	12621983	4.065"	Yes	Yes	Yes	No	No	No	No
LS7	19213580	4.125"	Yes	Yes	Yes	Yes	Yes	Yes	Yes
C5R	12480030	4.120"–4.160"	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LSX Std. Deck[1]	19417351	3.890"	**	**	**	**	**	**	**
LSX Tall Deck[1]	19417354	3.890"–4.200"	**	**	**	**	**	**	**
LSX376	19417352	4.085"	Yes	Yes	Yes	No	No	No	No
LSX454	19260099	4.185"	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*No=not compatible Yes=direct compatibility *4.00" minimum bore **4.125" minimum bore*

[1]LSX Semi-Finished - needs finish bore/hone and deck height machined

BUILDERS TIP

Priming the LS Engine

If you're used to building classic Small-Block and Big-Block engines, you've probably used an electric drill or similar tool in the distributor hole to drive the oil pump and prime the engine prior to start-up. LS engines don't use distributors, so engine priming must be performed in other ways. First of all, fill the oil pump pickup with oil when assembling the engine. That will ensure a quantity of oil is in the pump when the engine is started for the first time. Also, disconnect either the fuel supply or ignition system when it's time to start the engine and allow the engine to "roll over" for approximately 30 seconds. That allows oil to circulate through the engine without the engine running. Removing spark plugs will allow the engine to prime faster with less load on the bearings. Then reconnect the fuel or ignition and fire up your LS engine!

The LS/LT Engine Family Tree continued

SPECIAL NOTE ABOUT CRANKSHAFT BOLT PATTERNS

Almost all LS-engine crankshafts use a 6-bolt flywheel/flexplate bolt pattern, but the LS9 uses a 9-bolt pattern and the LSA, LT1, LT4 and LSX454 engines use an 8-bolt pattern.

CONNECTING RODS

LS connecting rods are very similar and interchangeable. Most are made of forged powdered metal, while the LS7 and LS9 rods are forged titanium. The LS9 rods feature a unique forging designed for the pressure and power level of forced induction. Rod lengths are similar, too, at 6.098 inches for 5.3L, 5.7L, 6.0L and 6.2L (including LSA) engines. The 4.8L engine uses 6.275-inch rods and the LS7 uses 6.067-inch rods. The LS9 uses 5.990-inch rods. Since 2006, LS rods use bushed small ends. Also, LS6 rod bolts, P/N 11600158, offer a strength-enhancing upgrade to pre-2000 engines.

PISTONS

The LS9 is the only production LS engine with forged aluminum pistons; all the others use hypereutectic (cast) aluminum alloy pistons, varied mostly by diameter to accommodate various bore sizes. LS cast pistons shouldn't be used on applications greater than approximately 550 horsepower. Also, the LS7 piston's inner bracing requires the use of the matching LS7 connecting rod.

GEN V SMALL-BLOCK: ENTER THE "LT" ENGINES

Introduced on the seventh-generation C7 Corvette Stingray and GM's full-size trucks and SUVs for 2014, the Gen V Small-Block ushered in the next era of the historic engine family.

Dubbed EcoTec3 in the new trucks, including a 4.3L V-6, 5.3L V-8 and 6.2L V-8, and carrying historic "LT" designations in the Corvette, the Gen V engine family delivers greater efficiency, performance and durability thanks to a combination of advanced technologies—including direct injection, Active Fuel Management (cylinder deactivation) and camshaft phasing (variable valve timing)—that support an advanced combustion system.

Structurally, the Gen V small-block is similar to the Gen III/IV engines, including a deep-skirt cylinder block. Refinements and new or revised components are used throughout, including a revised cooling system and all-new cylinder heads. The engine is also designed to accommodate an engine-driven high-pressure fuel pump for the direct-injection system.

As builders adapt the LT1 or the supercharged LT4 or LT5 variant to their project cars, it's logical to ask about the differences between the LS family and the new LT engines and whether parts interchangeability is as easy—or even possible—as it was between the Gen III and Gen IV engines.

The short answer is no. Despite significant similarities in the basic architecture, there are a number of key differences between the new LT family and the LS family that prohibit simple interchangeability.

Here's a look at how the LT and LS families differ in those key areas, comparing the LT1 to the LS3. Most of the LT1 features match the features on the supercharged LT4 and the LT5:

NOTE: While structurally similar, almost none of the parts and components from the Gen V are interchangeable with Gen III and Gen IV engines.

CYLINDER BLOCK AND OILING SYSTEM

Like every Small-Block generation before it, the Gen V cylinder block shares a 90-degree cylinder angle and 4.400-inch bore centers. The LT1's bore and stroke dimensions are: 4.06-inches x 3.62-inches—the same as the LS3. Compared to the Gen IV versions, the Gen V's aluminum cylinder block casting is all new but based on the same basic architecture. It was refined and modified to accommodate the mounting of the engine-driven fuel pump and vacuum pump. It also incorporates new engine mount attachments, new knock sensor locations, improved sealing and oil-spray piston cooling.

The oiling system is revised and features a new, dual-pressure-control and variable-displacement vane pump with increased flow capacity. As with the Gen III/Gen IV engines, the oil pump is driven by the crankshaft. Variable displacement enables the pump to efficiently deliver oil flow as demanded.

All Gen V engines feature oil-spray piston cooling, in which oil-spraying jets in the engine block drench the underside of each piston and the surrounding cylinder wall with an extra layer of cooling, friction-reducing oil. All Gen V LT1, LT4 and LT5 engines use the same block as a foundation.

CAMSHAFT DESIGN AND CAMSHAFT PHASING

As with the LS3, the LT1 uses a hydraulic roller-lifter camshaft. It is also located in the same position relative to the crankshaft as the LS3, but importantly the LT1's camshaft features an all-new "trilobe" at the rear to drive the engine-mounted, high-pressure fuel pump for the direct-injection combustion system. There's no such extra lobe on the LS3 camshaft, which negates cam swaps between the engines.

For the record, the LT1 camshaft's specifications lift include: 0.551/0.524-intake/exhaust lift, 200/207 degrees intake/exhaust duration at 0.050 tappet lift and a 116.5-degree lobe separation angle. The LS3's cam specs are: 0.511/0.525-inch lift, 204/211 degrees duration and a 117-degree lobe separation angle.

Camshaft phasing (variable valve timing), which works with Active Fuel Management to enhance fuel economy, optimizes engine performance for given demands and conditions. A vane-type phaser is installed on the front of the camshaft to change its angular orientation relative to the sprocket, thereby adjusting the timing of valve operation on the fly. It is a cam phasing system that adjusts camshaft timing at the same rate for both intake and exhaust valves. The system allows linear delivery of torque, with near-peak levels over a broad rpm range, and high specific output (horsepower per liter of displacement) without sacrificing overall engine response or driveability. It also provides another effective tool for controlling exhaust emissions. The vane phaser is actuated by hydraulic pressure and flow from engine oil and managed by a solenoid that controls oil flow to the phaser.

ROTATING ASSEMBLY AND WINDAGE TRAY

Within the LT1 block is a durable rotating assembly that includes a strong 1538MV forged steel crankshaft and 6.098-inch-long, powder-metal connecting rods, as well as high-strength hypereutectic pistons.

Most LS3 production engines have an admittedly tough nodular iron crankshaft that is known to support high horsepower levels, even under higher boost levels. The crankshafts in C6 Corvette models with the Z51 handling package included a dry-sump oiling system that necessitated a longer crank snout to accommodate the unique oil pump. Those cranks were forged steel.

If you order the production-based Chevrolet Performance LS3 crate engine (P/N 19258770) you'll get the standard oil pump and cast crankshaft.

The LT1's 6.125-inch connecting rod length is the same length as the LS3, but the profile of the rod itself is slightly different to enhance strength.

As for the piston design, the LS3 features conventional flat-top design, while the LT1 has a unique head topography that is essential to the direct injection system. The "bowl" and shape of the top of the piston head is designed to promote thorough mixing of the air and fuel. A dished center section helps direct the fuel spray from the injector, which protrudes into the combustion chamber rather than into the intake manifold on the LS3's conventional port injection design.

The crankshaft in the LT1 Small-Block is located with nodular main bearing caps, which is a significant upgrade over the LS3's conventional gray iron main caps. They're stronger and can better absorb vibrations and other harmonics to help produce smoother, quieter performance. They also maintain the optimal crankcase "windows" that were perfected on the LS3's Gen IV architecture.

A redesigned windage tray is also used with the LT1, which features a unique oil scraper designed to enhance performance and efficiency by improving oil flow control and bay-to-bay crankcase breathing.

CYLINDER HEAD DESIGN

The Gen V's all-new cylinder head design builds on the excellent, racing-proven airflow attributes of previous Small-Block heads. Its all-new direct-injection combustion system supports tremendous airflow at higher rpm for a broad horsepower band, along with strong, low-rpm torque.

Compared to the LS3 cylinder head design, the LT1 head features a smaller 59cc combustion chamber, which is designed to complement the volume of the piston dish. The smaller chamber size and dished pistons work together to produce an 11.5:1 compression ratio vs. the LS3's 10.7:1 compression ratio.

The spark plug angle and depth have been modified with the LT1 head, too, to protrude farther into the chamber, placing the electrode closer to the center of the combustion to support the direct injection system. In addition to the new combustion chamber design, the Gen V head features large, straight and rectangular intake ports that feature a slight twist to enhance mixture motion. This is complemented by a reversal of the intake and exhaust valve positions as compared to the Gen III/IV design. The exhaust port shapes are optimized for the new valve locations, with new port opening locations at the manifold face.

VALVES AND VALVETRAIN

Large, lightweight intake and exhaust valves are used in the LT1 heads, with 2.13-inch hollow intake and 1.59-inch hollow sodium exhaust valves. The lightweight valves enable the engine to rev quickly and capably to greater than 6,000 rpm. LS3 valves measure 2.165 inches intake and 1.59 inches exhaust.

The LT1's valves are held at new 12.5 degrees intake/12 degrees exhaust angles vs. the LS3's 15-degree angle. Additionally, the valves are splayed at 2.61 degrees intake/2.38 degrees exhaust to reduce shrouding and enable greater airflow.

Roller-pivot rocker arms are used in the LT1 and feature a 1.8 ratio vs. the 1.7 ratio of LS3 rockers. The LT1's reversed valve location also eliminates the offset design of the LS3's intake-side rocker arms. Also: the LT1 uses 8.7mm (outside diameter) pushrods, which provide greater stiffness than the LS3's 7.9mm design. That enables improved high-speed valvetrain performance.

DIRECT INJECTION FUEL SYSTEM

Direct injection is featured on all Gen V engines. The technology moves the point where fuel feeds into an engine closer to the point where it ignites, enabling greater combustion efficiency. It fosters a more complete burn of the fuel in the air-fuel mixture, and it operates at a lower temperature than conventional port injection. That allows the mixture to be leaner (less fuel and more air), so less fuel is required to produce the equivalent horsepower of a conventional port injection fuel system.

This represents one of the fundamental differences between the engines. The LT1 features direct injection, with injectors positioned in the cylinder heads, while the LS3 features a conventional port injection system, with injectors located in the intake manifold. That difference alone makes it impossible to simply swap heads and intakes between the LT and LS families.

The pistons play an integral role in the direct injection system, as they feature dished heads designed to direct the fuel spray for a more complete combustion. Design of this advanced combustion system was optimized after thousands of hours of computational analysis, representing one of the most comprehensively engineered combustion systems ever developed by General Motors.

The direct injection system features very high fuel pressure, up to 2,175 psi (15 MPa) on most engines and as high as 2,900 psi (20 MPa) on the supercharged LT4 and LT5 variant, requiring a high-pressure, engine-driven fuel pump in addition to a conventional fuel-tank-mounted pump. On all Gen V engines, the pump is mounted in the "valley" between cylinder heads—beneath the intake manifold. It is driven by the camshaft at the rear of the engine.

LT1-SPECIFIC FEATURES

In addition to the features that compare and contrast with the LS3, the new LT1 has a number of unique components that simply aren't shared with previous LS engines, including:

- PCV-integrated rocker covers designed to reduce oil consumption
- Cylinder deactivation that shuts down four cylinders in certain light-load driving conditions—and featuring unique, "collapsible" valve lifters for the deactivating cylinders
- Four-into-one short-header-type exhaust manifolds similar to the LS7 design, but made of cast iron
- Single-bore 87mm throttle body
- Revamped cooling system with a new offset water pump design
- The use of electric power steering on production models means there's no provision for a conventional power steering pump on the accessory drive system.

In summary, the lineage between the LS3 and the LT1 is clear, but where the LS3 was an evolution of previous LS engines, the LT1 is more of a new species. Therefore, mixing and matching parts between the LT and LS families isn't practical or, in most cases, feasible.

LV3 4.3L

The 4.3L V-6 is the smallest Gen V engine and is based on the V-8 versions, but with two fewer cylinders—a design lineage that dates back to the previous 4.3L V-6, which was itself a Gen II Small-Block with a pair of cylinders removed. The bore and stroke dimensions are 3.92-inch (99.6 mm) bore x 3.62-inch (92 mm) stroke, for a displacement of 262 cubic inches. It is used in the Chevrolet Silverado 1500 and GMC Sierra 1500, where it is rated at 285 horsepower and 305 lb.-ft. of torque.

L83 5.3L

The L83 is the workhorse of GM's full-size trucks and SUVs, including the Chevrolet Silverado 1500, Tahoe and Suburban, as well as the GMC Sierra 1500 and Yukon lineups. It has a smaller bore—3.78 inches (96 mm)—than other Gen V engines, but the same 3.62-inch (92 mm) stroke shared by all of them. It is rated at 355 hp and 383 lb.-ft. of torque.

L86 6.2L

The L86 6.2L is the largest, most powerful Gen 5 engine offered in GM's trucks and SUVs, delivering 420 hp and 460 lb.-ft. of torque. A forged steel crank is unique among the truck engines, along with its larger 4.06 (103.25 mm) bore diameter. This engine is available in the Silverado 1500 and Sierra 1500 and is standard in the GMC Yukon and Cadillac Escalade.

LT1 6.2L

It's the standard engine in the C7 Corvette Stingray and Camaro SS, where it is rated at up to 460 horsepower and 465 lb.-ft. of torque (with the optional exhaust system). It shares the same basic configuration and 4.065 x 3.622 bore/stroke dimensions as the L86, but features other unique components to generate its higher output.

LT4 6.2L SUPERCHARGED

The supercharged LT4 engine is the power behind the C7 Corvette Z06, the Camaro ZL1 and the Cadillac CTS-V, delivering a stunning 650 hp and 650 lb.-ft. of torque. Each component of the rotating assembly, from the crankshaft to the piston rings, is unique to the LT4 and necessary to support the boosted engine's cylinder pressure. The LT4 produces 9.4 psi of intake boost with a 1.7L supercharger.

LT5 6.2L SUPERCHARGED

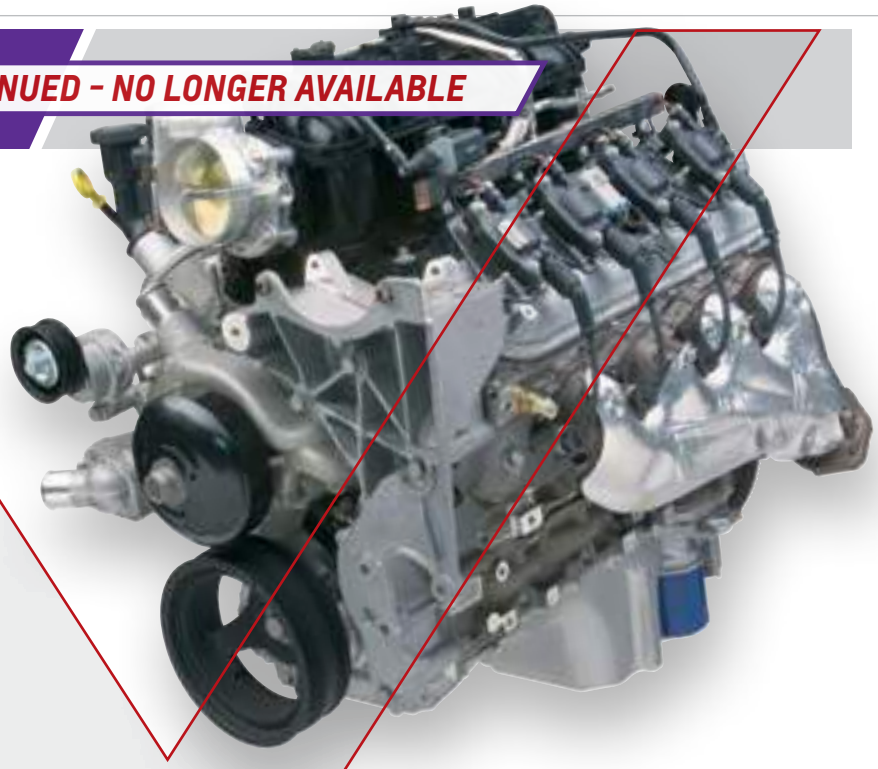
The new, supercharged 6.2L LT5 is the power behind the 2019 Corvette ZR1. The LT5 crate engine delivers 755 horsepower and 715 lb.-ft. of torque. An all-new, 2.65L supercharger (64 percent larger than the LT4's supercharger) pumps out more boost and blows into a robust charge-cooling system with about twice the capacity of the LT4's system. The LT5 also features the largest throttle body (95mm) ever on an LS or LT engine, an electronically controlled bypass for the supercharger, specific heavy-duty main bearings and more. The LT5 produces 14 psi of boost and is 2.5 inches taller then the LT4.

Gen V Small-Block Crate Engines

RPO Code	Displacement (cu/in/Liters)	Compression Ratio	Horsepower	Torque (lb.-ft.)
LV3	262 / 4.3	11.0:1	285 @ 5,300 rpm	305 @ 3,900 rpm
L83	325 / 5.3	11.0:1	355 @ 5,600 rpm	383 @ 4,100 rpm
L86	376 / 6.2	11.5:1	420 @ 5,600 rpm	460 @ 4,100 rpm
LT1	376 / 6.2	11.5:1	460 @ 6,000 rpm	465 @ 4,600 rpm
LT4	376 / 6.2	10.0:1	650 @ 6,400 rpm	650 @ 3,600 rpm
LT5	376 / 6.2	10.0:1	755 @ 6,400 rpm	715 @ 3,600 rpm

L96

DISCONTINUED - NO LONGER AVAILABLE

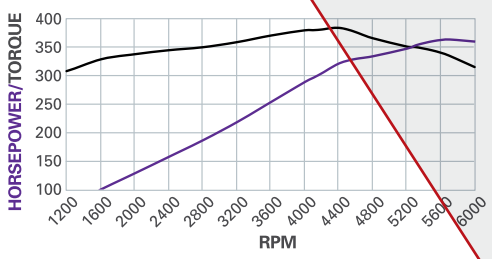


~~19416591~~

360 hp @ 5,400 rpm

380 lb.-ft. @ 4,200 rpm

DYNO CHART



***NOTE:** Refer to page 12 for the complete horsepower and torque testing procedures.*

Strong LS Power for Trucks

With more horsepower than classic Big-Block and strong torque, the L96 offers all the grunt with all the modern advantages of an LS engine. It's the best of both worlds!

Chevrolet Performance's inclusive crate engine kit includes the engine assembly with a production intake manifold, throttle body assembly, ignition coils, water pump, balancer and more. You'll need to add a front-end accessory drive system and an engine controller, but we've got that covered, too.

Use accessory drive kit P/N 19369108 for applications without air conditioning and air conditioning add-on kit P/N 10260892 with AC. You'll also want engine controller kit P/N 19418490 to get it all running. See page 109 for more details on the accessory drive kits and page 119 for more information on the controller kit.

Chevrolet Performance's L96 6.0L crate engine is ready to work.

INSTALLATION NOTES

- Assembly does not include any electronics
- Includes electronic throttle body
- Use L96 engine controller P/N 19418490 for engine operation. Includes electronic throttle pedal required for throttle input to the ECU
- Not intended for marine use

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19416591
Engine Type :	Gen IV Small-Block V-8
Displacement (cu in):	364 (6.0L)
Bore x Stroke (in):	4.000 x 3.622 (101.6 x 92mm)
Block (P/N 12609999):	Cast iron with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12588613):	Nodular iron
Connecting Rods (P/N 12649190):	Powdered metal
Pistons (P/N 12589804):	Hypereutectic aluminum (with polymer coating) with floating wrist pins
Camshaft Type (P/N 12626660):	Hydraulic roller
Valve Lift (in):	0.476 intake / 0.476 exhaust
Camshaft Duration (@.050 in):	193° intake / 200° exhaust
Cylinder Heads (P/N 12629062):	Aluminum
Valve Size (in):	2.000 intake / 1.550 exhaust
Compression Ratio:	9.6:1
Rocker Arms (P/N 12669995 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12681275 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Regular unleaded
Maximum Recommended rpm:	6,000
Reluctor Wheel:	58X
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

~~L96 2WD with 4L65-E Automatic~~ DISC.—N/A

~~Engine:~~	~~19416591~~	~~Install Kit:~~	~~19259117~~
~~Engine Controller:~~	~~19418490~~	~~Torque Converter:~~	~~19299802~~
~~Transmission:~~	~~19368611~~	~~Trans. Controller:~~	~~19302405~~

~~L96 4WD with 4L70-E Automatic~~ DISC.—N/A

~~Engine:~~	~~19416591~~ DISC.—N/A	~~Install Kit:~~	~~19259117~~
~~Engine Controller:~~	~~19418490~~	~~Torque Converter:~~	~~19299802~~
~~Transmission:~~	~~19368612~~	~~Trans. Controller:~~	~~19302405~~

~~L96 with 6L80-E Automatic~~ DISC.—N/A

~~Engine:~~	~~19416591~~ DISC.—N/A	~~Install Kit:~~	~~19420358~~
~~Engine Controller:~~	~~19418490~~	~~Torque Converter:~~	~~*included w/ trans.*~~
~~Transmission:~~	~~19366637~~	~~Trans. Controller:~~	~~*included w/ trans.*~~

DISCONTINUED - NO LONGER AVAILABLE

~~L96 with Super Magnum Six-Speed Manual~~ DISC.—N/A

~~Engine:~~	~~19416591~~ DISC.—N/A	~~Transmission:~~	~~19352208~~
~~Engine Controller:~~	~~19418490~~	~~Install Kit:~~	~~19301625~~

TRANSMISSION OPTIONS

19368611

SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L65-E electronically controlled four-speed automatic is rated for up to 430 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. See page 24 for more details.

19366637

SuperMatic™ 6L80-E Six-Speed Automatic

Based on GM's production electronically controlled six-speed automatic transmission, but strategically strengthened for high-performance applications (650 lb.-ft.), the SuperMatic™ 6L80-E is a high-tech complement for LS and LSX combinations. Includes torque converter (2400-2800 stall or 3000-3400 stall). See page 26 for more details.

19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring that's necessary for use with the electronic vehicle speed sensors used with Chevrolet Performance controllers. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19302405
Transmission Controller
page 28

19418490
L96 Controller Kit
page 119

19299802
SuperMatic™ Torque Converter
page 22

19329620
LS/LT Bell Housing
page 29

19301625
Transmission Installation kit
Includes factory-style F-car bell
page 29

19331080
Transmission Installation Kit
Includes Super Magnum steel bell
page 30

Parts intended for competition use only. *See page 2 for details.*

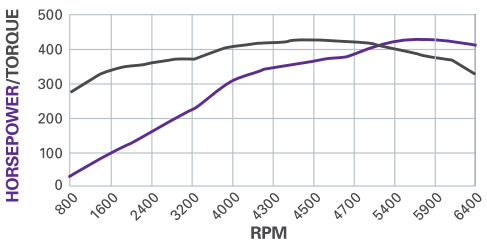
LS3

19419862

430 hp @ 5,900 rpm

425 lb.-ft. @ 4,600 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

A Contemporary Classic

Destined to go down in history as one of Chevrolet's most versatile performance engines, the 430-hp LS3 6.2L offers a fantastic combination of modern technology.

The LS3 is filled with components designed for high performance and longevity, starting with a sturdy reciprocating assembly that's matched with L92-type rectangular-port heads and a high-lift, hydraulic roller camshaft. It all optimizes the LS3's tremendous airflow and supports a broad torque curve.

Our LS3 crate engine comes complete, from the Camaro F-body oil pan to the ignition system. It also includes the intake manifold assembly with injectors and throttle body, water pump, balancer, 58X reluctor wheel. The Camaro F-body oil pan may not suit all installation applications. Use a vehicle-specific oil pan for original LS-powered vehicles or Chevrolet Performance's Muscle Car Oil Pan Kit P/N 19212593 for older vehicles.

INSTALLATION NOTES

- Assembly does not include any electronics
- Use LS3 Controller Kit P/N 19354328 for engine operation. Kit includes electronic throttle pedal, which is required for throttle input to the ECU (see page 119)
- Includes Camaro F-body oil pan
- Not intended for marine applications
- Front-End Accessory Drive Kits are available in several configurations (see page 108 for application)

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19419862
Engine Type:	LS-Series Gen IV Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.622 (103.25 x 92mm)
Block (P/N 12623967):	Cast aluminum with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12685659):	Nodular iron
Connecting Rods (P/N 12649190):	Powdered metal
Pistons (P/N 19207287):	Hypereutectic aluminum
Camshaft Type (P/N 12623063):	Hydraulic roller
Valve Lift (in):	.551 intake / .522 exhaust
Camshaft Duration (@.050 in):	204° intake / 211° exhaust
Cylinder Heads (P/N 12629063):	Aluminum L92-style port; as cast with 68cc chambers
Valve Size (in):	2.165 intake / 1.590 exhaust
Compression Ratio:	10.7:1
Rocker Arms (P/N 12669995 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12681275 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,600
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

NEW!

19420382 NEW

LS3 Long Block

LS long-blocks from Chevrolet Performance offer the core capabilities of complete crate engines at a lower cost, allowing builders to finish the assembly their way. The LS3 long block is delivered without the intake manifold, coil packs, water pump, exhaust manifolds or other accessories.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

LS3 E-ROD configuration shown

LS3 Automatic Connect & Cruise Systems

Connect & Cruise System	Engine	Engine Controller	Transmission	Installation Kit	Torque Converter	Trans. Controller
LS3 6.2L 2WD with 4L65-E	19419862	19354328	19368611	19259117	19299802	19302405
LS3 6.2L E-ROD with 4L65-E	19421057	*included with E-ROD kit*	19368611	19420473	19299802	19302405
LS3 6.2L 2WD with 4L70-E	19419862	19354328	19368613	19259117	19299802	19302405
LS3 6.2L 4WD with 4L70-E	19419862	19354328	19368612	19259117	19299802	19302405
LS3 6.2L 2WD E-ROD 4L70-E	19421057	*included with E-ROD kit*	19368613	19259117	19299802	19302405
LS3 6.2L with 6L80-E	19419862	19354328	19366637	19420358	*included with trans.*	*included with trans.*
LS3 6.2L E-ROD with 6L80-E	19421057	*included with E-ROD kit*	19366637	19420358	*included with trans.*	*included with trans.*

LS3 Manual Connect & Cruise Systems

Connect & Cruise System	Engine	Engine Controller	Transmission	Installation Kit
LS3 6.2L with Super Magnum 6-Speed	19419862	19354328	19352208	19301625
LS3 6.2L E-ROD with Super Magnum 6-Speed	19421057	*included with E-ROD kit*	19352208	19301625

E-ROD LS3 6.2L SYSTEMS

19370414 *w/40-Tooth Reluctor Wheel Transmission*

19370415 *w/17-Tooth Reluctor Wheel Transmission*

CARB EO#: D-126-32

With a strong 430 horsepower, the LS3 E-Rod crate engine system has a CARB executive order enabling 50-state emissions-legal performance. The kit includes emissions equipment such as converters and an evap canister, as well as the engine controller and harness. Pair with the SuperMatic™ 4L65-E transmission for a great, street-legal combination. See page 80 for more details.

TRANSMISSION OPTIONS

19368611
SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured) *page 24*

19366637
SuperMatic™ 6L80-E Six-Speed Automatic *page 26*

19352208
Super Magnum Six-Speed Manual *page 29*

ENGINE-RELATED PARTS & ACCESSORIES

19299802
SuperMatic™ Torque Converter
page 22

19302405
Transmission Controller
page 28

19329620
LS/LT Bell Housing
page 29

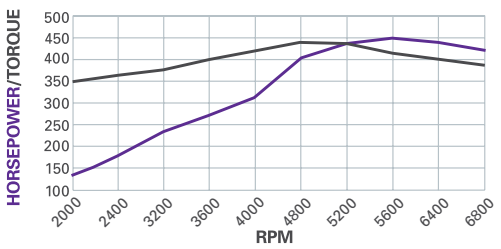
LS364/450

19370163

452 hp @5,600rpm

441 lb.-ft. @ 4,800 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

The Budget Performer of the LS Family!

Chevrolet Performance engineers have developed the LS364/450 6.0L as a value-driven foundation for builders and enthusiasts looking to give their earlier LS-powered vehicles a high-performance shot in the arm.

Starting with a strong, economical iron cylinder block and durable rotating assembly, it features the high-lift LS6 camshaft and deep-breathing LS3 aluminum cylinder heads. It's a strong combination that provides exceptional horsepower and a broad torque band. It is also fuel injection-capable, using production-based components offered in this catalog. Additionally, the LS364/450 is designed with the early-style 24X crankshaft and 1X camshaft sensors, enabling easy retro-fit installation in early LS-powered vehicles.

We offer the LS364/450 exclusively as a long-block assembly, without the induction system, ignition system or front-end accessory drive system, allowing builders to transfer components from their early LS-powered vehicle or complete a custom build with the components of their choice. An intake manifold that matches the LS3/L92-style rectangular intake ports is required.

INSTALLATION NOTES

- Assembly does not include any electronics
- Engine is compatible with a vehicle's existing Gen III controller, but tuning is required
- Includes LQ9 oil pan
- Requires intake manifold matched to LS3- or L92-style rectangular intake ports
- LS3 or L96 production intake manifolds can be used, but require an aftermarket adapter plate for use with early LS three-bolt throttle bodies
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19370163
Engine Type:	Performance LQ9 long block
Displacement (cu in):	364 cu in (6.0L)
Bore x Stroke (in):	4.000 x 3.622 in (101.6 x 92 mm)
Block:	Cast iron with 6-bolt block, cross-bolted main caps
Crankshaft:	Nodular iron
Connecting Rods:	Powdered metal
Pistons:	Hypereutectic aluminum
Camshaft Type (P/N 12565308):	LS6 hydraulic roller
Valve Lift (in):	0.550 intake / 0.550 exhaust
Camshaft Duration (@.050 in):	204° intake / 218° exhaust
Cylinder Heads:	LS3 rectangular port; aluminum, as-cast with 68cc chambers
Valve Size (in):	2.165 intake (hollow stem) 1.590 exhaust (solid stem)
Compression Ratio:	10.3:1 (nominal)
Rocker Arms:	Investment cast, roller bearing trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,800
Reluctor Wheel:	24X
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

TRANSMISSION OPTIONS

19368613
SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L70-E electronically controlled four-speed automatic is rated for up to 495 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more, including a unique valve body calibration. Does not include converter. See page 24 for more details.

19352208
Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring that's necessary for use with the electronic vehicle speed sensors used with Chevrolet Performance controllers. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

12674428
LS3 Intake Manifold Assembly
page 113

19301246
Air Inlet Kit for LS-Based Crate Engine Installation
page 113

19212593
Muscle Car Oil Pan Kit
page 112

19299802
SuperMatic™ Torque Converter
page 22

19302410
Transmission Controller
page 28

19329620
LS/LT Bell Housing Kit
page 29

19301625
Transmission Installation kit
Includes factory-style F-car bell
page 29

19331080
Transmission Installation Kit
Includes Super Magnum steel bell
page 30

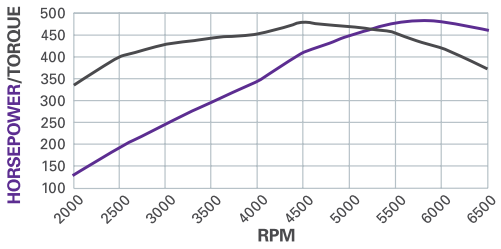
LS376/480

19419864

495 hp @ 6,200 rpm

473 lb.-ft. @ 5,000 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

The Hot Cam Adds Heat to the LS3

When our engineers took a production LS3 6.2L (376 cubic inches) engine and swapped the stock camshaft for the racing-inspired LS Hot Cam (P/N 88958753), the result was a stunning 495 horsepower and 473 lb.-ft. of torque. That's nearly 14 percent more power and torque from just a camshaft change!

We wasted no time in adding that terrific combination—dubbed LS376/480—to our crate engine portfolio. The key to the power boost is the Hot Cam's 0.525-in lift on both the intake and exhaust sides, along with 219-degree/228-degree duration specs. That's less lift on the intake side than the stock LS3 cam, but considerably more duration, allowing the valves to stay open a little longer to draw in more air from the rectangular-port L92-style heads.

The crate engine package includes the intake manifold, throttle body and fuel rails, along with the ignition system. Use it with the LS376/480 controller kit P/N 19354330.

INSTALLATION NOTES

- Assembly does not include any electronics
- Use LS376/480 Controller Kit P/N 19354330 for engine operation. Kit includes electronic throttle pedal, which is required for throttle input to the ECU (see page 119)
- Includes Camaro F-body wet sump oil pan
- Not intended for marine applications
- Front-End Accessory Drive Kits are available in two configurations (see page 108 for application)

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19419864
Engine Type:	LS-Series Gen IV Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.622 (103.25 x 92mm)
Block (P/N 12623967):	Cast aluminum with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12685659):	Nodular iron
Connecting Rods (P/N 12649190):	Powdered metal
Pistons (P/N 19207287):	Hypereutectic aluminum
Camshaft Type (P/N 88958753):	Hydraulic roller
Valve Lift (in):	.525 intake / .525 exhaust
Camshaft Duration (@.050 in):	219° intake / 228° exhaust
Cylinder Heads (P/N 12629063):	Aluminum L92-style port; as cast with 68cc chambers
Valve Size (in):	2.165 intake/ 1.590 exhaust
Compression Ratio:	10.7:1
Rocker Arms (P/N 12669995 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12681275 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,600
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

NEW!

19420384 NEW

LS376/480 Long Block

LS long-blocks from Chevrolet Performance offer the core capabilities of complete crate engines at a low cost, allowing builders to finish the assembly their way. The LS376/480 long block is delivered without the intake manifold, coil packs, water pump, exhaust manifolds or other accessories.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

LS376/480 with 4L70-E Automatic Transmission

Engine:	19419864	Install Kit:	19259117
Engine Controller:	19354330	Torque Converter:	19299803
Transmission:	19368613	Trans. Controller:	19302405

LS376/480 with 6L80-E Automatic Transmission

Engine:	19419864	Install Kit:	19420358
Engine Controller:	19354330	Torque Converter:	*included w/ Trans.*
Transmission:	19417102	Trans. Controller::	*included w/ Trans.*

LS376/480 with Super Magnum Six-Speed Manual

Engine:	19419864	Transmission:	19352208
Engine Controller:	19354330	Install Kit:	19301625

TRANSMISSION OPTIONS

19368611
SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured)
page 24

19366637 or 19417102
SuperMatic™ 6L80-E Six-Speed Automatic
page 26

19352208
Super Magnum Six-Speed Manual
page 29

ENGINE-RELATED PARTS & ACCESSORIES

19354330
LS376/480 Controller Kit
page 119

19302405
Transmission Controller
page 28

19212593
Muscle Car Oil Pan Kit
page 112

19299803
SuperMatic™ Torque Converter
page 22

19418440
Corvette Accessory Drive Kit
page 111

19301246
Air Inlet Kit for LS-Based Crate Engine Installation
page 113

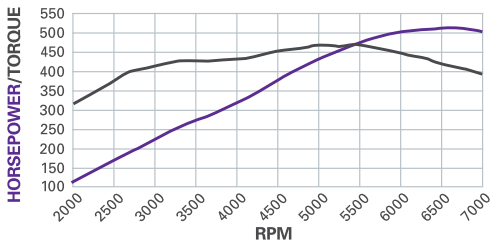
LS376/515

19419868

533 hp @ 6,600 rpm

477 lb.-ft. @ 5,200 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Big LS Power Designed for Carburetors

With the proven LS3 engine as its foundation, the LS376/515 crate engine matches the racing-derived ASA Hot Cam and a carbureted induction system to produce 533 horsepower at a stellar 6,600 rpm and 477 lb.-ft. of torque at 5,200 rpm.

The assembly includes an SS oil pan and LS3 cylinder heads, with high-flow, rectangular-port intake passages, as well as our unique, spider-type carburetor intake manifold. At the heart of the engine is the ASA Hot Cam, which extends the performance range of the LS3 with more duration. That means it holds open the valves longer, enabling greater airflow at higher rpm.

You'll need our LSX controller P/N 19355418 and Holley 770-cfm carburetor P/N 19170093 to complete the engine and get it running. And if you're installing it in an older vehicle, use our Muscle Car Oil Pan Kit P/N 19212593.

INSTALLATION NOTES

- Assembly does not include any electronics
- Use LS/LSX Ignition Controller P/N 19355418 (includes harness) (see page 117)
- Includes Camaro F-body wet sump oil pan
- Not intended for marine applications
- Holley 770-cfm Carburetor P/N 19170093 recommended
- Front-End Accessory Drive Kits are available in two configurations (see page 108 for application)

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19419868
Engine Type:	LS-Series Gen IV Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.622 (103.25 x 92mm)
Block (P/N 12623967):	Cast aluminum with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12685659):	Nodular iron
Connecting Rods (P/N 12649190):	Powdered metal
Pistons (P/N 19207287):	Hypereutectic aluminum
Camshaft Type (P/N 88958770):	Hydraulic roller
Valve Lift (in):	.525 intake / .525 exhaust
Camshaft Duration (@.050 in):	226° intake / 236° exhaust
Cylinder Heads (P/N 12629063):	Aluminum L92-style port; as cast with 68cc chambers
Valve Size (in):	2.165 intake / 1.590 exhaust
Compression Ratio:	10.7:1
Rocker Arms (P/N 12669995 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12681275 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,600
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

NEW!

10420386 NEW

LS376/525 Long Block

LS long-blocks from Chevrolet Performance offer the core capabilities of complete crate engines at a low cost, allowing builders to finish the assembly their way. The LS376/525 long block is delivered without the intake manifold, coil packs, water pump, exhaust manifolds or other accessories.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

LS376/515 with 4L70-E Automatic Transmission

Engine:	19419868	Torque Converter:	19299803
Transmission:	19368613	Trans. Controller:	19332775
Install Kit:	19259117		

LS376/515 with Super Magnum Six-Speed Manual

Engine:	19419868	Install Kit:	19301625
Transmission:	19352208		

TRANSMISSION OPTIONS

19368613
SuperMatic™ 4L70-E Four-Speed Automatic
(remanufactured)

Based on the 4L60-E, the 4L70-E electronically controlled four-speed automatic is rated for up to 495 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. See page 24 for more details.

19352208
Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19332775
Transmission Controller
page 28

19355418
LS/LSX Ignition Controller
page 117

19212593
Muscle Car Oil Pan Kit
page 112

19299803
SuperMatic™ Torque Converter
page 22

19418440
Corvette Accessory Drive Kit
page 111

19170093
Carburetor – Holley 770-cfm
page 92

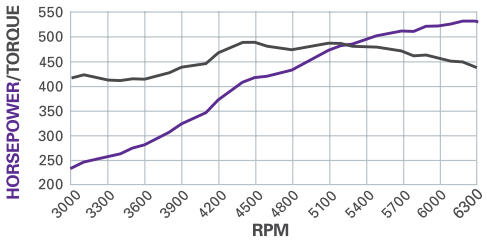
LS376/525

19419866

525 hp @ 6,200 rpm

486 lb.-ft. @ 5,200 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

A Bigger Cam For Great Performance!

Chevrolet Performance's LS376/525 is our most powerful naturally aspirated 6.2L crate engine. It's based on the LS3, but adds our aggressive ASA camshaft to expand the performance range, particularly at high rpm, resulting in 525 horsepower and 486 lb.-ft. of torque.

The ASA camshaft is a hydraulic roller with .525-inch lift on both sides, along with 226 degrees duration on the intake side and 236 degrees on the exhaust side. Coupled with a tight 110-degree lobe separation angle, it helps the engine deliver excellent throttle response and breath exceptionally well at high rpm. And for durability, we complement the cam with higher-rate valve springs.

You'll need tuning to make the most of the engine in a late-model GM vehicle. If you plan to use the LS376/525 in a vintage car, you'll need the controller kit P/N 19354332, which includes the throttle pedal to match its electronically controlled throttle body. Use our Muscle Car Oil Pan Kit P/N 19212593 for installation in older vehicles.

INSTALLATION NOTES

- Assembly does not include any electronics
- Use LS376/525 Engine Controller Kit for engine operation, P/N 19354332 (see page 119)
- Includes Camaro F-body wet sump oil pan
- Not intended for marine applications
- Front-End Accessory Drive Kits are available in several configurations (see page 108 for application)

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19419866
Engine Type:	LS-Series Gen IV Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.622 (103.25 x 92mm)
Block (P/N 12623967):	Cast aluminum with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12685659):	Nodular iron
Connecting Rods (P/N 12607475):	Powdered metal
Pistons (P/N 19207287):	Hypereutectic aluminum
Camshaft Type (P/N 88958770):	Hydraulic roller
Valve Lift (in):	.525 intake / .525 exhaust
Camshaft Duration (@.050 in):	226° intake / 236° exhaust
Cylinder Heads (P/N 12629063):	Aluminum L92-style port; as cast with 68cc chambers
Valve Size (in):	2.165 intake / 1.590 exhaust
Compression Ratio:	10.7:1
Rocker Arms (P/N 12669995 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12681275 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,600
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

NEW!

10420386 NEW

LS376/525 Long Block

LS long-blocks from Chevrolet Performance offer the core capabilities of complete crate engines at a low cost, allowing builders to finish the assembly their way. The LS376/525 long block is delivered without the intake manifold, coil packs, water pump, exhaust manifolds or other accessories.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

LS376/525 with 4L70-E Automatic Transmission

Engine:	19419866	Install Kit:	19259117
Engine Controller:	19354332	Torque Converter:	19299803
Transmission:	19368613	Trans. Controller:	19302405

LS376/525 with 4L75-E Automatic Transmission

Engine:	19419866	Install Kit:	19259117
Engine Controller:	19354332	Torque Converter:	19299803
Transmission:	19368615	Trans. Controller:	19302405

LS376/525 with 6L80-E Automatic Transmission

Engine:	19419866	Install Kit:	19420358
Engine Controller:	19354332	Torque Converter:	*included w/ Trans.*
Transmission:	19417102	Trans. Controller:	*included w/ Trans.*

LS376/525 with Super Magnum Six-Speed Manual

Engine:	19419866	Transmission:	19352208
Engine Controller:	19354332	Install Kit:	19301625

TRANSMISSION OPTIONS

19368613
SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)
page 24

19366637 or 19417102
SuperMatic™ 6L80-E Six-Speed Automatic
page 26

19352208
Super Magnum Six-Speed Manual
page 29

ENGINE-RELATED PARTS & ACCESSORIES

19354332
LS376/525 Controller Kit
page 119

19302405
Transmission Controller
page 28

19212593
Muscle Car Oil Pan Kit
page 112

19299803
SuperMatic™ Torque Converter
page 22

19418440
Corvette Accessory Drive Kit
Page 139

19301246
Air Inlet Kit for LS-Based Crate Engine Installation
page 113

DR525

19370418 *with Muscle Car Oil Pan*

525 hp	494 lb.-ft.
@ 6,200 rpm	@ 4,400 rpm

19329008 *with Gen 4 F-Car Oil Pan (not shown)*

525 hp	498 lb.-ft.
@ 6,200 rpm	@ 4,400 rpm

***NOTE:** Refer to page 12 for the complete horsepower and torque testing procedures.*

Big Power for the Drag Strip!

Chevrolet Performance's DR525 sealed drag racing crate helps enable exciting heads-up racing at a lower cost than custom-built engines. It's an approach Chevrolet Performance implemented in a number of circle track racing series, providing racers with a high-performance engine at a great value.

The DR525 is designed as the spec engine for NMCA's LS Stock racing class in the LSX Showdown Challenge Series. The 6.2L (376 cubic inches) naturally aspirated engine is rated at 525 horsepower and features several tamper-proof bolts to ensure class compliance. And while it is the spec engine for the LS Stock class, the DR525 is legal in other classes and drag racing series.

It is offered with two part numbers: 19370418 (includes Chevrolet Performance's Muscle Car Oil Pan) and 19329008 (includes a Gen 4 F-body oil pan). Chevrolet Performance's custom-calibrated E67-type engine control system—P/N 19354340 (sold separately)—must be used with the DR525 in the LS Stock class. It features a tamper-proof engine control unit.

INSTALLATION NOTES

- Assembly does not include any electronics
- Use DR525 Engine Controller Kit for engine operation, P/N 19354340 (see page 119)
- Not intended for marine applications
- Front-End Accessory Drive Kit, P/N 19329418, not included with engine assembly (see page 110)

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19370418 (w/Muscle Car Oil Pan) 19329008 (w/Gen 4 F-Car Oil Pan)
Engine Type:	LS-Series Gen IV Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.622 (103.25 x 92mm)
Block(P/N 12623967):	Cast aluminum with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12685659):	Nodular iron
Connecting Rods (P/N 12607475):	Powdered metal
Pistons (P/N 19207287):	Hypereutectic aluminum
Camshaft Type (P/N 88958770):	Hydraulic roller
Valve Lift (in):	.525 intake / .525 exhaust
Camshaft Duration (@.050 in):	226° intake / 236° exhaust
Cylinder Heads (P/N 12629063):	Aluminum L92-style port; as cast with 68cc chambers
Valve Size (in):	2.165 intake / 1.590 exhaust
Compression Ratio:	10.7:1
Rocker Arms (P/N 12669995 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12681275 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,600
Reluctor Wheel:	58x
Balanced:	Internal

This Chevrolet Performance Racing Crate Engine is purpose-built for racing only, and has no warranty.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

TRANSMISSION OPTIONS

19368613
SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L70-E electronically controlled four-speed automatic is rated for up to 495 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more, including a unique valve body calibration. Does not include converter. See page 24 for more details.

19352208
Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring that's necessary for use with the electronic vehicle speed sensors used with Chevrolet Performance controllers. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19354340
Controller and Harness
page 119

10465385
LS-Series Starter
page 115

19301246
Air Inlet Kit for LS-Based Crate Engine Installation
page 113

OEM SEALED FOR NMCA COMPETITION

Engines are factory-sealed with tamper resistant seals to maintain engine integrity when used in NMCA drag racing class competition. Seals are engine specific and are designed for single-time use.

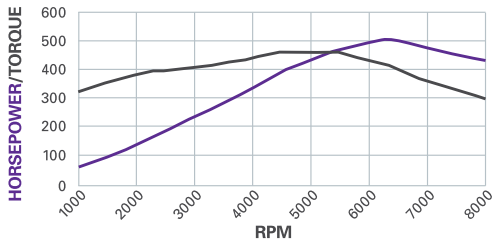
LS7

19329246

505 hp @ 6,300 rpm

470 lb.-ft. @ 4,800 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

NOTE: *LS7 engines use dry-sump oiling system*

The Living Legend

In the annals of high-performance engines, the 505-hp LS7—introduced in the C6 Corvette Z06—will be remembered as a benchmark in naturally aspirated performance. It will also go down as one of the most popular LS crate engines we've ever offered.

Within its classic 427 cubic inches, it features a unique, big-bore cylinder block that is anchored with a forged crankshaft, featherweight titanium connecting rods and friction-coated pistons. But it's the airflow capability of the cavernous, CNC-ported heads that enables the LS7's tremendous power. Large-volume, straight-passage intake runners channel air directly through 2.20-inch titanium intake valves.

Our crate engine kit is hand-built at GM's Performance Build Center in Bowling Green, Kentucky, with globally sourced parts. It is based on the production specs for the Gen 5 Camaro Z/28, including its unique tri-y exhaust manifolds. It also includes a dry-sump oil pan.

INSTALLATION NOTES

- Assembly does not include any electronics
- Use LS7 Controller Kit P/N 19354334 for engine operation. Kit includes electronic throttle pedal, which is required for throttle input to the ECU (see page 119)
- Comes assembled with 14" Camaro Z/28 168-tooth manual transmission flywheel
- LS7 is the same size and mounts the same as other LS-Series engines
- Includes Camaro Z/28 dry sump oil pan—requires production or aftermarket oil lines and oil tank (not included)
- Use oil hose adapters P/N 25534412 to adapt to AN-12 fittings
- Not intended for marine applications
- See page 108 for Front-End Accessory Drive Kit options

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19329246
Engine Type:	LS-Series Small-Block V-8
Displacement (cu in):	427 (7.0L)
Bore x Stroke (in):	4.125 x 4.000 (104.8 x 101.6mm)
Block (P/N 12602689):	Cast aluminum with 6-bolt steel main bearing caps
Crankshaft (P/N 12611649):	Forged steel
Connecting Rods (P/N 12661677):	Forged titanium
Pistons:	Hypereutectic aluminum
Camshaft Type (P/N 12638426):	Hydraulic roller
Valve Lift (in):	.593 intake / .588 exhaust
Camshaft Duration (@.050 in):	211° intake / 230° exhaust
Cylinder Heads (P/N 12578449):	CNC ported LS7-style ports 70cc CNC combustion chambers
Valve Size (in):	2.200 titanium intake, 1.610 sodium-filled exhaust
Compression Ratio:	11.0:1
Rocker Arms:	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.8:1 (offset, intake only)
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	7,000
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

LS7 with 4L70-E Automatic Transmission

Engine:	19329246	Install Kit:	19259117
Engine Controller:	19354334	Torque Converter:	19299802 or 19299803*
Transmission:	19368613	Trans. Controller:	19302405

LS7 with 4L75-E Automatic Transmission

Engine:	19329246	Install Kit:	19259117
Engine Controller:	19354334	Torque Converter:	19299802 or 19299803*
Transmission:	19368615	Trans. Controller:	19302405

LS7 with 6L80-E Automatic Transmission

Engine:	19329246	Install Kit:	19420358
Engine Controller:	19354334	Torque Converter:	*included w/ trans.*
Transmission:	19366637 or 19417102*	Trans. Controller:	*included w/ trans.*

LS7 with Super Magnum Six-Speed Manual

Engine:	19329246	Transmission:	19352208
Engine Controller:	19354334	Install Kit:	19301625

**See Torque Converter Reference Chart, page 23, for stall range requirements*

TRANSMISSION OPTIONS

19368613
SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)
page 24

19366637 or 19417102
SuperMatic™ 6L80-E Six-Speed Automatic
page 26

19352208
Super Magnum Six-Speed Manual
page 29

ENGINE-RELATED PARTS & ACCESSORIES

19354334
LS7 Controller Kit
page 119

19418440
Corvette Accessory Drive Kit
page 111

10465385
LS-Series Starter
page 115

19299803
SuperMatic™ Torque Converter
page 22

25534412
Oil Hose Adapters
page 115

19301246
Air Inlet Kit for LS-Based Crate Engine Installation
page 113

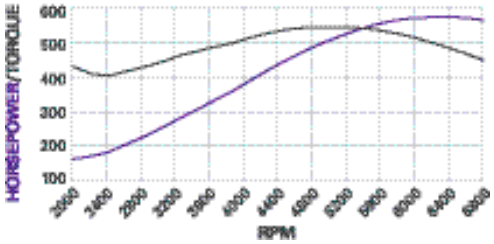
LS427/570 NEW!

19421004

570 hp @ 6,200 rpm

540 lb.-ft. @ 4,800 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

More Power, Wet Sump Oiling for the Race-Bred LS7

Chevrolet Performance's new LS427/570 builds on the track-bred performance of the LS7 engine and enhances it in two important ways: More power and easier installation.

A new, high-lift camshaft developed specifically for this engine helps produce a GM-estimated 570 horsepower and 540 lb.-ft. of torque, while the new wet sump oiling system eliminates the need for the installer to incorporate a separate oil tank, oil lines and other ancillary components to support the production LS7's dry sump system.

Compared to the production LS7 crate engine assembly, the LS427/570 features an F-body aluminum oil pan and a specific wet sump oil pump. Additional engine highlights include the unique camshaft and higher-rate valve springs. Use with the LS427/570 Engine Controller Kit P/N 19420000 (sold separately).

INSTALLATION NOTES

- Assembly does not include any electronics
- Use engine controller P/N 19420000 for wet sump engine
- Uses LS-Family Front Accessory Drive Kit
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19421004
Engine Type:	LS-Series Small-Block V-8
Displacement (cu in):	427 (7.0L)
Bore x Stroke (in):	4.125 x 4.000 (101.6 x 92 mm)
Block (P/N 12602689):	Cast aluminum block with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12611649):	Forged steel
Connecting Rods (P/N 12661677):	Forged titanium
Pistons:	Hypereutectic aluminum
Camshaft Type (P/N 19419859):	Hydraulic roller
Valve Lift (in):	.591 intake/.590 exhaust
Camshaft Duration (@.050 in):	227° intake / 242° exhaust
Camshaft Lobe Separation Angle:	116°
Cylinder Heads:	CNC-ported LS7-style ports with 70cc combustion chambers
Valve Size (in):	2.200 titanium intake, 1.610 sodium-filled exhaust
Compression Ratio:	11.0:1
Rocker Arms:	Investment-cast, roller bearing trunnion
Rocker Arm Ratio:	1.8:1 (offset intake)
Recommended Fuel:	Premium pump
Maximum Recommended RPM:	7,000 rpm
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

LS427/570 with 4L70-E Automatic Transmission

Engine:	19421004	Install Kit:	19259117
Engine Controller:	19354334	Torque Converter:	19299802 or 19299803*
Transmission:	19368613	Trans. Controller:	19302405

LS427/570 with 4L75-E Automatic Transmission

Engine:	19421004	Install Kit:	19259117
Engine Controller:	19420000	Torque Converter:	19299802 or 19299803*
Transmission:	19368615	Trans. Controller:	19302405

LS427/570 with 6L80-E Automatic Transmission

Engine:	19421004	Install Kit:	19420358
Engine Controller:	19420000	Torque Converter:	*included w/ trans.*
Transmission:	19366637 or 19417102*	Trans. Controller:	*included w/ trans.*

LS427/570 with Super Magnum Six-Speed Manual

Engine:	19421004	Transmission:	19352208
Engine Controller:	19420000	Install Kit:	19301625

**See Torque Converter Reference Chart, page 23, for stall range requirements*

TRANSMISSION OPTIONS

19368613
SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)
page 24

19366637 or 19417102
SuperMatic™ 6L80-E Six-Speed Automatic
page 26

19352208
Super Magnum Six-Speed Manual
page 29

ENGINE-RELATED PARTS & ACCESSORIES

19420000
LS427/570 Engine Controller Kit
page 119

19418440
Corvette Accessory Drive Kit
page 111

10465385
LS-Series Starter
page 115

19299803
SuperMatic™ Torque Converter
page 22

25534412
Oil Hose Adapters
page 115

19301246
Air Inlet Kit for LS-Based Crate Engine Installation
page 113

LSA

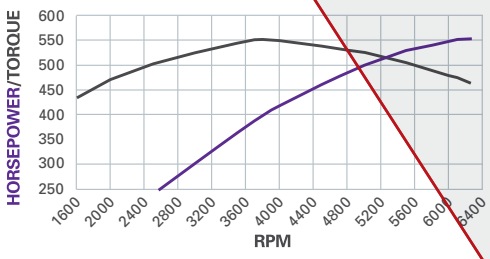
DISCONTINUED – NO LONGER AVAILABLE

~~19370850~~

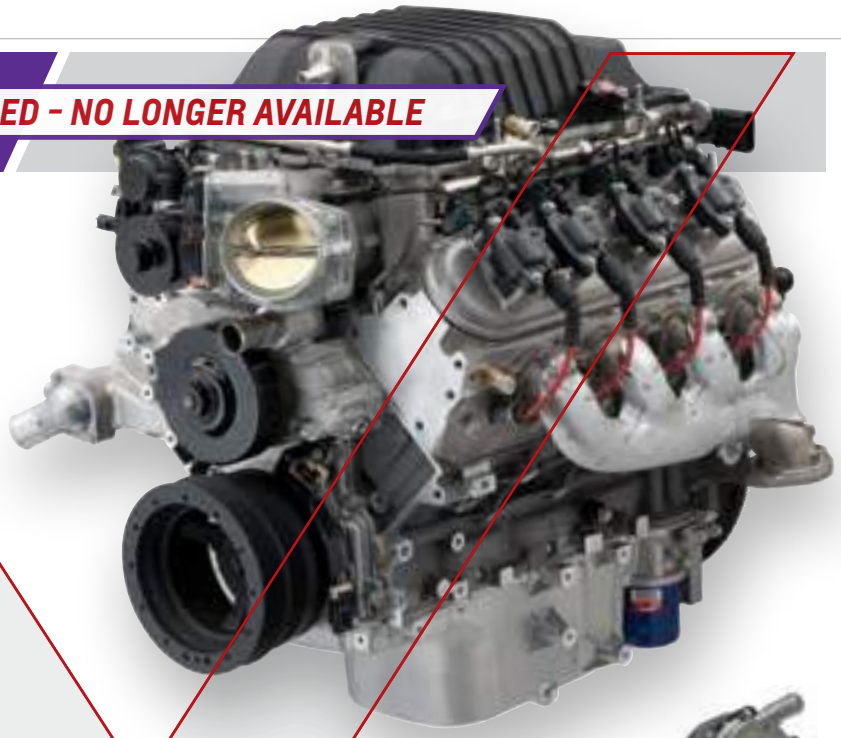
556 hp @ 6,100 rpm

551 lb.-ft. @ 3,800 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*



Includes LSA/LS9 Intercooler Fluid Pump P/N 22901367

Supercharged Performance for Your Project!

Chevrolet Performance's LSA 6.2L crate engine offers the performance thrill that comes only with supercharging. It's no wonder it's one of our most popular crate engine packages!

Our LSA system is based on the production version offered in the fifth-generation Camaro ZL1 and that means 556 horsepower and 551 lb.-ft. of torque. The ZL1-based assembly also has a unique intercooler assembly, with repositioned coolant inlet and outlet ports, which makes installation easier for many retro-fit applications. What didn't change is the heart of the LSA—the 1.9L Eaton TVS supercharger.

This crate engine package comes fully dressed, from the top of the charge-cooled supercharger assembly to the ignition system, water pump, balancer and more. It also includes an 8-bolt crankshaft flange that may require an adapter for use with some transmissions. Use with LSA Controller Kit P/N 19369381.

INSTALLATION NOTES

- Assembly does not include any electronics or accessory drive components
- Use LSA Controller Kit P/N 19369381, available for non-original applications. Kit includes ECM, wiring harness, O_2 sensors and throttle pedal for ETC operation (see page 119)
- Coolant pump included (P/N 22901367)
- 8-bolt crank flange
- Not intended for marine applications
- Includes flexplate
- See page 108 for LSA Accessory Drive System
- Assembled with ZL1 Camaro wet sump oil pan

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19370850
Engine Type:	LS-Series Gen IV Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.622 (103.25 x 92mm)
Block (P/N 12623968):	Cast aluminum with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12603616):	Forged steel with 8-bolt flange
Connecting Rods (P/N 12604857):	Powdered metal
Pistons (P/N 12625119):	Hypereutectic aluminum
Camshaft Type (P/N 12623064):	Hydraulic roller
Valve Lift (in):	.492 intake / .480 exhaust
Camshaft Duration (@.050 in):	198° intake / 216° exhaust
Cylinder Heads (P/N 12626958):	Aluminum L92-style port; as cast with 68cc chambers
Valve Size (in):	2.160 intake / 1.590 exhaust
Compression Ratio:	9.1:1
Rocker Arms (P/N 12669995 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12681275 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,600
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

LSA 6.2L SC Automatic Connect & Cruise Systems

Connect & Cruise System	Engine	Engine Controller	Transmission	Installation Kit	Torque Converter	Trans. Controller
~~LSA 6.2L SC w/4L75-E~~	~~19370850 DISC. N/A~~	~~19369381~~	~~19368615~~	~~19259117~~	~~19299802~~	~~19302405~~
~~LSA 6.2L SC w/4L85-E~~	~~19370850 DISC. N/A~~	~~19369381~~	~~19300175~~	~~19259119~~	~~19299806~~	~~19302410~~
~~LSA 6.2L w/6L80-E~~	~~19370850 DISC. N/A~~	~~19369381~~	~~19366637~~	~~19420358~~	~~*included with trans.*~~	~~*included with trans.*~~
LSA 6.2L SC E-ROD w/4L75-E	19416892	*included with E-ROD kit*	19368615	19329416	19299802	19302405
LSA 6.2L SC E-ROD w/4L85-E	19416892	*included with E-ROD kit*	19300175	19259119	19299806	19302410
LSA 6.2L SC E-ROD w/6L80-E	19416892	*included with E-ROD kit*	19366637	19420358	*included with trans.*	*included with trans.*

LSA 6.2L SC Manual Connect & Cruise Systems

Connect & Cruise System	Engine	Engine Controller	Transmission	Installation Kit
~~LSA 6.2L SC w/ Super Magnum 6-Speed~~	~~19370850 DISC. N/A~~	~~19369381~~	~~19352208~~	~~19329912~~
LSA 6.2L SC E-ROD w/ Super Magnum 6-Speed	19416892	*included with E-ROD kit*	19352208	19329912

E-ROD LSA 6.2L SC SYSTEMS

19416892 *w/40-Tooth Reluctor Wheel Transmission*

CARB EO#: D-126-33

Based on the production Camaro ZL1 engine, the supercharged LSA E-ROD crate engine kit delivers 556 horsepower. It carries a California Air Resources Board number and the kit includes emissions equipment such as converters and an evap canister, as well as the engine controller and harness. Pair with the SuperMatic™ 4L75-E transmission for a great, street-legal combination. See page 80 for more details.

TRANSMISSION OPTIONS

19368615
SuperMatic™ 4L75-E Four-Speed Automatic
(remanufactured)
page 25

19300175
SuperMatic™ 4L85-E Four-Speed Automatic
page 25

19366637
SuperMatic™ 6L80-E Six-Speed Automatic
page 26

19352208
Super Magnum Six-Speed Manual
page 29

ENGINE-RELATED PARTS & ACCESSORIES

19302410
Transmission Controller
page 28

19368946
LSA Accessory Drive System w/o AC
page 108

19212593
Muscle Car Oil Pan Kit
page 112

SMALL-BLOCK

LT-SERIES
CRATE ENGINES

Fifth Generation Small-Block Performance

Chevrolet's LT engine family takes performance technology to the next level, with features such as direct injection and variable valve timing that contribute to strong output—including the 755-horsepower supercharged LT5 engine derived from the C7 Corvette ZR1. It's the most powerful production-car engine ever from Chevrolet. Our LT portfolio also includes the LT1 and supercharged LT4. It's all the latest performance technology from Chevrolet!

Check out the following pages to find the Chevrolet Performance LT-Series Engine that's right for you!

NOTE: *Engine may not come with all the parts shown in photo. See your dealer for more details.*

Engines shown from left: LT1, LT4, LT5

LT1

19329997 *with dry sump (Corvette)*

460 hp	465 lb.-ft.
@ 6,000 rpm	@ 4,600 rpm

19418843 *with wet sump (Camaro)*

for use with Connect and Cruise 8-speed automatic package

455 hp	455 lb.-ft.
@ 6,000 rpm	@ 4,400 rpm

***NOTE:** Refer to page 12 for the complete horsepower and torque testing procedures.*

Fifth Generation Chevrolet Performance

The LT1 6.2L opened the next chapter in the long, historic legacy of the Small-Block engine—and it gives your project vehicle a high-tech heart transplant with a balance of performance and efficiency. Our crate engine is rated at 460 horsepower and 465 lb.-ft. of torque.

The LT1 is architecturally similar to the LS family of Small-Block engines, but with a unique block casting, cylinder head design, oiling system and more. It also combines advanced technologies, including direct injection and continuously variable valve timing. Two versions are offered: Wet sump and dry sump. See page 118 for the recommended controller.

INSTALLATION NOTES

- Engines shipped with high-pressure direct-injection fuel pump installed
- Dry Sump Engine, P/N 19329997, requires production or aftermarket oil lines and external oil tank (not included)
- Dry Sump Engine, P/N 19329997, comes with a Corvette oil pan. Use oil hose adaptors P/N 25534412 to adapt AN-12 fittings
- Assembly does not include any electronics
- Select the right controller kit for your LT1 Engine (see chart on page 119)
- Not intended for marine applications
- Front-End Accessory Drive Kit P/N 19369109 can be ordered separately (see page 110)
- LT1 Hydraulic Power Steering Kit P/N 19417241 for wet sump engines available separately (see page 110)
- For LT1 P/N 19418843 use P/N 19417547 FEAD w/o air and P/N 19369182 A/C add-on kit
- Includes 8-bolt flexplate

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Numbers:	19329997 (dry sump) 19418843 (wet sump C&C)
Engine Type:	Direct Injection spark ignition Gen V Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.622 (103.25 x 92mm)
Block (P/N 12619171):	Cast aluminum with 6-bolt nodular iron main bearing caps
Crankshaft:	Forged steel
Connecting Rods:	Forged powdered metal
Pistons:	Hypereutectic aluminum
Camshaft Type (P/N 12629512):	Billet steel roller
Valve Lift (in):	0.561 intake / 0.531 exhaust
Camshaft Duration (@0.050 in):	242° intake / 244° exhaust
Cylinder Heads (P/N 12678633):	Aluminum, rectangular port D/I
Valve Size (in):	2.130 intake / 1.590 exhaust
Compression Ratio:	11.5:1
Rocker Arms (P/N 12619829 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12619829 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.81:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,600
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

LT1 6.2L Automatic Connect & Cruise Systems

Connect & Cruise System	Engine	Engine Controller	Transmission	Installation Kit	Torque Converter	Transmission Controller
LT1 6.2L Wet Sump with 4L70-E	19418843	19418587	19368614	19329416	19299802	19302405
LT1 6.2L Dry Sump with 4L70-E	19329997	19418585	19368614	19329416	19299802	19302405
LT1 6.2L E-ROD Wet Sump with 4L70-E	19418256	*included with E-ROD kit*	19368614	19329416	19299802	19302405
LT1 6.2L Wet Sump with 8L90-E	19418843	19418589	19419798	19417103	*included with trans.*	*included with trans.*
LT1 6.2L E-ROD Wet Sump with 8L90-E	19417593	*included with E-ROD kit*	19419798	19417103	*included with trans.*	*included with trans.*

LT1 6.2L Manual Connect & Cruise Systems

Connect & Cruise System	Engine	Engine Controller	Transmission	Installation Kit
LT1 6.2L Wet Sump with Super Magnum 6-Speed	19418843	19418587	19352208	19329912
LT1 6.2L Dry Sump with Super Magnum 6-Speed	19329997	19418585	19352208	19329912
LT1 6.2L E-ROD Wet Sump with Super Magnum 6-Speed	19418256	*included with E-ROD kit*	19352208	19329912

E-ROD LT1 6.2L SYSTEMS

19418256 *w/40-Tooth Reluctor Wheel Transmission*

CARB EO#: D-126-46

19417593 *w/17-Tooth Reluctor Wheel Transmission*

CARB EO#: D-126-50

The LT1 6.2L expands the legacy of the Small-Block engine and gives your project vehicle a high-tech heart transplant with direct injection, variable valve timing and more. Our 50-state-legal package is rated at 460 horsepower and 450 lb.-ft. of torque.

TRANSMISSION OPTIONS

19368613

SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)

page 24

19419798

SuperMatic™ 8L90-E Eight-Speed Automatic

page 27

19352208

Super Magnum Six-Speed Manual

page 29

IMPORTANT NOTE: *There has been a running change in the high fuel pressure sensor on LT1 and LT4 production engines. It is critical that the correct engine part number and the correct engine controller be paired to ensure proper operation of the transmission. (See chart below.)*

LT1 Engine Controller/Transmission Compatibility Chart

Engine Description	Engine P/N	Fuel Pressure Sensor	Transmission Type	Controller kit P/N
LT1 Wet Sump	19418843	3 Pin	4-Speed Automatic or 6-Speed Manual	19418587
LT1 Wet Sump	19418843	3 Pin	8-Speed Automatic	19418589

See page 118 for details.

LT4

19416595 *with dry sump*

650 hp	650 lb.-ft.
@ 6,400 rpm	@ 3,600 rpm

19418844 *with wet sump*

for use with Connect and Cruise 8-speed automatic package

650 hp	650 lb.-ft.
@ 6,400 rpm	@ 3,600 rpm

***NOTE:** Refer to page 12 for the complete horsepower and torque testing procedures.*

Includes LSA/LS9 Intercooler Fluid Pump P/N 22901367

Supercharged Power from the C7 Corvette Z06!

As the heart of the Corvette Z06, the supercharged LT4 6.2L SC is the most powerful engine ever offered in a regular-production Chevrolet. It features a compact, efficient 1.7L Eaton R1740 TVS supercharger, which spins at up to 20,000 rpm. That's enough to generate more than 9 pounds of boost and help produce 650 horsepower and 650 lb.-ft. of torque.

The LT4 is based on the same Gen V Small-Block architecture as the LT1 engine, with several unique features designed to support its higher output and the greater cylinder pressures created by forced induction. They include Rotocast A356T6 aluminum cylinder heads, which are stronger and handle heat better than conventional castings, lightweight titanium intake valves and stronger forged aluminum pistons.

INSTALLATION NOTES

- Assembly does not include any electronics
- Select the right controller kit for your LT4 engine (see chart on page 119)
- Dry sump engine requires production or aftermarket oil lines and oil tank (not included)
- Wet sump engine can accomodate P/N 19417242 Hydraulic Power Steering Kit (not included with Accessory Drive System, see page 111)
- Includes 8-bolt flexplate
- Not intended for marine applications
- Crankshaft has 8-bolt flywheel mounting pattern
- Engine includes direct injection and VVT
- Chevrolet Performance control kits do not use the Active Fuel Management components on this crate engine

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19416595 (dry sump) 19418844 (wet sump C&C)
Engine Type:	Gen V Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.622 (103.25 x 92mm)
Block:	Cast aluminum with 6-bolt, cross-bolted main caps
Crankshaft:	Forged steel
Connecting Rods:	Forged powdered-metal steel
Pistons:	Forged aluminum
Camshaft Type:	Hydraulic roller
Valve Lift (in):	.492 intake / .551 exhaust
Camshaft Duration (@.050 in):	189° intake / 223° exhaust
Cylinder Heads:	A356T6 Rotocast aluminum; as cast with 65.5cc chambers
Valve Size (in):	2.130 intake / 1.590 exhaust
Compression Ratio:	10:1
Rocker Arms (P/N 12619829):	Investment-cast, roller bearing trunnion
Rocker Arm Ratio:	1.81:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,600
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

LT4 6.2L SC Automatic Connect & Cruise Systems

Connect & Cruise System	Engine	Engine Controller	Installation Kit	Transmission	Torque Converter	Transmission Controller
LT4 6.2L Dry Sump with 4L75-E	19416595	19419241	19329416 + 19125817*	19368615	19299802	19302405
LT4 6.2L Wet Sump with 4L75-E	19418844	19419241	19329416 + 19125817*	19368615	19299802	19302405
LT4 6.2L E-ROD Wet Sump with 4L75-E	19356048	*included with E-ROD kit*	19329416 + 19125817*	19368615	19299802	19302405
LT4 6.2L Wet Sump with w/8L90-E	19418844	19419242	19417103	19419799	*included with E-ROD kit*	*included with trans.*
LT4 6.2L E-ROD Wet Sump w/8L90-E	19417727	*included with E-ROD kit*	19417103	19419799	*included with E-ROD kit*	*included with trans.*

**Bell Housing Kit*

LT4 6.2L SC Manual Connect & Cruise Systems

Connect & Cruise System	Engine	Engine Controller	Installation Kit	Transmission
LT4 6.2L Wet Sump with Super Magnum 6-Speed	19418844	19419241	19329912	19352208
LT4 6.2L Dry Sump with Super Magnum 6-Speed	19416595	19419241	19339912	19352208
LT4 6.2L E-ROD Wet Sump with Super Magnum 6-Speed	19356048	*included with E-ROD kit*	19329912	19352208

E-ROD LT4 6.2L SC SYSTEMS

19356048 *w/4L and 6-Speed Manual*

CARB EO#: D-126-47

19417727 *w/ 8 speed Automatic*

CARB EO#: D-126-51

The LT4 6.2L is our most powerful, emissions-compliant E-ROD crate engine package, with 650 horsepower and 650 lb.-ft. of torque—all driven by an Eaton TVS supercharger. The E-ROD LT4 6.2L is offered in wet sump and dry sump versions.

TRANSMISSION OPTIONS

19368613

SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)

page 24

19419799

SuperMatic™ 8L90-E Eight-Speed Automatic

page 27

19352208

Super Magnum Six-Speed Manual

page 29

IMPORTANT NOTE: *There has been a running change in the high fuel pressure sensor on LT1 and LT4 production engines. It is critical that the correct engine part number and the correct engine controller be paired to ensure proper operation of the transmission. See chart below.*

LT1 Engine Controller/Transmission Compatibility Chart

Engine Description	Engine P/N	Fuel Pressure Sensor	Transmission Type	Controller kit P/N
LT4 Wet Sump [Camaro ZL-1]	19418844	3 Pin	4-Speed Automatic or 6-Speed Manual	19419241
LT4 Wet Sump [Camaro ZL-1]	19418844	3 Pin	8-Speed Automatic	19419242

See page 118 for details.

LT5

19417105

755 hp @ 6,400 rpm

715 lb.-ft. @ 3,600 rpm

- ***DIRECT FUEL INJECTION***
- ***BIG 2.65L SUPERCHARGER***
- ***ALL FORGED INTERNALS***

NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Supreme Supercharged Performance!

The supercharged 6.2L LT5 represents the pinnacle of Chevrolet's performance. Rated at 755 horsepower, it's the most powerful engine ever offered in a Chevy production vehicle—and it's available for your project vehicle.

A unique, 2.65-liter supercharger (64 percent larger than the LT4's supercharger) pumps out more boost than the LT4 supercharger. It's supported by a unique dual-fuel system that features eight port-style injectors which complement the engine's standard direct injection system. That's a grand total of 16 injectors, with the auxiliary port injectors supporting the direct injection system under heavier fuel loads such as wide-open throttle.

INSTALLATION NOTES

- Assembly does not include any electronics
- Use controller kit P/N 19370666 for manual transmission or controller kit P/N 19418244 for SuperMatic™ 8L90-E automatic transmission. Kits include electronic throttle pedal, which is required for throttle input to the ECU. See page 118 for more details
- Includes production dry sump oil pan. Requires production or aftermarket oil lines and oil tank (not included)
- Not intended for marine applications
- Flywheel included; crankshaft has 8-bolt flywheel mounting pattern. Chevrolet Performance's 8-bolt flexplate for LT engines P/N 19418408 must be used with the SuperMatic™ 8L90-E automatic transmission
- Use Transmission Attachment Kit P/N 19417103 with the SuperMatic™ 8L90-E automatic transmission. See page 27 for more details
- Use Front-End Accessory Drive Kit P/N 19417240 (does not include power steering kit)

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19417105
Engine Type:	Gen V Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (cu in):	4.065 x 3.622 (103.25 x 92 mm)
Block:	Cast aluminum with 6-bolt block, cross-bolted main caps
Crankshaft:	Forged steel
Connecting Rods:	Forged powdered-metal steel
Pistons:	Forged aluminum
Camshaft Type:	Hydraulic roller (with dual-equal phasing)
Valve Lift (in):	0.492 intake / 0.551 exhaust
Camshaft Duration (@ 0.050 in)	189° intake / 223° exhaust
Cylinder Heads:	A356T6 Rotocast aluminum; as cast with 65.5cc chambers
Valve Size (in):	2.130 intake (titanium) / 1.590 exhaust (sodium-filled)
Compression Ratio:	10:1
Rocker Arms:	Investment cast, roller bearing trunnion
Rocker Arm Ratio:	1.8:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,600 rpm
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

LT5 6.2L SC Dry Sump with 8L90-E Transmission

Engine:	19417105 + 19418408*	Install Kit:	19417103
Engine Controller:	19418244	Torque Converter:	*included with trans.*
Transmission:	19419800	Trans. Controller:	*included with trans.*

**8-bolt flexplate, required for 8L90-E installation*

LT5 6.2L SC Dry Sump with Super Magnum Six-Speed Manual

Engine:	19417105	Transmission:	19352208
Engine Controller:	19418270	Install Kit:	19329912

TRANSMISSION OPTIONS

19419800
SuperMatic™ 8L90-E Eight-Speed Automatic

Chevrolet Performance has adapted the production-based 8L90-E eight-speed automatic transmission for use with the LT1, LT4 and LT5 crate engines. See page 27 for specific applications.

19352208
Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19329620
LS/LT Bell Housing Kit
page 29

19418270
LT5 Controller Kit for Manual Transmission
page 119

19418244
LT5 Controller Kit for SuperMatic™ 8L90-E Automatic Transmission
page 119

19329635
Clutch Kit – LS/LT Engines, 8-Bolt Crank
page 30

19417240
LT5 Accessory Drive System
page 111

E-ROD

CRATE ENGINE SYSTEMS

50 STATE STREET LEGAL

EROD

Street-Legal Power from Chevrolet Performance!

With Chevrolet Performance's E-ROD high-performance crate engine systems, you'll build your project with 50-state street-legal power!

E-ROD crate engine systems have been granted official California Air Resources Board (CARB) E.O. numbers, making them street legal for installation in millions of 1995-and-earlier vehicles in all 50 states.

That means you can build the car or truck of your dreams, with the assurance that the engine and supporting components have been granted an official CARB E.O. number.

The E-ROD lineup includes the LS3 6.2L, LSA supercharged 6.2L, LT1 6.2L and LT4 supercharged 6.2L. Each crate engine system includes emissions equipment and more, and each is available as a Connect & Cruise combination that matches it with a complementing transmission, including Chevrolet Performance's latest 6L80-E and 8L90-E automatic transmissions (see pages 26–27).

LS3 6.2L

CARB EO#: D-126-32

LSA 6.2L

CARB EO#: D-126-33

LT1 6.2L

CARB EO#: D-126-46 (4L & 6-Speed Manual)

CARB EO#: D-126-50 (8-Speed)

LT4 6.2L

CARB EO#: D-126-47 (4L & 6-Speed Manual)

CARB EO#: D-126-51 (8-Speed)

E-ROD Systems Have it All

LS3 System Shown

Each E-ROD crate engine system carries an official California Air Resources Board (CARB) E.O. number and includes complete emissions equipment, along with the engine controller and harness needed to get the engine running. The primary elements of each kit include:

- **Chevrolet Performance crate engine**
- **Engine control module**
- **Exhaust manifolds**
- **Catalytic converters**
- **Mass airflow sensor and sensor boss**
- **Oxygen sensors and sensor bosses**
- **Air filter**
- **Accelerator pedal**
- **Evaporative emissions canister**
- **Instruction manual**

E-ROD LS3 6.2L System

- **CARB EO#: D-126-32**
- **Horsepower: 430 @ 5,900 rpm**
- **Torque: 425 lb.-ft. @ 4,600 rpm**

Rated at a strong 430 hp, the original E-ROD crate engine delivers big power that is 50-state street legal for countless pre-1995 cars, trucks and SUVs. Along with great power, its aluminum block and heads and composite intake manifold make it a lightweight performer, too, meaning your project vehicle will likely enjoy weight balance—less weight over the front axle. We recommend the 4L65-E or 6L80-E transmission to match with the E-ROD LS3, which Chevrolet Performance also offers as an inclusive Connect & Cruise E-ROD crate powertrain system.

Part Number	Description
19421057	w/40-Tooth Reluctor Wheel Transmission*
19421058	w/17-Tooth Reluctor Wheel Transmission*

See page 52 for complete engine details.

Also available as a Connect & Cruise Package (see page 32).

E-ROD LSA 6.2L SC System

- **CARB EO#: D-126-33**
- **Horsepower: 556 @ 6,100 rpm**
- **Torque: 551 lb.-ft. @ 3,800 rpm**

The Camaro ZL1 supercharged LSA engine delivers 556 hp with refinement that is rare in the world of high performance. It is smooth, quiet and well-balanced—all while delivering breathtaking power. The engine features a unique aluminum cylinder block casting that houses a forged steel crankshaft and integrated piston-cooling oil jets, along with high-flow cylinder heads that support the airflow enabled by a 1.9L supercharger with four-lobe, high-twist rotors. The E-ROD LSA comes fully dressed, from the top of the charge-cooled supercharger assembly to the ignition system (front accessory drive not included).

Part Number	Description
19416892	w/40-Tooth Reluctor Wheel Transmission*

See page 68 for complete engine details.

Also available as a Connect & Cruise Package (see page 32).

E-ROD LT1 6.2L Wet Sump System

- **CARB EO#: D-126-46** (4L/6-Speed Manual)
- **CARB EO#: D-126-50** (8-Speed)
- **Horsepower: 455 @ 6,000 rpm**
- **Torque: 455 lb.-ft. @ 4,400 rpm**

Chevrolet Performance's LT1 crate engine is architecturally similar to the LS family of Small-Block engines, but with a unique block casting, cylinder head design, oiling system and more. It also combines advanced technologies, including direct injection and continuously variable valve timing, to support an advanced combustion system. It is offered with a wet-sump oiling system and a controller specially designed for retro-fit applications.

Part Number	Description
19418256	w/4L and Super Magnum 6-Speed Manual*
19417593	w/8-Speed Automatic

See page 72 for complete engine details.

Also available as a Connect & Cruise Package (see page 32).

***NOTE:** LT1 Dry Sump E-ROD System is not available.*

E-ROD LT4 6.2L SC Wet Sump System

- **CARB EO#: D-126-47** (4L/6-Speed Manual)
- **CARB EO#: D-126-51** (8-Speed)
- **Horsepower: 650 @ 6,400 rpm**
- **Torque: 650 lb.-ft. @ 3,600 rpm**

The latest addition to the E-ROD family of 50-state street legal engines is the LT4, the supercharged big brother of the direct injected LT1, delivering a smooth 650 horsepower. Original equipment in the Z06 Corvette and the ZL1 Camaro.

Part Number	Description
19356048	w/4L and 6-Speed Manual*
19417727	w/8-Speed Automatic

See page 74 for complete engine details.

Also available as a Connect & Cruise Package (see page 32).

***NOTE:** LT4 Dry Sump E-ROD System is not available.*

**GM automatic transmissions are typically equipped with 40-tooth reluctor wheels for vehicle speed sensor output. GM late-model manual transmissions are typically equipped with a 17-tooth reluctor wheel. The Chevrolet Performance Super Magnum Six-Speed Manual (P/N 19352208) is equipped with a 40-tooth reluctor wheel.*

BUILDER'S NOTE

To facilitate a complete E-ROD installation, the builder will need to source additional components to complete the assembly and get the vehicle running, including:

- Fuel tank
- Fuel lines (returnless)
- Fuel pump—58 psi (400 kPa) for LS3 or 65 psi (450 kPa) for LSA, LT1 and LT4
- Fuel tank vent line from the tank to the evaporative emissions canister
- Purge line from the canister to the engine purge solenoid
- Air induction system that incorporates the mass airflow sensor
- Exhaust system behind the catalytic converters

All E-ROD engines require a front-end accessory drive system suitable to the vehicle. The instruction manual included with each kit offers recommendations for the accessory drive kit, as well as the transmission, gear ratios and more. Chevrolet offers several configurations of accessory drive systems to suit different applications, and each allows the installer to easily delete air conditioning. See pages 108–111 for applications and part numbers.

Chevrolet Performance recommends the LS1 Engine Installation Guide P/N 88959384, which illustrates basic procedures and offers helpful tips on installing an LS engine into older vehicles.

E-ROD systems do not come with a transmission. Chevrolet Performance recommends the following four-speed, six-speed and eight-speed transmissions and transmission controllers. The six- and eight-speed transmission kits include a torque converter and transmission controller. They must be purchased separately with the four-speed transmissions:

Engine	Transmission	Transmission Part Number	Torque Converter	Transmission Controller
LS3	SuperMatic™ 4L65-E	19368611	19899802	19302405
	SuperMatic™ 6L80-E	19366637	included	included
LSA	SuperMatic™ 4L75-E	19368615	19899802	19302410
	SuperMatic™ 4L85-E	19300175	19899806	19302410
	SuperMatic™ 6L80-E	19366637	included	included
LT1	SuperMatic™ 4L70-E	19368614	19899802	19302405
	SuperMatic™ 8L90-E	19419039	included	included
LT4	SuperMatic™ 4L75-E	19368615	19899802	19302405
	SuperMatic™ 8L90-E	19419040	included	included

A six-speed Super Magnum manual transmission is also available for all E-ROD engines.

***NOTE:** In addition to the recommended transmission, torque converter and transmission control kit, an additional adapter or transmission installation kit may be required. See the Transmissions and Components section (page 20) for applications and recommendations.*

SMALL-BLOCK

LSX-SERIES

CRATE ENGINES

LSX – LS Performance with an Iron Block Foundation

When it comes to LSX crate engine performance, Chevrolet Performance starts with our strongest foundation: The LSX Cast Iron Block. Designed to support higher power outputs than our production based aluminum LS cylinder blocks, including with supercharging, turbocharging and nitrous, our LSX-based crate engines are tested and proven on the drag strip. The strong, forged crankshafts and pistons provide the power you need with the strength you can rely on, race after race!

Check out the following pages to find the Chevrolet Performance LSX Engine that's right for you!

NOTE: *LSX376-B8, LSX376-B15 and LSX454 engines do not include intake manifolds, water pumps, or front drive assemblies*

Engines shown from left:
LSX376-B15, LSX376-B8, LSX454

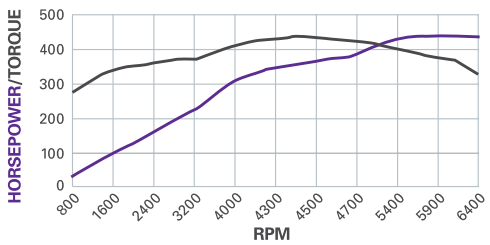
LSX376-B8

19417355

476 hp @ 5,900 rpm

475 lb.-ft. @ 4,700 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Build your Boost on a Budget

Chevrolet Performance takes the economical LSX Bowtie standard-deck block, adds blower-friendly 9.0:1 forged pistons and combines them with the LS3's high-flow, rectangular-port heads to create an affordable foundation for supercharged and turbocharged combinations.

The LSX376-B8 is designed for lower-boost applications, up to about 8 pounds. This engine is delivered without an intake manifold and other accessories, which enables the installer to tailor the induction system to suit the blower or turbo system. Our horsepower and torque ratings are based on testing with the production-style, normally aspirated fuel injection system. Horsepower and torque will vary with a supercharger or turbo system.

If your forced induction system is projected to create more than 8 pounds of boost, Chevrolet Performance recommends the LSX376-B15, P/N 19417356 (see page 86).

INSTALLATION NOTES

- Assembly does not include any electronics
- Not intended for marine applications
- Requires LS/LSX Ignition Controller P/N 19355418 for carbureted applications
- Standard LS 6-bolt crank flange
- Assembly shipped without intake manifold or oil pan (dust shield installed for shipment)
- Recommended max boost—8 psi

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19417355
Engine Type:	LSX-Series Gen IV Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.622 (103.25 x 92 mm)
Block (P/N 19260095):	LSX cast iron with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12685659):	Nodular iron
Connecting Rods (P/N 12649190):	Powdered metal
Pistons (P/N 19244016):	Forged aluminum
Camshaft Type (P/N 12623063):	Hydraulic roller
Valve Lift (in):	.551 intake / .522 exhaust
Camshaft Duration (@.050 in):	204° intake / 211° exhaust
Cylinder Heads (P/N 12629063):	LS3 rectangular port; with "as cast" 68cc chambers
Valve Size (in):	2.160 intake / 1.590 exhaust
Compression Ratio:	9.0:1
Rocker Arms (P/N 12669995 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12681275 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Regular pump
Maximum Recommended rpm:	6,600
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

TRANSMISSION OPTIONS

19300175
SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while unique hardware delivers firmer shifts than production 4L85 transmissions. Does not include converter. Use with electronic controller P/N 19302410 for LS/LSX-based fuel-injected engines. See page 25 for more details.

19352208
Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring that's necessary for use with the electronic vehicle speed sensors used with Chevrolet Performance controllers. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19212593
Muscle Car Oil Pan Kit

page 112

12674428
LS3 Intake Manifold Assembly

page 113

19244035
LSX-LS3 Single-Plane Standard Deck 4-bbl Manifold

page 114

19302410
Transmission Controller

page 28

19301246
Air Inlet Kit for LS-Based Crate Engine Installation

page 113

LSX376 COMPLETION COMPONENTS

Carburetor Fuel System

Intake manifold–single plane (Disc.)	19354469
Intake manifold–dual plane (Disc.)	19354473
Carburetor	19170095
Air cleaner	12342071
Ignition controller	19355418
Ignition coil kit	19367577
Fuel pump	6472657

Electronic Fuel Injection

LS3 intake manifold	12674428
Ignition coil kit	19367577
Engine controller kit (non-supercharged LS3)	19354328
High flow/60PSI (400kPa) fuel pump	*not available from Chevrolet Performance*

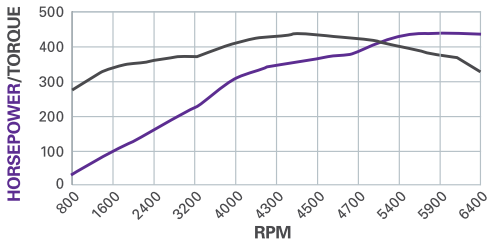
LSX376-B15

19417356

473 hp @ 6,000 rpm

444 lb.-ft. @ 5,000 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Forged Internals Support Higher Boost!

If you want to stretch the performance of a turbocharged or supercharged combination, Chevrolet Performance's LSX376-B15 is the foundation you need! Its durable, all-forged rotating assembly supports up to 15 pounds of boost—and our ratings of 473 horsepower and 444 lb.-ft. of torque are only baseline numbers of what this engine can offer.

The LSX376-B15 includes the 6 bolt high-flow, rectangular-port LSX-LS3 heads. Additionally, we deliver the engine without an intake manifold and other accessories, allowing you to tailor the induction system and other features to suit the forced-induction setup of your choice.

Our horsepower and torque ratings are based on testing with the production-style, normally aspirated fuel injection system. The power you make with a supercharger or turbo will vary.

INSTALLATION NOTES

- Assembly does not include any electronics
- Not intended for marine applications
- Requires LS/LSX Ignition Controller P/N 19355418 for carbureted applications
- LSX 8-bolt crank flange
- Assembly shipped without intake manifold or oil pan (dust shield installed for shipment)
- Recommended max boost—15 psi

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19417356
Engine Type:	LSX-Series Gen IV Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.622 (103.25 x 92 mm)
Block (P/N 19260095):	LSX cast iron with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12603616):	Forged steel
Connecting Rods (P/N 12604857):	Forged powdered metal
Pistons (P/N 19259381):	Forged aluminum
Camshaft Type (P/N 12638426):	Hydraulic roller
Valve Lift (in):	.560 intake / .555 exhaust
Camshaft Duration (@.050 in):	210° intake / 230° exhaust
Cylinder Heads (P/N 19354243):	LSX-LS3 rectangular port; with "as cast" 68cc chambers and 6-bolt attachment
Valve Size (in):	2.160 intake / 1.550 exhaust
Compression Ratio:	9.0:1
Rocker Arms (P/N 12669995 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12681275 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Regular pump
Maximum Recommended rpm:	6,600
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

TRANSMISSION OPTIONS

19300175
SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while unique hardware delivers firmer shifts than production 4L85 transmissions. Does not include converter. Use with electronic controller P/N 19302410 for LS/LSX-based fuel-injected engines. See page 25 for more details.

SuperMatic™ 6L80-E Six-Speed Automatic

19366637 (2400-2800 stall)

19417102 (3000-3400 stall)

Based on GM's production electronically controlled six-speed automatic transmission, but strategically strengthened for high-performance applications (650 lb.-ft.), the SuperMatic™ 6L80-E is a high-tech complement for LS and LSX combinations. Includes torque converter (2400-2800 stall or 3000-3400 stall). See page 26 for more details.

19352208
Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring that's necessary for use with the electronic vehicle speed sensors used with Chevrolet Performance controllers. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19212593
Muscle Car Oil Pan Kit
page 112

12674428
LS3 Intake Manifold Assembly
page 113

19302410
Transmission Controller
page 28

22901367
LSA/LS9 Intercooler Fluid Pump
page 113

19301246
Air Inlet Kit for LS-Based Crate Engine Installation
page 113

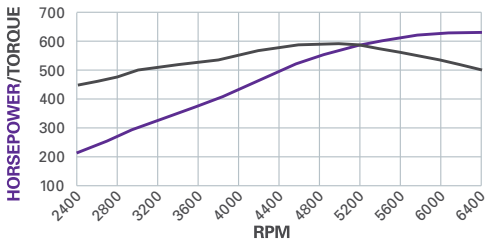
LSX454

19417357

627 hp @ 6,300 rpm

586 lb.-ft.. @ 5,100 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

An LSX with Big-Block Torque!

With the LSX Bowtie block, we've built a 21st century 454 with our latest technology. It's lighter and more compact than an original Big-Block 454—and it delivers the stunning, big-torque output you expect: 586 lb.-ft., along with 627 horsepower. Best of all, it requires no more space under the hood than a production LS engine.

The LSX454 is filled with an all-forged, super-tough rotating assembly and features a pair of our deep-breathing LSX six-bolt cylinder heads. It also comes dressed with great-looking, orange powder-coated valve covers with engraved LSX454 logos.

The LSX454 valve covers do not include provisions for mounting ignition coil brackets. Aftermarket or custom relocation brackets must be obtained. It also includes an 8-bolt crankshaft flange that may require an adapter for use with some transmissions.

INSTALLATION NOTES

- Assembly does not include any electronics
- Requires LS7 pattern intake manifold
- Assembly shipped without an intake manifold (see page 113)
- Requires the purchase and installation of an oil pan (see page 112) (dust shield installed for shipment)
- Not intended for marine applications
- Requires LS/LSX Ignition Controller P/N 19355418 when using a carburetor
- LSX 8-bolt crank flange
- Requires premium fuel

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19417357
Engine Type:	LSX-Series Gen IV Small-Block V-8
Displacement (cu in):	454 (7.4L)
Bore x Stroke (in):	4.185 x 4.125 (106.3 x 104.8 mm)
Block (P/N 19260099):	LSX cast iron with 6-bolt, cross-bolted main caps
Crankshaft (P/N 19244018):	4340 forged steel with 8-bolt flange
Connecting Rods (P/N 19166964):	4340 forged steel
Pistons (P/N 19166958):	Forged aluminum
Camshaft Type (P/N 19166972):	Hydraulic roller
Valve Lift (in):	.648 intake / .648 exhaust
Camshaft Duration (@.050 in):	236° intake / 246° exhaust
Cylinder Heads (P/N 19354239):	Aluminum LSX-LS7 port; with "as cast" 70cc chambers
Valve Size (in):	2.200 titanium intake/1.610 hollow, sodium-filled exhaust
Compression Ratio:	11.0:1
Rocker Arms (P/N 12579615 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12579617 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.8:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	7,100
Reluctor Wheel:	58x
Balanced:	Internal

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

TRANSMISSION OPTIONS

19300175
SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while unique hardware delivers firmer shifts than production 4L85 transmissions. Does not include converter. Use with electronic controller P/N 19302410 for LS/LSX-based fuel-injected engines. See page 25 for more details.

SuperMatic™ 6L80-E Six-Speed Automatic
19366637 (2400-2800 stall)
19417102 (3000-3400 stall)

Based on GM's production electronically controlled six-speed automatic transmission, but strategically strengthened for high-performance applications (650 lb.-ft.), the SuperMatic™ 6L80-E is a high-tech complement for LS and LSX combinations. Includes torque converter (2400-2800 stall or 3000-3400 stall). See page 26 for more details.

19352208
Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring that's necessary for use with the electronic vehicle speed sensors used with Chevrolet Performance controllers. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19302410
Transmission Controller
page 28

LSX454 Engine Controller Kit
19369179 Manual
19354342 Automatic
page 119

19355418
LS/LSX Ignition Controller
page 117

12644568
LS7 Production Intake Manifold Assembly
page 113

19354465
LSX-LS7 Standard Deck 4-bbl Manifold
page 114

19301246
Air Inlet Kit for LS-Based Crate Engine Installation
page 113

LSX454 COMPLETION COMPONENTS

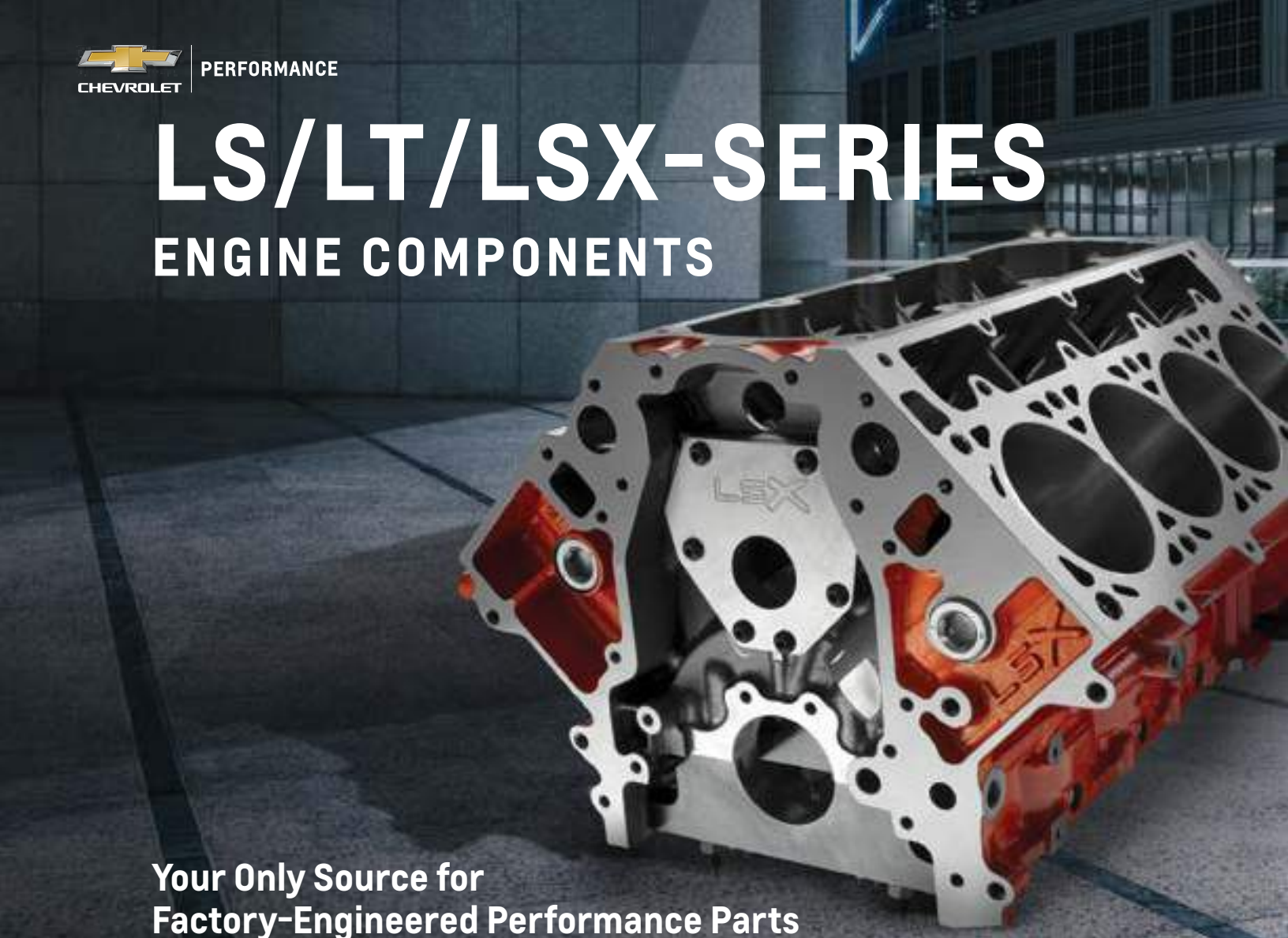
Carburetor Fuel System

Intake manifold–single plane	19354465
Carburetor	19170095
Air cleaner	12342071
Ignition controller	19355418
Ignition coil kit	19367577
Fuel pump	6472657

Electronic Fuel Injection

LS7 intake manifold	12644568
Ignition coil kit	19367577
Engine controller kit	19369179
High flow/60PSI (400kPa) fuel pump	*not available from Chevrolet Performance*

LS/LT/LSX-SERIES
ENGINE COMPONENTS



Your Only Source for Factory-Engineered Performance Parts

With LS and LT engine swaps and performance upgrades more popular than ever, it's important to remember that Chevrolet Performance is your only source of factory-engineered engine parts—from blocks, cylinder heads and rotating components to the fuel, air and spark parts for carbureted and fuel-injected combinations.

And speaking of combinations, our portfolio is one of the most comprehensive in the industry, with more than 20 cylinder head choices, more than a dozen performance camshafts and scores of additional factory-engineered parts that can be combined to build an LS or LT engine like no other.

For those taking performance to the highest levels, Chevrolet Performance's exclusive LSX Series offers the ultimate in track-tested strength, with blocks, six-bolt heads and forged internal parts designed to support power adders such as turbochargers and superchargers. They're the strongest parts we have for building LS power.

No other source offers factory-engineered LS, LT and LSX engine parts for your project—and nobody knows how to build LS/LT performance like Chevrolet Performance!

You can find these Chevrolet Performance LS/LT/LSX Engine Components on the following pages:

LS/LT/LSX-Series Blocks and Components

QUICK REFERENCE CHART

Production Cylinder Blocks

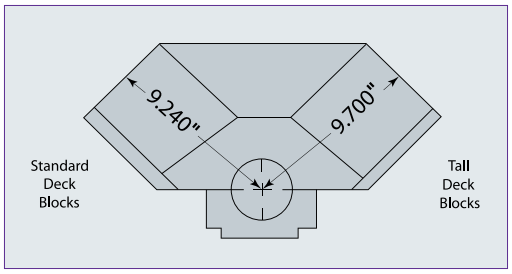
Origin	Part Number	Material	Deck Height	Bore	Main Bolt	Cap Material	Crank Jnl. Dia.	Oiling	Rear Main Seal	Max Stroke	Max HP	Usage	Page Number
LS1/LS6	**12561166**	Alum	9.240"	3.898"	6	Iron	Std. LS (2.56")	Wet/Dry	1 pc	4.00"	450	Street	Disc.
Gen III 6.0L	**12679002**	Iron	9.240"	4.000"	6	Iron	Std. LS (2.56")	Wet/Dry	1 pc	4.00"	450	Street	91
Gen IV 6.0L	**19369841**	Iron	9.240"	4.000"	6	Iron	Std. LS (2.56")	Wet/Dry	1 pc	4.00"	500	Street	91
LS3/L92	**12673475**	Alum	9.240"	4.065"	6	Iron	Std. LS (2.56")	Wet/Dry	1 pc	4.00"	525	Street	92
LSA	**12673476**	Alum	9.240"	4.065"	6	Nodular Iron	Std. LS (2.56")	Wet/Dry	1 pc	4.50"	800	Street/Pro	92
LS9	**12623969**	Alum	9.240"	4.065"	6	1045 Steel	Std. LS (2.56")	Wet/Dry	1 pc	4.50"	900	Street/Pro	92
LS7	**19213580**	Alum	9.240"	4.125"	6	Steel	Std. LS (2.56")	Wet/Dry	1 pc	4.10"	550	Street	92
LT1	**19329617**	Alum	9.240"	4.065"	6	Nodular Iron	Std. LS (2.56")	Wet/Dry	1 pc	4.125"	755	Street	92
Gen V 6.6L	**19420904**	Iron	9.240"	4.065"	6	Nodular Iron	Std. LT (2.56")	Wet/Dry	1 pc	–	–	Street	92

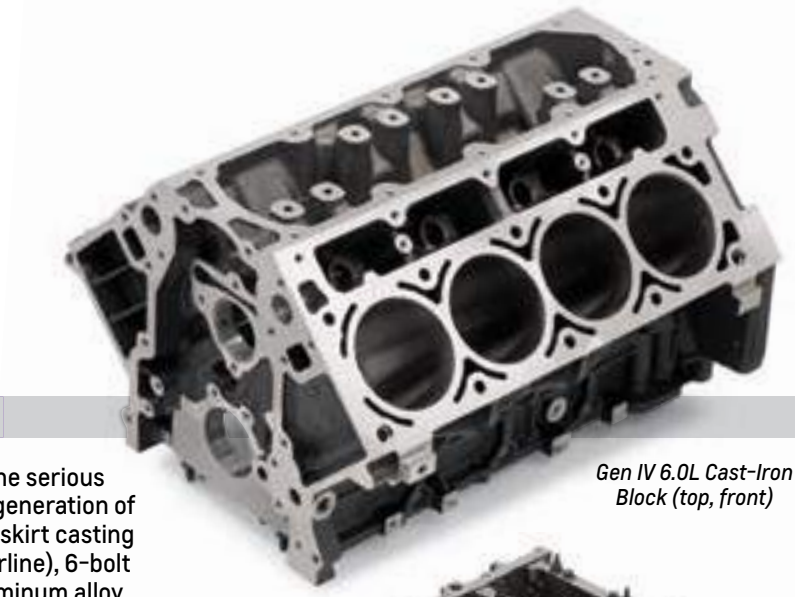
LSX Bowtie Blocks

Origin	Part Number	Material	Deck Height	Bore	Main Bolt	Cap Material	Crank Jnl. Dia.	Oiling	Rear Main Seal	Max Stroke	Max HP	Usage	Page Number
LSX	19417351*	Iron	9.260"	3.880"	6	1045 Steel	Std. LS (2.56")	Wet/Dry	1 pc	4.25"	1500+	Street/Pro	94
LSX	19417354*	Iron	9.720"	3.880"	6	1045 Steel	Std. LS (2.56")	Wet/Dry	1 pc	4.50"	1500+	Street/Pro	94
LSX	19419982*	Iron	9.700"	3.880"	6	1045 Steel	Std. LS (2.56")	Wet/Dry	1 pc	4.50"	1500+	Street/Pro	94
LSX	19417352**	Iron	9.240"	4.065"	6	1045 Steel	Std. LS (2.56")	Wet/Dry	1 pc	4.25"	1500+	Street/Pro	94
LSX	19417353**	Iron	9.240"	4.185"	6	1045 Steel	Std. LS (2.56")	Wet/Dry	1 pc	4.25"	1500+	Street/Pro	94

**Semi-finished block* ***Full machined block*

Deck Height Diagram





Gen IV 6.0L Cast-Iron Block (top, front)

PRODUCTION CYLINDER BLOCKS

The LS-Series cylinder block is the foundation for the serious performance achievements that are driving a new generation of performance enthusiasts. Features include a deep-skirt casting (the block side extends below the crankshaft centerline), 6-bolt cross-bolted main caps, strong and lightweight aluminum alloy casting (most production blocks) and provisions for the latest in engine control management. The cam-in-block configuration brings inherent torque to every LS engine, with production-based blocks capable of supporting combinations of 500 horsepower or more. The Corvette ZR1's unique 6.2L block, for example, supports the engine's 638-horsepower rating. Chevrolet Performance's high-performance iron LSX cylinder block supports more than 2,000 forced-induction horses!

Using a new production-validated cylinder block assures you a strong, dimensionally correct foundation for your project engine.

Gen IV 6.0L Cast-Iron Block (bottom, rear)

Part Number	Description	Technical Notes
19369841	Gen IV 6.0L Cast-Iron Block	Direct replacement for LY6 and L96 production engines; Production cast-iron block; Production oiling system; 6-bolt iron main bearing caps; 4.000" bore (101.6mm); 9.240" deck height; No provision for Active Fuel Management; Supports 500+ horsepower!
12679002	Gen III 6.0L Cast-Iron Block (not shown)	Production cast-iron block; Production oiling system; 6-bolt iron main bearing caps; 4.000" bore (101.6mm); 9.240" deck height; No provision for Active Fuel Management; Supports 500+ horsepower!

Production Cylinder Blocks continued

Part Number	Description	Technical Notes
12673475	LS3/L92 Aluminum 6.2L Bare Block	Direct replacement for: 2009–2012 L9H, 2010–2012 L94, 2008–2013 LS3, 2010–2013 L99, 2007–2008 L92; Production aluminum block with iron sleeves; Production oiling system; Forged powdered metal 6-bolt main bearing caps; 9.240" deck height; Use only LS1, LS6, LS2, L92/LS3-style cylinder heads; 4.065" finished bore (103.25mm); Provisions for Active Fuel Management; Great for stroker cranks for even more cubes; Tested to over 500 horsepower!
12673476	LSA 6.2L Bare Block (not shown)	Direct replacement for 2009–2012 Cadillac CTS-V 6.2L supercharged engine and 2012 ZL1 Camaro; Production cast-aluminum block with iron sleeves; Production oiling system; 6-bolt iron main bearing caps; 9.240" deck height; Not for use with LS7 or LSX-LS7 heads; 4.065" finished bore (103.25mm); Includes oil squirters (8) for piston cooling; No provision for Active Fuel Management; Rated for more than 550 horsepower
12623969	LS9 6.2L Bare Block	Direct replacement for 2009–2012 Corvette ZR1 6.2L; Supercharged engine; Production cast-aluminum block with iron sleeves; Deck plate honed; Production oiling system; 6-bolt steel main bearing caps with dowel pins; 9.240" deck height; Not for use with LS7 or LSX/LS7 heads; 4.065" finished bore (103.25mm); Includes oil squirters (8) for piston cooling; No provision for Active Fuel Management; Rated for more than 635 horsepower
19213580	LS7 7.0L Corvette Bare Block	Direct replacement for 2006–2014 7.0L LS7 engine; Production 319-T5 aluminum block with pressed-in iron sleeves; Production oiling system; 6-bolt dowel located steel main bearing caps; 9.240" deck height; For use with any LS or LSX series head; 4.125" finished bore (104.78mm), deck plate honed; Siamese cylinder bores for large bore size; No provision for Active Fuel Management; Based on C5R block development; Tested to over 500 horsepower!
25534412	Oil Hose Adapters (shown on page 95)	Kit adapts the production LS7 oil pan to aftermarket AN-style hoses for aftermarket dry sump oil tanks; Bolts directly to LS7 oil pan, and has AN male outlet for AN-12 fittings; Includes 1 adapter, 2 fittings, 2 bolts and 2 sealing gaskets
19329617	LT1/LT4/LT5 Aluminum 6.2L Bare Block	Direct replacement for 2014–2019 Stingray and 2015–2020 Camaro SS LT1; Production aluminum block with iron sleeves; Production oiling system; 9.240" deck height; Nodular iron 6-bolt main bearing caps; Use only with LT1-style cylinder heads; 4.065" finished bore (103.25mm); Provisions for Active Fuel Management; Provision for direct fuel injection
19420904	**NEW** L8T Gen V 6.6L Cast-Iron Block	Direct replacement for 2020-and-later L8T 6.6L gas engines used in Silverado HD trucks; Production cast-iron casting finished with 4.065" (103.25 mm) cylinder bores; Used with a 3.86-inch-stroke crankshaft in production engines to produce 400-cubic-inch (6.6L) displacement – the largest displacement in the LT engine family; 9.240" deck height; Delivered bare, with regular-production six-bolt main caps; Regular-production oiling circuit; Includes provisions for direct fuel injection

LS3/L92 Aluminum 6.2L Bare Block (top, front)

LS3/L92 Aluminum 6.2L Bare Block (bottom, front)

LS9 6.2L (top, front)

LS7 7.0L Corvette Bare Block (top, rear)

LS7 7.0L Corvette Bare Block (bottom, front)

LS9 6.2L (bottom, rear)

LT1/LT4/LT5 Aluminum 6.2L Bare Block (bottom, rear)

LT1/LT4/LT5 Aluminum 6.2L Bare Block (top, front)

NEW! *L8T GEN V 6.6L Cast-Iron Block*

Parts intended for competition use only.
See page 2 for details.

LSX BOWTIE BLOCK

Delivering the seemingly impossible combination of professional racing-level strength and entry-level affordability, the LSX Bowtie Block is our next revolution in high-performance engine-building. This durable iron-block casting is based primarily on GM's production LS7 block, but designed with more material in key areas—including thicker deck and bores—to support displacements of 454 cubic inches or more. Unique six-bolts-per-cylinder-head-clamping capability enables forced-induction and nitrous combinations of greater than 2,000 horsepower.

Because the LSX Bowtie block is based on production LS blocks, all of the LS-Series Gen IV cylinder heads, crankshafts, oil pans, camshafts, and accessories bolt right up to it. There is also a tall-deck version for building even larger engines. Chevrolet Performance delivers the LSX Bowtie Block semi-finished, allowing you to finish it to your needs. Whether you're building a "tame" 800 horse bracket racer engine, or a 1,700 horsepower turbo engine for an Outlaw racer, the LSX Bowtie Block is the foundation for an unbeatable combination —at an unbeatable price!

LSX Bowtie Block (top, front)

LSX Bowtie Block specs and features include:

- CNC-machined cast-iron block
- True priority main oiling
- 6-head bolts per cylinder
- Standard 4.400" bore spacing
- Extra-thick siamese cylinder bores
- Semi-finished, machined thicker decks
- LS7-Style, 6-bolt dowel-located billet main bearing caps
- Wet sump and dry sump oiling capability
- Production-style deep-skirt head bolt holes
- Production bolt hole and thread sizes
- Maintains production exterior accessory mounting provisions
- Front motor plate mounting holes added
- Additional material cast around cam bearings for greater strength
- 8mm exterior/interior fifth- and sixth-head bolt holes
- Standard .842" lifter bores
- Accommodates all LS oil pumps and oil pans
- External oil pump feed (rear of block)
- Main web bay-to-bay breathing holes to support greater horsepower
- Includes unique cam retainer, rear cover and lifter retainers

For the advanced LSX competition engine builder, you will fully enjoy the following features of the new LSX Bowtie Block:

- Front oil feed holes can be plugged/restricted for mechanical flat tappet or mechanical roller lifter applications
- Can be machined safely to 9.200" deck height
- Maximum 4.200" bore at .145" minimum wall thickness (naturally aspirated applications)
- Head bolt holes can be machined for 1/2" studs
- Front oil feed lines can be plugged and external oil pump and/or aftermarket dry sump systems can be used via oil pump feed at rear of block—may be required with certain large stroke/aluminum rod combinations
- Cam bores can be machined to accept 60mm roller bearings
- Can be machined for larger diameter lifters and/or 1.060" bronze bushings
- Belt cam drive systems can be accommodated, some machining will be required
- Front motor plate can be used for racing chassis applications (sprint car, drag racing, truck pulling, etc.)
- Threaded water plugs can be used for external heaters or coolers
- Extra stock for main bearing align-honed
- 400 MPa tensile strength iron

LSX Bowtie Blocks continued

Semi-Finished Blocks

Part Number	Description	Technical Notes
19417351	LSX Bowtie Block – Semi-finished, Standard Deck	3.880" semi-finished siamese cylinder bores; 9.260" semi-finished standard deck height (ready to be decked); 4.250" maximum stroke (professional engine builders only!); Capable of 364- to 482-cubic-inch displacements; Orange powder-coated finish; Accepts all LS and LSX Series heads, cranks, cams, etc.; Approximate finished weight is 225 pounds
19417354	LSX Bowtie Block – Semi-finished, Tall Deck (not shown)	3.880" semi-finished siamese cylinder bores; 9.720" semi-finished standard deck height (ready to be decked); 4.500" maximum stroke (small base circle camshafts required); Capable of 364- to 500-cubic-inch displacements or more!; Orange powder-coated finish; Accepts Gen IV LS and LSX Series heads, cranks, cams, etc.; Approximate finished weight is 250 pounds
19419982	LSX Bowtie Block – Semi-finished, Tall Deck (not shown)	3.880" semi-finished siamese cylinder bores; 9.700" semi-finished standard deck height (ready to be decked); 4.500" maximum stroke (small base circle camshafts required); Capable of 364- to 500-cubic-inch displacements or more!; Orange powder-coated finish; Accepts Gen IV LS and LSX Series heads, cranks, cams, etc.; Approximate finished weight is 250 pounds

Finished Blocks

LSX finished blocks are completely machined and are ready for assembly. Save time and money.

Part Number	Description	Technical Notes
19417352	LSX376 Production Block (not shown)	4.065" bore; Fully CNC machined; Deck plate honed; Align-honed main bearings; Deck height 9.240" (production); Billet-steel main caps; Includes all hardware; Used in LSX376 crate engine
19417353	LSX454 Production Block (not shown)	4.185" bore; Fully CNC machined; Deck plate honed; Align-honed main bearings; Deck height 9.240" (production); Billet-steel main caps; Includes all hardware; Used in LSX454 crate engine

LSX Bowtie Block (bottom, front)

LSX Bowtie Block (top, rear)

Lifter Boss Detail

Bay-to-Bay Breathing Pocket Detail

Deck Detail

LSX Blocks include the following:

19244460	Cam Thrust Plate
19369274	Rear Cover
19166182	Tappet Guides

Other service parts for your LSX Block:

19166178	Gasket – Cam Thrust Plate, O-Ring
19166180	O-Ring – Rear Cover
19166181	O-Ring – Rear Cover
19211434	Main Cap Dowel (10-piece kit)

Parts intended for competition use only.
See page 2 for details.

CYLINDER BLOCK COMPONENTS

LSX Block Completion Kit

Oil Hose Adapter

LS2, LS3 Front Timing Cover

LS Front Distributor Drive Cover

Rear Block Cover

Block Completion Components

Part Number	Description	Technical Notes
19299099	Gen IV Block Completion Kit – Non D.O.D.	Complete your LSX or GEN IV production engine with production components; Includes 1 front engine cover, 1 valley cover, 4 head locator dowels, 1 crankshaft sensor, 1 crank sensor bolt, 1 timing chain damper
25534412	Oil Hose Adapters	Bolts directly to oil pan, and has AN male outlet for AN-12 fittings; Includes 1 adapter, 2 fittings, 2 bolts and 2 sealing gaskets

Gen III Bare Block Completion Components

Part Number	QTY	Description
12577927	1	Valley Cover
12561211	1	Cam Sensor
12561243	1	Front Cover (with seal)
1453658	2	Transmission Alignment Dowel
12589016	1	Cam Retainer Plate
11561455	4	Cam Retainer Bolts
12588670	1	Timing Chain Damper

Part Number	QTY	Description
12560228	1	Crankshaft Sensor
12570326	4	Head Locating Dowels
12595365	4	Lifter Guide
12639250	1	Rear Cover (with seal)
varies	–	Required Water and Oil Plugs
varies	–	Required Mounting Bolts

Gen III Bare Block Completion Components

Front Covers

Part Number	Description	Technical Notes
12561243	LS1, LS6 Front Timing Cover (not shown)	For LS1 and LS6 engines; No cam sensor
2633906	LS2, LS3 Front Timing Cover	For LS2 and LS3 engines; Cover only; Does not come with cam sensor, bolts or seals
12594939	L92 Front Timing Cover (not shown)	For engines with VVT such as L92; Cover only; Does not come with cam sensor, bolts or seals
12598293	LS7 Front Timing Cover (not shown)	Also fits LS9 engines; Required for 2-stage oil pump clearance; Cover only; Does not come with cam sensor, bolts or seals
88958679	LS Front Distributor Drive Cover	Assembly is manufactured for applications where a 4-bbl carburetor and distributor are required; For all LS-Series engines except LS7 and LS9; ***NOTE:*** *Distributor and mechanical fuel pump not included. Uses Small-Block Ford-style distributor and mechanical fuel pump. Special water pump, accessory drive and damper required.*
12633904	Front Cover Gasket (not shown)	For all LS-Series engines
12585673	Front Crank Seal (not shown)	For all LS-Series engines
11515758	Front Cover Bolt (not shown)	Requires 8 per engine; For all LS-Series engines

Rear Covers

Part Number	Description	Technical Notes
12639250	Rear Block Cover	Includes seals and bolts; For all production LS engine blocks (will not work on LSX blocks)
19369274	LSX Rear Block Cover (not shown)	Does not include bolts or seals; For use on LSX blocks only
89060436	Rear Crank Seal (not shown)	For all LS-Series engines

BUILDER'S TIP

Building a Carbureted LS Engine

For some vintage cars, a carbureted induction system is aesthetically appropriate. Some racecars depend on a carburetor, because of class rules or other reasons. Building a carbureted LS engine is just as easy as assembling a production-style fuel injected version. You'll still need all the sensors of an injected engine, but you simply replace the injection manifold with one of the Chevrolet Performance carbureted intakes—they're available for LS1/LS2/LS6-style cathedral-port heads, L92/LS3-style heads and LS7 heads. Then, add your favorite four-barrel and plug it all into one of our pre-programmed controllers. Add a 12-volt power source and your carbureted LS engine will deliver a balanced combination of vintage looks and modern engine management dependability!

LS/LT/LSX-Series Cylinder Heads

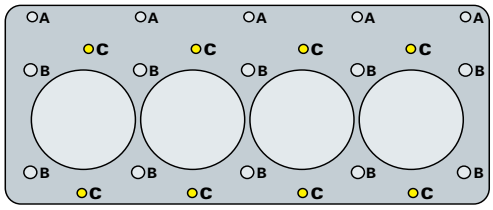
QUICK REFERENCE CHART

Part Number	Description	Material Size	Port Size	Valve Angle	Chamber Vlv.	Int Vlv.	Exh Type	Int Port Type	Ex Port Type	Rocker	Notes	Page
12629062	Stock L92	Aluminum	260	15 deg	70	2.165	1.590	L92	Std LS	Bolt-down	Solid stem valves	97
12675871	Stock LS3	Aluminum	260	15 deg	68.4	2.165	1.590	L92	Std LS	Bolt-down	Hollow/solid	97
88958758	CNC LS3	Aluminum	276	15 deg	68.5	2.165	1.590	L92	Std LS	Bolt-down	Hollow/solid	97
12578450	Bare LS7	Aluminum	270	12 deg	70	2.200	1.610	LS7	Std LS	Bolt-down	Bare LS7	N/S
12578449	Stock LS7	Aluminum	270	12 deg	70	2.200	1.610	LS7	Std LS	Bolt-down	Titanium/sodium-filled valves	97
19328743	LS9 CNC	Aluminum	276	15 deg	68.4	2.165	1.590	L92	Std LS	Bolt-down	Titanium/sodium-filled valves	97
12626958	LSA	Aluminum	260	15 deg	68.4	2.165	1.590	L92	Std LS	Bolt-down	CTS-V and Z-28 Assembly	97
19329839	LT1 CNC	Aluminum	N/A	Splayed	N/A	2.130	1.590	LT-1	LT-1	Bolt-down	CNC Runners	97
12678972	LT1	Aluminum	N/A	Splayed	N/A	2.130	1.590	LT-1	LT-1	Bolt-down	Corvette Assembly	97
25534393	C5R	Aluminum	210	11 deg	38	2.180	1.630	C5R	Std LS	Shaft	As-cast, no seats/guides	97
19354243	LSX-LS3	Aluminum	260	15 deg	70	2.165	1.590	L92	Std LS	Bolt-down	Hollow/solid valves	98
19354239	LSX-LS7	Aluminum	270	12 deg	70	2.200	1.610	LS7	Std LS	Bolt-down	Titanium/sodium-filled valves	98
19354240	LSX-LS7 Bare	Aluminum	N/A	12 deg	70	2.200	1.610	LS7	LS7	LS7	N/A, As-cast	98
19354242	LSX-LS7 Bare	Aluminum	270	12 deg	70	2.200	1.610	LS7	Std LS	Bolt-down	Fully CNC-machined	98
19354241	LSX-LS7 Assembly	Aluminum	270	12 deg	70	2.200	1.610	LS7	Std LS	Bolt-down	Fully CNC-machined	98
19417408	LSX-SC As-Cast	Aluminum	N/A	12 deg	68	2.200	1.610	LS7	LS7	LS7	As-cast, not machined	99
19417887	LSX-SC CNC	Aluminum	N/A	12 deg	68	2.200	1.610	LS7	LS7	LS7	Fully CNC-machined bare head	99
19417888	LSX-SC Assembly	Aluminum	N/A	12 deg	68	2.200	1.610	LS7	LS7	LS7	Fully CNC-machined Assembly	99

LS FAMILY PRODUCTION AND C5R ALUMINUM HEADS

Great cylinder-head airflow has been a key enabler of the LS-Series' exceptional performance. Chevrolet Performance delivers those power-building attributes to you with a range of production-style aluminum heads. From the LS6 heads for smaller-displacement engines to LS7 style heads for 427-inch-and-larger combinations, our aluminum heads benefit from Chevrolet Performance's extensive research and development program, providing maximum airflow. Many of our assembled heads use premium machining and materials, including CNC finishing and porting, along with lightweight, hollow-stem valves, sodium-filled exhaust valves and—on some heads—lightweight titanium intake valves.

***NOTE:** Chevrolet Performance heads will not fit 4.8L and 5.3L engines, due to their smaller bore sizes.*



LS/LSX Head-Bolt Patterns

A	Standard LS	8mm	Bolt/Stud
B	Standard LS	11mm	Bolt/Stud
C	LSX	8mm	Bolt/Stud

Aluminum LS Family Head Technical Notes:

- Manufactured from 319-T5 aluminum alloy
- High-efficiency combustion chambers
- Symmetrical intake and exhaust ports
- Angled spark plugs (14mm; 5/8" hex; 3/4" reach; taper-seat plugs)
- 15° valve angle (except C5R and LS7)
- Bolt-down-type rocker arms (except LSX-DR, LSX-CT)
- Center-bolt valve cover hold-downs
- Fits Gen III and Gen IV Small-Blocks only

LS3 CNC-Ported Cylinder Head Assembly (exhaust)

LS3 CNC-Ported Cylinder Head Assembly (intake)

LS3 CNC-Ported Cylinder Head Assembly (combustion chamber)

LS7 CNC-Ported Cylinder Head Assembly (exhaust)

LS7 CNC-Ported Cylinder Head Assembly (intake)

Part Number	Description	Technical Notes
12629062	L92 Cylinder Head Assembly (not shown)	Aluminum performance head; Fits any LS family engine with 4.000" bore or larger; 2.165" solid stem intake and 1.590" solid stem exhaust valves; .510" max valve lift; As-cast L92 style intake ports; D-shaped exhaust ports; As-cast combustion chambers
12675871	LS3 Cylinder Head Assembly (not shown)	Aluminum performance head; Fits any LS family engine with 4.000" bore or larger; 2.165" hollow stem intake and 1.590" solid stem exhaust valves; .550" max valve lift; As-cast L92 style intake ports; D-shaped exhaust ports; As-cast combustion chambers
88958758	LS3 CNC-Ported Cylinder Head Assembly	CNC-ported version of the LS3 cylinder head; Flows about 10 percent more than the production head—more than 350 cfm (intake side) at .600" lift; 276cc intake runners and 92cc exhaust ports; Fits all LS engines with 4.000" bore or larger; 2.165" hollow stem intake and 1.590" solid stem exhaust valves; .550" max valve lift; D-shaped exhaust ports
19328743	LS9 CNC-Ported Head Assembly (not shown)	Special A356-T6 aluminum Roto-cast head casting for greater strength—the mold is rotated during production to create a more solid casting that virtually eliminates porosity; Reinforced webbing and thicker deck (for minimal distortion) makes it an excellent choice for supercharged and turbocharged engine combinations; CNC-ported for approximately 10 percent greater airflow (intake side) than the regular-production cylinder head (similar to LS3 CNC-ported head P/N 88958758); As-cast 66.5cc combustion chamber volume; Fully assembled with production LS9 2.165" (55mm) titanium intake valves, sodium-filled 1.590" (40mm) exhaust valves, and beehive-type valve springs; Valve springs rated for .570" max lift; Can be used on LS engines with at least a 4.000" bore using standard 11mm head bolts in place of the LS9's 12mm head bolts
12578449	LS7 CNC-Ported Cylinder Head Assembly	356-T6 aluminum head; Fully CNC'd ports and chambers; LS7 rectangle port design; Assembled with 2.200" titanium intake and 1.610" sodium-filled exhaust valves; 12° valve angle; Minimum 4.100" bore; 270cc CNC'd intake ports, 85cc CNC'd exhaust ports; 70cc CNC'd combustion chambers; Capable of over 600 horsepower; Bare head P/N 12578450 available separately
12626958	LSA Cylinder Head Assembly (not shown)	CTS-V and ZL1 6.2L production cylinder head assembly; High-strength aluminum casting for supercharged application; Premium steel intake and exhaust valves; Completely assembled. ***NOTE:*** *Uses 10 8mm & 20 11mm head bolts.*
25534393	Bare C5R Racing Cubed Cylinder Head (not shown)	355-T7 "as-cast" aluminum racing head; Professional porting and machining of combustion chambers required; No seats or guide machining; C5R rectangle-port design—requires aftermarket rectangle-port intake manifolds; Designed for big bore (4.100" min) LS7/C5R/LSX blocks; 210cc "as-cast" intake ports; 70cc "as-cast" exhaust ports, same as production LS6; 30cc "as-cast" combustion chambers; All fasteners are metric; Capable of over 800 horsepower!; Standard LS exhaust port design
12678972	LT1 Cylinder Head Assembly (not shown)	Replacement for production cylinder head assembly; Fully assembled; Machined for direct fuel injection
19329839	LT1 CNC Cylinder Head Assembly	Fully assembled; Machined for direct fuel injection; CNC machine-ported intake and exhaust runners; Included in P/N 19333525 Head and Hot Cam Kit

Bare C5R Racing Cylinder Head (exhaust)

Bare C5R Racing Cylinder Head (intake)

Bare C5R Racing Cylinder Head (combustion chamber)

LT1 CNC Cylinder Head Assembly (exhaust)

LT1 CNC Cylinder Head Assembly (intake)

LT1 CNC Cylinder Head Assembly (combustion chamber)

LS-Series Cylinder Heads: Additional Required Components

Part Number	Gaskets (Quantity)	Bolts (Quantity)	Spark Plug	Engine Application
12629062	12610046 (2) OR 19170419	19258707 (20), 12558840 (10)	12621258	L9H
12675871	12610046 (2) OR 19170419	19258707 (20), 12558840 (10)	12621258	LS3
88958758	12610046 (2) OR 19170419	19258707 (20), 12558840 (10)	12621258	CNC LS3
12578449	12582179 (2) OR 19170419	19258707 (20), 12558840 (10)	12571165	MY06/07 LS7
12626958	12610046 (2) OR 19170419	19258707 (20), 12558840 (10)	12621258	LSA
19328743	12610046 (2) OR 19170419	19258707 (20), 12558840 (10)	12621258	LS9
25534393	12582179 (2) OR 19170419	19258707 (20), 12558840 (10)	12621258	C5R

Parts intended for competition use only. See page 2 for details.

Additional components required for installation. See chart above.

LSX CYLINDER HEADS

Extending the performance range of the LSX platform are Chevrolet Performance's 6-bolt LSX cylinder heads. Many are capable of flowing more than 400 cfm, and their 6-bolts-per-cylinder clamping design gives them exceptional strength. Your horsepower-building potential can be nearly unlimited with LSX heads.

These aluminum masterpieces of performance feature port and chamber designs based on popular and performance-proven production-style heads, such as the LS3/L92 and LS7 heads. They are easily identified by the engraved LSX logo on the ends.

All LSX heads are made of 356-T6 aluminum and feature a 5/8" thick deck that allows plenty of room for builder-specified combinations. Additional features include:

- Uses 11mm (10) and 8mm (13) head bolts (not included, see drawing on page 96)
- Accommodates production valvetrain components (except for drag race and circle track heads)
- Includes premium beehive-type valve springs (except for drag race and circle track heads)
- Extra material cast in the port areas to accommodate professional porting
- Valve guides for 8mm valve stems, except DR & CT

Racing-specific LSX-DR (drag racing) and LSX-CT (circle track) heads feature raised runner designs and other unique features designed to maximize performance at the track.

LSX-LS7 Cylinder Head Assembly (exhaust)

LSX-LS7 Cylinder Head Assembly (intake)

LSX-LS7 Cylinder Head Assembly (combustion chamber)

LSX Performance Cylinder Heads

Four LSX performance cylinder head configurations are offered: The LSX-LS7 head, the LSX-LS3 head, the LSX-LS9 head and the LSX-L92 Small Bore head. The LSX-L92 head features smaller combustion chambers that are compatible with smaller-bore LS1 and LS6 engines. The performance heads accommodate valve springs with up to 1.37" diameter bases, but can be machined for larger springs.

Part Number	Description	Technical Notes
19354243	LSX-LS3 Cylinder Head (not shown)	L92 style rectangle port design; Assembled with 2.165" hollow stem intake and 1.590" solid stem exhaust valves; 15° valve angle; minimum 4.000" bore; 260cc "as-cast" intake ports, 80cc "as-cast" exhaust ports; 70cc "as-cast" combustion chambers; Uses LS3 rocker arms/LS7 bolts
19354242	LSX-LS7 CNC-Ported Bare Cylinder Head (not shown)	Fully CNC ported; 6-bolt-per-cylinder bolt pattern; LS7-style rectangle port design; 12° valve angle; minimum 4.100" bore; 70cc "as-cast" combustion chambers; Uses LS7 rocker arms/LS7 bolts; 397 cfm@.700" intake, 230 cfm@.700" exhaust
19354241	LSX-LS7 CNC-Ported Cylinder Head Assembly (not shown)	Fully CNC ported; 6-bolt-per-cylinder bolt pattern; LS7-style rectangle port design; Assembled with 2.200" titanium intake and 1.610" sodium-filled exhaust valves; 12° valve angle; minimum 4.100" bore; 70cc "as-cast" combustion chambers; Handles .650" lift with premium springs; Uses LS7 rocker arms/LS7 bolts; Uses P/N 19257879 bare head (shown); 397 cfm@.700" intake, 230 cfm@.700" exhaust
19354239	LSX-LS7 Cylinder Head Assembly – As Cast	6-bolt-per-cylinder bolt pattern; LS7-style rectangle port design; Assembled with 2.200" titanium intake and 1.610" sodium-filled exhaust valves; 12° valve angle; minimum 4.100" bore; 270cc "as-cast" intake ports, 85cc "as-cast" exhaust ports; 70cc "as-cast" combustion chambers; Handles .650" list with premium springs; Uses LS7 rocker arms/LS7 bolts
19354240	LSX-LS7 Bare Cylinder Head – As Cast (not shown)	Used in P/N 19354239
19354244	LSX-LS9 Cylinder Head Assembly (not shown)	L92-style rectangle port design; Assembled with 2.165" titanium intake and 1.590" sodium-filled exhaust valves; 15° valve angle; minimum 4.000" bore; 260cc "as-cast" intake ports, 80cc "as-cast" exhaust ports; 70cc "as-cast" combustion chambers; Uses LS3 rocker arms/LS7 bolts

LSX-SC Cylinder Heads

Chevrolet Performance's LSX-SC cylinder head is an enhanced version of the LSX head design and was developed for the COPO 350 Supercharged production engine. It is designed specifically for the higher cylinder pressures that come with high-boost forced induction applications.

The LSX-SC is based on the proven, high-flow LSX-LS7 design, but optimized in key areas to enhance strength and cylinder sealing for engines producing upwards of 1,400 horsepower. Like other LSX cylinder heads, it is made of tough T356 aluminum, but produced with a low-pressure casting process to improve density. Additionally, the head is treated with hot isostatic pressing—commonly known as "HIPing"—to optimize the aluminum alloy's mechanical properties and density.

Additionally, the head's water jacket has been reduced to shore up its strength, compared to the LSX-LS7 head, which leaves more room for builders to machine the ports separately.

LSX-SC Bare Cylinder Head – CNC Machined (exhaust)

The new LSX-SC head is offered in an un-machined, as-cast version (P/N 19417408) and a CNC-machined version with valve seats and guides installed (P/N 19417887). The CNC version is also available assembled with valves and beehive-type valve springs installed (P/N 19417888).

Additional details:

- LSX-signature six-bolts-per cylinder head clamping
- LS7-style rectangular port design (use with LS7-compatible intake manifold)
- Combustion chamber volume: 68cc
- Intake port volume: 277cc
- Exhaust port volume: 99cc
- Same 12° valve angles as LSX-LS7 head
- Valve seats are 45° (intake) and 50° (exhaust)
- Valve pockets machined at 37mm-diameter (with sufficient room to machine larger)
- LSX-LS7 exhaust bolt pattern (use with LS7-compatible headers), but bolt holes are raised .100". for improved header/gasket centering
- Use with standard LSX-compatible head gaskets
- Designed for LS7 rocker arms and bolts, but can be machined for shaft-style rockers
- Designed for LSX 2.20". (intake) and 1.61". (exhaust) valves

LSX-SC Bare Cylinder Head – As-Cast (exhaust)

LSX-SC Bare Cylinder Head – As-Cast (intake)

LSX-SC Bare Cylinder Head – As-Cast (combustion chamber)

Part Number	Description	Technical Notes
19417408	**LSX-SC Bare Cylinder Head – As-Cast**	Made of T356 aluminum with low-pressure casting and hotisostatic pressing for enhanced strength and material density; Unported casting with smaller water jackets to accommodate additional porting and machining; Valve seats and valve guides included, but delivered uninstalled
19417887	**LSX-SC Bare Cylinder Head – CNC-Machined**	Made of T356 aluminum with low-pressure casting and hot isostatic pressing for enhanced strength and material density; CNC-machined intake and exhaust ports; CNC-machined combustion chambers; Includes valve seats and valve guides installed
19417888	**LSX-SC Assembled Cylinder Head – CNC-Machined (not shown)**	Made of T356 aluminum with low-pressure casting and hot isostatic pressing for enhanced strength and material density; CNC-machined intake and exhaust ports; CNC-machined combustion chambers; Includes valve seats and valve guides installed ; Valve seats and guides designed to accommodate 2.20" (intake) and 1.61" (exhaust) valves; Assembled head includes 2.20" intake and 1.61" valves and beehive-type valve springs (including retainers and keepers) installed

LSX-SC Bare Cylinder Head – CNC Machined (intake)

LSX-SC Bare Cylinder Head – CNC Machined (combustion chamber)

CYLINDER HEAD GASKET AND BOLT KITS

LS, LSX Head Gasket

LSX 4.100" Bore MLS Head Gasket Kit

LS1 Cylinder Head Installation Kit (F-Car)

Part Number	Description	Technical Notes
12498544	Cylinder Head Gasket Kit (not shown)	2 head gaskets for 1997–2001 LS1 Camaro/Firebird and Corvette engines; Also fits 2001 LS6 Corvette engine
19170418	LSX 4.100 Bore MLS Head Gasket Kit	Multi-layer steel gaskets for naturally aspirated and forced induction applications; 0.051" thick; Includes 1 LH and 1 RH gasket; For standard LS and LSX 6-bolt pattern blocks and heads; For bores up to 4.100"
19170419	LSX 4.200 Bore MLS Head Gasket Kit (not shown)	Multi-layer steel gaskets for naturally aspirated and forced induction applications; 0.051" thick; Includes 1 LH and 1 RH gasket; For standard LS and LSX 6-bolt pattern blocks and heads; For bores up to 4.200"
19170420	LSX 4.250 Bore MLS Head Gasket Kit (not shown)	Multi-layer steel gaskets for naturally aspirated applications; 0.051" thick; Includes 1 LH and 1 RH gasket; For standard LS and LSX 6-bolt pattern blocks and heads; For bores up to 4.250"
12498545	Cylinder Head Bolt Kit (1997-2003, not shown)	Kit of 15 head bolts for 1998–2003 LS1 Camaro/Firebird 1997–2003 Corvette and 2001–2003 LS6 Corvette; 1 kit per cylinder head; Order 2 per engine; Head bolts cannot be reused on these engines ***NOTE:*** *IMPORTANT! LS-Series engines produced from January 2004 forward have a new "short-style" head bolt design. Earlier head bolts will not fit. Order P/N 17800568 for engines produced from January 2004 and later.*
17800568	Cylinder Head Bolt Kit, Gen III and Gen IV (not shown)	Kit of 15 bolts for LS-Series engines produced from January 2004 and later; Bolts are 5mm shorter than previous design; Services single engine head only
19257453	Cylinder Head Bolt Kit – Std. Deck LSX Block (not shown)	Contains additional bolts for standard-deck LSX 6-bolt heads. Contains bolts for 2 heads (1 engine) ***NOTE:*** *Engine set requires 2 - 17800568 bolt sets for conventional Gen III & Gen IV engines. For complete LSX set, order: 2 - 17800568 - Gen III & Gen IV bolt kits, 1 - 19257453 - LSX Standard Deck Bolt Kit.*
19257452	Cylinder Head Bolt Kit – Tall Deck LSX Block (not shown)	Contains additional bolts for tall-deck LSX 6-bolt heads; Contains bolts for 2 heads (1 engine) ***NOTE:*** *Engine set requires 2 - 17800568 bolt sets for conventional Gen III & Gen IV engines. For complete LSX set, order: 2 - 17800568 - Gen III & Gen IV bolt kits, 1 - 19257452 - LSX Tall Deck Bolt Kit.*
12499217	LS1 Cylinder Head Installation Kit (F-Car)	Comprehensive cylinder head installation kit for 2002 Camaro and Firebird models equipped with the LS1 engine. Kit includes 2 head gaskets, 2 valve cover gaskets, 8 intake manifold gaskets, 2 exhaust manifold gaskets, 2 intake manifold-to-block seals, 20 long-head bolts and 10 short-head bolts
12589226	LS1/LS6 Head Gasket (not shown)	Single gasket, 2 required; For naturally aspirated LS1 and LS6 5.7L engines; 0.051" thick. 3.920" max bore; Standard LS bolt pattern
12589227	LS2, L76 Head Gasket (not shown)	Single gasket, 2 required; For naturally aspirated LS2 and L76 6.0L engines; 0.051" thick; 4.020" max bore; Standard LS bolt pattern
12610046	LS3, L92 Head Gasket (not shown)	Single gasket, 2 required; For naturally aspirated LS3/L92 6.2L engines; 0.051" thick; 4.080" max bore; Standard LS bolt pattern
12582179	LS7 Head Gasket (not shown)	Single gasket, 2 required; For naturally aspirated LS7 7.0L engines; 0.051" thick; 4.140" max bore; Standard LS bolt pattern
19331526	LT1, LT4, LT5 Head Bold Gasket Kit (not shown)	Head bolts and head gaskets for Gen V engine
19418279	LT1, LT4, LT5 Head Bold Kit (not shown)	Head bolts set for one Gen V engine
19419249	LS, LSX Head Gasket (single)	Special head gasket for COPO supercharged engine - requires 2

BUILDER'S TIP

Tiered performance cylinder head strategy delivers options

Cylinder head selection is one of the most important contributors to an engine's performance, because it ultimately determines how much air the engine can process to generate horsepower. The heads for regular-production LS-family engines are renowned for exceptional airflow attributes and offer significant power-building capability with traditional machining that enhances the volume of the intake ports and/or reduces restriction within the ports.

Chevrolet Performance's tiered strategy for LS cylinder head performance offers builders choices to fit a variety of performance goals and budgets. The first tier is our production-based heads, such as the LS3 head (P/N 12675871), which offer good out-of-box performance and are an excellent upgrade for earlier LS engines (as long as they have at least a 4.000" bore). The next tier is ported production heads, such as the LS3 CNC-ported head (P/N 88958758), which deliver significantly greater intake-port airflow at a value-driven cost.

For production-based engines using forced induction—supercharging or turbocharging—the LS9 CNC-ported heads are the ultimate solution, delivering greater strength and heat management properties through a unique production process with the A356T6 alloy.

The top tier of Chevrolet Performance's cylinder head ladder is the maximum-performance LSX heads, which are based on the design of production heads but include strength-enhancing features, such as thicker decks, to support high-horsepower performance combinations. They also have a six-bolts-per-cylinder design vs. the four-bolt design of production LS heads, for exceptional clamping strength with supercharging, turbocharging and nitrous oxide. The six-bolt heads must be used with Chevrolet Performance LSX Bowtie cylinder blocks.

With Chevrolet Performance cylinder heads, there's a choice for every horsepower aspiration and budget.

Parts intended for competition use only.
See page 2 for details.

ROCKER ARMS AND ROCKER ARM BOLTS

Part Number	Description	Technical Notes
12681275	Rocker Arm (not shown)	For LS1, LS2 and LS6 intake and exhaust valves; For L92, LS9 and LS3 exhaust valves; Straight design, no offset; 1.7:1 ratio
12696105	Rocker Arm (not shown)	Intake rockers for L92, LS9 and LS3 style heads only; Offset design; 1.7:1 ratio
12579615	Rocker Arm (not shown)	Intake rockers for LS7 style heads only; Offset design; 1.8:1 ratio
12579617	Rocker Arm (not shown)	Exhaust rockers for LS7 style heads only; Straight design, no offset; 1.8:1 ratio
12560961	Rocker Arm Bolts (not shown)	For cathedral port and L92 style heads; 16 required per engine
11588791	Rocker Arm Bolts (not shown)	For LS7 & LSX style heads; 16 required per engine
12552203	Rocker Arm Stand (not shown)	For LS1, LS2 and LS6 style heads only; Sold individually; Requires 1 per cylinder head
12600936	Rocker Arm Stand (not shown)	For L92, LS9 and LS3 style heads only; Sold individually; Requires 1 per cylinder head
19201808	LSX454R Rocker Arm Kit (not shown)	1.9:1 ratio; Fits DR head only; Full-roller bearing tips; Full-roller bearing trunnion; Set is for two heads; Requires special valve cover for clearance

LS-SERIES PUSHRODS

Part Number	Material	Diameter	Length	Usage	Description
12593344	1010 steel	3/8"	7.750	LS7	Production pushrod, individually packed
10238852	1010 steel	5/16"	7.325	LS1, LS2, LS3, LS6, L92	Production pushrod, individually packed

LS-SERIES INTAKE VALVES

Part Number	Valve Size	Stem Size	Description
12617533	2.165"	8mm	Stock replacement valve used in L92 engines
12605223	2.165"	8mm	Stock replacement solid-stem valve used in LSA engines
12569427	2.165"	8mm	Stock replacement hollow-stem valve used in LS3 engines
12605524	2.165"	8mm	Stock replacement titanium valve used in LS9 engines
12591644	2.200"	8mm	Stock replacement titanium valve used in LS7 engines

LS-SERIES EXHAUST VALVES

Part Number	Valve Size	Stem Size	Description
12563064	1.500"	8mm	Stock replacement solid-stem valve used in LS2 engines
12582719	1.590"	8mm	Stock replacement solid-stem valve used in L92 and LS3 engines
12605525	1.590"	8mm	Stock replacement sodium-filled stem valve used in LS9 engines
12618110	1.610"	8mm	Stock replacement sodium-filled stem valve used in LS7 engines

VALVE SPRINGS AND SPRING KITS

Part Number	Description	Technical Notes
19420455	LS Valve Spring Kit (not shown)	Beehive style springs; Used on LS3, LS2/LS6 cylinder heads; Installed height–1.800" @ 90 lbs. pressure; Max lift .550"; 1.250" @ 295 lbs. pressure; Includes 16 of P/N 12713265
12713265	Valve Springs (not shown)	Beehive style springs; Standard LS6/LS3 springs; Use cap P/N 10166344; 1.250" @ 295 lbs. pressure; Installed height–1.800" @ 90 lbs. pressure; Max lift–.550"
12706568	Valve Springs (not shown)	Beehive style springs; Standard L76/L92 springs; Installed height–1.800" @ 90 lbs. pressure; Max lift–.520"; 1.300" @ 264 lbs. pressure
12621428	Valve Springs (not shown)	Beehive style springs; Used on LS7 cylinder heads; Installed height–1.960" @ 101 lbs. pressure; 1.368" @ 310 lbs. pressure; Max lift–.600"

LS-SERIES VALVE COVERS

Nothing finishes off your engine like a great-looking set of valve covers straight from GM. Our new collection of LS valve covers allows you to personalize your LS-powered project with a custom look. Choose from 8 great styles, available in natural, powder-coated, polished and chrome finishes, with callouts for your favorite nameplate, vehicle and more. These valve covers are designed and built to production specs and include a production-type O-ring gasket for a leak-free fit. No matter if you're driving a new Corvette or a Pro-Touring-style, LS3-powered '61 Chevy, we've got the perfect set of valve covers for it.

NOTE: *The valve covers feature the standard bolt pattern, but DO NOT have provisions for production-style coil mounts. Aftermarket or custom coil relocation brackets must be used. Additional features include:*

- PCV system (except P/N 25534398 and P/N 25534399)
- Sold in pairs (except P/N 25534398 and P/N 25534399)
- Integrated oil fill
- Accommodates tall-style rockers
- Includes hardware and O-ring gasket

Valve Cover Kit – Chevrolet, Chrome

Part Number	Description	Technical Notes
19156433	Valve Cover Kit – CHEVROLET, Chrome	Chrome finish with black CHEVROLET lettering
19156428	Valve Cover Kit – CORVETTE, Polished	Polished finish with black CORVETTE lettering
19171497	Valve Cover Kit – LSX454	Black finish with red LSX logo
19171502	Valve Cover Kit – Polished	Polished finish with no logos
19171270	LSX376 (not shown)	Gray/Black; Used on LSX376-B8 engine
19332317	LSX376	Orange/Black; Used on LSX376-B15 engine
19332313	LSX454	Orange/Black; Used on LSX454 engine
19259058	LSX454R (not shown)	Orange/Black; Used on LSX454R engine
25534398	LS Center-Bolt Competition Valve Cover (with breather hole)	Lightweight aluminum valve cover designed for production center-bolt LS-Series cylinder heads; Includes bolts and seal; Sold individually; Natural finish
25534399	LS Center-Bolt Competition Valve Cover	Lightweight aluminum valve cover designed for production center-bolt LS-Series cylinder heads; Includes bolts and seal; Sold individually; Natural finish

Valve Cover Kit – Corvette, Polished

Valve Cover Kit – LSX454

Valve Cover Kit – Polished

Valve Cover Kit – LSX376, Orange/Black

Valve Cover Kit – LSX454, Orange/Black

LS Center-Bolt Competition Valve Cover

LS Center-Bolt Competition Valve Cover (with breather hole)

Parts intended for competition use only.
See page 2 for details.

HARDWARE AND BREATHERS

Part Number	Description	Technical Notes
12341993	Push-In Oil Filler Cap	Round oil filler cap with Bowtie logo for valve covers with 1.220" diameter hole
12573338	Oil Fill Cap	Production / For LS1 engines
12573337	Oil Fill Cap	Production / For L92 engines
12643759	Oil Fill Cap	Production / For LS3 engines
12577215	Valve Cover Bolt	Requires 4 per valve cover / For L92 engines

VALVE LIFTERS AND COMPONENTS

Part Number	Description	Technical Notes
12499225	LS-Series Camshaft Lifter Kit (not shown)	Set of 16 lifters for LS-Series engines; Same lifter used in LS2 and LS7 P/N 17122490 (single lifter)
12595365	Lifter Guide (not shown)	Works in Gen III and IV applications (except with AFM)

88958689

Racing Hydraulic Roller Lifter Kit

If your Gen III or Gen IV application calls for sustained high-rpm's, this Racing Hydraulic Roller Lifter Kit is a must. It features reduced mass internal componentry for higher limiting speeds and to accommodate aggressive camshaft designs. Improved valvetrain dynamics and stability deliver more horsepower and better high-rpm performance—tested to 8,000 rpm! Set includes 16 lifters.

POWER UPGRADE KITS

19300535

**LS3 Power Upgrade Kit – Basic*
(Heads and Cam Only)**

Increase the power of the LS3 engine in your Corvette or Camaro SS by 40 horsepower with Chevrolet Performance's high-performance heads-and-cam kit. Developed by Chevrolet Performance engineers as a direct replacement for the factory-installed heads and camshaft (tuning required), the kit includes our CNC-ported LS3 cylinder heads, which flow more than 350 cfm (intake side), with 276cc intake runners and 2.165"/1.590" valves. The high-lift LS7 camshaft makes the most of the heads' generous airflow attributes, holding the big valves open so the engine can process more air. This kit fits other LS-family engines with at least 4.000" bores. Contents include the camshaft and fully assembled cylinder heads. Head gaskets and cylinder head bolts must be purchased separately.

19301990

**LS3 Power Upgrade Kit – Deluxe*
(Heads, Cam and Components, not shown)**

Same as 19300535 (above), but includes cylinder heads, camshaft and components needed to complete the job. New calibration included.

50 STATE STREET LEGAL

This part has been granted an Executive Order (E.O.) from the California Air Resources Board.
E.O. D-126-45

19333525

LT1 Head/Hot Cam Kit*

Increase your already-strong LT1 with these CNC–ported heads and camshaft designed specifically for direct injection. This is the first "Hot Cam" for the Gen V LT1. Kit includes camshaft (1), valve lifter guides (4), valve lifters (8), CNC cylinder head assemblies (2).

NOTE: *Installation of this kit will affect engine variable valve timing and Active Fuel Management operation. Recalibration is required for accurate engine operation (not available from GM).*

LS/LT-SERIES CAMSHAFTS

All LS camshafts are compatible with production-style LSX and C5R blocks, as well as all of our cylinder heads—although piston-to-valve clearance must be checked on some applications. We offer a broad range of production and racing-style camshafts that are factory-engineered to deliver maximum performance when paired with our high-flow cylinder heads. Save yourself the time and expense of going to an aftermarket camshaft supplier and build your LS engine with a genuine GM cam. We've also got the valvetrain components you need to finish the engine, including lightweight components designed for high-rpm performance.

Part Number	Description	Duration @ .050" Lift (deg)	Maximum Lift (in) w/1.7 rocker**	Lobe Separation (deg)	Technical Notes
12565308	2002–2004 LS6 Cam	I: 204 / E: 218	I: .550 / E: .550	117.5	Cam requires valve spring P/N 12713265
88958770	ASA Cam	I: 226 / E: 236	I: .525 / E: .525	110	Cam requires valve spring P/N 12713265; "ASA" cam for off-highway use
19355738	Hot Cam Kit	I: 219 / E: 228	I: .525 / E: .525	112	Kit includes 16 LS6 valve springs retainers
88958753	LS Hot Cam	I: 219 / E: 228	I: .525 / E: .525	112	Same cam as in kit P/N 19355738
19166972	LSX454 Cam (shown)	I: 236 / E: 246	I: .612 / E: .612	110	Max lift with 1.8 rockers .648/.648, 3-bolt design; ***NOTE:*** *Not compatible with production-style variable-valve timing configurations or production valve springs.*
88958766	Showroom Stock Cam	I: 239 / E: 251	I: .570 / E: .570	106.5	Showroom Stock racing design; Requires hollow-stem intake valves P/N 12565311, hollow-stem exhaust valves P/N 12565312, valve springs P/N 12586484, and aftermarket notched pistons OR machined stock pistons
12638426	LS7	I: 211 / E: 230	I: .558 / E: .558	121	Stock LS7 camshaft, will not work on Gen III engines; Max lift with 1.8 rockers .593/.588
12561721	LQ9: 2002–2006 LS1: 2001–2004	I: 196 / E: 201	I: .467 / E: .479	116	Stock cam for 2002–2006 LQ9 and 2001–2004 LS1 engines
88958772	LS Stage 2 Cam	I: 227 / E: 239	I: .551 / E: .551	108	Max lift with 1.8 rockers .583/.583
88958773	LS Stage 3 Cam	I: 233 / E: 276	I: .595 / E: .595	107	Max lift with 1.8 rockers .630/.630
12623064	LSA Cam	I: 198 / E: 216	I: .480 / E: .480	122.5	Stock LSA Cam
12638427	LS9 Cam	I: 211 / E: 230	I: .562 / E: .562	122.5	Stock LS9 Cam
19303897	LT1 Hot Cam	I: 228 / E: 248	I: .577 / E: .577	116.5	Design for 1.81:1 rocker arms; Requires non-afm lifters (See warranty statement on page 223.)

**Except where otherwise noted in Technical Notes.

1997–2004 Connecting Rod

LS CONNECTING RODS & COMPONENTS

Part Number	Description	Technical Notes
12568734	1997–2004 Connecting Rod	Connecting rod for use on all 1997–2004 production Corvettes and 1998–2002 Camaro/Firebirds with LS1/LS6; Press fit design; 6.098" C-C length; Sold individually
12649190	Connecting Rod (not shown)	Connecting rod used in 2005–2007 LS2 and 2008–2012 LS3 engines; Has bronze bushing; 6.098" C-C length; Sold individually
11610158	LS6 Rod Bolts (not shown)	Recommended for use in performance Gen III engines; Bolts have greater strength than pre-2000 rod bolts; 1 bolt per package; Order 2 per connecting rod
89017573	Rod Bearing (not shown)	1 required per connecting rod; For all LS-Series engines, except LS7 and LS9
89017811	LS7 Rod Bearing (not shown)	1 required per connecting rod; For LS7 and LS9 engines only

Main Bearings – LS Engines (not shown)

Part Number	Position	Per Engine	Description
89017877	1, 2, 4, 5	4	LS7 or LS9
89017808	3 (thrust)	1	LS7 or LS9
89017571	1, 2, 4, 5	4	Non-LS7 or LS9
89017572	3 (thrust)	1	Non-LS7 or LS9

LSX CONNECTING RODS

Like our new crankshafts, the new LSX connecting rods from Chevrolet Performance are made of high-strength, 4340 forged steel to deliver worry-free performance for your high-horsepower, high-revving LS engine. Additional strength comes in the rod's I-beam design and its chamfered big end fits great with filleted cranks, like our LSX crankshafts.

19166964

LSX Connecting Rod Kit – 6.000"

- 2.100" journals (big end)
- .866" bushed small ends
- MUST be used with LSX forged pistons—not compatible with production pistons
- Includes $^{7}/_{16}$" 12-point, SAE 8740 rod bolts
- Caps are dowel located
- Weight-matched, sold in sets of 8

19259254

LSX454 Rotating Assembly

Build your own "LSX Stroker" with this rotating assembly used in our powerful LSX454 crate engine. Order LSX fully machined block P/N 19260099 to build your own engine. Includes 4340 forged steel crankshaft with 8-bolt flange (45.125"), 8 connecting rods (4340 forged steel), 8 forged aluminum pistons with coated skirts (4.185" Bore)

NOTE: *Also includes performance piston rings, rod and main bearings (not shown).*

LSX PISTONS

Complete your all-LSX rotating assembly with LSX forged-aluminum pistons from Chevrolet Performance. They're lightweight and tough, enabling higher revs and dependable performance, even with high-boost and nitrous-assisted applications. They're made of 4032 forged aluminum and available in 4.065" and 4.185" bores. Additional details include:

LSX376 Piston (dished) – 4.065" bore

LSX454 Piston – 4.185" bore

- Flat-top or dished designs with valve relief cut-outs
- High-tech skirt coating
- Forced pin oiling
- Pistons come with wrist pins and rings

Part Number	Description	Technical Notes
19244016	LSX376 Piston – 4.065" bore	14cc dish that lowers compression to approx. 9:1 (with most standard LS cylinder heads); Optimized for supercharged and turbocharged combinations; Use with stock-type connecting rods only
19166958	LSX454 Piston – 4.185" bore	Forged dished piston with valve reliefs; Must be used with LSX rods; Lightweight, includes rings and wrist pins; 4.185" bore, .866" wrist pin size; 1.2mm compression ring lands and a 2.0mm oil control ring land. ***NOTE:*** *Not compatible with production-style LS connecting rods; Must be used only with new LSX connecting rods with .866" wrist pin bores.*

LS-SERIES PISTONS AND PISTON RINGS

Premium-quality hypereutectic aluminum alloy pistons are used on most production LS engines (the LS9 supercharged uses forged aluminum). They are lightweight, durable and promote quieter operation. Chevrolet Performance offers production and oversized pistons for many applications. They're sold individually, unless otherwise specified. Check the accompanying chart for part numbers, specs, sizes and applications.

LS3 CT525 Forged Piston

LS-Series Pistons

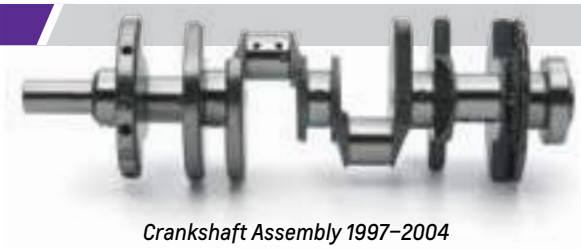
Part Number	Engine Size	Bore Size	Oversize	Rod Length	Pin Type	Comp Ratio	With Chamber	Description
88984245	5.7L	3.898"	–	Standard	Pressed	–	65	Hypereutectic LS1 and LS6 replacement
88984246	5.7L	3.898"	+.010"	Standard	Pressed	–	65	Hypereutectic LS1 and LS6 replacement
19178305	6.0L	4.000"	–	Standard	Floated	10.9	65	Hypereutectic LS2 and LQ9 replacement
89017479	6.0L	4.000"	+.020"	6.098"	Floated	10.9	65	Hypereutectic LS2 and LQ9 replacement
19418214	6.2L	4.065"	–	Standard	Floated	10.7	65	Forged LS3 replacement

LS-Series Rings

Part Number	Bore Size	Oversize	Ring Thickness	Description
89017484	4.000"	–	1.2, 1.5, 2.5mm	Production ring pack for '05–'06 LS2, '06 L76
88894243	4.000"	–	1.5, 1.5, 3.0mm	Production ring pack for '05–'06 LQ9
12661871	4.065"	–	1.2, 1.2, 2.5mm	Production ring pack for LT4
89017776	4.125"	–	1.2, 1.2, 2.0mm	Production ring pack for '06 LS7
89017777	4.125"	+.020"	1.2, 1.2, 2.0mm	Oversize LS7 ring pack

LS CRANKSHAFTS AND COMPONENTS

Our LS crankshafts are strong, precision-machined components that will support your high-horsepower aspirations. Choose from our nodular cranks up to 3.622-inch-stroke and our premium, forged-steel 4.125-inch-stroke crankshafts for larger-displacement combinations—and don't forget the proper reluctor wheel!



Crankshaft Assembly 1997–2004

Reluctor Wheel, 24x

Part Number	Description	Technical Notes
1268565	LS2 Crankshaft Assembly	Nodular cast 3.622" stroke crankshaft assembly has 58x reluctor wheel installed; Used on 2006–2007 Corvettes; Balanced for 4.000" bore engines
89060436	Rear Crank Seal	Requires 1 per engine; For all LS-Series engines
12557583	Roller Pilot Bearing	Used in high-performance manual transmission applications; Use when input shaft protrudes 3–6mm (.079–.112") beyond bell housing
14061685	Roller Pilot Bearing	Used in high-performance manual transmission applications; Use when input shaft protrudes 23–24mm (.906–.945") beyond bell housing
12611649	LS7 Forged Steel Crankshaft	Forged 4" stroke crankshaft for LS7 engine; Includes 58x reluctor wheel; Rebalancing required if LS7 rods and pistons are not used; Machine .886" from snout for use in wet sump applications
12559353	Reluctor Wheel, 24x (shown)	24-tooth crankshaft position sensor timing wheel for 1997–2005 engines
12586768	Reluctor Wheel, 58x	58-tooth crankshaft position sensor timing wheel for 2006 and newer engine
12641691	LSA Crankshaft	Forged 3.622" stroke; 8-bolt flexplate/flywheel pattern
12674745	Gen V LT1 (Wet Sump) Crankshaft	Forged 3.622" stroke; 8-bolt flywheel pattern
12674744	Gen V LT1 (Dry Sump) Crankshaft	Forged 3.622" stroke; 8-bolt flywheel pattern
12674746	Gen V LT4 (Wet Sump) Crankshaft	Forged 3.622" stroke; 8-bolt flywheel pattern
12674743	Gen V LT4 (Dry Sump) Crankshaft	Forged 3.622" stroke; 8-bolt flywheel pattern

LSX CRANKSHAFTS AND COMPONENTS

Chevrolet Performance LSX crankshafts are made from 4340 forged steel (most production LS cranks are cast) and have generous fillets. Our LSX forged crankshafts deliver exceptional strength and durability when you're building an engine for the track. Additional features include:

LSX Crankshaft, 4.125" stroke

LSX Windage Tray Kit, for 4.125" stroke

- 2.100" rod journals
- 8-bolt flexplate/flywheel pattern
- Comes with 58x reluctor wheel
- Reluctor wheel can be swapped for use with LS1/LS2/LS6 controller
- Designed for internal balancing (must be balanced prior to use in engine)
- Requires the use of chamfered rods (see our LSX connecting rod selection)

Part Number	Description	Technical Notes
19244018	LSX Crankshaft, 4.125" stroke	4340 premium steel; 4.125" stroke; Requires balancing; Includes 58x reluctor wheel; 8-bolt flexplate/flywheel required
19244049	LSX Windage Tray Kit (not shown)	For 4.000" strokes; Includes all matching hardware; Some notching may be required
19202609	LSX Windage Tray Kit	For 4.125" strokes; Includes all matching hardware; Some notching may be required depending on application

FLYWHEELS AND FLEXPLATES

At the opposite end of the crankshaft from the balancer are flywheels and flexplates, which connect the engine to either manual (flywheels) or automatic (flexplates) transmissions. Chevrolet Performance offers both internally and externally balanced flywheels and flexplates. It is critical you use the correct design for your engine application.

NOTE: *For Transmission Installation kits, see pages 41–49*

LS Engine Flywheels

Part Number	Year of Engine	Outside Diameter	Crank Flange Bolt Pattern	Converter Bolt Pattern Diameter	Starter Ring Gear Teeth	Technical Notes
12571611	1997–up	14" (359mm)	6-bolt LS pattern 3.110" (79mm)	11.5" Single Disc	168	Flywheel used for LS engines with 6-bolt crankshaft flange
24240678	2009–up	14"	8-bolt	9.5" Dual Disc	168	LSA Production Dual Mass with 8-bolt crankshaft flange (also fits LSX454)
12598613	2009–up	14"	9-bolt	10" Dual Disc	168	LS9 Production with 9-bolt crankshaft flange

LS Engine Flexplates

Part Number	Year of Engine	Outside Diameter	Crank Flange Bolt Pattern	Converter Bolt Pattern Diameter	Starter Ring Gear Teeth	Technical Notes
12654640	1997–up	14"	6-bolt LS pattern 3.110" (79mm)	11.062" (281mm)	168	Flexplate used for LS engines – fits stock LS-4L60 family torque converter
19260102	1997–up	14"	6-bolt LS pattern 3.110" (79mm)	11.5" (292.1mm)	168	Flexplate only used together with Spacer 12563532 and Bolts 19257940 (4L80 family)
12636325	2009–up	14"	8-bolt	11.062" (281mm)	168	LSA Production Flexplate (also fits LSX-454)
19125691	2009–up	14"	8-bolt	11.5" (291.1mm)	168	Modified LSA 12636325 Flexplate (see above) for use in Flywheel Kit 19125597
12620099	2014–up	14"	8-bolt LS/LT pattern	11.062" (281mm)	168	Production Gen V truck flexplate

TIMING CHAINS AND SPROCKETS

Part Number	Description	Technical Notes
12588670	LS2 Timing Chain Damper (not shown)	Production LS2 damper; Will not fit LS1 and LS6 blocks fitted with P/N 88958607 (P/N 88958607 is no longer serviced); For use with standard oil pumps
12581276	Timing Chain Damper (not shown)	Production LS7 damper; 1.1mm thinner than P/N 12588670; For use with LS7 2-stage oil pump
12576407	1X Camshaft Sprocket (not shown)	Fits all LS cams with 3-bolt design; 1X camshaft gear; 3-bolt design; Uses 3 bolts P/N 12556127
12586481	Camshaft Sprocket (not shown)	Fits all LS cams with 3-bolt design; 4X camshaft gear; 3-bolt design; Uses 3 bolts P/N 12556127
12585994	VVT Camshaft Sprocket (not shown)	Combination camshaft sprocket and VVT activator; Production on 2007–2008 Cadillac Escalade L92 engines; Single-bolt design; Use bolt P/N 12682000; 4X camshaft gear
12556582	Crankshaft Sprocket (not shown)	Fits non-LS7/LS9 applications; For standard single-stage oil pumps; Works with both cam sprockets P/N 12576407 and 12586481
12581278	Crankshaft Sprocket (not shown)	For use with 2-stage LS7 or LS9 oil pump only; Works with cam sprockets P/N 12576407 and P/N 12586481
12646386	Timing Chain (not shown)	Fits 1997–2009 LS-based engines
12626407	Timing Chain Tensioner (not shown)	Requires 1 per engine; Includes retainer and bolts; For L92 and LS3 engines
12556127	Camshaft Sprocket Bolt (not shown)	For use with 3-bolt (non-VVT) cams; For LS1, LS2, LS6, LS9 and early LS7 engines
11561283	Camshaft Sprocket Bolt (not shown)	For use with single-bolt cams and non-VVT timing covers; For 2008–2009 LS3 and LS7 engines
12682000	Camshaft Sprocket Bolt (not shown)	Combination bolt and valve for Variable Valve Timing (VVT) engines; For L92 engines; Use with VVT camshaft sprocket P/N 12585994

BOLTS, DOWELS AND BEARINGS

Part Number	Description	Technical Notes
11569956	Flywheel Bolt (not shown)	Requires 6 per engine; For LS1, LS2, LS3, LS6, LS7 and L92 engines; Use for both automatic flexplates and manual flywheels
11505820	Flywheel Dowel (not shown)	For all LS-Series engines; Locating dowel pin for pressure plate
12561465	Pressure Plate Bolts (not shown)	6 pieces. 6 needed per flywheel; Used on all GM LS engine manual flywheels
14061685	Pilot Bearing (not shown)	Use with manual transmissions if the input shaft extends beyond the bell housing more than 20mm
12557583	Pilot Bearing (not shown)	Use with manual transmissions if the input shaft extends beyond the bell housing 5mm or less (or recessed slightly)

ACCESSORY DRIVE SYSTEMS

The easiest and most convenient way to finish your LS engine and get it ready to run in your vehicle is with one of our serpentine accessory drive systems. They include the accessories, brackets, drive belts and hardware your engine needs, saving you the time of sourcing them individually. They're all-inclusive systems that bolt right onto the engine for a factory fit and appearance.

19418441

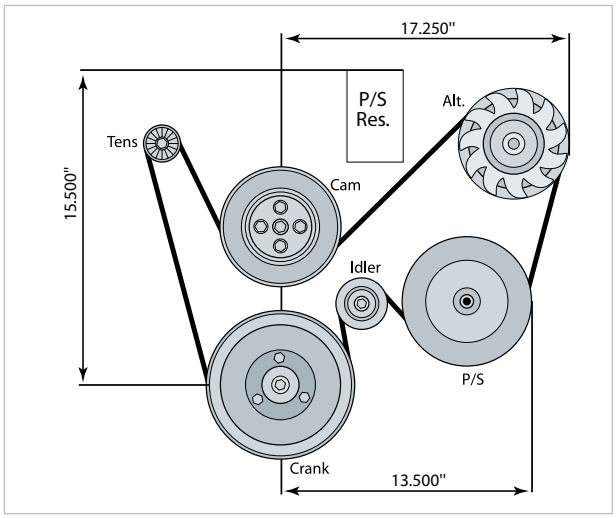
Corvette Accessory Drive System – without A/C

- Fits all non-LSA and LS9 LS-type engines
- Most harmonic balancers do not line up correctly with the accessory drive system; damper P/N 12674582 is strongly recommended
- Direct bolt-on for LS3 & LS7 engines

NOTE: *Use on LS327 iron block engine requires harmonic balancer P/N 12674582.*

NOTE: *Water pump P/N 12681186 NOT included with kit.*

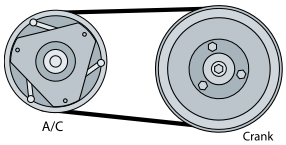
NOTE: *Will not work with cam-phased engine.*



Corvette Accessory Drive System – without A/C

19419285

Corvette Accessory Drive System – A/C Add-on



Components needed to add A/C to your LS-equipped vehicle.

- Kit includes mounting bracket, bolts, belt, A/C compressor and instruction sheet
- Intended to be used in conjunction with P/N 19418441 GMPP kit for non-A/C applications
- Not verified to work with any non-GM FEAD kit
- Includes variable displacement compressor

19419284

Corvette Accessory Drive System – with A/C

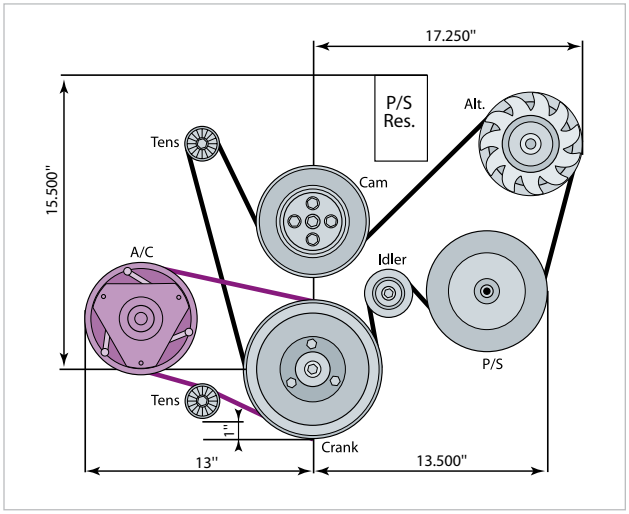
Includes all components in kits P/N 19418441 and P/N 19299069.

- Fits all non-LSA and LS9 LS-type engines
- Most harmonic balancers do not line up correctly with the accessory drive system; damper P/N 12674582 is strongly recommended
- Air conditioning has separate belt; to delete air conditioning, do not install the belt, compressor or tensioner
- Direct bolt-on for LS3 & LS7 engines

NOTE: *Use on LS327 iron block engine requires harmonic balancer P/N 12674582*

NOTE: *Water pump P/N 12681186 NOT included with kit.*

NOTE: *Will not work with cam-phased engine.*



Corvette Accessory Drive System – with A/C

19368946

LSA Accessory Drive System – without A/C

The front engine assembly dress components used in the CTS-V, without A/C for installations in other vehicles.

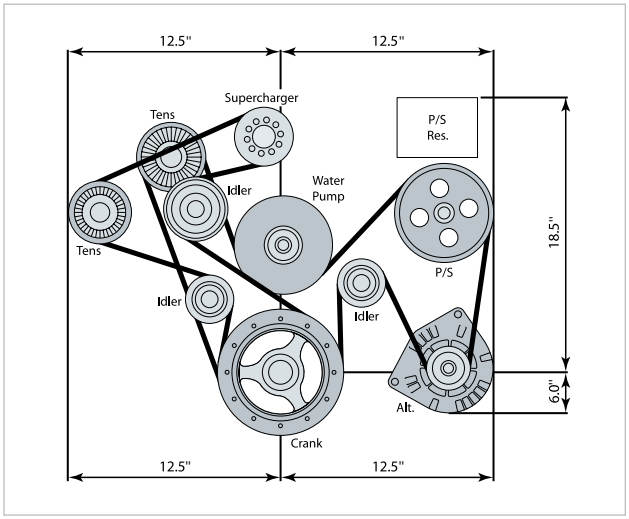
- Includes all brackets, bolts, tensioners, pulleys, belts, alternator, P/S pump and instruction sheet

19244106

LSA Accessory Drive System A/C Add-On Kit (not shown)

Components needed to add A/C to your LSA-equipped vehicle.

- Kit includes mounting bracket, bolts, belt, A/C compressor and instruction sheet
- Intended to be used in conjunction with P/N 19368946 kit for non-A/C applications.
- Not verified to work with any non-GM FEAD kit



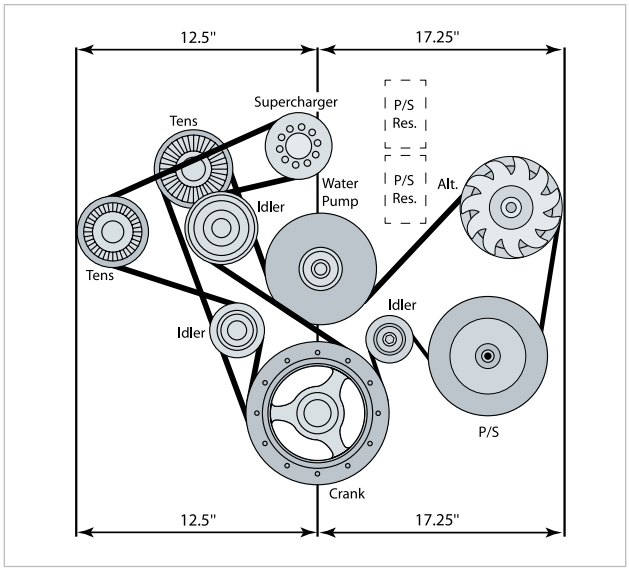
LSA Accessory Drive System – without A/C

19417908

Modified LSA Accessory Drive System – without A/C

Similar to LSA Accessory Drive Kit P/N 19368946, but designed for retro-fit applications with a relocated alternator and power steering pump to provide chassis clearance in older vehicles.

- Includes power steering pump and 2 remote-mount reservoirs; builder to use the reservoir that provides the best fit for the application
- Requires fabrication of reservoir mounting bracket
- Requires reservoir-to-pump hose
- Can be used with either LSA A/C add-on or Corvette A/C add-on kit



Modified LSA Accessory Drive System – without A/C

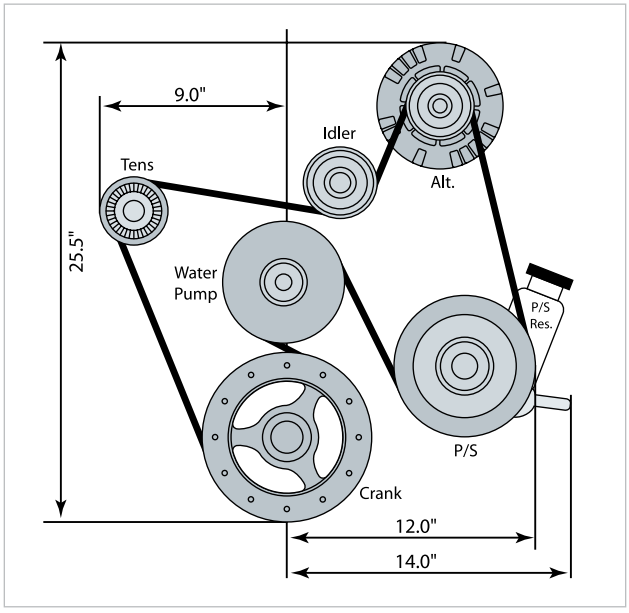
19369108

LC9 5.3L Accessory Drive System – without A/C

The workhorse LC9 5.3L engine assemblies come with an alternator bracket attached. Using the parts listed below will complete the factory-installed FEAD assembly. These components are engineered for heavy-duty work-truck use and will provide years of reliable service in your performance vehicle.

Power Steering Pump Pulley Install Tool (included)

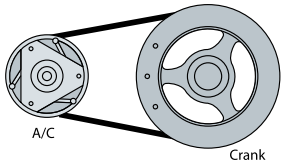
NOTE: *This kit is designed to include the necessary parts to install the complete kit on a Chevrolet Performance 5.3L Crate Engine. If you do not have a Chevrolet Performance 5.3L Crate Engine, you may need some additional hardware. See your dealer or visit chevroletperformance.com for details.*



LC9 5.3L Accessory Drive System

19260892

LC9 5.3L Accessory Drive System A/C Add-on Kit



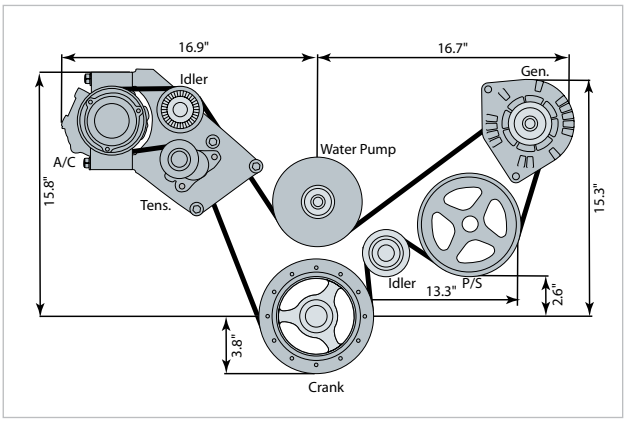
Components needed to add A/C to your LC9-equipped vehicle.

- Kit includes mounting bracket, bolts, belt, A/C compressor and instruction sheet
- Intended to be used in conjunction with P/N 19258423 kit for non-A/C applications
- Not verified to work with any non-GM FEAD kit

19418442

LS3 Accessory Drive System

- High mount A/C provides clearance to frame
- Fits most non-LSA and non-LS9 SC engine



LS3 Accessory Drive System

Accessory Drive Systems continued

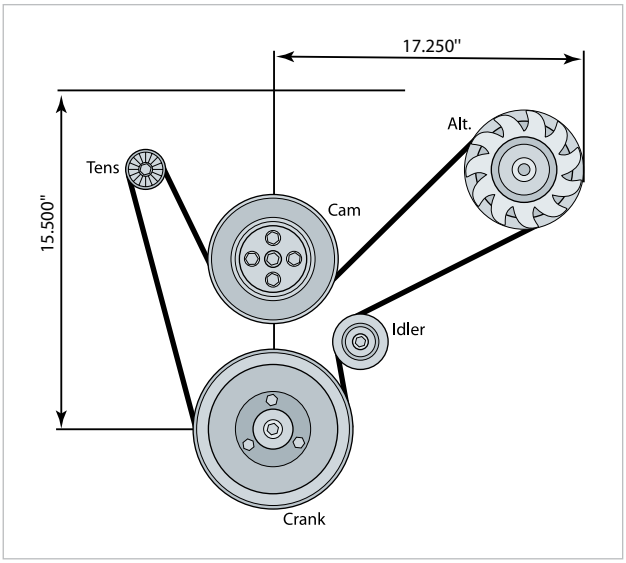
19329418
DR525 Accessory Drive System

- Fits all non-LSA and LS9 LS-type engines
- Most harmonic balancers do not line up correctly with the accessory drive system; damper P/N 12674582 is strongly recommended
- Direct bolt-on for LS3 & LS7 engines

NOTE: *Use on LS327 iron block engine requires harmonic balancer P/N 12674582.*

NOTE: *Water pump P/N 12681186 NOT included with kit.*

NOTE: *Will not work with cam-phased engine.*

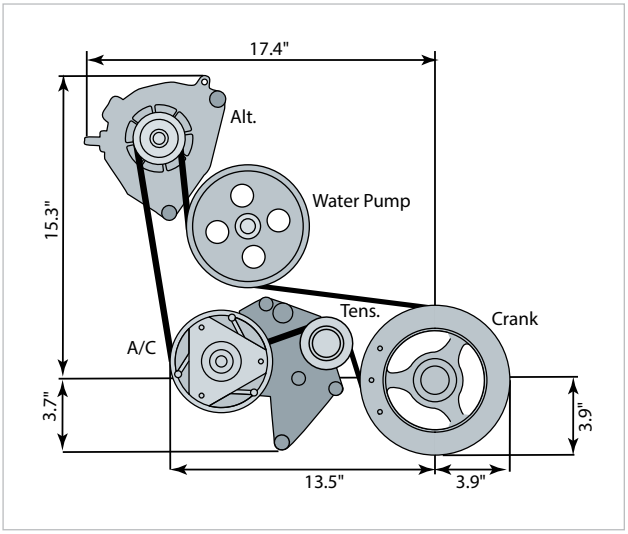


DR525 Accessory Drive System

19369109
LT1 Corvette Dry sump Accessory Drive System

This package includes production mounting brackets, hardware and drive belt to mount the alternator and A/C compressor in the same configuration as the LT1 equipped Stingray.

NOTE: *Power steering is not included, as the production car has electric assist.*



LT1 Corvette Dry Sump Accessory Drive System

19417547
LT1 Camaro Wet Sump Accessory Drive System – without A/C

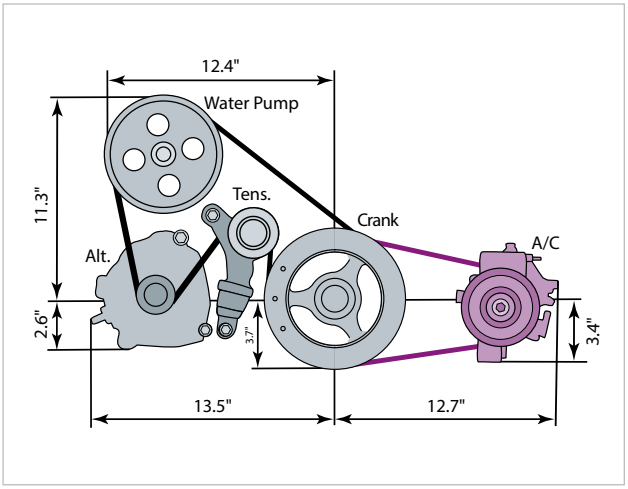
- Includes alternator, brackets, tensioner and bolts
- Use A/C Add-on Kit P/N 19369182

19417241
LT1 Wet Sump Hydraulic Power Steering Add-on Kit

- Includes all parts to mount/add hydraulic power steering pump to LT1 wet sump engines only
- Mounts to LH side of engine
- Uses unique cast mounting bracket
- Uses modified production PS pump with 1500 psi relief valve setting
- Unique billet pulley
- LT4 production balancer and bolt included
- 7 rib “stretchy” belt drives PS pump on unique belt track

19371521
LT4 Wet Sump Accessory Drive System – without A/C

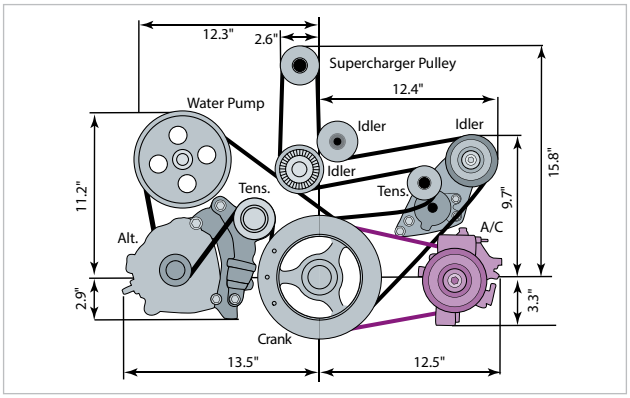
- Fits Gen V LT4 wet sump engines
- Includes alternator, tensioners, brackets, belts, pulleys, bolts and instruction sheet
- Air conditioning has a separate belt—see kit P/N 19369182
- Production version of 2016 CTS-V and Camaro ZL1



LT1 Camaro Wet Sump Accessory Drive System (19417547) with LT4 Wet Sump & LT1 Camaro A/C Add-on Kit (19369182)

19369182
LT4 Wet Sump & LT1 Camaro A/C Add-on Kit

- Kit includes mounting bracket, bolts, belt, compressor and instruction sheet
- Intended to be used in conjunction with P/N 19371521 or P/N 19339110 Chevy Performance kits
- Includes variable displacement compressor
- Production version of 2016 CTS-V



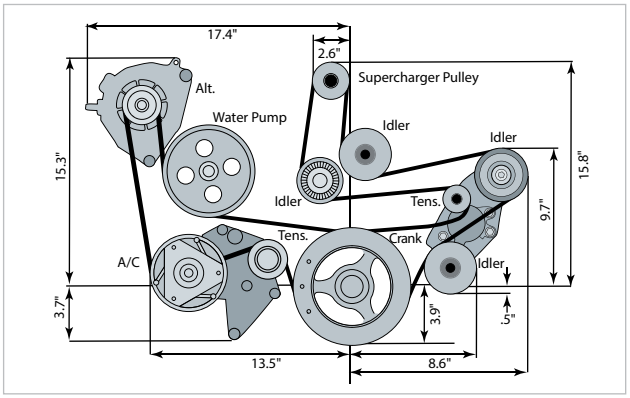
LT4 Wet Sump (ZL1 Camaro) Accessory Drive System (19371521) with LT4 Wet Sump & LT1 Camaro A/C Add-on Kit (19369182)

19417242
LT4 Wet Sump Hydraulic Power Steering Add-on Kit

- Includes all parts to mount/add hydraulic power steering pump to LT4 wet sump engines only
- Mounts to LH side of engine
- Uses unique cast mounting bracket that replaces existing pulley/idler bracket
- Uses modified production PS pump with 1500 psi relief valve setting
- Unique billet pulley
- PS pump driven from 8 rib SC belt

19418608
LT4 Camaro Dry Sump Accessory Drive System – with A/C

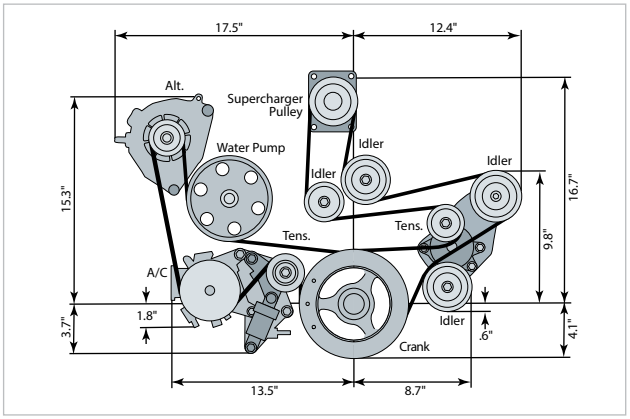
- Fits Gen V LT4 dry sump engines
- Includes alternator, tensioners, brackets, belts, pulleys, bolts and instruction sheet
- Includes variable displacement compressor, does not require P/N 19369182 A/C Add-on Kit
- Production version of 2016 Z06 Corvette



LT4 Dry Sump Accessory Drive System – with A/C

19417240
LT5 Accessory Drive System – with A/C

- Fits Gen V LT5 6.2L dry sump engine
- Includes alternator, tensioner, A/C compressor, S/C belt, pulleys, bolts and instruction sheet
- Production version of 2019 ZR1 Corvette Front End Accessory Drive



LT5 Accessory Drive System – with A/C

Rear FEAD Clearance Dimensions

FEAD Part Number (Original Equipment Application)	Belt Track (front of block to rear edge of main drive bolt)		Belt Track (front of block to rear edge of supercharger belt)	
19419284 (Corvette Non-Supercharged)	3"	6 Groove	–	–
19418441 (Corvette Non-Supercharged)	3"	6 Groove	–	–
19329418 (Corvette Non-Supercharged)	3"	6 Groove	–	–
19368946 (CTS-V LSA Supercharged) (discontinued)	3"	6 Groove	4.5"	8 Groove
19369108 (Truck)	4.5"	6 Groove	–	–
Gen 4 Camaro/Firebird (LS1) (production)	4"	6 Groove	–	–
Gen 5 Camaro (LS3/L99) (production)	4.75"	6 Groove	–	–

AC Compressor for FEADs

Part Number	Application	Style	Belt Track (front of block to rear edge of belt)	
19130461	CTS-V	Fixed Disp	1.5"	4 Groove
19418175	Corvette	Variable Disp	1.5"	4 Groove
89019339	Corvette	Variable Disp	1.75"	6 Groove
25891791	Truck	Fixed Disp	3.5"	4 Groove

BALANCERS

A smooth-running engine depends on an effective balancer or torsional damper. Our dampers not only help LS engines run smoothly, they can extend engine life. Pick the right damper for your project from the list below.

Harmonic Balancer – LS1 and LS2

Harmonic Balancer – LS7

Part Number	Description	Technical Notes
19300488	Harmonic Balancer (not shown)	Originally used on L92 engines; For use in truck applications; WILL NOT work with our Serpentine Accessory Drive Systems
12553118	Harmonic Balancer	Originally used on LS1 and LS2 engines; For use in F-Car and GTO applications
12675716	Harmonic Balancer	Originally used on LS7 engines; For use in Corvette applications; Works with Chevrolet Performance Serpentine Accessory Drive System P/N 19370820 or P/N 19419284
12674582	Harmonic Balancer (not shown)	For LS3 engines; Works with Chevrolet Performance Serpentine Accessory Drive System P/N 19370820 or P/N 19419284

Balancer Bolts and Washers

Part Number	Description	Technical Notes
12557840	Balancer Bolt (not shown)	For LS1, LS2, LS3, LS6 and L92 engines
11570163	Balancer Bolt (not shown)	For LS7 engines
12674588	Friction Washer (not shown)	For LS2, LS3, L99, LS7 and L92 engines

WATER PUMPS AND COMPONENTS

Water Pump – LS2, LS3 and LS7 Engines

Water Pump – 2009 LSA, LS3/LS7, L76 SRX Engines

Part Number	Description	Technical Notes
12681417	Water Pump (not shown)	2007–2010 LS2 trucks, vans and SUVs
12681186	Water Pump	2005–2007 LS2; 2008 LS3; 2007–2008 LS7
19180610	Water Pump	2009–2010 LSA (CTS-V); 2009–2010 LS3 (Corvette) 2009 L76 SRX; 2009–2010 LS7 (Corvette)
12630223	Water Pump Gasket (not shown)	Requires 2 per engine; For LS1, LS2, LS3, LS6, LS7 and L92 engines
12551926	Water Pump Bolt (not shown)	Requires quantity of 6; For LS1, LS2, LS3, LS6, LS7 and L92

OIL PANS, OIL PUMPS, GASKETS AND COMPONENTS

Corvette Oil Pan – 2002–2004 LS6

F-Car Oil Pan

LS Circle Track Oil Pan

Muscle Car Oil Pan Kit

Part Number	Description	Technical Notes
12561828	Corvette Oil Pan – 2002–2004 LS6	Used on 2002–2004 Corvettes with LS6
12628771	F-Car Oil Pan	Used on 1998–2002 Camaro and Firebird LS1; Uses PF48 oil filter
19243065	LS Circle Track Oil Pan	Used on CT525 P/N 19418211; 6-quart capacity (8-quart with remote filter and adapter); Requires remote oil filter and adaptor; Uses oil pan gasket P/N 12612350 (not included)
19212593	Muscle Car Oil Pan Kit	Fits virtually all 1955–1995 GM front engine, RWD, V-8 cars; 5-quart capacity; Includes oil pan, dipstick and tube, gaskets, pickup tube, windage tray and all mounting hardware; Wet sump design; Max stroke 3.620 w/windage tray
12612350	Oil Pan Gasket (not shown)	Requires 1 per engine; Fits all LS-Series engines except LS7 and LS9
12612351	Oil Pan Gasket (not shown)	Requires 1 per engine; For LS7 and LS9 engines
11515758	Oil Pan Bolt (not shown)	M8 x 30mm long; Requires 12 per engine (use 13 with LS7 and LS9 engines); For LS1, LS2, LS6, LS7 and L92 engines
12554990	Oil Pan Bolt (not shown)	M6 x 136mm long; Requires 2 per engine; For all LS-Series engines
12612289	Oil Pump (not shown)	For L92 engines
12623097	Oil Pump (not shown)	2-stage pump for LS7 engines; Will not work on standard LS crankshafts; Must use crank sprocket (P/N 12581278), timing damper (P/N 12581276), LS7 pickup tube (P/N 12580855), LS7 oil pan (P/N 12664619), and LS7 timing cover (P/N 12633907)
11519133	Oil Pump Bolt (not shown)	Requires 4 per engine; For all LS-Series engines

LS INTAKE MANIFOLDS

12644568
LS7 Production Intake Manifold Assembly

- Gen IV fuel-injection nylon manifold used on the 2009 Corvette Z06 LS7 engine
- Fully assembled with injectors, fuel rail, 90mm ETC throttle body and gaskets
- For use only with LS7 and LSX/LS7-style cylinder heads

NOTE: *Must use Controller Kit P/N 19354334.*

12674428
LS3 Intake Manifold Assembly

- Gen IV fuel-injection nylon manifold used on the 2009 Corvette LS3
- Fully assembled with injectors, fuel rail, 90mm ETC throttle body and gaskets
- For use with LS3/L92-style cylinder heads

19244103
LS9 Supercharger

- Original equipment on ZR1 Corvette
- Eaton twin-rotor 2.3L displacement
- Integrated dual-brick air-to-liquid intercooler
- Highly efficient 4-lobe rotor design
- Generates maximum boost pressure of 10.5 PSI

Assembly includes:
- Supercharger intake system with injectors
- Cast cover and intercooler
- Front pulley
- Throttle body (not shown)
- Gasket set
- Injector harness (not shown)
- Injectors (not shown)
- Fuel rails (not shown)

19300534
ZL1 Supercharger

- Original equipment on LSA-powered 2012–2014 ZL1 Camaro
- Highly efficient Eaton Twin-Vortices, high-helix rotors
- 1.9L displacement
- Integrated air-to-liquid intercooler with front-facing lines
- Approximately 9 lbs psi boost on 6.2L engine

Assembly includes:
- Supercharger
- Intake system with injectors
- Ribbed cast cover and intercooler
- Front pulley
- Throttle body
- Gasket set

22901367
LS9/LSA Intercooler Fluid Pump

- Includes pump assembly
- Additional hoses and clamps required to connect pump inline with coolant circuit

19301246
Air Inlet Kit for LS-Based Crate Engine Installation

- Designed for universal LS and LSX EFI crate engine installations
- Kit contains intake tubes with provisions for mass airflow meter and vacuum line, along with a reusable, high-performance air filter and mounting hardware
- Straight and elbow tubes provide the optimal distance between throttle opening and mass airflow meter, including the minimum length of straight tubing required for accurate mass airflow meter operation
- Includes polished intake tubes, couplers, worm-style clamps and a vacuum hose
- Mass airflow meter provision accepts all GM production meters (must be purchased separately)

NOTE: *This is a universal kit and may not fit every application. Additional fabrication may be required, but the length of the straight tube must be maintained for accurate mass airflow meter operation.*

88958675
LS2 4-bbl Intake Manifold

DISCONTINUED: *Limited to stock on-hand.*

- Allows you to install a 4-bbl carburetor on an LS-Series engine with cathedral ports (LS1, LS2, LS6)
- Cast-aluminum open-plenum intake manifold accepts a 4150-style square-bore carburetor
- Bosses for EFI injectors for custom applications
- Bolts and instructions supplied

NOTE: *LSX Ignition Controller P/N 19355418 is required for carbureted applications.*

25534394
LS7 4-bbl Intake Manifold

DISCONTINUED: *Limited to stock on-hand.*

- Lightweight GM racing design for use on LS7-style heads
- Reduced mass design, porting not recommended
- Includes mounting bolts and instructions
- Uses LS7 carb intake gasket set P/N 19172113
- Machined for 4150-style carburetors and has $^{3}/_{8}$" NPT vacuum boss
- Also available with injector bosses, P/N 25534413

NOTE: *LSX Ignition Controller P/N 19355418 is required for carbureted applications.*

Parts intended for competition use only. See page 2 for details.

Additional components required for installation. See chart on page 114

LS Intake Manifolds continued

25534401

LS3/L92-Style 4-bbl Intake Manifold ***DISCONTINUED:*** *Limited to stock on-hand.*

- Lightweight GM racing design for use on LS3/L92-style cylinder heads
- Reduced mass design, porting not recommended
- Includes mounting bolts P/N 11609577 and instructions
- Uses L92 carb intake gasket set, P/N 19172114
- Machined for 4150-style carburetors and has 3/8" NPT vacuum boss
- Also available with injector bosses P/N 25534416

NOTE: *LSX Ignition Controller P/N 19355418 is required for carbureted applications.*

LSX INTAKE MANIFOLDS

The best way to feed an LSX engine is with air channeled through one of our LSX intake manifolds. They're designed to match the performance capability of our LSX heads and big-displacement rotating assemblies. LSX intake manifolds have a high-flow, spider-type design and are made of lightweight aluminum. They're cast with plenty of material for builder-specified port work and the flanges are a minimum of .5" thick to accommodate machining. Additional features include:

- Standard-deck and tall-deck versions
- Natural finish with LSX and GM logos
- Injector/nitrous bosses cast in place
- Comes with installation hardware

19244037

LSX-LS3 Dual-Plane Standard Deck 4-bbl Manifold

DISCONTINUED: *Limited to stock on-hand.*

- Dual-plane for low- and mid-range torque
- L92-style ports
- Injector/nitrous bosses cast-in
- Extra thick for professional porting
- 4150-style carburetor mounting provision
- Uses OEM O-ring gaskets and bolts (included)
- Tall-deck version available as P/N 19244036

19244035

LSX-LS3 Single-Plane Standard Deck 4-bbl Manifold

DISCONTINUED: *Limited to stock on-hand.*

- Single-plane design for mid-range and top-end power
- L92-style ports
- Injector/nitrous bosses cast-in
- Extra thick for professional porting
- 4150-style carburetor mounting provision
- Uses OEM O-ring gaskets and bolts (included)
- Tall-deck version available as P/N 19244034

19354465

LSX-LS7 Single-Plane Standard Deck 4-bbl Manifold

DISCONTINUED: *Limited to stock on-hand.*

- Single-plane design for mid-range and top-end power
- LS7-style port
- Injector/nitrous bosses cast-in
- Extra thick for professional porting
- 4150-style carburetor mounting provision
- Uses OEM O-ring gaskets and bolts (included)
- Tall-deck version available as P/N 19244032

19257854

LSX-CT Single-Plane Standard Deck 4-bbl Manifold

DISCONTINUED: *Limited to stock on-hand.*

- Single-plane design for large displacement or high-rpm applications
- LSX-CT/DR-style port; minor port matching required for optimal port match
- Two sets of injector/nitrous bosses are cast-in for extreme power capability
- Extra thick for professional porting and/or boosted applications
- ½" raised 4150-style carburetor mounting pad
- Tall-deck version available as P/N 19257853

19257851

LSX-DR Single-Plane Standard Deck 4-bbl Manifold

DISCONTINUED: *Limited to stock on-hand.*

- The ultimate drag racing single-plane for large displacement or high-rpm applications
- LSX-CT/DR-style port; minor port matching required for optimal port match
- Two sets of injector/nitrous bosses are cast-in for extreme power capability
- Extra thick for professional porting and/or boosted applications
- 1" raised 4500-style carburetor mounting pad
- Tall-deck version available as P/N 19257852

Intake Manifolds: Additional Required Components

Part Number	Intake Gaskets	Bolts	Engine Application
25534394/25534413	19172113	Included with manifold	LS7 Carburetor Applications
25534401/25534416	19172114	Included with manifold	L76/L92 and LS3 Carburetor Applications
88958675	19156564	Included with manifold	LS2 Carburetor Applications

Additional components required for installation. See chart above.

INTAKE MANIFOLD GASKETS AND COMPONENTS

LS Front Distributor Drive Cover

LS7 Carburetor Intake Gasket

L92/LS3 Carburetor Intake Gasket

LS Header Flange

Part Number	Description	Technical Notes
88958679	LS Front Distributor Drive Cover	Assembly is manufactured for applications where a 4-bbl carburetor and distributor are required; Can be combined with GM's Bowtie valve covers P/N 25534398 and P/N 25534399 for a complete traditional-looking engine package; For all LS-Series engines except LS7, LSA and LS9 ***NOTE:*** *Distributor and mechanical fuel pump not included. Uses Small-Block Ford-style distributor and mechanical fuel pump. Special water pump, accessory drive and damper required.*
19172113	LS7 Carburetor Intake Gasket	For use with intake manifold P/N 25534394 or P/N 25534413; Includes 2 gaskets
19172114	L92/LS3 Carburetor Intake Gasket	For use with intake manifold P/N 25534401 or P/N 25534416; Includes 2 gaskets
19156564	LS2 Carburetor Intake Gasket (not shown)	For use with intake manifold P/N 88958675; Includes 2 gaskets
12480130	LS Header Flange	These $^{3}/_{8}$" thick steel header flanges are a great way to start a fabricated set of LS-Series headers; For stock LS1, LS2, LS3, LS6, LS7 and L92 (may require clearancing) exhaust ports; Sold individually

DRY SUMP COMPONENTS

Dry Sump Oil Hose Adapters

Part Number	Description	Technical Notes
25534412	Dry Sump Oil Hose Adapters	Kit adapts the production LT1, LT4, LS7 and LS9 oil pan to aftermarket AN-style hoses for aftermarket dry sump oil tanks; Bolts directly to oil pan, and has AN male outlet for AN-12 fittings; Includes 1 adapter, 2 fittings, 2 bolts and 2 sealing gaskets
12603281	Oil Tank (not shown)	Fits 2006–2008 Z06 Corvette
15210122	Oil Inlet Hose (not shown)	Fits 2006–2013 Z06 Corvette
15210117	Oil Outlet Hose (not shown)	Fits 2006–2013 Z06 Corvette

STARTERS

LS-Series Starter

Part Number	Description	Technical Notes
10465385	LS-Series Starter	Works with all LS-Series and Gen IV V-8 engines, including the LS1, LS2, LS3, LS6, LQ9, LQ4 and LS7
12691976	LT4 Starter (not shown)	For 2015–2016 Z06 Corvette applications
89017844	Starter (reman, not shown)	Requires 1 per engine; For L92 engines
89017664	Starter (reman, not shown)	Requires 1 per engine; For 2005 Corvette applications; For LS2 engines
89017847	Starter (reman, not shown)	Requires 1 per engine; For 2006–2007 Corvette applications; For LS2, LS3 and LS7 engine

NOTE: *All LS starters require one bolt P/N 11610633 and one bolt P/N 12561848.*

Starters: Additional Required Components

Part Number	Bolts (Quantity)	Engine Application
10465385	11610633 (1), 12561848 (1)	LS-Series

Parts intended for competition use only. See page 2 for details.

Additional components required for installation. See chart above.

CARBURETORS

Carburetor – Holley 670-cfm

Carburetor – Holley 850-cfm

Carburetor – Holley 870-cfm

Part Number	Description	Technical Notes
19170092	Carburetor – Holley 670-cfm	Holley 4150-style 670-cfm 4-bbl carburetor; Features show-car-quality polished finish; Dual-feed center-hung fuel bowls; Vacuum secondaries; Electric choke; Power valve blowout protection; Quick-change adjustable vacuum secondary; Bolts and gaskets included
19170093	Carburetor – Holley 770-cfm (not shown)	Holley 4150-style 770-cfm 4-bbl carburetor; Features show-car-quality polished finish; Dual-feed center-hung float bowls; Vacuum secondaries; Automatic electric choke; Quick-change adjustable vacuum secondary; Recommended for Small-Block and Big-Block engines; Bolts and gaskets included
19170095	Carburetor – Holley 850-cfm	Holley 4150-style 850-cfm 4-bbl carburetor; Features show-car-quality polished finish; Mechanical secondaries; Electric choke; Four-corner idle adjustment; Power valve blowout protection; Custom-calibrated for the ZZ572/620 crate engine; Recommended for 502 crate engines and suitable for Big-Block engines; Bolts and gaskets included ***NOTE:*** *Carburetor can only be recalibrated for use with other large-displacement engines*
19170094	Carburetor – Holley 870-cfm	Holley 4150-style 870-cfm 4-bbl carburetor; Features show-car-quality polished finish; Dual-feed center-hung float bowls; Vacuum secondaries; Automatic electric choke; Quick-change adjustable vacuum secondary; Recommended for 502 crate engines, suitable for Big-Block engines; Bolts and gaskets included; Replaces 4150-style 850-cfm carburetor P/N 12366996

AIR CLEANERS

Air Cleaner – Chevrolet-Logo High-Performance Design

Air Cleaner – Chevrolet-Logo Classic Design

Part Number	Description	Technical Notes
12342080	Air Cleaner – Chevrolet-Logo High-Performance Design	14" round high-performance-style air cleaner; Chrome lid with embossed Chevrolet name; Fits most 4-bbl and 2-bbl carburetors; ***NOTE:*** *Check clearance between hood and top of air cleaner. Minimum clearance is 3.75" from top of carburetor gasket area to underside of hood.*
12342071	Air Cleaner – Chevrolet-Logo Classic Design	14" round classic-style air cleaner; Chrome lid with embossed Chevrolet name and Bowtie attaching nut; Fits most 4-bbl and 2-bbl carburetors

FUEL INJECTORS

19420801 **NEW**

LT4 Injector Kit

- Production direct-injection fuel injectors for the supercharged LT4 engine
- Flow rate of approximately 140 lbs./hr. at max pressure of 2,950 psi
- Higher flow rate than LT1 injectors
- Eight injectors per kit. Order one kit per engine
- Tuning required for non-LT4 applications

ELECTRICAL AND FUEL COMPONENTS

Ignition Controllers

Part Number	Description	Technical Notes
19355418	LS/LSX Ignition Controller	Distributorless plug-in ignition system for carbureted LS engines with 58x & 24x reluctor wheel; Several pre-programmed timing curves provided; Supplied software allows you to create custom vacuum advance curves, timing curves, program low and high rpm rev limiter and step retard; Plugs into stock sensors (not provided); MAP sensor provided; Compatible with all LS-Series ignition coils
19355863	LS CT525 Circle Track Ignition Controller	Required to operate CT525 Circle Track crate engine; Preset timing curve and rev limiter; Direct plug-in to factory LS sensors and coils; Includes complete ignition wiring harness

Spark Plugs

Part Number	Description	Technical Notes
12571165	Spark Plug (not shown)	Requires 8 per engine; AC 41-101; For LS7, LSA and LS9 engines
12680072	Spark Plug (not shown)	Requires 8 per engine; AC 41-985; For LS1, LS2, LS3, LS6 and L92 engines

Spark Plug WIres

Chevrolet Performance spark plug wire kits are designed to fit your GM engine, eliminating the guesswork in selecting the correct length.

Part Number	Description	Technical Notes
19351568	Spark Plug Wire Set – LS-Series V-8	Direct-fit wire set with factory-style boots and terminals; Designed for over-valve-cover installation
19329681	Spark Plug Wire Shield (not shown)	Requires 8 per engine; For all LS-Series engines

Fuel Pumps and Components

Part Number	Description	Technical Notes
6472657	Electric Fuel Pump	For use on all carbureted engines; Flows 30–40 gph at 6–9 psi
19303293	Camaro ZL1 Fuel Pump Module	Production fuel pump module for the 2012 Camaro ZL1 with supercharged LSA engine; Supports approximately 600 horsepower; Direct replacement for 2010+ Camaro SS fuel pump modules; 250 liters per hour capacity at 65 psi; Pulse-width modulated, eliminates need for conventional pressure regulator; Kit includes fuel pump module/sender assembly tank seal and instruction sheet ***NOTE:*** *When combined with service part P/N 23193422 and P/N 22756514 fuel pickups, you can expand the amount of fuel available during road course usage on your Camaro.*
25115899	Electric Fuel Pump – High-Output	Heavy-duty 12-volt electric rotary pump; Flows 72 gph at 6–8 psi
854619	Fuel Filter (not shown)	High-capacity in-line filter; Suitable for all high-performance carbureted applications; 5/16" inlet and outlet
19239926	LS Fuel Filter (not shown)	1999–2003 Corvette stock fuel filter; Built-in fuel pressure regulator; Mounts to frame; Supplies constant 55–61 psi of fuel to engine and returns excess to fuel tank

LS/LSX Ignition Controller

LS CT525 Circle Track Ignition Controller

Spark Plug Wire Set – LS-Series V-8

Electric Fuel Pump

Camaro ZL1 Fuel Pump Module

Electric Fuel Pump – High-Output

Engine Control Modules and Harnesses

The engine control module is the brain of your Gen IV LS- or Gen V LT-powered project vehicle. Chevrolet Performance is your source for controllers designed for easy "plug-and-play" installation. In most applications, there is no need for third-party tuning adjustments.

Unlike controllers from regular-production vehicles, which may or may not come with a used engine, Chevrolet Performance controllers are uniquely calibrated for installation in older vehicles. That means many features required for late-model production vehicles are "turned off," because they're not required in older cars and trucks. That prevents the unnecessary triggering of diagnostic trouble codes that could possibly affect performance or require additional calibration adjustments.

Our inclusive kits deliver all the components required to plug into the engine and get it running—from the controller itself and the accompanying wire harness to the mass airflow sensor, oxygen sensors and even a throttle pedal assembly for engines equipped with an electronic throttle body. The kits also include detailed instructions to help you do it right the first time, even if you have no experience.

Most kits include:

- Two oxygen sensors
- Two oxygen sensor mounting bosses (for installation in the exhaust system)
- A mass airflow meter
- A mass airflow meter mounting boss (for installation in the air intake system)
- A throttle pedal assembly (for use with the electronically operated throttle)
- A specific oil pressure sensor that is compatible with the harness (when needed)
- A complete wiring harness with fuse-box and necessary cam sensor and MAP sensor jumpers
- Fuel pump power module for direct-injected engines
- Fuel pressure sensor for direct-injected engines
- The programmed controller
- An instruction sheet

Each Chevrolet Performance controller kit is a true stand-alone system. All that's needed to get a vehicle running with it are power and ground sources, a high-pressure fuel pump and an electric cooling fan.

QUICK INSTALLATION TIPS

INSTALLING THE ECM – The ECM is weather-resistant and can be mounted under the hood, but it should be placed to avoid extreme heat and away from potential splash. Chevrolet Performance does not recommend mounting it directly to the engine.

ACCELERATOR PEDAL – Chevrolet Performance's controller kits are designed for use with factory-type electronic throttles (no conventional throttle cable) that require a matched accelerator pedal. The pedal contains an electronic sensor that conveys to the controller when and how much to open the throttle. The pedal should be mounted at least 2.5 inches to the right of the brake pedal and 2 inches below it. There should be at least .75-inch clearance between the pedal and the transmission tunnel/center console. The pedal has a wire harness that connects to the controller, requiring it to be fed through the firewall—possibly requiring a new hole. Use a grommet on the hole to prevent chafing of the harness.

MAF – The mass airflow meter that comes with some controller kits must be mounted in a 4-inch-diameter tube that has at least a 6-inch-long straight section. The kit includes the bracket and mounting bosses onto which the meter is secured on the tube—the tube must be cut to allow the meter to hang inside of it. The meter sensor must be mounted at the center of the straight section, making sure that is at least 10 inches from the throttle body. Orienting the MAF is essential for proper operation. The meter's sensor should be mounted with the connector end pointed between horizontal and fully upright. Chevrolet Performance's universal air induction kit—P/N 19301246—works for most applications.

OXYGEN SENSORS – The oxygen sensors (one for each side of the exhaust) must be inserted in the exhaust stream ahead of the catalytic converters (if used). Holes are simply drilled into the exhaust tubing and the mounting bosses welded to them. After that, the oxygen sensors simply screw onto the mounting bosses and are connected to the wire harness.

ENGINE CONTROLLER KITS AND COMPONENTS

Part Number	Description	Technical Notes
19369180	LC9 5.3L Engine Controller Kit	Specially programmed for retrofit applications, for quicker and easier adaptation of GM's popular 5.3L V-8 for countless hot rod projects; Works with 2007–2009 5.3L engines with the following engine codes: LC9 (2007–2009), LH8 (2008–2009), LY5 (2007–2009), LMF (2008–2009) and LMG (2007–2009)—non-cam-phased engines; Does not engage cylinder-deactivating Active Fuel Management and other features not required for retrofit installations; For individual engine controller, use P/N 19354325 (included in kit)
19369208	LC9 5.3L Engine Controller Kit	Specially programmed for late model 5.3L LC9 cam-phased engines (2010 and newer); Does not engage cylinder -deactivating Active Fuel Management and other features not required for retrofit installations; For individual engine controller, use P/N 19354327 (included in kit); This is the optimum off-road kit for the LC9 5.3L engine P/N 19259918
19418490	L96 6.0L Engine Controller Kit	Includes all components needed to run L96 6.0L crate engine P/N 19416591
19354328	LS2/LS3 Engine Controller Kit	Includes all the components required to run the LS3 crate engine; Max rpm 6,600; For individual engine controller, use P/N 19354329 (included in kit)
19354330	LS376/480 Engine Controller Kit	Includes all the components required to run your LS376/480 crate engine P/N 19370411; Max rpm 6,600 For individual engine controller, use P/N 19354331 (included in kit)
19354332	LS376/525 Engine Controller Kit	Includes all the components required to run LS376/525 crate engine P/N 19370413; Max rpm 6,600; For individual engine controller, use P/N 19354333 (included in kit)
19354334	LS7 Engine Controller Kit	Includes all the components required to run your 2006–2013 LS7 crate engine; For individual engine controller, use P/N 19354335 (included in kit); Will run all M/Y LS7s with MAP sensor 12644569; Max rpm 7,100
19420000	LS427/570 Engine Controller Kit	Includes all the components required to run your LS427/570 crate engine P/N 19421004; Includes specific calibration for LS427/570 camshaft
19369381	LSA Engine Controller Kit	Includes all the components required to run LSA crate engine P/N 19370850; Max rpm 6,200; For individual engine controller, use P/N 19354337 (included in kit)
19369382	LS9 Engine Controller Kit	Includes all components required to run LS9 crate engine P/N 19260165; Max rpm 6,600; For individual engine controller, use P/N 19354339 (included in kit)
19418585	LT1 Wet & Dry Sump with 4–Pin Sensor & 4L/T56 transmission	Includes all components needed to run LT1 Wet Sump crate engine with a 4-pin fuel pressure sensor, with a 4-speed automatic or T56 Super Magnum manual transmission; Also includes an E-92 controller and fuel pump power module
19418587	LT1 Wet & Dry Sump with 3–Pin Sensor & 4L/T56 transmission	Includes all components needed to run LT1 crate engine P/N 19418843, with 3-pin fuel pressure sensor with a 4-speed automatic or T56 Super Magnum manual transmission; Also includes an E-92 controller and fuel pump power module
19418589	LT1 Wet & Dry Sump with 3–Pin Sensor & 8–speed transmission	Includes all components needed to run LT1 crate engine with 3-pin fuel sensor P/N 19416592 with an 8-speed SuperMatic transmission; Includes E-92 controller, fuel pump power module and fuel pressure sensor for direct injection
19418591	LT1 with 3-Pin Sensor & 4L/T56 transmission	Includes all components needed to run LT376/535 crate engine P/N 19355378; Includes E-92 controller, fuel pump power module and fuel pressure sensor for direct injection (4L/T56 only)
19418595	LT4 Wet & Dry Sump with 4–Pin Sensor & 4L/T56 transmission	Includes all components needed to run LT4 Wet Sump crate engine, P/N 19418844, with 4-pin fuel pressure sensor with a 4-speed automatic or T56 Super Magnum manual transmission; Also includes E-92 controller and fuel pump power module
19419241	LT4 Wet Sump Engine Controller Kit (Camaro ZL-1)	Includes all components needed to run LT4 Wet Sump crate engine P/N 19418844 for the Camaro ZL-1 with 3-pin fuel pressure sensors with a 4-speed automatic or T56 Super Magnum manual transmission; Also includes an E-92 controller and fuel pump power module
19419242	LT4 Wet & Dry Sump with 3-Pin Sensor & 8-speed transmission	Includes all components needed to run LT4 Wet Sump crate engine P/N 19418844 for the Camaro ZL-1 with 3-pin fuel pressure sensors with an 8-speed SuperMatic transmission; Also includes an E-92 controller and fuel pump power module
19418270	LT5 Engine Controller Kit for Manual Transmission	Includes all components needed to run LT5 Dry Sump crate engine P/N 19417105 for the 2019 ZR1 Corvette. ***NOTE:*** *Calibration only supports a manual transmission–requires top-of-clutch input signal; 40X vehicle speed signal must be supplied to ECM through VSS connector (included with harness); Use P/N 19329912 Transmission Installation Kit.*
19418244	LT5 Engine Controller Kit for 8-Speed Transmission	Includes all components needed to run LT5 Dry Sump crate engine P/N 19417105 with SuperMatic™ 8L90-E automatic transmission P/N 19419800; Use with transmission installation kit P/N 19417103 (slip yoke).
19419242	LTG FWD Engine Controller Kit	Includes all the components required to run LTG crate engine P/N 12677823. Includes E-92 controller, fuel pump, power module and fuel pressure sensor for direct injection
19354340	DR525 Engine Controller Kit	Engine controller and harness kit for operating DR525 racing engines P/N 19370418 and P/N 19329008; Includes throttle pedal for electronic throttle body communication. ***NOTE:*** *The engine controller in this kit is a "factory-sealed unit, incorporating a tamper-proof design" to comply with rules mandated by the NMCA.*
19369179	LSX454 Engine Controller Kit for Manual Transmission	Includes all the components required to run LSX454 crate engine P/N 19417357; Max rpm 7,100; For individual engine controller, use P/N 19354345 (included in kit)
19354342	LSX454 Engine Controller Kit for Automatic Transmission	Includes all the components required to run LSX454 crate engine P/N 19417357; Max rpm 7,100; For individual engine controller, use P/N 19354343. ***NOTE:*** *The controller will not function in a production vehicle unless all kit components are used. These controllers will not operate any of the production gauges. Aftermarket gauges are required.*

SMALL-BLOCK
CRATE ENGINES

Build Heritage into Your Project

The Chevy Small-Block is the V-8 engine that America grew up with, and it continues to offer builders great power, application flexibility and value. Chevrolet Performance's range of Small-Block crate engines has something for everyone and every budget, from our 350/290 budget performer—with more than 300 horsepower—to our latest SP383 EFI, which blends stroker torque, modern valvetrain technology and EFI drivability to offer an incomparable balance of performance. The Chevy Small-Block is part of the fabric of America, and with a Chevrolet Performance crate engine, you're not just installing an engine, you're building history!

Check out the following pages to find the Chevrolet Performance Small-Block that's right for you!

NOTE: *Engines may not come with all the parts shown in photo. See your dealer for more details.*

Engines shown from left:
Ram Jet 350, 350 H0, SP383 EFI Turn-Key

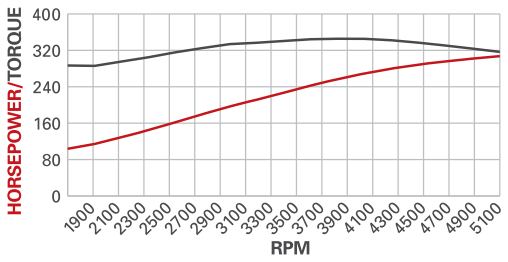
350/290 Deluxe

19355659

308 hp @ 5,100 rpm

347 lb.-ft. @ 3,900 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

› *Chrome parts are not assembled on engine*
› *Shown with 670-cfm carburetor (not included)*

Strong Performance on a Budget

Chevrolet Performance's 350/290 engine family is our most economical range of classic 350 Small-Block engines, led by the 350/290 Deluxe, which includes an aluminum intake manifold* and chrome dress-up components.

Don't mistake economical for low performance. It's built with a brand-new block featuring strong four-bolt main caps and a durable rotating assembly. With its good-breathing cylinder heads and a hydraulic camshaft delivering .450/.460-inch lift, the 350/290 is rated at a strong 308 horsepower and 347 lb.-ft. of torque!

Chevrolet Performance has all the parts needed to get your project vehicle running with the 350/290 Deluxe, from the carburetor to the starter, distributor and more. The 350/290 Deluxe makes a high-performance, economical alternative to rebuilding. Put it to work in your project!

**Holley 670-cfm carburetor P/N 19170082 recommended (not included).*

INSTALLATION NOTES

- Use neutral balance harmonic damper P/N 12551537
- Use internally balanced flexplate P/N 471529 for automatic transmission or flywheel P/N 14085720 for manual transmission (not included)
- Power ratings based on tests with Holley 670-cfm carburetor P/N 19170092 (not included)
- Does not accept Chevrolet Performance roller lifter assemblies
- Not intended for marine applications
- Pre-1986-style 2-piece rear main seal block
- Recommended for use in vehicles with 6,000 GVW or less

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19355659
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	350
Bore x Stroke (in):	4.000 x 3.480
Block (P/N 10066034):	Cast iron with 4-bolt main caps
Crankshaft (P/N 93426651):	Nodular iron
Connecting Rods (P/N 10108688):	Powdered metal steel
Pistons (P/N 93422884):	Cast aluminum
Intake Manifold (P/N 10185063):	Dual plane*
Camshaft Type (P/N 3896962):	Hydraulic flat tappet
Valve Lift (in):	.450 intake /.460 exhaust
Camshaft Duration (@.050 in):	222° intake / 222° exhaust
Cylinder Heads (P/N 93438649):	Iron; 76cc chambers
Valve Size (in):	1.94 intake / 1.50 exhaust
Compression Ratio:	8.0:1
Rocker Arms (P/N 10089648):	Stamped steel
Rocker Arm Ratio:	1.5:1
Recommended Fuel:	Regular pump
Ignition Timing:	32° Total @ 4,000 rpm
Maximum Recommended rpm:	5,100
Balanced:	Internal

**Not included with base model*

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

19420194 NEW

350/265 Base

This budget-minded assembly is a convenient, value-priced alternative to rebuilding the original 350 in your vehicle. It's built with all-new parts and the long block assembly allows the intake system and other accessories to be transferred, further reducing costs.

19355658

350/290 Base

The 350/290 Base crate engine includes the same strong all-new block of the Deluxe engine with four-bolt mains, cylinder heads and hydraulic camshaft but without the intake manifold and chrome accessories.

TRANSMISSION OPTIONS

19368611

SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L65-E electronically controlled four-speed automatic is rated for up to 430 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. Does not include converter. Use with electronic controller 19332775. See page 28 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

93440806
HEI Distributor
page 166

12361146
High-Torque Mini Starter
page 170

19299800
Torque Converter
page 22

19170092
Carburetor –Holley 670-cfm
page 171

19332775
Transmission Controller
page 28

19332781
Transmission Installation Kit
page 25

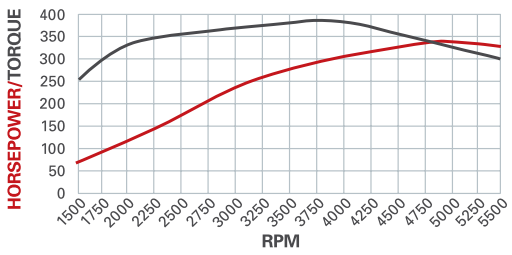
350 HO Turn-Key

19419992

333 hp @ 5,100 rpm

381 lb.-ft. @ 3,700 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

The Classic 350 to Drive Your Project!

Chevrolet Performance's 350 HO crate engine is a smart and powerful alternative to rebuilding. In fact, with its high-flow cylinder heads, a strong hydraulic camshaft and a four-barrel carburetor, it's rated at 333 horsepower and 381 lb.-ft. of torque. That's more power than almost every 350 engine ever offered in a production vehicle.

The 350 HO is built on a sturdy, all-new block with four-bolt mains. It's topped with a set of Vortec cylinder heads, and the contemporary hydraulic flat-tappet camshaft supports a broad power band, while requiring no periodic lash adjustments.

As one of our Turn-Key crate engines, the 350 HO Turn-Key comes with the intake manifold and distributor installed. It also includes the carburetor, front-end accessory kit and starter (spark plug wires not included).

INSTALLATION NOTES

- Comes with 12.750" externally balanced 153-tooth automatic transmission flexplate. Requires externally balanced flywheel for manual transmission. See chart on page 163
- Has right-side oil dipstick
- Requires fuel line from fuel pump to carburetor
- Fuel pump pressure is pre-set; fuel pressure regulator not required
- Some assembly and minor engine tuning required
- Not intended for marine applications
- Chevrolet Performance Front Accessory Drive Kits include a reverse rotation water pump

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19419992
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	350
Bore x Stroke (in):	4.000 x 3.480
Block (P/N 10105123):	Cast iron with 4-bolt main caps
Crankshaft (P/N 10243070):	Nodular iron
Connecting Rods (P/N 10108688):	Powdered metal steel
Pistons (P/N 88954280):	Cast aluminum
Intake Manifold (P/N 12496820):	Dual plane
Camshaft Type (P/N 24502476):	Hydraulic flat tappet
Valve Lift (in):	.435 intake / .460 exhaust
Cylinder Heads (P/N 12558060):	Vortec iron; 64cc chambers
Valve Size (in):	1.940 intake / 1.500 exhaust
Compression Ratio:	9.0:1 nominal
Rocker Arms (P/N 10089648):	Stamped steel
Rocker Arm Ratio:	1.5:1
Water Pump (P/N 19201601):	Cast iron, long-style
Recommended Fuel:	Premium pump
Ignition Timing:	32° Total @ 4,000 rpm
Maximum Recommended rpm:	5,100
Balanced:	External
Flexplate (P/N 14088765):	12.750"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

19420873

350 H0 Base

All the same important, power-building elements as the Turn-Key and Deluxe versions, but it comes without an intake manifold, carburetor or distributor.

19420874

350 H0 Deluxe

Like the 350 H0 Turn-Key crate engine, the 350 H0 Deluxe is rated at 333 horsepower and 381 lb.-ft. of torque. It comes with the intake manifold, carburetor and distributor installed.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

350 H0 Turn-Key with 4L65-E Automatic

Engine:	19419992	Torque Converter:	19299800
Transmission:	19368611	Controller:	19332775
Install Kit:	19332781		

TRANSMISSION OPTIONS

19368611

SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L65-E electronically controlled four-speed automatic is rated for up to 430 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. See page 24 for more details.

19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19332781
Transmission Installation Kit
page 25

19329025
Bell Housing Kit
page 29

19299800
Torque Converter
page 22

19332775
Transmission Controller
page 28

12361146
High-Torque Mini Starter
page 170

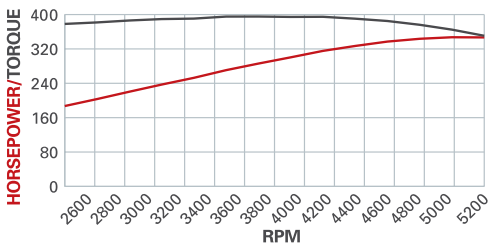
Ram Jet 350

19417619

345 hp @ 5,000 rpm

396 lb.-ft. @ 3,600 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Classic Style with Modern Performance

Chevrolet Performance's unique Ram Jet 350 combines the classic look of the original Rochester mechanical injection system with the dependability and optimized performance of contemporary port fuel injection.

It's a powerhouse, too, packing 345 horsepower and 396 lb.-ft. of torque. The bottom end of the engine is our stout 350 with a brand-new block, a hydraulic roller cam, Vortec iron heads and a pump gas-friendly 9.4:1 compression ratio.

We deliver the Ram Jet 350 with the following components to make it easier to install and start: a unique intake manifold and plenum that is 9.75 inches tall (plenty of clearance to fit under the hood of most vehicles without modifications) a MEFI 4 engine controller, wiring harness and detailed instructions.

INSTALLATION NOTES

- Comes with externally balanced manual transmission flywheel; change to externally balanced flexplate for automatic transmission applications. See chart on page 163
- Installer to supply 12-volt power source and fuel pump
- See instructions for fuel pump recommendation
- Not intended for marine applications
- IMPORTANT! For a safe, proper and trouble-free engine break-in, the MEFI 4 computer has a "green" mode that controls rpm during the break-in period. During this period, engine speed is limited to 4,000 rpm in the first hour, 4,500 rpm in the second hour and 5,200 rpm in the third hour

TECH SPECS

Part Number:	19417619
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	350
Bore x Stroke (in):	4.000 x 3.480
Block: (P/N 10105123):	Cast iron with 2-bolt main caps
Crankshaft (P/N 10243070):	Cast iron
Connecting Rods (P/N 10108688):	Powdered metal steel
Pistons (P/N 12571703):	Hypereutectic aluminum
Intake Manifold (P/N 12498032):	Ram Jet PFI design
Camshaft Type (P/N 14097395):	Hydraulic roller
Valve Lift (in):	.431 intake / .451 exhaust
Camshaft Duration (@.050 in):	196° intake / 206° exhaust
Cylinder Heads (P/N 12528913):	Vortec iron; 64cc chambers
Valve Size (in):	1.940 intake / 1.500 exhaust
Compression Ratio:	9.0:1 nominal
Rocker Arms (P/N 19210729):	Aluminum roller style
Rocker Arm Ratio:	1.5
Recommended Fuel:	Premium pump
Ignition Timing:	34° Total @ 4,000 rpm
Maximum Recommended rpm:	5,200
Balanced:	External

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

Ram Jet 350 with 4L65-E Automatic

Engine:	19417619	Torque Converter:	19299800
Transmission:	19368611	Controller:	19332775
Install Kit:	19420473		

Ram Jet 350 with Super Magnum Six-Speed Manual

Engine:	19417619	Install Kit:	19329900
Transmission:	19352208		

TRANSMISSION OPTIONS

19368611
SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L65-E electronically controlled four-speed automatic is rated for up to 430 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. See page 24 for more details.

19352208
Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19418818
Serpentine Accessory Drive System
See page 165 for details.

19299800
Torque Converter
page 22

12361146
High-Torque Mini Starter
page 170

10465143
Lightweight Starter (remanufactured)
page 170

19332781
Transmission Installation Kit
page 25

19332775
Transmission Controller
page 28

BUILDER'S TIP

Fueling the Ram Jet 350

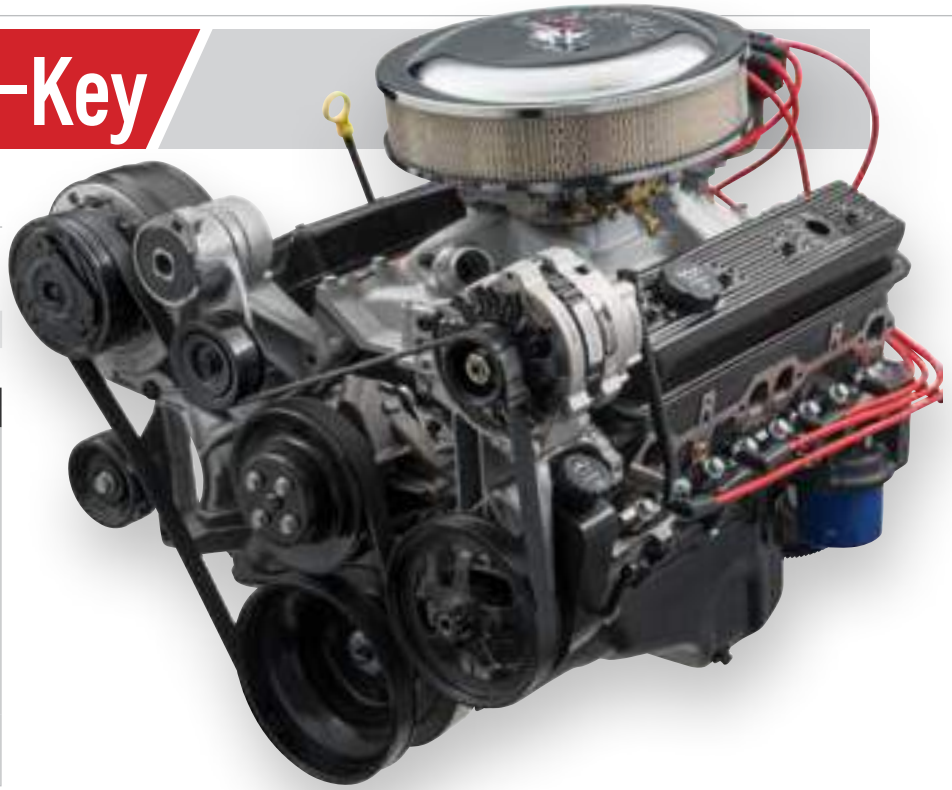
Installing the Ram Jet 350 in a vintage vehicle that was not previously equipped with port fuel injection requires a number of supporting fuel system components that are not included with the crate engine kit. They include modifications to the original fuel tank or a new fuel tank that is baffled internally to help keep the pickup point for the fuel pump submerged in fuel, so the fuel pump is pumping constantly and consistently. Additionally, a high-pressure fuel pump with a minimum rating of 35 gallons per hour at 45-55 psi is required, along with a fuel return line from the engine to the fuel tank.

SP350/357 Turn-Key

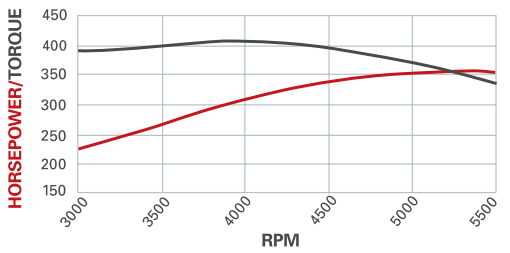
19418190

357 hp @ 5,500 rpm

407 lb.-ft. @ 4,000 rpm



DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

An Affordable Small-Block Performer!

With 357 horsepower and more than 400 lb.-ft. of torque, the Chevrolet Performance 350/357 Turn-Key offers a great combination of performance and value.

Modern valvetrain technology is the key to its high-revving capability, pushing power to 5,500 rpm, while economical iron cylinder heads deliver excellent airflow and help make this potent crate engine more affordable. They're matched with a friction-reducing roller camshaft that helps optimize performance across the rpm band.

The rest of 350/357 Turn-Key is built with strong, all-new components, including a brand-new four-bolt block, a durable nodular iron crankshaft and more. As one of our Turn-Key crate engines, it also includes an aluminum intake manifold, Holley four-barrel carburetor and HEI distributor and balancer installed, while a starter, water pump and front-end accessory drive kit—including an air conditioning compressor, alternator and more—are also included (installation required).

INSTALLATION NOTES

- Front-end accessory drive included but not installed for shipment
- Comes with 12.750" externally balanced 153-tooth automatic transmission flexplate. Requires externally balanced flywheel for manual transmission. See chart on page 163
- Requires fuel supply line from fuel pump to carburetor
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19418190
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	350
Bore x Stroke (in):	4.000 x 3.480
Block (P/N 10105123):	Cast iron with 4-bolt main caps
Crankshaft (P/N 10243070):	Nodular iron
Connecting Rods (P/N 10108688):	Powdered metal
Pistons (P/N 88894280):	Cast aluminum
Intake Manifold (P/N 12676887):	Dual plane
Camshaft Type (P/N 12677151):	Hydraulic roller
Valve Lift (in):	0.473 intake / 0.473 exhaust
Camshaft Duration (@.050 in):	215° intake / 223° exhaust
Cylinder Heads:	Cast iron; as cast with 64cc chambers
Valve Size (in):	1.940 intake / 1.500 exhaust
Compression Ratio:	9.0:1 nominal
Rocker Arms (P/N 12367346):	Stamped steel
Rocker Arm Ratio:	1.5:1
Recommended Fuel:	Premium pump
Ignition Timing:	32° Total @ 4,000 rpm
Maximum Recommended rpm:	5,600
Balanced:	External
Flexplate (P/N 14088765):	12.750"

**Not included with base model*

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

19420870

SP350/357 Base

This assembled long block includes the signature roller camshaft, cylinder heads and contemporary valvetrain components of the Turn-Key crate engine, as well as the oil pan and front cover installed, but requires additional components to complete.

19420871

SP350/357 Deluxe

Positioned between the SP350/357 Turn-Key and Base engine kits, this Deluxe version includes the intake manifold, distributor and flexplate installed. A Holley four-barrel carburetor is also included, but not installed.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

SP350/357 Turn-Key with 4L65-E Automatic

Engine:	19418190	Torque Converter:	19299801
Transmission:	19368611	Controller:	19332775
Install Kit:	19420473		

SP350/357 Turn-Key with Super Magnum Six-Speed Manual

Engine:	19418190	Install Kit:	19329900
Transmission:	19352208		

TRANSMISSION OPTIONS

19368611

SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L65-E electronically controlled four-speed automatic is rated for up to 430 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. See page 24 for more details.

19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

12361146

High-Torque Mini Starter

page 170

12361051

Spark Plug Wire Set

page 170

19170093

Carburetor – Holley 770-cfm

page 171

19332781

Transmission Installation Kit

page 25

19332775

Transmission Controller

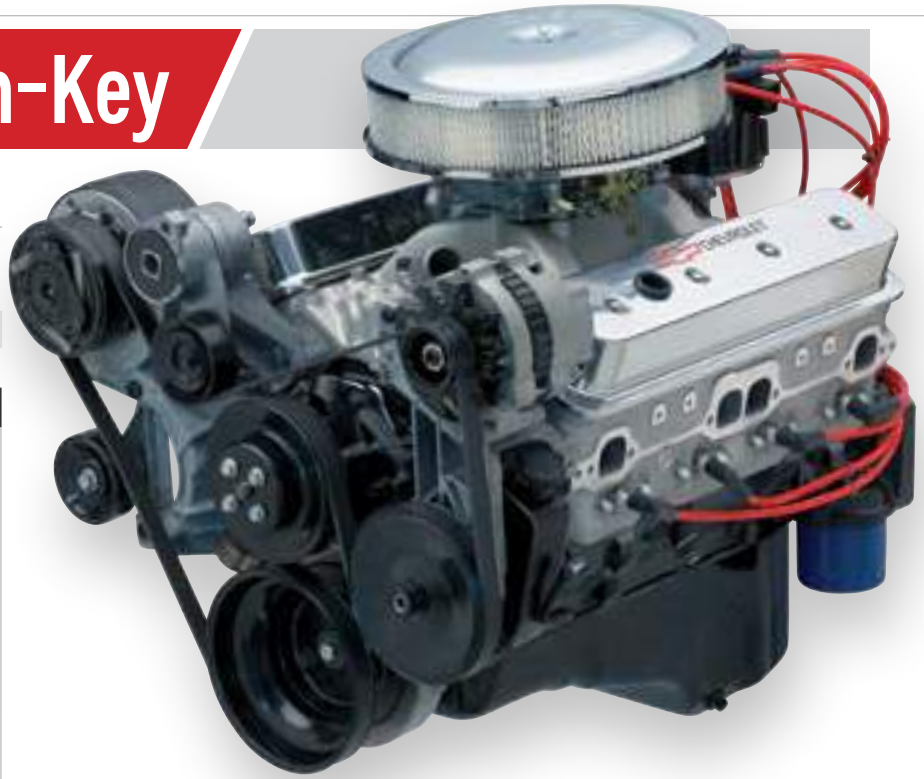
page 28

19299800

Torque Converter

page 22

SP350/385 Turn-Key

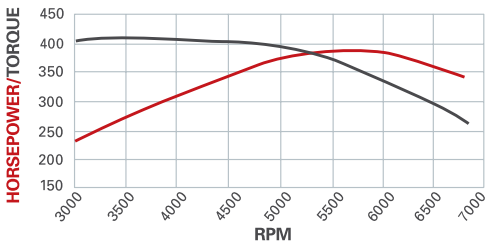


19419994

385 hp @ 5,600 rpm

405 lb.-ft. @ 3,600 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Modern Valvetrain Technology Helps This 350 Rev!

Chevrolet Performance's SP350/385 Turn-Key uses aluminum Fast Burn cylinder heads equipped with LS-style beehive valve springs for greater high-rpm performance that helps this power-dense engine offer 385 horsepower and 405 lb.-ft. of torque.

The lightweight cylinder head casting features large, 210cc intake runners, with the beehive valve springs matched with steel retainers, machined steel spring seats and split key locks. The beehive-style valve springs allow the SP350/385 to rev higher to make the most of every cubic inch of air drawn through it.

Like all of our Small-Block crate engines, this one is built with a brand-new block with four-bolt mains; and it features a hydraulic roller camshaft. The Turn-Key engine package includes the distributor, carburetor, and balancer installed. The starter, air conditioning pump, alternator, front-end accessory drive kit and more are also included (installation required).

INSTALLATION NOTES

- SP350/385 Base Engine (P/N 19417781) is also available
- Comes with 12.750" externally balanced 153-tooth automatic transmission flexplate. Requires externally balanced flywheel for manual transmission. See chart on page 163
- Requires fuel line from fuel pump to carburetor
- Some assembly and minor engine tuning required
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19419994
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	350
Bore x Stroke (in):	4.000 x 3.480
Block (P/N 10105123):	Cast iron with 4-bolt main caps
Crankshaft (P/N 12670965):	Forged steel, shot peened
Connecting Rods (P/N 10108688):	Powdered metal
Pistons (P/N 10159436):	Hypereutectic aluminum
Intake Manifold (P/N 12366573):	Dual plane
Camshaft Type (P/N 10185071):	Hydraulic roller
Valve Lift (in):	.474 intake / .510 exhaust
Camshaft Duration (@.050 in):	208° intake / 221° exhaust
Cylinder Heads (P/N 19300955):	Fast Burn aluminum; 62cc chambers
Valve Size (in):	2.000 intake / 1.550 exhaust
Compression Ratio:	9.6:1 nominal
Rocker Arms (P/N 10089648):	Stamped steel
Rocker Arm Ratio:	1.5:1
Recommended Fuel:	Premium pump
Ignition Timing:	36° Total @ 4,000 rpm
Maximum Recommended rpm:	5,800
Balanced:	External
Flexplate (P/N 14088765):	12.750"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

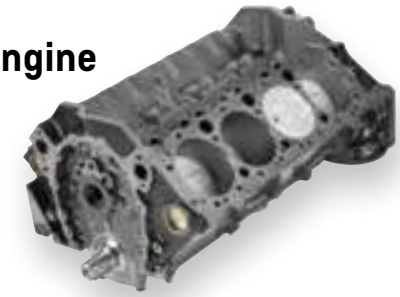
This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

12670966

SP/ZZ Partial Engine

The SP350 Partial is based on the popular ZZ4 engine assembly and includes a forged steel crankshaft, high-silicon pistons and durable connecting rods.



19417781

SP350/385 Base

Featuring all the same internals as the Turn-Key engine kit, this Base engine includes the intake manifold, distributor, water pump, damper and flexplate. Requires carburetor and additional accessories to complete.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

SP350/385 Turn-Key with 4L65-E Automatic

Engine:	19419994	Torque Converter:	19299801
Transmission:	19368611	Trans. Controller:	19332775
Install Kit:	19420473		

SP350/385 Turn-Key with Super Magnum Six-Speed Manual

Engine:	19419994	Install Kit:	19329900
Transmission:	19352208		

TRANSMISSION OPTIONS

19368611

SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L65-E electronically controlled four-speed automatic is rated for up to 430 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. See page 24 for more details.

19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19332781
Transmission Installation Kit
page 25

19329025
Bell Housing Kit
page 29

19299800
Torque Converter
page 22

19332775
Transmission Controller
page 28

12361146
High-Torque Mini Starter
page 170

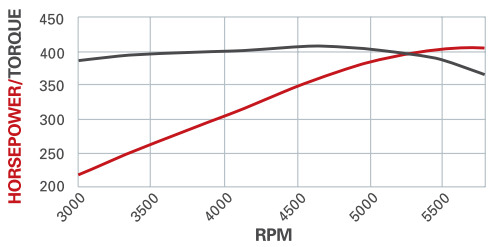
ZZ6 Turn-Key

19419995

405 hp @ 5,600 rpm

406 lb.-ft. @ 4,600 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Modern Technology Drives this Classic 350 Small-Block!

Developed with contemporary technologies, including a high-rpm valvetrain, the ZZ6 Turn-Key offers a modern twist on the classic 350 Small-Block — delivering more than 400 horsepower and more than 400 lb.-ft. of torque!

The ZZ6 uses updated Fast Burn cylinder heads with beehive-style valve springs inspired by the LS engine family — a feature that enhances high-rpm capability to support more power than any factory-produced 350 engine ever installed in a Chevrolet production vehicle. The unique, tapered shape of the valve spring allows for the use of a smaller spring retainer, which reduces the reciprocating mass of the valvetrain, resulting in better valve dynamics.

Our ZZ6 Turn-Key kit includes the carburetor, distinctive valve covers and a matching air cleaner, the starter, distributor, alternator and additional accessories such as the air conditioning compressor and front-end accessory drive system.

INSTALLATION NOTES

- Comes with 12.750" externally balanced 153-tooth automatic transmission flexplate. Requires externally balanced flywheel for manual transmission. See chart on page 163
- Requires fuel line from fuel pump to carburetor
- Some assembly and minor engine tuning required
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19419995
Engine Type:	Chevy Small-Block
Displacement (cu in):	350
Bore x Stroke (in):	4.000 x 3.48
Block (P/N 10105123):	Cast iron with 4-bolt mains
Crankshaft (P/N 12670965):	Forged steel, shot peened
Connecting Rods (P/N 10108688):	Forged powder metal
Pistons (P/N 10159436):	Hypereutectic aluminum
Intake Manifold (P/N 12496822):	Single plane aluminum
Carburetor (P/N 19170093):	770 cfm Holley
Camshaft Type (P/N 10185071):	Steel hydraulic roller
Valve Lift (in):	.474 intake/.510 exhaust
Camshaft Duration (@.050 in):	208° intake / 221° exhaust
Cylinder Heads (P/N 19300955):	Fast Burn aluminum; 62cc chambers
Valve Size (in):	2.000 intake / 1.550 exhaust
Compression Ratio:	9.7:1 nominal
Rocker Arms (P/N 19210724):	Aluminum roller style
Rocker Arm Ratio:	1.5:1
Recommended Fuel:	Premium pump
Distributor (P/N 93440806):	HEI
Ignition timing:	36° Total @ 4,000 rpm
Maximum Recommended rpm:	5,800 rpm
Balanced:	External
Flexplate (P/N 14088765):	12.750"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

12670966

SP/ZZ Partial Engine

The SP350 Partial is based on the popular ZZ4 engine assembly and includes a forged steel crankshaft, high-silicon pistons and durable connecting rods.

19419205

ZZ6 Base

Like the ZZ6 Turn-Key, the ZZ6 Base features updated Fast Burn heads with beehive valve springs in an assembly that includes the intake manifold, distributor, water pump, damper and flexplate. Additional components required for assembly.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

ZZ6 Turn-Key with 4L65-E Automatic

Engine:	19419995	Torque Converter:	19299801
Transmission:	19368611	Controller:	19332775
Install Kit:	19420473		

ZZ6 Turn-Key with Super Magnum Six-Speed Manual

Engine:	19419995	Install Kit:	19329900
Transmission:	19352208		

TRANSMISSION OPTIONS

19368611

SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L65-E electronically controlled four-speed automatic is rated for up to 430 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. Does not include converter. Use with electronic controller 19332775. See page 24 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

12361146
High-Torque Mini Starter
page 170

12497985
Aluminum Chrome Valve Covers
page 158

12480127
Short Aluminum Valve Covers
page 158

19299800
Torque Converter
page 22

19332781
Transmission Installation Kit
page 25

19332775
Transmission Controller
page 28

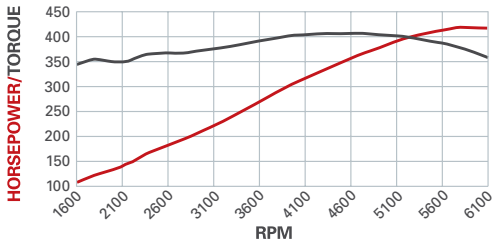
ZZ6 EFI Turn-Key

19368150

420 hp @ 5,800 rpm

408 lb.-ft. @ 4,500 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

› *Includes Controller*

Fuel-Injected Performance and Convenience from the ZZ6!

The ZZ6 EFI Turn-Key builds on more than 65 years of Small-Block heritage and the legacy of the pioneering "ZZ" crate engine family to offer thoroughly modern performance balanced with traditional style.

Chevrolet Performance engineers adapted a unique, electronically controlled port fuel injection system to the ZZ6 350, using an aluminum intake manifold that has the appearance of a carbureted intake. A fuel injection throttle body mounted in place of the carburetor allows a traditional air cleaner to be installed. The result is a great, traditional appearance and all the drivability advantages of EFI on the highway.

A simple plug-and-play control system rounds out the package to get the engine running in your project without the need for third-party tuning. Our Turn-Key crate engine kit includes the distributor and damper installed. The throttle body, starter, fuel pump, air conditioning pump, alternator, single-belt Front-End Accessory Drive Kit and more are also included.

INSTALLATION NOTES

- Crate engine kit includes pre-programmed, self-learning control system
- Comes with 12.750" externally balanced 153-tooth automatic transmission flexplate. Requires externally balanced flywheel for manual transmission
- Not intended for marine applications

TECH SPECS

Part Number:	19368150
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	350
Bore x Stroke (in):	4.000 x 3.480
Block (P/N 10105123):	Cast iron with 4-bolt main caps
Crankshaft (P/N 12670965):	Forged steel, shot peened
Connecting Rods (P/N 10108688):	Forged powdered metal
Pistons (P/N 10159436):	Hypereutectic aluminum
Camshaft Type (P/N 10185071):	Steel hydraulic roller
Valve Lift (in):	.474 intake / .510 exhaust
Camshaft Duration (@.050 in):	208° intake / 221° exhaust
Cylinder Heads (P/N 19300955):	Fast Burn aluminum; 62cc chambers
Valve Size (in):	2.000 intake / 1.550 exhaust
Compression ratio:	9.72:1 nominal
Rocker Arms (P/N 19210724):	Aluminum; roller-style
Rocker Arm Ratio:	1.5:1
Recommended Fuel:	Premium pump
Ignition Timing:	36° total @ 4,000 rpm
Maximum Recommended RPM:	5,800
Balanced:	External
Flexplate (P/N 14088765):	12.750"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

12670966

SP/ZZ Partial Engine

The SP350 Partial is based on the popular ZZ4 engine assembly and includes a forged steel crankshaft, high-silicon pistons and durable connecting rods.

19417782

ZZ6 EFI Deluxe

Like the ZZ6 EFI Turn-Key, the ZZ6 EFI Base features the throttle body, fuel rail and injectors, as well as the control system. Also included are the intake manifold, distributor, water pump, damper and flexplate. Additional components required for assembly.

NOTE: *Air cleaner P/N 19351805, ignition wire set P/N 12361051 and water pump P/N 12685965 are not included in the Deluxe engine kit P/N 19368149 (shown) but can be ordered separately.*

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations–including supporting controllers and installation kit recommendations–that take the guesswork out of your project. See page 32 for more details.

ZZ6 EFI Turn-Key with 4L65-E Automatic

Engine:	19368150 + 19419371	Install Kit:	19420473
Engine Controller:	*included w/engine*	Torque Converter:	19299801
Transmission:	19368611	Trans. Controller:	19332775

ZZ6 EFI Deluxe with 4L65-E Automatic

Engine:	19417782 + 19419371	Install Kit:	19420473
Engine Controller:	*included w/engine*	Torque Converter:	19299801
Transmission:	19368611	Trans. Controller:	19332775

ZZ6 EFI Turn-Key with Super Magnum Six-Speed Manual

Engine:	19368150	Install Kit:	19329900
Transmission:	19352208		

ZZ6 EFI Deluxe with Super Magnum Six-Speed Manual

Engine:	19417782	Install Kit:	19329900
Transmission:	19352208		

TRANSMISSION OPTIONS

19368611

SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L65-E electronically controlled four-speed automatic is rated for up to 430 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. See page 24 for more details.

19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19332775
Transmission Controller
page 28

19332781
Transmission Installation Kit
page 25

19299800
SuperMatic™ Torque Converter
page 22

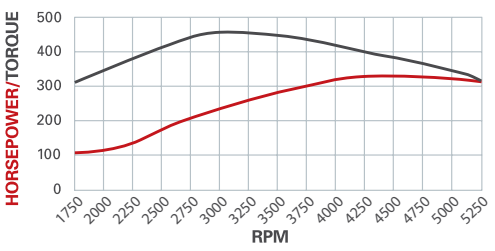
HT383

19355720

323 hp @ 4,200 rpm

444 lb.-ft. @ 3,000 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Upgrade Your Small-Block's Torque!

Ready for a replacement? Forget the rebuild and take your vehicles capability to the next level with our big-torque HT383 crate engine. Its extra displacement and unique parts are designed to deliver a wide, flat torque curve that maintains at least 400 lb.-ft between 2,500 and 4,000 rpm, with peak torque of 444 lb.-ft.!

That's serious pulling power—and power that won't come with a stock-type rebuild. The HT383 features a brand-new engine block with four-bolt mains (a strength-enhancing upgrade for most production engines, which came with two-bolt mains) along with a forged steel crankshaft and more. We deliver the HT383 with an aluminum intake manifold, ready for you to swap over the accessories from your tired engine. It's also backed by a 24-month/50,000-mile (80,000 km) limited warranty. See your dealer for complete details.

The HT383 is also available as a partial engine. See details at right.

INSTALLATION NOTES

- Requires addition of carburetor, ignition and starter (not included)
- Rochester Quadrajet or Holley 670-cfm carburetor recommended
- Comes with 12.750" externally balanced 153-tooth automatic transmission flexplate. Requires externally balanced flywheel for manual transmission. See chart on page 163
- Has right-side oil dipstick
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19355720
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	383
Bore x Stroke (in):	4.005 x 3.800
Block (P/N 88962516):	Cast iron with 4-bolt main caps
Crankshaft (P/N 12489436):	4340 forged steel
Connecting Rods (P/N 19355754):	Heavy-duty forged steel
Pistons (P/N 12499103):	Hypereutectic aluminum
Intake Manifold (P/N 12496820):	Dual plane aluminum
Camshaft Type (P/N 14097395):	Hydraulic roller
Valve Lift (in):	.431 intake / .451 exhaust
Camshaft Duration (@.050 in):	196° intake / 206° exhaust
Cylinder Heads (P/N 12558060):	Vortec iron; 64cc chambers
Valve Size (in):	1.940 intake / 1.500 exhaust
Compression Ratio:	9.1:1
Rocker Arms (P/N 10089648):	Stamped steel
Rocker Arm Ratio:	1.5:1
Water Pump (P/N 88894341):	Cast iron
Recommended Fuel:	Regular pump
Ignition Timing:	32° Total @ 4,000 rpm
Maximum Recommended rpm:	5,000
Balanced:	External
Flexplate (P/N 14088765):	12.750"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

19355719

383 Partial Engine

This partial engine assembly has the heart of the HT383, including a forged steel crankshaft set in a brand-new four-bolt-mains block, along with heavy-duty connecting rods and durable aluminum-alloy pistons. Requires additional components for completion.

TRANSMISSION OPTIONS

19368613

SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L70-E electronically controlled four-speed automatic is rated for up to 495 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more, including a unique valve body calibration. Does not include converter. Use with electronic controller 19332775. See page 24 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19332781
Transmission Installation Kit
page 25

19332775
Transmission Controller
page 28

19299800
Torque Converter
page 22

19170092
Carburetor – Holley 670-cfm
page 171

12497985
Aluminum Chrome Valve Covers
page 158

93440806
HEI Distributor
page 166

HT383E

19418656

323 hp @ 4,200 rpm

444 lb.-ft. @ 3,000 rpm

- ***GREATER TORQUE***
- ***BETTER ALTERNATIVE TO A REBUILD***
- ***INCLUDES ALL NEW PARTS***

NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

NOTE: *Distributor and Spark Plug Wires (shown) are not Included*

A Big-Torque Bolt-In For Trucks

When it comes to breathing new life into your trusted truck, the HT383E delivers. If you are going to go off-road racing or hill-climbing with your old half-ton truck, the HT383-E provides a great boost in horsepower and torque, compared to the original small-block 350 that came from the factory. To make the installation easy and economical, you can simply swap the intake manifold, throttle body, exhaust manifolds and other engine accessories from the original 350 engine. The engine uses a brand-new four-bolt-main iron block, a forged steel stroker crankshaft, a smooth roller camshaft and durable cast iron Vortec-style cylinder heads. It even comes with a new distributor, water pump and vibration dampener that would normally be replaced during a complete rebuild of your original engine.

Save money and enjoy increased power and torque when you choose the HT383-E crate engine, designed and tested by Chevrolet Performance engineers.

INSTALLATION NOTES

- Requires the reuse of the stock intake manifold, distributor, wiring harness and fuel injection system
- Due to calibration variances between half-, three-quarter- and one-ton vehicles, this engine is designed for half-ton trucks and SUVs only
- Comes with 12.750" externally balanced 153-tooth automatic transmission flexplate. Requires externally balanced flywheel for manual transmission. See chart on page 163
- Has right-side dipstick
- Not available as a partial engine

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19418656
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	383
Bore x Stroke (in):	4.005 x 3.800
Block (P/N 88962516):	Cast iron with 4-bolt main caps
Crankshaft (P/N 12489436):	4340 forged steel
Connecting Rods (P/N 19355754):	Heavy-duty forged steel
Pistons (P/N 12499103):	Hypereutectic aluminum
Camshaft Type (P/N 14097395):	Hydraulic roller
Valve Lift (in):	.431 intake / .451 exhaust
Camshaft Duration (@.050 in):	196° intake / 206° exhaust
Cylinder Heads (P/N 12558060):	Vortec iron; 64cc chambers
Valve Size (in):	1.940 intake / 1.500 exhaust
Compression Ratio:	9.1:1
Rocker Arms (P/N 10089648):	Stamped steel
Rocker Arm Ratio:	1.5:1
Water Pump (P/N 89060527):	Cast iron
Recommended Fuel:	Regular pump
Maximum Recommended rpm:	5,000
Balanced:	External
Flexplate (P/N 14088765):	12.750"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

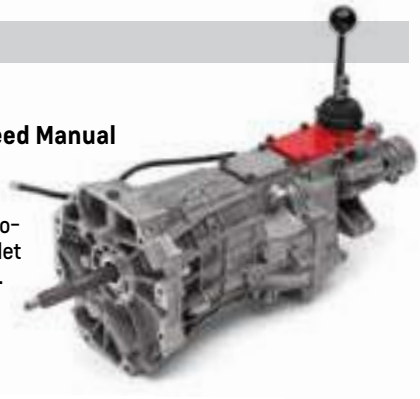
TRANSMISSION OPTIONS

19368613
SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L70-E electronically controlled four-speed automatic is rated for up to 495 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. See page 24 for more details.

19352208
Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.



ENGINE-RELATED PARTS & ACCESSORIES

19332781
Transmission Installation Kit
page 25

19329025
Bell Housing Kit
page 29

19332775
Transmission Controller
page 28

19299800
Torque Converter
page 22

19210728
Roller Rocker Arm Set – 1.5:1 Ratio
page 157

19418818
Serpentine Accessory Drive System
page 165

12366573
Dual-Plane Intake Manifold
page 167

12497979
Aluminum Black Crinkle Valve Covers
page 158

BUILDER'S TIP

HT383E Installation

The HT383E assembly is very complete, but requires a number of parts from the truck's original 350 engine to be transferred to it. Optimizing the changeover should include a number of supporting steps and procedures, including:

- Using all-new intake manifold and exhaust manifold gaskets. RTV-type sealant is required for the front and rear of the intake manifold
- Inspection of the original serpentine belt. Replace if it appears worn, cracked or glazed
- If the original engine had high miles, consider replacing the accessory drive system's tensioner
- Inspect the original power steering pump for signs of leaks prior to reinstallation
- Install a new air filter element
- Priming the HT383E with oil MUST be done prior to starting it for the first time
- Engine timing is not externally adjustable with the HT383E. The original engine controller makes all timing adjustments
- Change the oil after the break-in and inspect the filter for foreign particles. Change the oil again after the first 500 miles and check the filter again for foreign particles

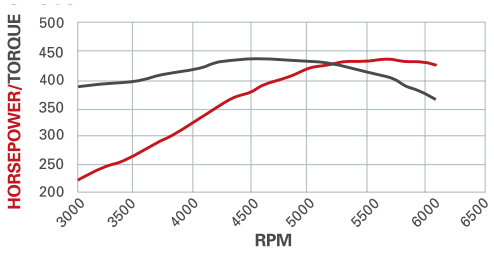
SP383 Deluxe

19418657

435 hp @ 5,600 rpm

445 lb.-ft. @ 4,600 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

IMPORTANT NOTE: *Engine Assembly includes Carburetor, Distributor, Spark Plug Wires and Spark Plugs - Not Shown*

Modern Technology Adds Range to the 383 Stroker!

Chevrolet Performance's SP383 Deluxe uses LS-inspired valvetrain technology to expand its rpm range, matching the stroker combination's traditional torque with more high-rpm horsepower. Lightweight aluminum cylinder heads based on the proven Fast Burn design are at the heart of the SP383's performance capability. They feature beehive-style valve springs to enable great high-rpm performance and durability, allowing the SP 383 to rev higher and build more horsepower.

The engine also features a forged steel stroker crankshaft, an aggressive hydraulic roller camshaft and a high-flow aluminum single-plane intake manifold. The Deluxe kit also includes a cast iron water pump and steel balancer. The assembly includes a Holly 4-barrel carb, HEI distributor, ignition wires and spark plugs (not shown in product photo).

INSTALLATION NOTES

- Requires addition of fuel pump, and starter (not included)
- 435 horsepower rating achieved during GM testing with the high-rise single-plane intake manifold (P/N 12496822) and a 770-cfm carburetor with vacuum secondaries (P/N 19170093)
- Chevrolet Performance dual-plane intake manifold (P/N 12366573) may be used to avoid hood clearance problems, but peak power may decrease by approximately 15–20 horsepower
- Comes with 12.750" externally balanced 153-tooth automatic transmission flexplate. Requires externally balanced flywheel for manual transmission. See chart on page 163
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19418657
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	383
Bore x Stroke (in):	4.005 x 3.800
Block (P/N 88962516):	Cast iron with 4-bolt main caps
Crankshaft (P/N 12489436):	Forged steel
Connecting Rods (P/N 19355754):	Heavy-duty forged steel
Pistons (P/N 12499103):	Hypereutectic aluminum
Intake Manifold (P/N 2496822):	Single plane
Camshaft Type (P/N 19210723):	Hydraulic roller
Valve Lift (in):	.509 intake / .528 exhaust
Camshaft Duration (@.050 in):	222° intake / 230° exhaust
Cylinder Heads (P/N 19300955):	Fast Burn aluminum; 62cc chambers
Valve Size (in):	2.000 intake / 1.550 exhaust
Compression Ratio:	9.6:1
Rocker Arms (P/N 19210724):	Aluminum roller style
Rocker Arm Ratio:	1.5:1
Recommended Fuel:	Premium pump
Ignition Timing:	36° Total at 4,000 rpm
Maximum Recommended rpm:	6,000
Balanced:	External
Flexplate (P/N 14088765):	12.750"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

19355719

383 Partial Engine

This partial engine assembly has the heart of the HT383, including a forged steel crankshaft set in a brand-new four-bolt-mains block, along with heavy-duty connecting rods and durable aluminum-alloy pistons. Requires additional components for completion.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations–including supporting controllers and installation kit recommendations–that take the guesswork out of your project. See page 32 for more details.

SP383 Deluxe with 4L70-E Automatic

Engine:	19418657	Torque Converter:	19299801
Transmission:	19368613	Trans. Controller:	19332775
Install Kit:	19420473		

SP383 Deluxe with Super Magnum Six-Speed Manual

Engine:	19418657	Install Kit:	19329900
Transmission:	19352208		

IMPORTANT NOTE: *Engine Assembly includes Carburetor, Distributor, Spark Plug Wires and Spark Plugs - Not Shown*

TRANSMISSION OPTIONS

19368613

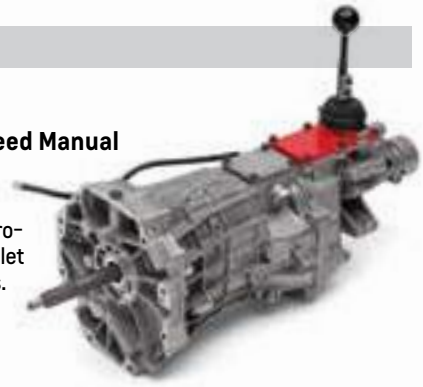
SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)

Based on the 4L60-E, the 4L70-E electronically controlled four-speed automatic is rated for up to 495 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more. See page 24 for more details.

19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.



ENGINE-RELATED PARTS & ACCESSORIES

93440806
HEI Distributor
page 166

19332775
Transmission Controller
page 28

19170093
Carburetor – Holley 770-cfm
page 171

19299801
Torque Converter
page 22

19418818
Serpentine Accessory Drive System
page 165

12361146
High-Torque Mini Starter
page 170

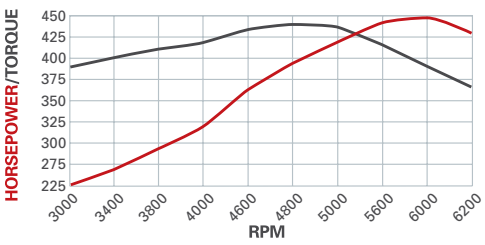
SP383 EFI Turn-Key

19420597

450 hp @ 5,800 rpm

436 lb.-ft. @ 4,800 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Big Torque and EFI Performance in a Comprehensive Kit

Chevrolet Performance's SP383 EFI Turn-Key kit offers the strong pull of the proven 383 "stroker" combination and the contemporary convenience of electronic fuel injection, delivered with most of the engine accessories required to get the engine running in your project vehicle!

The SP383 EFI incorporates a port-style injection system, with the injectors plumbed in a carburetor-style intake manifold, and the throttle body mounted in the conventional position of the carburetor, which allows for a traditional air cleaner and a classic appearance. Our comprehensive Turn-Key assembly is delivered with the distributor and damper installed. The throttle body, starter, fuel pump, air conditioning pump, alternator, single-belt front-end accessory drive system and more are also included in the kit. The engine controller is also included.

The SP383 EFI Deluxe and a 383 partial engine are also available. See details at right.

INSTALLATION NOTES

- Crate engine kit includes pre-programmed, self-learning control system
- Come with a 12.750" externally balanced 153-tooth automatic transmission flexplate. An externally balanced flywheel is required for manual transmission applications. See chart on page 163
- Not intended for marine applications

TECH SPECS

Part Number:	19420597
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	383
Bore x Stroke (in):	4.005 x 3.800
Block (P/N 88962516):	Cast iron with 4-bolt main caps
Crankshaft (P/N 12489436):	Forged steel
Connecting Rods (P/N 19355754):	Heavy-duty forged steel
Pistons (P/N 12499103):	Hypereutectic aluminum
Camshaft Type (P/N 19210723):	Steel hydraulic roller
Valve Lift (in):	.509 intake / .528 exhaust
Camshaft Duration (@.050 in):	220° intake / 230° exhaust
Cylinder Heads (P/N 19300955):	Fast Burn aluminum; 62cc chambers
Valve Size (in):	2.000 intake / 1.550 exhaust
Compression Ratio:	9.72:1 (nominal)
Rocker Arms (P/N 19210724):	Aluminum roller style
Rocker Arm Ratio:	1.5:1
Recommended Fuel:	Premium pump
Ignition Timing:	36° Total at 4,000 rpm
Maximum Recommended rpm:	6,000
Balanced:	External
Flexplate (P/N 14088765):	12.750"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

19355719

383 Partial Engine

This partial engine assembly has the heart of the HT383, including a forged steel crankshaft set in a brand-new four-bolt-mains block, along with heavy-duty connecting rods and durable aluminum-alloy pistons.

19418640

SP383 EFI Deluxe

All of the same internal components and EFI system (including controller) as the SP383 EFI Turn-Key kit, but without a number of the accessories. Kit includes the distributor, water pump, damper and flexplate.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory-tailored performance combinations–including supporting controllers and installation kit recommendations–that take the guesswork out of your project. See page 32 for more details.

SP383 EFI Turn-Key with 4L70-E Automatic

Engine:	19420597 + 19419371	Install Kit:	19420473
Engine Controller:	*included w/engine*	Torque Converter:	19299800
Transmission:	19368613	Controller:	19332775

SP383 EFI Deluxe with 4L70-E Automatic

Engine:	19418640 + 19419371	Install Kit:	19420473
Engine Controller:	*included w/engine*	Torque Converter:	19299800
Transmission:	19368613	Controller:	19332775

SP383 EFI Turn-Key with Super Magnum Six-Speed Manual

Engine:	19420597	Install Kit:	19329900
Transmission:	19352208		

SP383 EFI Deluxe with Super Magnum Six-Speed Manual

Engine:	19418640	Install Kit:	19329900
Transmission:	19352208		

TRANSMISSION OPTIONS

19368611
SuperMatic™ 4L65-E Four-Speed Automatic (remanufactured)
page 24

19368613
SuperMatic™ 4L70-E Four-Speed Automatic (remanufactured)
page 24

19352208
Super Magnum Six-Speed Manual
page 29

ENGINE-RELATED PARTS & ACCESSORIES

19332781
Transmission Installation Kit
page 25

19299801
Torque Converter
page 22

19332775
Transmission Controller
page 28

CIRCLE TRACK

CRATE ENGINES

Engines shown from left:
CT350, CT400, CT525

Engineered for Winning

There's more to capturing the checkered flag than horsepower. Week after week and season after season, you need lasting performance—and that's exactly what you can depend on with Chevrolet Performance Circle Track crate engines. Each is built with *brand-new* parts and our 350 engines feature blocks with four-bolt mains—a strength-enhancing feature you won't find on most used blocks. Trust Chevrolet Performance to deliver the durability you need to chase your racing dreams!

Check out the following pages to find the Chevrolet Performance Circle Track engine that's right for you!

NOTE: *Engines may not come with all the parts shown in photo. See your dealer for more details.*

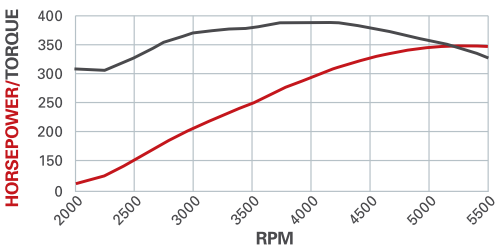
CT350

19418602

350 hp @ 5,400 rpm

396 lb.-ft. @ 3,800 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

An Affordable, Proven Winner!

Chevrolet Performance's durable CT350 is the budget-conscious crate engine racers can depend on for competitive performance and low maintenance—and with 350 horsepower, it's the perfect match for many short-track series.

The CT350 is based on our popular 350 H0 high-performance street-class crate engine and features a strong four-bolt-main block and iron Vortec cylinder heads. A unique dual-pattern camshaft helps deliver almost 400 lb.-ft. of torque between 2,000 and 5,500 rpm—peaking at 390 lb.-ft. at 3,800 rpm. With that much pulling power, you can hold a gear longer, keeping the engine in its sweet spot for quicker laps.

We assemble the CT350 with an 8-quart circle track racing oil pan, balancer, HEI distributor and an aluminum high-rise, dual-plane intake manifold. Add your carburetor, starter, spark plugs, wires and water pump—all available from Chevrolet Performance—and you'll be ready for the green flag!

INSTALLATION NOTES

- Requires addition of carburetor, starter, water pump, plug wires and exhaust system (not included)
- Requires an externally balanced flywheel (not included). See page 163 for flywheel selection
- The 8-quart circle track oil pan is 8 inches deep at the sump. It will clear most GM rear-steer chassis with stock engine location
- For circle track racing only—not intended for street use
- Circle Track racing engines from Chevrolet Performance include anti-tampering seals installed

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19418602
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	350
Bore x Stroke (in):	4.000 x 3.480
Block (P/N 10105123):	Cast iron with 4-bolt main caps
Crankshaft (P/N 10243070):	Nodular iron
Connecting Rods (P/N 10108688):	Powdered metal steel
Pistons (P/N 88894280):	Hypereutectic aluminum
Intake Manifold (P/N 12366573):	Dual-plane aluminum
Camshaft Type (P/N 24502476):	Hydraulic flat tappet
Valve Lift (in):	.435 intake / .460 exhaust
Camshaft Duration (@.050 in):	212° intake / 222° exhaust
Cylinder Heads (P/N 12558060):	Vortec iron; 64cc chambers
Valve Size (in):	1.940 intake / 1.500 exhaust
Compression Ratio:	9.12:1 Nominal
Rocker Arms (P/N 10089648):	Stamped steel
Rocker Arm Ratio:	1.5:1
Recommended Fuel:	Premium pump
Ignition Timing:	34° Total @ 4,000 rpm
Maximum Recommended rpm:	5,500
Balanced:	External

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

This Chevrolet Performance Racing Crate Engine is purpose-built for racing only, and has no warranty.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

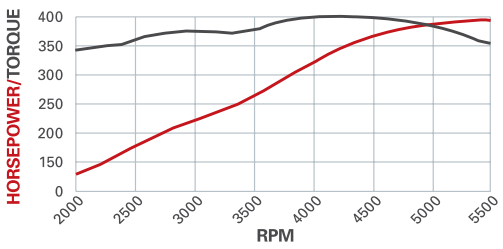
CT400

19370604

404 hp @ 5,600 rpm

406 lb.-ft. @ 4,600 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

High-Revving Performance Lap after Lap

Chevrolet Performance's high-revving CT400 racing crate engine uses aluminum Fast Burn cylinder heads with LS-style beehive valve springs to enable greater high-rpm performance and durability. They allow the engine to rev higher to make the most of every cubic inch of air drawn through it, helping it produce 404 horsepower at 5,600 rpm and 406 lb.-ft. of torque at 4,600 rpm.

The CT400 also has a tough bottom end, anchored by a forged steel crankshaft and strong aluminum pistons installed in a brand-new block with four-bolt mains. It also features a racing oil pan and a dual-plane aluminum intake manifold. Add your carburetor and other finishing components to get the CT400 running in your race car so you can chase the checkered flag!

INSTALLATION NOTES

- Requires addition of carburetor, starter, ignition, plug wires, water pump, distributor and exhaust system (not included)
- Requires an externally balanced flywheel (not included). See page 163 for flywheel selection
- The 8-quart circle track oil pan is 7 inches deep at the sump. It will clear most GM rear-steer chassis with stock engine location
- For circle track racing only—not intended for street use
- Circle Track racing engines from Chevrolet Performance include anti-tampering seals installed

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19370604
Engine Type:	Chevy Small-Block V-8
Displacement (cu in):	350
Bore x Stroke (in):	4.000 x 3.480
Block (P/N 10105123):	Cast iron with 4-bolt main caps
Crankshaft (P/N 12670965):	Forged steel, shot peened
Connecting Rods (P/N 10108688):	Powdered metal
Pistons (P/N 10159436):	Hypereutectic aluminum
Intake Manifold (P/N 12496822):	Single-plane aluminum
Camshaft Type (P/N 10185071):	Steel hydraulic roller
Valve Lift (in):	.474 intake / .510 exhaust
Camshaft Duration (@.050 in):	208° intake / 221° exhaust
Cylinder Heads (P/N 19300955):	Fast Burn aluminum; 62cc chambers
Valve Size (in):	2.000 intake / 1.550 exhaust
Compression Ratio:	9.72:1 Nominal
Rocker Arms (P/N 19210724):	Aluminum; roller style
Rocker Arm Ratio:	1.5:1
Recommended Fuel:	Premium pump
Ignition Timing:	36° Total @ 4,000 rpm
Maximum Recommended rpm:	5,800
Balanced:	External

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

This Chevrolet Performance Racing Crate Engine is purpose-built for racing only, and has no warranty.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

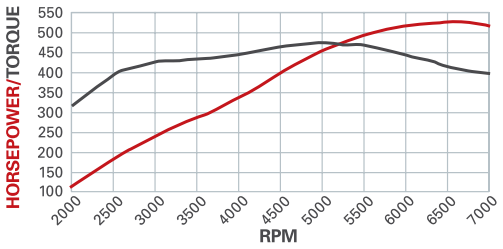
CT525

19418211

533 hp @ 6,600 rpm

477 lb.-ft. @ 5,200 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

High-RPM LS Performance with Forged Pistons

Chevrolet Performance's deep-breathing, high-revving CT525 6.2L crate engine is assembled with strong forged pistons designed to support its performance capability and enhance its durability.

The CT525 is based on the LS engine family and is similar to the 6.2L LS3, but we've adapted it to circle track racing with a carbureted intake manifold, 6-quart racing oil pan and more. It's a combination rated at 533 horsepower at 6,600 rpm and a strong 477 lb.-ft. of torque at 5,200 rpm, per Chevrolet Performance testing. The engine assembly comes with coil-on-plug ignition and an SFI-certified balancer. All that's needed to complete the assembly is a carburetor, starter and our LS/LSX ignition controller (P/N 19355863)—all available from Chevrolet Performance.

INSTALLATION NOTES

- Use LS/LSX ignition controller P/N 19355863 (not included). Shown on next page
- Requires addition of carburetor, starter, fuel system, exhaust system and front accessory drive system
- The 6-quart circle track oil pan is designed to clear most GM rear-steer chassis with stock engine location
- The engine is designed for circle track racing only. It is not intended for street use
- The CT525 does not include a water pump or factory exhaust manifolds
- Chevrolet Performance Circle Track racing engines include anti-tampering seals installed

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19418211
Engine Type:	LS-Series Gen IV Small-Block V-8
Displacement (cu in):	376 (6.2L)
Bore x Stroke (in):	4.065 x 3.62 (103.25 x 92mm)
Block (P/N 12673475):	Cast aluminum with 6-bolt, cross-bolted main caps
Crankshaft (P/N 12597569):	Nodular iron
Connecting Rods (P/N 12649190):	Powdered metal
Pistons (P/N 19418214):	Forged aluminum
Camshaft Type (P/N 88958770):	Hydraulic roller
Valve Lift (in):	.525 intake / .525 exhaust
Camshaft Duration (@.050 in):	226° intake / 236° exhaust
Cylinder Heads (P/N 12629063):	LS3 rectangular port; aluminum as-cast with 68cc chambers
Valve Size (in):	2.165 intake / 1.590 exhaust
Compression Ratio:	10.7:1 Nominal
Rocker Arms (P/N 12669995 int):	Investment-cast, roller trunnion
Rocker Arms (P/N 12681275 exh):	Investment-cast, roller trunnion
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Premium pump
Maximum Recommended rpm:	6,700
Reluctor Wheel:	58x
Balanced:	Internal

This Chevrolet Performance Racing Crate Engine is purpose-built for racing only, and has no warranty.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

SMALL-BLOCK
ENGINE COMPONENTS

Factory-Engineered Parts You Can Trust

Chevrolet engineers have refined Small-Block performance for more than 65 years, so you can rely on Chevrolet Performance Parts when you build your engine.

More than supporting your horsepower dreams, Chevrolet Performance Small-Block engine components offer peace of mind. They're designed to the same rigorous standards as production engines, with the fit and durability that comes only from factory-designed and tested parts.

We've got it all: Tough four-bolt blocks, forged rotating parts and high-flow cylinder heads—along with all the supporting induction, fuel and spark components. Build the Small-Block your way, with power, strength and durability.

Trust the engineers who have been at it from the very beginning!

You can find these Chevrolet Performance Small-Block Engine Components on the following pages:

Small-Block Blocks and Components

QUICK REFERENCE CHART

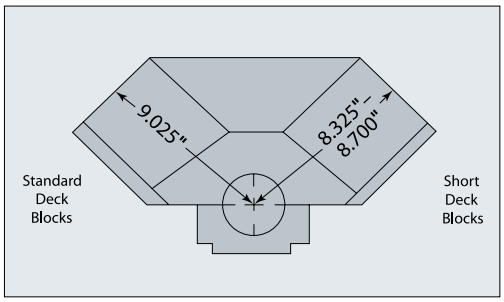
Cast-Iron Small-Blocks

Part Number	Cast #	Deck Height	Lifter Pattern	Cyl Wall	Bore Range	Main Bolt	Main Bolt Degree	Cap Material	Crank Jnl Size	Oiling	Seal Type	Max Stroke	Weight (lbs)	Max HP	Usage	Page Number
10105123	14093638	9.025"	Std	Open	4.000" – 4.030"	4	Straight	Gray iron	350	Wet	1 pc	3.750"	181	350	Street	149
88962516	–	9.025"	Std	Open	4.004" – 4.030"	4	Straight	Gray iron	350	Wet	1 pc	3.800"	181	450	Street	149
12480047	10051184	9.025"	Std	Siamese	3.980" – 4.155"	4	20°	Nodular	350	Wet	2 pc	3.750"	208	500	Amateur	150
12480049	10051184	9.025"	Std	Siamese	3.980" – 4.155"	4	20°	Nodular	400	Wet	2 pc	3.750"	208	500	Amateur	150
24502503	10051184	9.025"	Std	Siamese	3.980" – 4.155"	4	20°	Steel	350	Wet	2 pc	3.750"	208	700	Pro	150

Aluminum Small-Blocks

Part Number	Cast #	Deck Height	Lifter Pattern	Cyl Wall	Bore Range	Main Bolt	Main Bolt Degree	Cap Material	Crank Jnl Size	Oiling	Seal Type	Max Stroke	Weight (lbs)	Max HP	Usage	Page Number
10134400	10134398	9.025"	Std	Siamese	4.117" – 4.135"	4	20°	Steel	400	Dry	2 pc	3.750"	89	800	Pro	151

Deck Height Diagram



Production-Based Block (top, front)

PRODUCTION-BASED BLOCKS

When building a mild Small-Block performance engine, production-based blocks from Chevrolet Performance offer strength, accuracy and peace of mind that can't be assured in a rebuilt core. And unlike so many of the used cores, nearly all of ours feature four-bolt main caps for extra strength. Each cylinder block is machined to production-spec tolerances and is manufactured to the exact specifications of pre-1986 or 1986-and-later engines.

Production-Based Block Technical Notes:

- Standard 350 main journal sizes
- Lifter valleys machined for hydraulic-roller and flat-tappet valvetrains
- Production-spec cylinder wall thickness
- Non-siamese bores

See the chart above for complete specifications

Production-Based Block (top, rear)

Straight 4-Bolt Mains

Production-Based Block (top, front)

Part Number	Description	Technical Notes
10105123	350 Bare Block – 1986–Later Style, 1-Piece Rear Main Seal	Cast-iron 4-bolt block; 4.000" bore; Machined for hydraulic roller or flat tappets
88962516	383 Bare Block – 1986–Later Style, 1-Piece Rear Main Seal	Cast-iron 4-bolt block; 4.005" bore; Torque plate honed; Clearanced for 3.800" stroker crankshaft; Machined for hydraulic roller or flat tappets

Parts intended for competition use only. See page 2 for details.

BOWTIE SPORTSMAN BLOCKS

Step up to serious racing performance when you choose a Chevrolet Performance Sportsman Block. These iron blocks provide a rock-solid foundation for any application in the 350–500-horsepower range, be it drag strip or circle track. These highly versatile blocks are available in a variety of finish options that enable maximum flexibility for building a wide range of engine combos. Most of the blocks have siamesed[1] cylinder walls and four-bolt main caps[2] that are secured with Grade-8 bolts. Chevrolet Performance Bowtie Sportsman Blocks have 9.025-inch deck heights.

Sportsman Block (top, front)

***NOTE:** Bowtie blocks are called out by main journal sizes (i.e., 283, 350 or 400) and then by bore size (i.e., 283, 305, 350 or 400) if the bore is not standard to the main size. Example: P/N 24502650—"283 Main-350 Bore size"—has standard 283 main journal sizes; however, the bore is standard 350 size.*

Bowtie Sportsman Block Technical Notes:

- Standard 9.025-inch deck height
- Nominal cylinder wall thickness is .340-inch
- Minimum cylinder wall bore thickness on 4.155-inch bore is .225-inches (excluding P/N 10185047)
- Extra-thick deck surfaces have blind-tapped bolt holes for improved head gasket sealing
- Priority main oiling system
- Main bearing bulkheads are .900-inch thick and use Grade-8 bolts
- All five cam bearing locations require 2.000-inch O.D. (1.867-inch I.D.) bearings
- Tall lifter bore blocks may require clearancing the top of the lifter bores for some roller lifters
- Lifter valley oil scavenging boss below bell housing flange is present, but not drilled and tapped
- Oil dipstick holes are not drilled
- Timing system clearance must be checked

350 Bowtie Sportsman Block – 2-Piece Rear Main Seal

350 Bowtie Sportsman Block (Valley, top, front)

350 Bowtie Sportsman Block – 2-Piece Rear Main Seal

2-Piece Rear Main Seal

4-Bolt 350 Main Blocks

Part Number	Description	Technical Notes
12480047	350 Bowtie Sportsman Block, 2-Piece Rear Main Seal	CNC-machined cast-iron competition block; +/-.005" machining tolerances; 4-bolt nodular mains, splayed caps on center three mains; 3.980" finished bore; 4.155" max bore (siamesed cylinder bores); Tall lifter bores

4-Bolt 400 Main Blocks

12480049 (discontinued)	400 Main, 350 Bore Size Bowtie Sportsman Block, 2-Piece Rear Main Seal	CNC-machined cast-iron competition block; +/-.005" machining tolerances; 4-bolt nodular mains, splayed caps on center three mains; 3.980" finished bore; 4.155" max bore (siamesed cylinder bores); Tall lifter bores

See the chart on page 149 for complete specifications.

CHEVROLET PERFORMANCE RACE BLOCKS

Chevrolet Performance Race Blocks are all about serious horsepower. Precision is the operative word for them, from start to finish, so you can depend on them to get you to the finish line first. Chevrolet Performance Race Blocks use only the highest-grade materials and machining techniques. The blocks are CNC-machined[3] with closer tolerances than Bowtie blocks. Race blocks feature full race-prep machining and four-bolt splayed[4] main caps. Chevrolet Performance Race Blocks have proven themselves repeatedly in professional stock car and drag race use. Chevrolet Performance Race Blocks have the power and reliability to help put your car in the winner's circle.

See the chart on page 149 for complete specifications.

24502503

350 Cast-Iron Bowtie Race Block (not shown)

- Cast-iron competition block right out of the box
- 4-bolt steel mains, 20° splayed caps on center three mains
- 2.000" O.D. cam bearings (1.867" I.D.) required at all five locations
- 3.980" finished bore
- 4.155" max bore (siamesed cylinder bores)
- 9.025" deck height
- Oil galleries for dry sump system are oversized and tapped for pipe plugs
- Supplied with sonic data sheet
- Tested to over 700 horsepower!

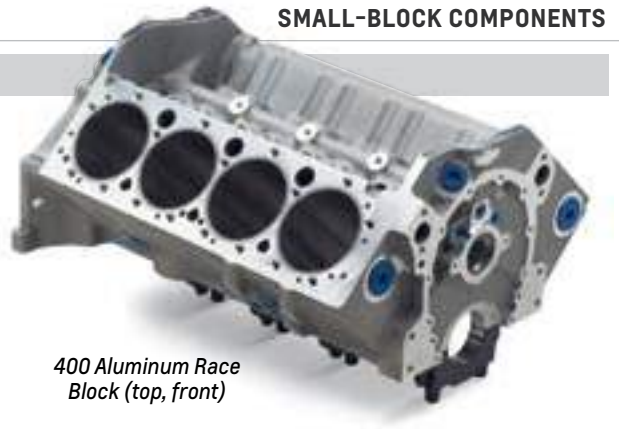
1. *Siamesed cylinder walls have thicker cylinder wall material with no water between the bores. This allows for a bigger bore; a bigger bore allows for more cubic inches and more power!*
2. *4-bolt mains have more material and more fasteners holding the crank in the block (4-bolts per main instead of just 2). 4-bolt mains help maintain the integrity of the block.*
3. *CNC machining provides tighter tolerances. Chevrolet Performance offers more CNC-machined blocks than anyone.*
4. *Splayed main caps have additional material for added strength in securing the crankshaft. This reduces the chance of engine failure when you drop the hammer.*

ALUMINUM RACE BLOCKS

Less weight and the same great horsepower are the benefits of a Chevrolet Performance Aluminum Race Block. Chevrolet Performance Aluminum Race Blocks provide the same competition-level strength and reliability of our cast-iron race blocks, but their lighter weight improves chassis dynamics. The super-tough A-356 aluminum competition blocks are CNC-machined to +/- .005-inch tolerances. Chevrolet Performance Aluminum Race Blocks are for competition applications, including high horsepower turbocharged engines.*

See the chart on page 149 for complete specifications.

** Proposed applications have not been specifically tested or validated by Chevrolet Performance.*



400 Aluminum Race Block (top, front)

Part Number	Description	Technical Notes
10134400 ❗	400 Aluminum Bare Block	A-356 aluminum competition block; CNC-machined; Siamesed bores with increased wall thickness; 4.117" rough-finished bore; 4.135" maximum bore; 3.750" maximum stroke; Splayed 4-bolt steel mains; 400 main size; Dry sump use only; Tested to more than 800 horsepower!

CYLINDER BLOCK COMPONENTS

Part Number	Description	Technical Notes
12363238	Universal Engine Lift Brackets	Designed to bolt to the end of cylinder heads for removal and installation of the engine; Made from .200" steel and have .880" x 1.000" hook slots. Use with 3/8" or 7/16" bolts; Includes two brackets and two 7/16" bolts
94673017	Freeze Plug – 1-5/8" Brass	Corrosion-resistant brass freeze plug is recommended for marine applications
10121044	Rear Oil Seal – 2-Piece Design (not shown)	Rear oil seal for V-8 and V-6 engines with pre-1985 style 2-piece oil seal design, used by many NASCAR teams for superior leak protection
12480004	Cylinder Sleeve – Standard	Standard-bore steel cylinder sleeve for late-design aluminum Small-Block V-8 and 90° V-6 aluminum blocks, including P/N 10134400 ***NOTE:*** *Sleeve has 3.980" bore; can be overbored to 4.135"*
12499102	Main Bearing Kit – 350 Engine, Standard	Complete main bearing kit for 350-cubic-inch Small-Block V-8 with standard-size mains
12480108	Main Bearing Bolt Kit – Sportsman Blocks	Sturdy main bearing cap bolts designed specifically for the following Chevrolet Performance Sportsman Racing Blocks: P/N 12480047, P/N 12480049, P/N 12480157, P/N 12480159, P/N 12480174 and P/N 12480175; Bolts are Grade-8 with 12-point heads and black oxide coating

FRONT COVERS, TIMING POINTERS AND FUEL PUMP BLOCK-OFF PLATES

Timing Pointer – 6.75" & 7" Balancer

Small-Block Chrome Timing Cover

Front Cover with Bolts, Seal and Gasket

Small-Block Fuel Pump Block-Off Plate

Part Number	Description	Technical Notes
3991435	Timing Pointer – 6.750" and 7" Balancer	Steel timing pointer bolts onto engines with 6.750" or 7" balancers; Pointer is not chrome
12342089 ❗	Small-Block Chrome Timing Cover	Attractive chrome cover for 1969–1991 Small-Block V-8 and all 90° V-6 engines; Direct replacement for covers that use bolt-on timing pointer; Supplied with GM oil seal (replacement oil seal P/N 10243247)
12562818 ❗	Front Cover	With crank trigger plug; Includes bolts, seal and gasket
12341998	Small-Block Fuel Pump Block-Off Plate	Plate has stamped Bowtie logo; Gasket included

❗ Timing Covers: Additional Required Components

Part Number	Bolts (Quantity)	Seals (Quantity)	Gasket (Quantity)	Bolt Grommets (Quantity)	Engine Application
12342089	11561767 (10)	14090906 (1)	10108435 (1)	N/A	19370602, 19355660, 19355661, 19210007
12562818	10213293 (6)	10228655 (1)	N/A	10213294 (8)	19355670, 19355719, 19370604

❗ *Additional components required for installation. See chart above.*

Parts intended for competition use only. See page 2 for details.

Small-Block Cylinder Heads

QUICK REFERENCE CHART

Part Number	Description	Casting Number	Material	Port Size	Port Type	Valve Angle	Chbr CC's	Int Vlv	Exh Vlv	Exh Port	Plug Type	Heat Riser	Rocker Stud	Notes	Page
19300956	Fast Burn ZZ6	12367712	Alum	210	Vortec	23	62	2.000	1.550	LT4	Angled	No	Screw-in	Bare 19300955	N/S
19300955	Fast Burn ZZ6	12367712	Alum	210	Vortec	2	62	2.000	1.550	LT4	Angled	No	Screw-in	Assembly	153
12558060	Vortec	10239906 or 12558062	Iron	170	Vortec	23	64	1.940	1.500	LT4	Straight	No	Press	Bare 12558060	152
25534351	Small-Port Vortec Bowtie	25534351	Iron	185	Vortec	23	66	2.000	1.550	LT4	Straight	No	Screw-in	Bare 25534421	N/S
19331473	Large-Port Vortec Bowtie	25534371	Iron	225	Vortec	23	66	2.000	1.550	LT4	Straight	No	Screw-in	Bare 25534446	N/S
19331470	Small-Port Vortec Bowtie	25534351	Iron	185	Vortec	23	66	2.000	1.550	LT4	Straight	No	Screw-in	Assembly	153
19331472	Large-Port Vortec Bowtie	25534371	Iron	225	Vortec	23	66	2.000	1.550	LT4	Straight	No	Screw-in	Assembly	153
12480129	SB2.2	12480011	Alum	–	SB2.2	SB2.2	48	2.150	1.625	SB2.2	Angled	No	Shaft	No seats/guides	155
12480011	SB2.2 Bare	12480011	Alum	–	SB2.2	SB2.2	48	2.150	1.625	SB2.2	Angled	No	Shaft	No seats/guides	155
88958667	ROX SB2.2	88958667	Alum	–	SB2.2	SB2.2	28	2.150	1.625	SB2.2	–	–	Shaft	No seats/guides	N/S
12480146	Rough Bare Splay	24502517	Alum	–	Splayed	Splay	45	2.200	1.650	Splayed	Angled	No	Shaft	Rough mach 24502517	154
12480147	Semi-Machined Splay	10185040	Alum	–	Splayed	Splay	45	2.200	1.650	Splayed	Angled	No	Shaft	Semi-mach 12480146	154
24502517	Splayed Valve	10185040	Alum	–	Splayed	Splay	45	2.200	1.650	Splayed	Angled	No	Shaft	No seats/guides	154
12480153	ROX Splayed	12480153	Alum	–	Splayed	Splay	–	–	–	Splayed	–	–	Shaft	No seats/guides	154

VORTEC CYLINDER HEADS

An easy way to gain 20–40 horsepower on any 1955-and-newer Small-Block Chevrolet V-8 (except later-style LT1/LT4 engines with reverse-flow cooling) is by installing a set of Vortec cylinder heads. These value-priced cast-iron cylinder heads use modified combustion chambers and high-velocity port technology to provide improved airflow performance compared to Gen I-style designs. Vortec cylinder heads significantly outflow non-Vortec service replacement cylinder heads and earlier OEM cast-iron heads. These cylinder heads are ideal for applications up to 350 horsepower, but they require Vortec-specific intake manifolds.

Cast-Iron Vortec Cylinder Head (exhaust)

12558060

Cast-iron Vortec Cylinder Head Assembly

- Completely assembled with 1.940"/1.500" valves
- Uses bare head 12558060
- 64cc combustion chamber
- Straight spark plugs
- No heat risers
- Requires Vortec-specific intake manifold
- Camshafts with more than .475" lift require machining valve guide bosses and checking valve seal to valve spring retainer clearance
- Can be machined for 2.020"/1.600" valves
- Rocker arm studs can be pinned or drilled and tapped to ⅜"
- Valve spring seat diameter is 1.280"
- Casting number 10239906 or 12558062

Cast-Iron Vortec Cylinder Head (combustion chamber)

Cast-Iron Vortec Cylinder Head (intake)

VORTEC BOWTIE CYLINDER HEADS

Vortec Bowtie Cylinder Heads are the most powerful cast-iron heads offered by Chevrolet Performance. These upgraded production cylinder heads are ideal for 400–450 horsepower racing engines (great for circle track applications). Vortec Bowtie Cylinder Heads come with bigger valves, a thicker deck surface and 66cc combustion chambers. The heads provide outstanding low-lift flow numbers (the more air you flow, the more potential power) and Fast Burn performance in an affordable, cast-iron head.

Small-Port Vortec Bowtie Cylinder Head (intake)

Vortec Bowtie Cylinder Head Technical Notes:

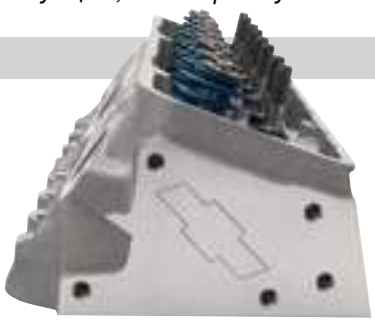
- Cast-iron small runner or large runner cylinder heads*
- 66cc combustion chambers
- .450" deck thickness
- Hardened exhaust valve seats
- Machined for 2.000"/1.550" valves
- Maximum .530" valve lift (without modifications)
- Straight spark plug design
- No heat risers
- Drilled and tapped for 7/16"-14 screw-in studs
- Dual bolt patterns for Vortec and early-style intake manifolds (Vortec intakes P/N 12366573, 12496820, 12496821, 12496822 or 12489371)
- Use intake gasket P/N 89017465 for Vortec intakes or dual pattern intake gasket P/N 19301685 for early-model intakes or Vortec design intake manifolds
- Dual bolt patterns for perimeter-style and center-bolt valve covers
- Vortec intake manifold three-step torque specs: 2 lb.-ft.; 9 lb.-ft.; 11 lb.-ft.

Part Number	Description	Technical Notes
19331470	Small-Port Vortec Bowtie Cylinder Head Assembly	Completely assembled, ready to bolt on; 185cc intake ports; 65cc exhaust ports; Use Fel-Pro® P/N 1470 exhaust gasket; Bare head P/N 19331471, available separately
19331472	Large-Port Vortec Bowtie Head Assembly (not shown)	Completely assembled, ready to bolt on; Improved air flow (281 cfm @ .600") 225cc intake ports; 77cc exhaust ports; 65cc combustion chambers; Use Fel-Pro® P/N 1470 exhaust gasket (minor trimming may be necessary); Bare head P/N 19331473, available separately

**Larger intake and exhaust ports allow for a greater volume of air to pass through the engine. The more air you flow, the more power you can make.*

ALUMINUM FAST BURN HEADS

Chevrolet Performance's Fast Burn 23-degree cylinder heads deliver maximum performance for Small-Block engines. An aluminum head casting—distinguished by Chevy Bowtie logos at each end—and a valvetrain with high-rpm, LS-style beehive-type valve springs stretches the performance range of the heads to enable greater power at a higher rpm. Fast Burn technology delivers more horsepower by increasing cylinder pressures, which maximizes the air/fuel mixture's combustion. The 62cc combustion chamber is designed for use with flat-top pistons. The CNC-machined Fast Burn heads require no additional porting for optimal performance, so all you need to do is bolt them onto your Small-Block and go! They can be used on any Small-Block engine with at least 4.000-inch bores and the standard-flow coolant system. Not for use on Gen II 1992–1996 LT1/LT4 engines with reverse-flow cooling system.



Fast Burn Cylinder Head

Fast Burn Cylinder Head (intake)

Fast Burn Cylinder Head (exhaust)

Fast Burn Cylinder Head (combustion chamber)

19300955

Fast Burn Aluminum Cylinder Head Assembly

- CNC-machined aluminum performance cylinder head
- Completely assembled with 2.000"/1.550" valves
- 210cc intake port, roof raised .240"
- 78cc D-shaped exhaust ports, raised .200" – requires Fel-Pro® exhaust gasket P/N 1470 (may require minor trimming)
- 62cc combustion chamber, .400" deck (can be milled up to .060")
- No heat riser
- Angled spark plugs (5/8" hex, 3/4" reach, tapered plugs)
- 1.48" valve spring seat diameter
- Use head gaskets with stainless steel fire rings
- Raised, machined rocker rails
- .530" maximum valve lift (without modifications)
- Screw-in studs (3/8" top, 7/16" bottom)
- New "time-serts" prevents oil migration through rocker studs
- Dual bolt patterns for perimeter-bolt and center-bolt valve covers
- Dual bolt patterns for Vortec and early-model intake manifolds
- Machined bare head P/N 19300956
- Use intake gasket P/N 19301685

Additional components required for installation. See chart page 155.

Parts intended for competition use only. See page 2 for details.

SPLAYED-VALVE ALUMINUM RACE CYLINDER HEADS

Chevrolet Performance Splayed-Valve Aluminum Race Cylinder Heads are extremely aggressive, all-out competition heads and not intended for street use. Splayed valves point both intake and exhaust valves at the center of the cylinder bore. As the valves open, they move away from the edges of the bore. That allows maximum-size valves to be installed without increasing bore size. The result is dramatically increased airflow, compared to inline-valve-design cylinder heads.

The castings have a .240-inch minimum port wall thickness, which leaves ample room for extensive custom porting. Intake valves are angled 16 degrees to the deck surface and splayed 4 degrees. Exhaust valve angles are 11 degrees with a 4-degree splay. Making more than 1,000 naturally aspirated horsepower with these cylinder heads is easily achievable.

Splayed-Valve 4.500 Bore Center Cylinder Head (exhaust)

Aluminum Splayed-Valve Race Head Technical Notes:

- Made of 355-T7 aluminum
- No valve seats or guides provided
- Extra-thick decks for angle milling or heavy flat milling
- Extra port material (.240") for professional porting
- Completely revised intake and exhaust ports provide ultimate airflow potential
- 45cc "as-cast" combustion chambers
- Modified valve angles (16° x 4° intake and 11° x 4° exhaust)
- Designed for longer-than-stock 2.200" and 1.650" valves
- Valve spring pads accommodate 1.625" diameter springs
- Revised location angled spark plugs (14mm, 5/8" hex, 3/4" reach, gasketed plugs)
- Designed for aftermarket shaft-mount rocker systems
- Custom-fabricated intake manifold required
- Valve cover gaskets required (P/N 10185043)

Splayed-Valve Head (exhaust)

Splayed-Valve Head (intake)

Splayed-Valve Head (combustion chamber)

Part Number	Description	Technical Notes
12480146	Rough-Machined Splayed-Valve Aluminum Cylinder Head (not shown)	Main surfaces are machined, exhaust bolt pattern is machined; Head bolt and dowel holes, intake bolt holes, spark plug holes and pushrod holes are not machined; Valve guides, valve seats, valve spring seats and rocker stands are not machined; Valve locations and angles may be relocated; 240cc "as-cast" intake ports; 78cc "as-cast" exhaust ports; 45cc "as-cast" combustion chambers
12480147	Semi-Machined Splayed-Valve Aluminum Cylinder Head (not shown)	Main surfaces are machined; exhaust bolt pattern, valve guides and spark plug holes are machined; Head bolt holes, dowel holes, intake bolt holes and pushrod holes are not machined; Valve seats, spring seats and rocker stands are not machined; 240cc "as-cast" intake ports; 78cc "as-cast" exhaust ports; 45cc "as-cast" combustion chambers; Same casting as P/N 12480146
24502517	Splayed-Valve Aluminum Cylinder Head	Semi-machined aluminum race head; 240cc "as-cast" intake ports; 78cc "as-cast" exhaust ports; 5cc "as-cast" combustion chambers; Same casting as P/N 12480146
12480153	Splayed-Valve 4.500 Bore Center Aluminum Cylinder Head	Semi-machined aluminum race head; Great for NHRA competition with dual carburetors; As-cast ports and combustion chambers for professional finishing; Use mid-deck block with 4.500" main bore machining; Special larger head-bolt pattern, 3/8" fasteners, 19 holes; 240cc "as-cast peanut" intake ports; 78cc "as-cast peanut" exhaust ports; 40cc "as-cast" combustion chambers
88958684	Splayed-Valve 4.500 Bore Center Aluminum Cylinder Head Cubed (not shown)	Great for NHRA competition with dual carburetors; 240cc "as-cast peanut" intake ports; 78cc "as-cast peanut" exhaust ports; "Cubed" aluminum race head; Bare head, no seats or guides

Splayed-Valve 4.500 Bore Center Cylinder Head (combustion chamber)

Splayed-Valve 4.500 Bore Center Cylinder Head (intake)

SB2.2 NASCAR RACE CYLINDER HEADS

The Chevrolet Performance SB2.2 NASCAR Racing Head was designed to help durability, simplify preparation procedures, and reduce the overall cost of building and maintaining a Small-Block Chevrolet racing engine. It is ideal for single, four-barrel carburetor applications due to having "mirror" design intake ports and all eight ports being angled toward the center of the engine. Spark plug holes were moved toward the bore center for combustion efficiency. 48cc combustion chambers permit 12.1:1-compression-ratio flat-top pistons.

SB2.2 Cylinder Head (exhaust)

Aluminum SB2.2 NASCAR Race Head Technical Notes:

- 355-T7 X-rayed and "hipped"* aluminum competition cylinder heads
- Extra-thick decks for heavy flat milling
- Extra material around ports for professional porting
- Combustion chambers are very small, shallow and wedge-shaped
- Precision T-washers installed in all four center head bolt bosses
- Designed for longer-than-stock 2.150" and 1.625" valves
- Valve spring pads accommodate 1.625" diameter springs
- Modified valve angles: 11° x 4° intake and 8° x 0° exhaust
- Designed for aftermarket shaft-mount rocker systems
- Revised location angled spark plugs (14mm, $^5/_8$" hex, $^3/_4$" reach, gasketed plugs)
- Requires specific left–and right–hand pistons
- Valve cover P/N 12480006
- Replacement AN-08 intake port plugs available as P/N 12480171

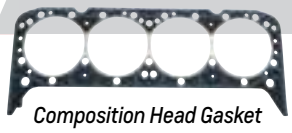
Part Number	Description	Technical Notes
12480011	Semi-Finished SB2.2 Aluminum Cylinder Head *(Discontinued)*	Aluminum NASCAR-accepted head; Bare head, no seats or guides installed; Standard .500" guide holes; "As-cast peanut" ports; 48cc "as-cast" combustion chamber
12480129	Semi-Finished SB2.2 Aluminum Cylinder Head *(Discontinued)*	Aluminum NASCAR-accepted head; Bare head, no seats or guides; Reduced size .375" diameter guide holes; "As-cast peanut" ports; 48cc "as-cast" combustion chamber

**HIP is the acronym for hot isostatic pressure. This process puts the heads in a sealed vessel where a vacuum is first used to remove room air and any possible contaminants. The vessel is filled with high pressure nitrogen (up to 30,000-psi) and then heated to the required temperature and sustained for a determined amount of time. The cooling process is also a controlled procedure to ensure maximum strength and proper heat treat. This extreme high pressure and heat removes almost 100% of the internal porosities that are generated during the casting process. The material integrity, strength and fatigue life increases significantly.*

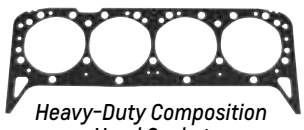
CYLINDER HEAD GASKETS, HEAD BOLTS AND STUDS

Chevrolet Performance cylinder head gaskets, cylinder head bolts and cylinder head studs are made with high-quality materials. Their superior construction helps ensure optimum sealing between cylinder heads and the engine block.

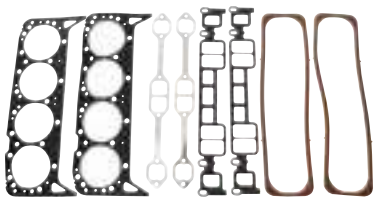
Gasket packages contain one gasket unless otherwise specified. Head gaskets are available in a variety of materials and thicknesses. Use the proper gasket to maintain compression ratios and minimum piston-to-cylinder-head clearances.



Composition Head Gasket



Heavy-Duty Composition Head Gasket



Cylinder Head Installation Kit

Part Number	Description	Technical Notes
10105117	Composition Head Gasket	Composition head gasket with stainless steel fire ring; For stock or mildly modified engines with 4.0" cylinder bores; Fits cast-iron or aluminum heads; Used on Ram Jet 350; .028" compressed thickness
3830711	Steel Shim Head Gasket	For stock and mildly modified engines with 4.0" cylinder bores; .026" compressed thickness
12557236	Steel Shim Head Gasket	Stainless steel fire rings; Fits aluminum or cast-iron heads; Used on ZZ4 and 350 HO engines; .051" compressed thickness
10185054	Heavy-Duty Composition Head Gasket	Teflon-coated; Pre-flattened wire O-rings around each cylinder; For competition engines with cylinder bores of 4.0" to 4.125"; .041" compressed thickness ***NOTE:*** *Drill steam holes when used on 400-ci Small-Blocks. Gasket does not require re-torquing.*
12499223	Cylinder Head Installation Kit – 5.7L L31 Engine	Comprehensive kit; Includes 2 cylinder head gaskets, 2 valve cover gaskets, 2 intake manifold gasket sets and 2 exhaust manifold gaskets; .028" compressed thickness
14011040	Hardened Washer	.450" I.D. x .778" O.D. ; Sold individually
10051155	Hardened Washer	.450" I.D. x .750" O.D.; Sold individually, for Phase 6 and raised-runner aluminum heads
585927	Cylinder Head Dowel Pin	Dowel pin $^5/_{16}$" diameter by $^9/_{16}$" long; For all Small-Block V-8 and 90° V-6 engines
12495499	Cylinder Head Bolt Kit	For iron or aluminum heads, Includes 14 of P/N 10168525; 4 of P/N 10168526, 16 of P/N 10168527, and thread sealant

Small-Block Cylinder Heads Additional Required Components

Part Number	Head Gaskets (Quantity)	Bolts (Quantity)	Spark Plug	Engine Application
12558060	10105117 (2) OR 12557236 (2)	10168525 (14), 10168526 (4), 10168527 (16)	19354420	19370602, 19419992, 19355720, 19210007, 19210008
19300955	10105117 (2) OR 12557236 (2)	10168525 (14), 10168526 (4), 10168527 (16)	19355201	19370604
19331472	10105117 (2), 10185054 (2)	10168525 (14), 10168526 (4), 10168527 (16)	N/A	12496820

Additional components required for installation. See chart above.

Parts intended for competition use only. See page 2 for details.

OVERHAUL GASKET KITS

19201171
Rebuild Gasket Kit

- Fits 350 HO, HT383 and Circle Track engine (P/N 19370602)
- Includes Head Gaskets, Oil Pan Gasket Set, Rear Main Seal Housing Gasket, Intake Manifold Gasket Set, Water Outlet Gasket, Front Cover Gasket, Fuel Pump Adapter Gasket , Water Pump Gaskets, Distributor Gasket, Valve Cover Gaskets, Crankshaft Rear Main Seal

19201172
Rebuild Gasket Kit

- Fits Fast Burn 385, ZZ5, SP350, ZZ6, ZZ383, SP383 and Circle Track engine (P/N 19370604)
- Includes Head Gaskets, Oil Pan Gasket Set, Rear Main Seal Housing Gasket, Intake Manifold Gasket Set, Water Outlet Gasket, Fuel Pump Adapter Gasket, Water Pump Gaskets, Distributor Gasket, Valve Cover Gaskets, Crankshaft Rear Main Seal

VALVES

Intake Valve

Exhaust Valve

Intake Valves

Part Number	Valve Size	Stem Size	Description
10241743	1.940"	11/32"	Stock replacement valve used in all of our crate engines except CT350/400, Fast Burn 385 and ZZ383/425
12555331	2.000"	11/32"	Stock replacement valve used in the 1996 LT4 engine, and in our CT400, Fast Burn 385 and ZZ383/425 also in LT4 and Fast Burn heads
12363757	2.000"	11/32"	Stainless steel valves with undercut stems to improve air flow, single groove design, chrome-plated stems to reduce wear, hardened tips to withstand high loads

Exhaust Valves

Part Number	Valve Size	Stem Size	Description
12550909	1.500"	11/32"	Stock replacement valve used in all of our crate engines except CT350/400, Fast Burn 385 and ZZ383/425
12551313	1.550"	11/32"	Stock replacement valve used in the 1996 LT4 engine, and in our CT400, Fast Burn 385 and ZZ383/425; Also in LT4 and Fast Burn heads

VALVE SPRINGS

Part Number	Spring Type	Outside Diameter	Pressure at Installed Height	Solid Height	Average Weight (lbs @ in)	Retainer Part Number	Valve Seal Kit	Technical Notes
94666580	Single w/ damper	1.241"	80# @ 1.700"	1.150"	267	–	12511890	Production spring for 350/290 HP engines
330585	Dual	1.379"	140# @ 1.750"	1.150"	325	–	12511890	Use with all moderate lift racing cams
10206040	Single spring	1.300"	85# @ 1.780"	1.260"	373	–	N/A	1992–1993 LT1 production Corvette engine
12625033	Single spring	1.320"	101# @ 1.780"	1.220"	332	19301708	N/A	CT400, ZZ5, ZZ6, ZZ383, SP383 (Beehive Spring)
12499224	Spring kit	1.320"	101# @ 1.780"	1.220"	332	19301708	N/A	Kit of 16 springs P/N 12625033 (Beehive Spring)
10212811	Single spring	1.250"	80# @ 1.700"	1.200"	256	10241744	N/A	CT350/350, 350HO engines
19154761	Spring kit	1.250"	80# @ 1.700"	1.200"	256	10241744	N/A	Kit of 16 springs P/N 10212811 (see above)

Valve Spring Components

Part Number	Description	Technical Notes
10212809	LT4 Valve Spring Shim	Lightweight shims as used on 1996 LT4 Corvette special LT service heads, and Fast Burn heads. Use with spring P/N 12551483
3875916	Spring Shim	55/64" I.D. x 1-31/64" O.D. x .015" thick
10212810	Valve Stem Seal	Used on LT4 and ZZ4 heads as well as Chevrolet Performance Parts head assemblies P/N 25534421, 19331472, and 19300995
12511890	Valve Stem Seal Kit	Late-model V-8 seal kit for $^{11}/_{32}$" diameter valve stems. Includes 8 intake seals, 8 exhaust seals and 16 oil stem seals ***NOTE:*** *Check for seal-to-guide interference with high-lift cams.*
10241744	Valve Spring Retainer	Used on 350 HO, 350 Ram Jet and HT383
10045007	Valve Spring Retainer	For all ZZ3 series engines; *NOTE: When converting ZZZ, ZZ1 or ZZ2 engines to ZZ3 series cap, valve spring shield must be removed and add cap P/N 10045007, seal P/N 10212810.*
19171528	LT4 Valve Spring Cap Kit	Kit for 5.7L LT4 engines. Includes 16 P/N 19169661 lightweight retainers. Use with spring kit P/N 12495494 and key kit P/N 12495503. Used on ZZ4, Fast Burn LT4 and iron Vortec Bowtie heads
19169661	Heavy Duty Vortec Valve Spring Retainer	Fits Fast Burn and Vortec Bowtie cylinder heads. Designed for circle track racing
12495503	Valve Spring Key Kit	Kit includes 32 keys of P/N 24503856 for 11/32" valve stems. Use on all Small-Block V-8 engines

19300952

Beehive Spring Conversion Kit

To gain greater high-rpm capability and valvetrain stability, convert the valvetrain on your aluminum Fast Burn heads to the beehive-type system used on Chevrolet Performance's latest Fast Burn heads (P/N 19300955) on the SP350, ZZ5, ZZ6, SP383 and ZZ383 crate engines, and on the CT400. The springs, retainers and other hardware are direct replacements for the conventional springs and hardware, with no machining of the valve spring seat required. The engine's existing intake and exhaust valves are retained, allowing installation without cylinder head removal if compressed air or another method is used to hold the valves closed. The engine's existing rocker arms are also retained.

The kit comes with components to convert a pair of cylinder heads, including:

Part Number	Description	Quantity
12713265	Spring	16

NOTE: *The conversion kit is intended only for Fast Burn heads and is not compatible with Vortec heads because of insufficient room for the spring seats.*

Service Kit Includes:

Part Number	Description	Quantity
19420455	Spring Kit	1
19303149	Cap	8
19303150	Seat	8
19302868	Keeper	16

NOTE: *Must use with P/N 19210728 or P/N 19210729 Rocker Arms for adequate clearance.*

ROCKER ARMS

Aluminum Roller Rocker Arm – 3/8" Studs

These Chevrolet Performance Aluminum Roller Rocker Arms resemble the ones used in the 1996 Corvette LT4 engine, except the trunnions have been machined to fit early-model 3/8" rocker studs. The arms are self-aligning with improved stiffness, compared to stamped steel production rocker arms. They will accommodate up to .575" valve lift. They are available in 1.5:1 and 1.6:1 ratios.

Roller Rocker Arm Set – 1.5:1 Ratio

Roller Rocker Arm (top) with adjuster nut

Roller Rocker Arm (bottom)

Adjuster Nut for Roller Rocker Arm

"Kool Nut"

Part Number	Description	Technical Notes
19210728	Roller Rocker Arm Set – 1.5:1 Ratio	Set of 16, 3/8" stud 1.5:1 ratio roller rockers; Use P/N 19210724 for single service part
19210729	Roller Rocker Arm Set – 1.6:1 Ratio (not shown)	Set of 16, 3/8" stud 1.6:1 ratio roller rockers; Use P/N 19210725 for single service part ***NOTE:*** *When using a high-lift camshaft, check valve spring coil bind, retainer-to-seal clearance and piston-to-valve clearance. Check for adequate pushrod clearance when using on cast-iron heads. It may be necessary to remove valve cover drippers for proper rocker arm clearance. Cannot be used on ZZ3 engines with orange valve springs.*
19210725	Adjuster Nut for Roller Rocker Arm	3/8" adjustment nut; Used on both aluminum rocker arm kits P/N 19210728 and P/N 19210729
19210731	"Kool Nut" (single)	Special rocker arm nuts are used on GM Circle Track engines P/N 19370602 and P/N 19418602; Can be used with any stamped steel rocker arm

12495490

Rocker Arm Kit, Steel – 1.5 Ratio (set of 16)

These self-aligning, high-quality rockers have a nominal 1.5:1 ratio. The kit includes 16 stamped steel rockers with pivot balls and nuts. Use P/N 10089648 for single service part. For use with 3/8" studs.

NOTE: *Not recommended for mechanical lifter camshafts.*

VALVE COVERS

People can't see the beautiful porting artistry inside your Chevrolet Performance aluminum cylinder heads, but they can and do see the valve covers. To make sure your GM engine looks as great as it runs, Chevrolet Performance offers a wide selection of precision-engineered, branded valve covers. The valve covers are either aluminum or stamped steel. They're designed to seal tightly and help minimize the chance of oil leakage. Taller competition valve covers are made to easily clear high-performance valvetrain components.

NOTE: *Valve covers are sold in pairs unless otherwise specified. Valve covers cannot be used with 15° or 18° heads unless otherwise stated.*

10185064
Tall Aluminum Valve Covers

- Competition racing valve cover displays the Chevrolet name and Bowtie logo
- Natural cast finish
- No holes for PCV or oil fill, but has bosses for drilling them
- Designed for pre-1986 engines with perimeter hold-downs
- Can be used with 15° and 18° heads
- Use P/N 10185052 for single service part

12480127
Short Aluminum Valve Covers

- Cast-aluminum Chevy Bowtie-design valve cover is similar to P/N 10185064 except it is a short style with a PVC hole in both covers (grommets included)
- Natural cast finish
- Designed for pre-1986 engines with perimeter hold-downs
- Covers have oil baffle
- Not to be used with the 350/290 crate engine

NOTE: *For use with 1.5 ratio stamped rocker arms only.*

24502466
Tall Valve Covers – No Logo

- Create your own custom valve covers!
- Cast-aluminum valve cover is similar to P/N 10185064, but has no logo
- Cast with extra material to permit milling a custom logo

NOTE: *Sold as single piece. Order 2 per engine.*

12341670
Chrome Short Valve Covers

- Short chrome valve covers with baffle
- For use on pre-1986 engines with perimeter hold-downs
- Chevrolet and the Bowtie logo are embossed on top

NOTE: *For use with 1.5 ratio stamped rocker arms only.*

12497978
Polished Aluminum Valve Covers – Center Bolt Design

- Die-cast aluminum valve covers
- Polished to a bright shine
- Approximately ¼" taller than production covers
- For use on 1986-and-newer engines with center hold-downs
- Kit includes bolts, washers and seals
- Installed on ZZ5 and SP350 crate engines

NOTE: *Use valve cover gasket P/N 10046089 and replacement bolt and seal kit P/N 12497980.*

12497985
Chrome-Finish Aluminum Valve Covers – Center Bolt Design

- Die-cast with chrome finish
- Approximately ¼" taller than production covers
- For use on 1986-and-newer engines with center hold-downs
- Kit includes bolts, washers and seals

NOTE: *Use valve cover gasket P/N 10046089 and replacement bolt and seal kit P/N 12497980.*

12497979
Aluminum Black Crinkle Valve Covers – Center Bolt Design

- Die-cast with black crinkle finish
- Approximately ¼" taller than production covers
- For use on 1986-and-newer engines with center hold-downs
- Kit includes bolts, washers and seals
- Factory-installed on new SP383 crate engines

NOTE: *Use valve cover gasket P/N 10046089 and replacement bolt and seal kit P/N 12497980.*

3726086
Original Corvette V-8 Valve Covers

- 1956–1959 V-8
- Offset bolt holes will not fit newer V-8 heads

NOTE: *Sold as single piece. Order 2 per engine.*

Mid-Year Corvette Valve Covers

- These mid-year, finned Corvette valve covers are polished to a high luster

474208

- 1970–1977
- Has breather hole with Corvette "crossed flag" emblem

474207

- 1970–1977
- Has breather hole and an oil-filler cap provision
- Cap not included

19351534
Black Slant-Edge Valve Covers

- Includes bolt kit P/N 19351801 and grommet kit P/N 12341988
- Factory-installed on ZZ6 crate engines
- Die-cast with black crinkle finish
- For use on 1986-and-newer engines with center hold-downs
- Fits Fast Burn aluminum and Bowtie cast-iron heads with center hold-downs

19351803
Natural Gray Slant-Edge Valve Covers

- Includes bolt kit P/N 19351801 and grommet kit P/N 12341988
- Die-cast with natural finish
- For use on 1986-and-newer engines with center hold-downs
- Fits Fast Burn aluminum and Bowtie cast-iron heads with center hold-downs

25534359
Circle Track Valve Covers, Center Bolt Design

- Sheet metal valve cover kit designed for Gen I design circle track engines equipped with center hold-down cylinder heads
- Equipped with 2 breather pipes on 1 cover and no pipes on the other

NOTE: *Use breather kit P/N 25534355 (2 come in kit).*

25534420
Pontiac 301–455 V-8 Valve Covers

- Stylish covers fit 301–455 cubic-inch Pontiac engines manufactured 1965–1979
- Designed for stock valvetrains and may not clear aftermarket rocker arms, springs or stud girdles
- Each cover has one 1.220" hole on left side for oil fill cap; or grommet for PCV or fresh air inlet
- Covers have a natural aluminum finish with machined Pontiac name and logo
- Includes 2 covers and grommet kit P/N 12341988

NOTE: *Does not fit Small-Block Chevy heads.*

ADAPTERS, HARDWARE AND BREATHERS

12497980
Chrome Bolt Kit – Center Bolt Design

- Service replacement parts for 1986-and-newer center hold-down design, die-cast aluminum valve covers in chrome, crinkle and polished finishes
- Will not fit production valve covers

12356818
Chrome Hold-Down Bolt (not shown)

- Chrome valve cover hold-down bolt
- Used on all 1986-and-newer engines with center hold-down design stamped valve covers

NOTE: *Package contains 1 bolt. Order 4 per valve cover.*

10066008
Black Hold-Down Bolt (not shown)

- Black valve cover hold-down bolt
- Used on all 1986-and-newer engines with center hold-down design stamped valve covers

NOTE: *Package contains 1 bolt. Order 4 per valve cover.*

88962074
Oil Baffle Tube

- Pushes easily into most valve covers that have an oil baffle
- Requires breather P/N 25534355; used on ZZ572 engines

25534355
Circle Track Breather

- Special breathers are for circle track valve covers used on circle track and ZZ572 engines
- Chrome breathers are 1-3/8" hose-clamp-style with the Bowtie logo on top
- Installs on the left side of each valve cover
- Kit includes 2 breathers

12341993
Push-In Oil Filler Cap

- For valve covers with 1.22" hole

19131218
Chrome Push-In Breather (not shown)

- 2-3/4" O.D. x 1-1/2" tall with 3/4" nipple
- Used on our Fast Burn 385, ZZ4 and 350 engines

12341986
Hold-Down Clamps

- Clamps to minimize distortion of valve cover flanges on 1955–1986 Chevrolet Small-Block V-8 and 90° V-6 engines
- 4 clamps per package; order 2 per engine

14082321
Spring Bar Retainer

- Special steel retainers prevent oil leaks
- Use under the valve cover bolts
- Distribute clamping force over a large area and prevent deformation of the flanges
- Narrow retainers are engineered to fit pre-1986 engines with perimeter-style hold-downs

NOTE: *Package contains 1 retainer. Order 4 per valve cover.*

Valve Covers: Additional Required Components

Part Number	Gaskets (Qty)	Bolts (Qty)	Grommets (Qty)	Oil Fillers (Qty)	Engine Application
25534359	10046089 (2)	N/A	3989350 (1)	93439687 (1)	19370602, 19370604
12497979	10046089 (2)	12497980 (8)	12341988 (8)	N/A	Small-Block
12497985	10046089 (2)	12497980 (8)	12341988 (8)	N/A	Small-Block
12497978	10046089 (2)	12497980 (8)	12341988 (8)	N/A	Small-Block

Additional components required for installation. See chart above.

Adapters, Hardware and Breathers continued

14044820
Spring Bar Retainer, Chrome-Plated

- Similar to retainer P/N 14082321 described above
- Chrome-plated to match chrome valve covers

NOTE: *Package contains 1 retainer. Order 4 per valve cover.*

3933964
Valve Cover Gasket (not shown)
- Cork-type gasket
- Fits all valve covers with perimeter hold-down bolts
- 1 gasket per package

10046089
Valve Cover Gasket (not shown)
- For 1986 and newer center hold-down design valve covers

PUSHRODS

Pushrods are that critical connection between the camshaft and the rocker arms. These seemingly innocuous parts play a very important role in the combustion process. That's why Chevrolet Performance pushrods are designed for heavy-duty street and competition applications. They are case-hardened for use with pushrod guideplates.

Pushrods are available in standard and .100-inch extended lengths. The longer pushrods can be used to restore correct valvetrain geometry when using a high-lift camshaft with a small base circle. They are also recommended when longer-than-stock valves are installed.

Heavy-Duty Pushrod Kit (.100" longer than stock)

Part Number	Material	Diameter	Length	Usage	Description
366277	1010 steel	5/16"	7.824"	Flat tappet	(1) Heavy-duty heat-treated .075" wall, hardened tip inserts; +.100" long
10046173	1010 steel	5/16"	7.122"	Hyd. roller	(1) Heavy-duty heat-treated .060" wall, standard length; For use in early ZZ-series engines with guideplates
12371041	1010 steel	5/16"	7.122"	Hyd. roller	(16) Heavy-duty .060" wall, standard length; For use in 2nd design ZZ-series engines without guideplates; Use P/N 10241740 for single piece
10241740	1010 steel	5/16"	7.122"	Hyd. roller	(1) Heavy-duty .060" wall, standard length; For use in 2nd design ZZ-series engines without guideplates

GUIDEPLATES

3973418
Pushrod Guideplate – Cast-Iron Head (not shown)
- For use with production and Bowtie cast-iron cylinder heads with screw-in studs
- Can also be used with aluminum Bowtie V-6 head
- Should not be used with self-aligning rockers
- Pushrod slots are .325"
- For 90° V-6, use on cylinders 1, 2, 5 and 6; guideplate must be ground to clear valve cover hold-down bolts
- 4 required per head

ROCKER ARM STUDS

3921912
Screw-In Rocker Stud – 7/16" Big-Block Style (not shown)
- Beefy 7/16" Big-Block V-8 rocker studs
- Improve valvetrain stability of any Small-Block V-8 or 90° V-6 racing engine by minimizing rocker stud flex
- Fits any Small-Block V-8 or 90° V-6 cylinder head machined for screw-in studs
- Requires rocker arm for 7/16" stud

12371058
Screw-In Rocker Stud Kit – Gen II LT1, LT4 Style

- 3/8" studs are used on all late-model Gen II LT1 and LT4.
- Kit includes 16 pieces; for single stud usage, use P/N 12552126
- Lower thread section is 7/16"-14

VALVE LIFTERS AND COMPONENTS

12371042
Hydraulic Roller Lifter Kit
- Designed for 1986-and-later engines
- Second-design lifters are used in late-model 350 HO engines and use a higher checkball spring preload
- Includes 16 lifters of P/N 17120735, 8 valve lifter guides, 1 valve lifter guide retainer, 4 retainer bolts, and 4 retainer washers
- This lifter kit plus pushrod kit P/N 12371041 and a roller-tappet design camshaft converts your engine to a roller-lifter engine
- For single lifter usage, use P/N 17120735

88958652
Valve Lifter Guide – "Quick Cam"

- For use on Gen I GM Small-Blocks (block must be drilled and tapped)
- For use with hydraulic roller lifters only
- Makes it possible to remove the camshaft without removing the intake and lifters
- Enough friction in the guide to hold the lifters in place if the rocker arms are backed off and the camshaft is rotated two full revolutions to push up the lifters

NOTE: *Package services one lifter bank.*

12371044
Hydraulic Lifter Kit (set of 16)

- Used on 1986-and-older Gen I and Gen II-style engines
- Kit includes 16 hydraulic flat tappet lifters of P/N 5232720 and is designed for use with standard-length pushrod kit or .100" kit
- Use P/N 5232720 for single lifter pieces

CAMSHAFTS AND COMPONENTS

A great deal of exacting engineering, extensive development/testing and precision manufacturing practices go into every Chevrolet Performance camshaft. In many ways, the camshaft can be considered the heart of a high-performance engine. This vital function is why Chevrolet Performance puts so much effort into making sure its camshafts deliver maximum power and drivability.

IMPORTANT! *Distributor with melonized steel gear MUST be used with steel camshafts or engine damage will occur.*

Part Number	Description	Duration @ .050" Lift (deg)	Maximum Lift (in) w/1.5 rocker*	Lobe Centerline (deg)	Technical Notes
3896962	Hydraulic flat tappet	I: 222 / E: 222	I: .450 / E: .460	114	Used in 350/290 HP crate engine
24502476	Hydraulic flat tappet	I: 212 / E: 222	I: .435 / E: .460	112.5	Used in 350 HO and CT350 engines
14097395	Hydraulic roller design	I: 196 / E: 206	I: .431 / E: .451	109	For the HT383 truck engine with 1.5 rockers
10185071	Hydraulic roller tappet	I: 208 / E: 221	I: .474 / E: .510	112	For ZZ3, 350 HO, ZZ4, Fast Burn 385 engines; Use with spring P/N 12551483
24502586 (1.5 rocker)	Hydraulic roller (Gen II LT4 hot cam)	I: 218 / E:228	I: .492 / E: .492	112	Service only, for all V-8 engines with roller cams (see note below chart)
24502586 (1.6 rocker)	Hydraulic roller (Gen II LT4 hot cam)	I: 218 / E:228	1.6 rocker I: .525 / E: .525	112	Service only, for all V-8 engines with roller cams (see note below chart)
12480002 (1.6 rocker)	Hydraulic roller (Gen II LT4 hot cam kit)	I: 218 / E:228	1.6 rocker I: .525 / E: .525	112	Same as P/N 24502586 except this is a kit that includes 1.6 ratio aluminum rockers, valve springs, and retainers (see below for content)
19210723	Hydraulic roller design	I: 222 / E: 230	I: .509 / E: .528	112	Off-highway use only; Contains eccentric for mechanical fuel pump
19244485	Hydraulic roller design	I: 234 / E: 242	I: .539 / E: .558	112	Off-highway use only; Contains eccentric for mechanical fuel pump

**Unless otherwise specified*

NOTE: *The Gen II LT4 camshaft P/N 24502586 was designed to be used in many different engines. The following change may be necessary for correct engine assembly: For LT1 and L98 engines (pre-1996) the dowel pin in the end of the camshaft must be pushed in so extension from end of cam is .30"+/- .01". For 1996 LT1 and LT4 engines, the dowel pin is in the correct position extending .620" from the end of the camshaft. This cam has a fuel pump lobe.*

CAMSHAFT KITS, RETAINERS AND REAR COVER KITS

Part Number	Description	Technical Notes
10088128	Camshaft Retainer (not shown)	First design with 3.620" bolt center as used on ZZZ, ZZ1 and ZZ2 engines
10168501	Camshaft Retainer (not shown)	Second design with 3.294" bolt center as used on ZZ3 and ZZ4 engines

12480002
350 Hot Cam Kit

Off-highway kit converts production Gen II LT1 engine for showroom stock racing. Improves Small-Block originally equipped with roller tappet camshaft for significant horsepower gains. For roller lifter blocks only. Kit includes 1 Camshaft (P/N 24502586), 16 Rocker Arms (P/N (P/N 24502586), 16 Valve Springs (P/N 12551483), 16 Retainers (P/N 19169661), 16 Valve Keys (P/N 24503856) and 16 Valve Spring Shims (P/N 10212809). Lifters are not included (re-use original roller lifters).

Parts intended for competition use only.
See page 2 for details.

CONNECTING RODS AND COMPONENTS

Part Number	Description	Technical Notes
12495071	Connecting Rod Kit	High-quality, 5.700" powdered metal (PM) connecting rods; For competition or street applications below 500 horsepower; Replaces the old "pink rods" and are the same rods used in Gen II LT1 and LT4 Corvette engines; Includes 8 P/N 10108688 rods, available individually
19355718	383 Connecting Rod Kit – 3rd Design (not shown)	383-cubic-inch engines, third design; PM rod machined for clearance; Standard .927" pin and 2.100" rod journal; Uses standard bolt and nut
17800761	Connecting Rod Bearing Kit – 350 and 383 Engine (standard)	8 heavy-duty bearing sets, second design, without chamfer; For all 383-cubic-inch engines
12491166	Connecting Rod Stud and Nut Kit – 383 Engine	Studs and 12-point nuts (16 each) for all 383-cubic-inch engines; Use with connecting rod P/N 19355718

PISTONS AND PISTON RINGS

Compressing the air/fuel mixture and dealing with the explosive forces inside an engine's cylinders isn't a job for weak parts. That's why Chevrolet Performance pistons are premium quality and factory-tested to withstand the rigors of high-performance competition engines. Chevrolet Performance pistons are available in a variety of compression ratios and bore sizes. They're sold individually, unless otherwise specified, and wrist pins are included.

Pistons

Part Number	Engine Size	Compression Ratio	Head Chamber Volume	Size	Pin Type	Technical Notes
10159436	350	10:1	58cc	Standard	Pressed	5.7L HO, ZZ4 and LT1; high silicon aluminum
88962749	383	9.1:1 / 9.7:1*	64cc / 62cc	+.030"	Pressed	383 engine, first or second design
12499104	383	9.1:1 / 9.7:1*	64cc / 62cc	+.030"	Pressed	Kit containing 8 of P/N 88962749 (383 engine, second design)

**Compression ratio based on .028" thick head gasket.*

Piston Rings

Part Number	Bore Size	Oversize	Ring Thickness	Description
12499136	4.000"	+.030"	–	Premium quality rings for 383 engines
19418376	4.000"	+.005"	–	Set of 8 ring packs
12499231	4.000"	Standard	–	Set of 8 ring packs of P/N 12528817

CRANKSHAFTS

A crankshaft is that massive piece of convoluted steel that holds the whole engine together. An engine is essentially a pump, and without a strong crankshaft, the pump won't work. Chevrolet Performance puts the same top-quality engineering and manufacturing processes into its crankshafts as it does all its parts. These crankshafts are the same ones used in Chevrolet Performance crate engines. The crankshafts are available in cast iron and forged steel. Forged crankshafts should be used for higher-horsepower applications.

Part Number	Description	Technical Notes
14088526	Crankshaft, Cast Iron (not shown)	Nodular cast iron with 3.480" stroke and 2.100"-diameter rod journals; 1-piece rear main seal crankshaft for 300- and 330-horsepower engines; ***NOTE:*** *This crank does not have a pilot bearing*
12670965	Crankshaft, Forged Steel (used in late-style ZZ4, ZZ5 and ZZ6 engine; not shown)	Forged 1053 steel crankshaft used in post-November 1998 ZZ4 engines; Replaces all cast or steel ZZ4 crankshafts ***NOTE:*** *Must be used with connecting rod P/N 10108688 and piston P/N 10159436*
12489436	Crankshaft, 383-Cubic-Inch Forged Steel (shown above)	Forged 4340 steel crankshaft used to create 383-cubic-inch engines with 3.800" stroke; Rod journals are 2.100"; Mains are standard 350 size; ***NOTE:*** *Should be used with connecting rods P/N 19169670, bearing kit P/N 17800761, standard pistons P/N 88962748 or .030" oversize pistons P/N 88962749, balancer P/N 12498008, and 1986-and-later 1-piece crank seal design flywheel or flexplate*
14061685	Roller Pilot Bearing (not shown)	Used in high-performance manual transmission applications

Parts intended for competition use only.
See page 2 for details.

BALANCERS AND PULLEYS

Balancers are relatively small parts that play a big role in how smooth an engine runs. Balancers are also known as torsional dampers or harmonic balancers, which is indicative of how they help control unwanted crankshaft vibrations. By controlling vibrations, Chevrolet Performance balancers help engines run smoothly, which can also help extend engine life.

ZZ6 and CT400 Engine Balancer

383 Crate Engine Balancer w/ 1-Piece Crank Seal

Small-Block Balancers

Part Number	Engine Application	Outside Diameter	Technical Notes
12551537	1969-up 305 and 350; 90V-6 competition (not shown)	6.750"	Smaller size for limited clearance; Timing mark is 10 degrees before keyway centerline; Use with timing pointer P/N 3991435
19301706	1970–1974 350; ZZ6 and CT 400 crate engine	8"	Nodular iron. Inertia ring is 1-11/16" wide
12498008	383 crate engine with 1-piece crank seal	8"	Use with 383 engine components and crankshaft P/N 12489436; For externally balanced engines; Counterweight can be removed for neutral balance
24502535	All racing (not shown)	7.074"	NASCAR-approved and specially tuned; Use with large-diameter 1.598" crankshaft hub

Pulleys and Bolts

Part Number	Description	Technical Notes
19355269	Crankshaft Pulley, 6-5/8" (not shown)	Two-groove, high-rpm, 6-5/8" pulley. For engines with short water pump; ***NOTE:*** Can be used with a water pump pulley and belt P/N 9433722 without an idler pulley or alternator.
9440024	Crankshaft Bolt (not shown)	Positive retention 7/16"-20 x 2-1/4" bolt for engines with tapped crank snouts; Use with washer P/N 14001829

FLYWHEELS AND FLEXPLATES

At the opposite end of the crankshaft from the balancer are flywheels and flexplates, which connect the engine to either manual (flywheels) or automatic (flexplates) transmissions. Chevrolet Performance offers both internally and externally balanced flywheels and flexplates. It is critical that you use the correct design for your engine application.

IMPORTANT: *All Chevy Small-Block and Big-Block engines with one-piece crankshaft seals require an externally balanced flywheel or flexplate.*

Lightweight Flywheel, 1986–up

14" Flexplate

Small-Block Flywheels

Part Number	Year of Engine	Outside Diameter	Crank Flange Bolt Pattern	Clutch Diameter	Starter Ring Gear Teeth	Technical Notes
14085720	1955–1985	12.750"	3.580"	10.400"	153	For 2-piece crank seal; Lightweight nodular iron; Weighs approximately 15 pounds
14088646	1986–up	12.750"	3.000"	10.000"	153	For 1-piece crank seal; Lightweight nodular iron; Weighs approximately 17 pounds
14088648	1986–up	14"	3.000"	11.000"; 11.850"	168	For 1-piece crank seal

Small-Block Flexplates

Part Number	Year of Engine	Outside Diameter	Crank Flange Bolt Pattern	Clutch Diameter	Starter Ring Gear Teeth	Technical Notes
471598	1955–1985	14"	3.580"	10.750"; 11.500"	168	For internally balanced engine with 2-piece crank seal
471529*	1955–1985	12.750"	3.580"	9.750"; 10.750"	153	For internally balanced engine with 2-piece crank seal
14088765*	1986–up	12.750"	3.000"	10.750"	153	For externally balanced 1-piece crank seal
12554824	1986–up	14"	3.000"	11.500"	168	Heavy-duty flexplate with increased thickness for 1-piece crank seal, externally balanced
14088761	1986–up	14"	3.000"	10.750"; 11.500"	168	For 1-piece crank seal, externally balanced

**Will not work with new SuperMatic™ torque converters*

Bolts

Part Number	Description	Technical Notes
12337973	Flywheel Bolt (not shown)	Fits all Chevy Small-Block V-8, Big-Block V-8 and 90° V-6 engines; Sold individually; 6 required per engine
3727207	Flexplate Bolt (not shown)	Fits all Chevy Small-Block V-8, Big-Block V-8 and 90° V-6 engines; Sold individually; 6 required per engine

TIMING CHAINS AND SPROCKETS

The timing chain connects the crankshaft to the camshaft and helps to ensure those two key components work in a synchronized manner. Chevrolet Performance's strong, accurate timing chains and sprockets provide performance and dependable service.

Single Roller Timing Chain Kit

Extreme-Duty Timing Chain Kit – LT1 and LT4 Engines

LT1/LT4 Front Cover Plug

Camshaft Bolt

Part Number	Description	Technical Notes
12371043	Single Roller Timing Chain Kit	Performance kit for all 1987-and-newer engines with roller lifter camshaft, except LT1, LT4 and LS-Series; Includes chain P/N 14088783, crank sprocket P/N 14088784, cam sprocket P/N 12552129, retainers and bolts; ***NOTE:*** *Will not work with flat tappet camshafts or LT1 and LT4 engines.*
12370835	Extreme-Duty Timing Chain Kit – LT1 and LT4 Engines	Performance upgrade, extreme-duty timing chain kit for Gen II 1995-and-newer LT1 and LT4 engines; Includes roller timing chain P/N 14088783, crankshaft sprocket P/N 14088784 and water pump gear P/N 12551728; Use with pin-drive camshaft only
14088783	Roller Timing Chain (not shown)	Heavy-duty single-roller chain for ZZ-design 350 HO engine; Use with crank sprocket P/N 14088784 and cam sprocket P/N 12552129
14088784	Crankshaft Sprocket (not shown)	Single-roller type for ZZ-design 350 HO engine
12552129	Camshaft Sprocket (not shown)	Single-roller type for ZZ-design 350 HO engine
9424877	Camshaft Bolt	5/16"-18 x .750" bolt (3 required)
12554553	Camshaft Dowel Pin (not shown)	
12367600	LT1/LT4 Front Cover Plug	Covers the hole on the front cover of a 1996 LT4 engine when original distributor is removed and replaced with rear-mounted distributor; Must be used with 1995 to 1997 timing covers; Will not fit the earlier covers that had non-vented opti-spark units

WATER PUMPS, PULLEYS AND COMPONENTS

Water Pump – Long-Style

Aluminum Water Pump – Short-Style

Part Number	Description	Technical Notes
12685965	Water Pump – Long-Style	Clockwise (standard) rotation; Late-style cast-iron pump with long mounting legs, reinforced snout and 3/4" diameter shaft; End of shaft is reduced to 5/8" diameter; Use with 350 HO, 383 and ZZ4 engines
19418012	Aluminum Water Pump – Short-Style	Saves weight over comparable iron pump; Casting has short-style mounting legs used on pre-1982 Corvettes; Pump has reinforced 3/4" diameter snout and a large hub with dual bolt patterns ***NOTE:*** *Pump housing has a boss, which can be drilled and tapped for a cam stop; Can be used with the ZZ4 engine with composite front timing cover by exchanging the bolts that hold the rear sheet metal plate to the pump with pan-head bolts or equivalent aftermarket bolts.* ***NOTE:*** *Cam stop boss may interfere on engines with 8" damper. Some clearancing may be required.*
89060527	Oil Pan Gasket – 1-Piece Rear Main Seal (not shown)	Counterclockwise (reverse) rotation, or use with a Chevrolet Performance Serpentine Accessory Drive; Used in Chevrolet Performance Front-End Accessory Drive Kits and on Turn-Key engines

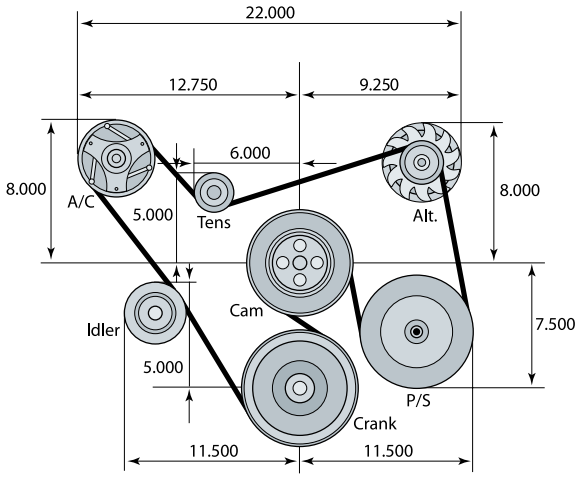
ACCESSORY DRIVE SYSTEMS

19418818
Serpentine Accessory Drive System – with Air Conditioning

- Fits Gen I-style engines
- Deluxe kit includes all the components and hardware necessary to install on an engine with air conditioning, including water pump, alternator, power steering pump and idler bracket; belt included

19418819
Serpentine Accessory Drive System – without Air Conditioning (not shown)

- Fits Gen I-style engines
- Deluxe kit includes all the components and hardware necessary to install on an engine without air conditioning, including water pump, alternator, power steering pump and idler bracket; belt included
- Includes all components from above kit, minus air compressor assembly



Serpentine Accessory Drive System – with Air Conditioning

OIL PANS, GASKETS AND COMPONENTS

Oil is your engine's lifeblood and a high-quality Chevrolet Performance oil pan helps keep it where it belongs. Our properly designed and manufactured oil pans fit right and, along with matching gaskets, help prevent oil leaks. Chevrolet Performance has oil pans for street and competition applications.

(Oil pans are sold without dipsticks or other hardware unless otherwise specified.)

NOTE: *Chevrolet V-8 and V-6 engines were redesigned in 1986 to include a one-piece rear main seal. That change required a correspondingly new oil pan design. For pre-1986 engines, there is a newer one-piece pan gasket available. Oil pans and gaskets are not interchangeable between early and late design engines. Blocks that have been machined for a one-piece rear main seal require seal adapter and must use the newer-style oil pan and gasket.*

Oil Pan – 1986–1992 F-Car and ZZ4

Circle Track "Late Model" Oil Pan

Windage Tray

Windage Tray

Part Number	Description	Technical Notes
12557558	Oil Pan – 1986–1992 F-Car and ZZ4	4-quart pan used on ZZ4 crate engines and 1986–1992 Camaro and Firebird; Internal baffling and right-hand dipstick; Designed for 1-piece rear main and 1-piece oil pan gasket; ***NOTE:*** *Use with oil pan rail reinforcement P/N 12553059 (RH).*
25534353	Circle Track "Factory Stock" Oil Pan (not shown)	Special black-powder-coated, 8-quart circle track pan is used in the factory stock engines P/N 88869604; 7" sump has a 3.500" kickout on both sides; Includes a fully louvered windage tray, 3 crankshaft scrapers, 6 trap doors, 2 runners, an oil temperature fitting provision, oil level plug, and 5/8" oil pick-up tube; 7" deep; Oil pickup tube available separately P/N 19171997
25534354	Circle Track "Late-Model" Oil Pan	Special black-powder-coated, 8-quart circle track pan is used in the factory stock engines P/N 19370604; 7" sump has a 3.500" kickout on both sides; Includes a fully louvered windage tray, 3 crankshaft scrapers, 6 trap doors, 2 runners, an oil temperature fitting provision, oil level plug, and 5/8" oil pick-up tube; 7" deep; Oil pickup tube available separately P/N 19171997
10108676	Oil Pan Gasket – 1-Piece Rear Main Seal (not shown)	Neoprene 1-piece gasket for 1986-and-newer engines
3927136	Windage Tray	Separates the oil in the pan sump from the rotating crank assembly to reduce aeration of the oil; Aids in oil control and minimizes oil slosh under hard braking; Use with oil pan P/N 360450
12554816	Windage Tray	Flat oil pan baffle used with 1986–1996 Corvette pan; For 1968-and-newer blocks, use five mounting studs P/N 14087508

OIL PUMPS & FILTERS

Oil Pump, High Volume

Oil Filter Adapter

Part Number	Description	Technical Notes
93427692	Oil Pump, High-Pressure Gen II LT1/LT4-Style	Production-style high-pressure 1993–1997 LT1/LT4 oil pump with 1.200" gears; Produces 60–70-psi oil pressure; Screen not included
14044872	Oil Pump, High Volume	High-volume pump has 1.500" gears for increased volume; Approximately 25 percent more capacity than a production pump at standard pressure; Pick-up not included
10046007	Oil Pump Bolt (not shown)	Fits all models, 7/16"-14 x 2-3/8"
3998287	Oil Pump Shaft (not shown)	Fits all 1959-and-newer engines
3764554	Oil Pump Shaft Retainer (not shown)	Fits all 1959-and-newer engines; Use with oil pump shaft P/N 3998287
3848911	Oil Pump Spring (not shown)	Regulates oil pressure at approximately 70 psi; Use with high-volume pump P/N 93427692 ***NOTE:*** *Minimum recommended oil pressure for off-highway use is 65 psi at engine operating speed.*
19299222	Oil Filter Adapter	Mounts a spin-on cartridge for Gen I and II Small-Block V-8s; Contains a filter bypass valve and requires two attaching bolts, P/N 3951644

DISTRIBUTORS AND COMPONENTS

High-quality, durable and dependable Chevrolet Performance distributors optimize the performance of your GM engine. These distributors are interchangeable among standard GM Small-Block and Big-Block V-8s. For tall-deck engines, use adjustable slip collar distributor P/N 10093387.

NOTE: *Melonized distributor gear P/N 10456413 is required on all Chevrolet Performance crate engines, or serious damage will occur.*

Distributor – HEI

Distributor – Billet HEI

Distributor – Ram Jet 350 & Ram Jet 502

Distributor – Adjustable Slip Collar

Part Number	Description	Technical Notes
93440806	Distributor – HE	Cast-aluminum distributor for all Small-Block and Big-Block V-8 engine assemblies; High-performance mechanical advance curve; Vacuum advance canister included; Use connector P/N 12167658 to attach tachometer and 12-volt power supply wire to distributor; Includes module P/N 19180771, cap P/N 19110931 and rotor P/N 19110934
88961867	Distributor – Billet HEI	CNC-machined billet aluminum housing provides great strength; Ball-bearing guide, oversized shaft and long sintered bushing for stability; Offers mechanical advance and vacuum advance; Includes brass terminal cap; Use connector P/N 12167658 to attach tachometer and 12-volt power supply wire to distributor
1104060	Distributor – Ram Jet 350 and Ram Jet 502	Used on the fuel-injected Ram Jet 350 and Ram Jet 502; Includes ignition module P/N 19352928, cap P/N 19166099 and rotor P/N 10477219
1103952	Distributor – Late-Model EFI (not shown)	Used on late-model V-8 engines with fuel injection and computer controls; Kit includes ignition module, cap and rotor
10093387	Distributor – Adjustable Slip Collar	Designed for competition use; Billet aluminum housing; Ball-bearing guide; Adjustable mechanical advance; Magnetic pickup; Uses standard cap and rotor; Adjustable slip collar for tall-deck blocks or to compensate for cylinder head or block machining
19052845	Distributor Gear (not shown)	Regulates oil pressure at approximately 70 psi; Use with high-volume pump P/N 93427692 ***NOTE:*** *Minimum recommended oil pressure for off-highway use is 65 psi at engine operating speed.*
10456413	Distributor Gear (not shown)	Melonized gear for distributor P/N 1103952
12167658	Connector – HEI Distributor Power and Tachometer (not shown)	Used to attach the power and tachometer wires to the cap of the HEI distributor
12498335	Coil – HEI (not shown)	Production HEI coil

BUILDERS TIP

Small-Block Oil Pump Overkill

Over the years, many engine builders have employed Big-Block oil pumps on high-performance Small-Blocks. Unless you're building a dedicated racing engine, that's not necessarily a great idea. There are advantages to the Big-Block pump, but with its 3/4" pickup tube, it's very easy to suck all the oil out of a standard-capacity Small-Block oil pan, starving the engine at higher rpm. If you're going to try the Big-Block pump, make sure to use a large-capacity pan and don't let the oil level get low!

Intake Manifolds, Gaskets and Components

Intake manifolds distribute the air/fuel mixture to the appropriate cylinders. Intake manifold design is geared toward all-out competition application. The wide range of Chevrolet Performance intake manifolds means there is an ideal manifold for your needs. There are cast-iron and aluminum intake manifolds for carbureted and fuel-injected applications. Chevrolet Performance intake manifolds were designed specifically for GM engines, so you know they will deliver GM performance.

SMALL-BLOCK INTAKE MANIFOLDS

10185063

Intake Manifold – ZZ Series

- Aluminum manifold used on all 350 HO engines
- Can be used on all Small-Blocks through 1986
- Dual-pattern carburetor flange is approximately 1/2" lower than the 1970 LT1 intake, yet produces the same horsepower
- Provisions for all late-model accessory brackets, EGR, and an integral hot-air choke
- A heat shield can be mounted underneath for improved performance

NOTE: *Open carburetor spacer is not recommended for use with dual-plane intake manifolds.*

12366573

Intake Manifold – Vortec Head Design

- Designed for 283–400-cubic-inch engines using Vortec cylinder heads P/N 12558060, P/N 19300956, P/N 19300955, P/N 19331470 or P/N 19331472
- Has 4 bolts per side to attach it to these cylinder heads
- Aluminum high-rise design maximizes horsepower and delivers a broad torque curve
- Accepts a square-bore 4150-style carburetor and includes externally plumbed hot water crossover passage
- Use manifold gasket P/N 89017465 and 8 attachment bolts, P/N 12550027

NOTE: *Vortec heads were originally released on 1996–1999 truck engines. Check for hood clearance, especially with Corvette.*

NOTE: *Open carburetor spacer is not recommended for use with dual-plane intake manifolds.*

12496820

Intake Manifold – Vortec Head Design (Dual-Pattern Carb Mount)

- This dual-bolt-pattern aluminum manifold will work with all Vortec cylinder heads P/N 12558060, P/N 12558060, P/N 19300956, P/N 19300995, P/N 19331470 or P/N 19331472
- Will accept Holley or Quadrajet-style carburetors
- To block EGR port, use P/N 12556596
- Requires intake manifold gasket kit P/N 19301685 and 8 special manifold bolts, P/N 12550027

NOTE: *Open carburetor spacer is not recommended for use with dual-plane intake manifolds.*

12496821

Intake Manifold – Vortec Head Design for TBI

- Designed for throttle-body fuel injection
- Aluminum intake will work with all Vortec cylinder heads, including P/N 12558060, P/N 19300956, P/N 19300955, P/N 19331470 and P/N 19331472
- Also accepts EGR

NOTE: *The exhaust manifold from 1996-and-newer pickup trucks with RPO L31 350 engine, P/N 12557828, is drilled and tapped to accept an EGR tube. EGR pipe can be used with EGR valve P/N 19210662 and gasket P/N 12337972. This manifold is primarily intended for use with Vortec heads on pre-1996 engine blocks. Blocks manufactured in 1995 or earlier have thermostat bypass passage from the block directly to the water pump. If manifold is used on 1996 and later engines (which do not have the bypass in the block), you must run a coolant bypass line from the manifold to the 5/8" hose nipple on the water pump (passenger's side). Suggested routing is from the 3/8" NPSF boss on manifold to the water pump.*

12496822

Intake Manifold – Eliminator Vortec Head Design

- Designed to deliver the most power and torque with Vortec cylinder head P/N 12558060, P/N 19300956, P/N 19300955, P/N 19331470 or P/N 19331472
- Use intake manifold gasket kit P/N 19301685 and 8 special manifold bolts, P/N 12550027

24502592

LT1 Intake Manifold

- Fits 1992–1996 Gen II LT1 engines and permits the use of a carburetor
- Long runners increase engine torque up to 30 lb.-ft. without sacrificing top-end horsepower
- There are no water coolant holes on this manifold

12676887

SP 350/357 Dual-Plane Intake Manifold (not shown)

- Original equipment on SP 350/357 engine
- Dual-Plane design for maximum torque
- Designed for 4150-style 4 bbl carb
- Fits late-model Vortec style heads
- Do not use a carb spacer with this manifold

NOTE: *Open carburetor spacer is not recommended for use with dual-plane intake manifolds.*

RAM JET FUEL INJECTION COMPONENTS

12498032

Ram Jet Fuel Injection Manifold Kit (less electronics)

- Retro-fit fuel injection kit will fit V-8 engines using Vortec cylinder heads P/N 12558060, P/N 19300956, P/N 19300955, P/N 19331470 or P/N 19331472
- Must be used with an aftermarket ECU and wiring harness with the proper calibration
- The same as used on Ram Jet 350 engine P/N 19417619. (MEFI with ECU and Wire Harness Kit P/N 19355812 is not calibrated for anything other than Ram Jet 350)

NOTE: *It does not include ECU or wiring harness, which must be sourced separately.*

Ram Jet Components

Part Number	Description	Technical Notes
12489371	Ram Jet 350 Intake Manifold (not shown)	Used on the Ram Jet 350 engine assembly P/N 19417619; Bare manifold only—no throttle body, injector rails, injectors, bracket or other components; See P/N 12498032 for complete manifold kit
19355811	MEFI 4 ECU, Ram Jet 350 (not shown)	Replacement ECU for all Ram Jet 350 crate engines; MEFI 3 P/N 19417619 or MEFI 4 P/N 19417619 MEFI 4 Ram Jet engine is a closed-loop system that gives a much smoother idle and improved performance ***NOTE****: Replacing the ECU on MEFI 3 Ram Jet engine P/N 19417619 requires using new wire harness kit P/N 19355812, or use jumper wire P/N 88963118 to use MEFI 4 ECU as an open-loop system.*
19355812	MEFI 4 ECU and Wire Harness Kit, Ram Jet 350 (not shown)	Use to convert a Ram Jet 350 from MEFI 3 to the newer MEFI 4 design, which provides a better idle through closed-loop operation; Includes ECU module P/N 19355811, wire harness P/N 88961967, oxygen sensor P/N 19178918, intake air temp sensor P/N 25036751, and oxygen sensor fitting P/N 15156588 ***NOTE:*** *ECU is programmed with a "green mode" that controls the rpm for the break-in period. During this period, engine speed is limited to 4,000 rpm in the first hour, 4,500 rpm in the second hour and 5,500 rpm in the third hour.*
88961967	MEFI 4 ECU Wire Harness, Ram Jet 350 (not shown)	Designed to be used with the MEFI 4 Ram Jet 350 P/N 19417619 and MEFI 4 ECU P/N 19355811
15156588	Fitting, Oxygen Sensor (not shown)	Used on all MEFI 4 electronically controlled ignition systems; Should be welded into the exhaust pipe so the oxygen sensor can be screwed into the exhaust system
12489492	MEFI 3 ECU Wire Harness, Ram Jet 350 (not shown)	Designed for use with the MEFI 3 350 Ram Jet engine P/N 19417619

BOWTIE COMPETITION MANIFOLDS

24502481

Intake Manifold – 18° Competition

- Developed for Asphalt short tracks and works well on Trans-Am-series engines
- Features smaller runners and less plenum volume, which enhances mid-range torque
- Aluminum intake fits 18° heads casting
- Manifold is ideal for 310-cubic-inch road racing and 358-cubic-inch short track engines
- Manifold flanges are .590" thick to promote a good gasket seal
- An auxiliary water line boss at the rear of the casting improves water flow
- Weight 22.5 lbs
- Volume 2700cc

24502654

Valley Plate Assembly

- Universal aluminum valley plate is designed for use with 18° cylinder heads
- Can be used with dedicated 2-piece manifold spiders, existing 1-piece intake manifolds that have been properly machined for use as a dry manifold, or fabricated manifold designs
- Valley plate has cast-in integral passages to equalize coolant flow from the front and the rear of the cylinder heads
- Fits heads dated June 1996 and later

Important information about gasket matching: *Gasket flanges are machined to provide the proper port alignment with standard runner locations. Runners in heads and manifold must be matched by engine builder. Often, the gasket will line up with the top of the port so removal is required at the bottom of the port. Gaskets that can be used with this manifold are: Fel-Pro® P/N 1205 and P/N 1206, and Mr. Gasket® P/N 102. Always match the gasket to the cylinder head you plan to use to ensure a correct fit.*

24502653

Intake Manifold – Spider Design

- A 2-piece "dry" aluminum manifold "spider" consisting of the runners and plenum only
- The runners (called the spider assembly by racers) along with Valley Plate Assembly—the common term for the bottom section of the intake (see P/N 24502654 below) —are designed for use with the 18° cylinder heads with a date code of June 1996 or newer

NASCAR INTAKE MANIFOLDS

12480096

Intake Manifold – Spider Restrictor Design, SB2.2

- Aluminum manifold has more material in the runners and plenum to accept more flexibility in porting
- Designed for NASCAR restrictor-plate racing and is used with Valley Plate Assembly P/N 12370840 (see page 169)

88958617

Intake Manifold – Spider Design, SB2.2

- Designed for NASCAR-style racing and high-rpm engines
- Additional aluminum in the runners and plenum allows more flexibility in porting
- Must be used with Valley Plate Assembly P/N 12370840 or P/N 88958659

12370840

Valley Plate Assembly – SB2.2 (not shown)

- Aluminum valley cover is used with manifold runners P/N 12480096 and P/N 88958617 on SB2.2 cylinder heads for NASCAR racing

88958659

Valley Plate Assembly – SB2.2

- Aluminum valley cover is used with manifold runners P/N 12480096, P/N 88958617 and P/N 88958691
- Does not incorporate an inspection cover, but has revised integral water passage for improved coolant flow from the front and rear of the cylinder heads
- Uses AN-24 fitting for water outlet; can use reducer for -20 fitting

88958670

Valley Plate Assembly – ROX (not shown)

- Fits ROX manifold and ROX head P/N 88958667

COVERS AND PLUGS

6269414

Cover – EGR Valve

- Covers the EGR valve port on the 350 HO manifold P/N 10185063
- Use gasket P/N 12554530 and screw P/N 9442184 with washer P/N 9439511

12556596

Plug – EGR Pipe Hole

- 7/8"-15 plug is used to seal off EGR pipe holes on intake manifold P/N 12496820 and P/N 12496821

WATER NECKS

10108470

Aluminum Water Outlet (not shown)

- Natural finish

12342024

Chrome Water Neck

- Chrome water neck with neoprene O-ring and chrome bolts
- For 1966–1975 full-size Chevrolet, Camaro, and Chevelle V-8 engines

INTAKE MANIFOLD GASKETS

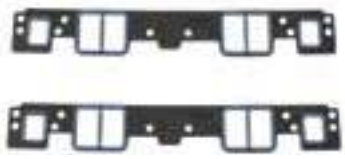
10147994

Gasket Kit – 1971–1986 and ZZ350

- For 302–350 high-performance Small-Blocks built 1971–1986, and all ZZ350 high-performance engines
- Gaskets fit standard intake port location
- Do not use with raised runner cylinder heads
- Includes 2 gaskets

19301685

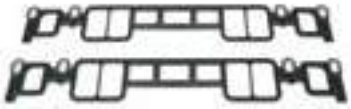
Gasket Kit – Fast Burn Aluminum Vortec Design



- Designed for Vortec heads P/N 12558060 and P/N 19300956 only
- Gasket thickness is .120" (1/8"), post size is 1.080" x 2.160" with tapered wall, Print-O-Seal design
- Has both early style 6-bolt pattern and Vortec 4-bolt pattern
- Includes 2 gaskets

89017465

Gasket Kit – Production Vortec Design



- Production gasket for all Vortec-design cylinder heads (4-bolt attachment to cylinder heads P/N 12558060 and P/N 12558060)
- Requires the use of GM attachment bolt P/N 12558060, because the bolt has a ball design on the end that seats in the head so it will not crush the intake manifold gasket
- Includes 2 gaskets

10185007

Gasket Kit – 18-Degree High Port Heads (not shown)

- Used only with V-8 18° high port cylinder heads
- Includes 2 gaskets

12524653

Gasket Kit – LT1 4-bbl Conversion (not shown)

- Required when installing a 4-bbl manifold on any LT1 engine
- Includes 2 gaskets

Intake Manifolds: Additional Required Components

Part Number	Gaskets (Quantity)	Bolts (Quantity)	Engine Application
12366573	89017465 (1)	12550027 (8)	19370602, 19417576, 19418136
12496820	89017465 (1)	12550027 (8)	19419992, 19355720, 19210008
12496822	89017465 (1)	12550027 (8)	19370604, 19417576, 19418136, Vortec Heads
10185063	19367332 (1)	14091544 (8), 88891769 (2)	
12489371	89017465 (1)	12550027	19417619
12496821	89017465 (1)	12550027 (8)	Vortec Head for TBI
24502481	10185007	N/A	18° high-port racing heads
24502653	10185007	N/A	18° high-port racing heads
24502654	10185007	N/A	18° high-port racing heads

Additional components required for installation. See chart above.

Parts intended for competition use only. See page 2 for details.

Electrical and Fuel Components

STARTERS

Flywheels with two different diameters are used on Chevrolet Small-Block, Big-Block, and 90° V-6 engines. Large flywheels are 14" in diameter and have 168 teeth on the starter ring gear. Small-diameter flywheels are 12.75" in diameter, with 153 teeth on the ring gear.

This difference in flywheel diameters requires two distinct starter housings. Starter noses used with large-diameter flywheels have two offset bolt holes, while starters for small flywheels have two bolt holes that are parallel to the back of the block. Most Chevy blocks are drilled for both types of starters.

12361146 ❗

High-Torque Mini Starter

- Gear reduction starter is designed for 1958–1996 V-8 and all 90° V-6 engines
- Compact design provides increased clearance
- Weighs only 10.5 pounds and has a gear reduction of 3.75:1
- Equipped with a dual bolt pattern for 12.750" (153-tooth) and 14" (168-tooth) flywheels
- Housing can be rotated to clear exhaust systems
- Includes starter, mounting bolts, shims, gaskets and electrical connectors

NOTE: *Not recommended for competition use.*

12363128 ❗

High-Torque Mini Starter – Chrome

- Same as starter P/N 12361146 (see above), but with a chrome housing

10465143 ❗

Lightweight Starter (remanufactured)

- Lightweight high-performance starter was originally used on 1993–1997 Camaros and Firebirds with the LT1 engine
- Can be used on any Small-Block or Big-Block engine with a 12.750", 153-tooth flywheel

19302919 ❗

Lightweight Starter – Big-Block and Small-Block

- Gear reduction starter can be used on Big-Block and Small-Block engines with a 14", 168-tooth flywheel

ALTERNATORS

88958690

Alternator – 90-Amp, Competition Use (not shown)

- Proven in NASCAR use
- CS121 design housing
- Serpentine belt pulley
- Hand-assembled and dyno-tested

CHASSIS WIRING HARNESS

If you're building a hot rod or restoring an old muscle car, Chevrolet Performance inclusive wiring harness kits make a great replacement for old, worn or damaged wires. These universal wiring kits come with the wires pre-installed on the fuse block, so wiring the vehicle is simply a matter of mounting the fuse block and routing the wires. Each wire is preprinted with the necessary application and is GM-color-coded. The kits also come with all necessary fuses, flashers, horn relay, tach leads, wire ties and grommets. High-temperature 275°F wire is used—one size larger than factory specs. In all, it's everything you need to electrify your vintage GM car or truck!

12355691

12-Circuit Wiring Harness (not shown)

Basic system is wired for: heat/air conditioning, brake lights, coil, electric fan, emergency flashers, gauges/dash instruments, headlamps, horn, radio, turn signals, wipers, dome light and third brake light

NOTE: *These universal systems will rewire any car, truck or competition vehicle using a GM-keyed column. Kits come with extra-long wire to accommodate almost any vehicle.*

SPARK PLUG WIRES

12361051 ❗

Chevrolet Bowtie Logo Wires

Chevrolet Performance spark plug wire kits are designed to fit your GM engine. These performance 8mm spark plug wires exhibit only 600 ohms per foot of resistance, with high noise suppression capabilities. Features include red wires with white Chevrolet insignia and black boots. Manufactured with double-wall silicone construction.

- Kits include a 10" coil wire for engines such as Ram Jet 350 and ZZ572 engines, which have remote-coil HEI, plus 4 wire separators and HEI terminals and boots for the distributor cap.
- Custom-fit set designed to be used with black wire loom P/N 12495502

12496806

Wire Loom Kit

- Stainless-steel supports with the Bowtie logo laser-cut in each of the 6 supports
- Use with spark plug wire set P/N 12361051

❗ Starters: Additional Required Components

Part Number	Bolts (Quantity)	Engine Application
12361146	14097279 (1), 14097278 (1)	Small-Block (except LT or LS Engines)
10465143	14097279 (1), 14097278 (1)	Small-Block (except LT or LS Engines) and 19419992, 19418136
12363128	14097278 (1)	Small-Block (except LT or LS Engines)
19302919	12338064 (2)	Big-Block and 12499121, 19419003, 12371171

❗ *Additional components required for installation. See chart above.*

CARBURETORS AND THROTTLE BODIES

Chevrolet Performance has the right carburetor or throttle body to complete your new crate engine or give life to your rebuilt engine. All carburetors feature show-car-quality polished finish and include all necessary bolts and gaskets.

Part Number	Description	Technical Notes
19170097	Carburetor – Holley 650-cfm	Holley 4150-style 650-cfm 4-bbl carburetor; Mechanical secondaries; Manual choke; 4-corner idle adjustment; Power valve blowout protection; Replaces Holley 4160 600-cfm carburetor P/N 19170092
19170092	Carburetor – Holley 670-cfm	Holley 4150-style 670-cfm 4-bbl carburetor; Dual-feed fuel bowls with center-hung floats; Vacuum secondaries; Electric choke; Power valve blowout protection; Quick-change adjustable vacuum secondary
19170093	Carburetor – Holley 770-cfm	Holley 4150-style 770-cfm 4-bbl carburetor; Dual-feed fuel bowls with center-hung floats; Vacuum secondaries; Automatic electric choke; Quick-change adjustable vacuum secondary; Recommended for Small-Block and Big-Block engines; Replaces Holley 4160 750-cfm carburetor P/N 12485506
17096144	Throttle Body – Ram Jet 350	Used on the Ram Jet 350 crate engine; Use throttle body gasket P/N 12570168 and bolt P/N 11588714 for installation; Single 75mm blades

AIR CLEANERS

Air Cleaner – Chevrolet Logo Classic Design

Air Cleaner – Chevrolet Logo High-Performance Design

Air Cleaner – Low-Profile Bowtie Chevrolet Design

Air Cleaner – Ram Jet 350

Part Number	Description	Technical Notes
12342071	Air Cleaner – Chevrolet Logo Classic Design	14" round classic-style air cleaner; Has chrome lid with embossed Chevrolet name and Bowtie attaching nut; Fits most 4-bbl and 2-bbl carburetors; Does not fit Dominator-style carburetors
12342080	Air Cleaner – Chevrolet Logo High-Performance Design	14" round high-performance style air cleaner; Has chrome lid with embossed Chevrolet name; Fits most 4-bbl and 2-bbl carburetors; Does not fit Dominator-style carburetors ***NOTE:*** *Check clearance between hood and top of air cleaner. Minimum clearance is 3.750" from top of carburetor gasket area to underside of hood.*
19351805	Air Cleaner – Low-Profile Bowtie Chevrolet Design	Cast-aluminum flat lid with hidden carb stud mount; Flat black with machined logo; 14" round high-performance style; Fits most 4-bbl and 2-bbl carburetors; Matches black slant-edge valve cover P/N 19351534
12498951	Air Cleaner – Ram Jet 350	Designed for use with throttle body on Ram Jet 350 crate engine; Can be used on other applications

FUEL PUMPS AND COMPONENTS

Fuel Pump – High Capacity, Small-Block

Fuel Filter

Small-Block Fuel Pump Block-Off Plate

Electric Fuel Pump

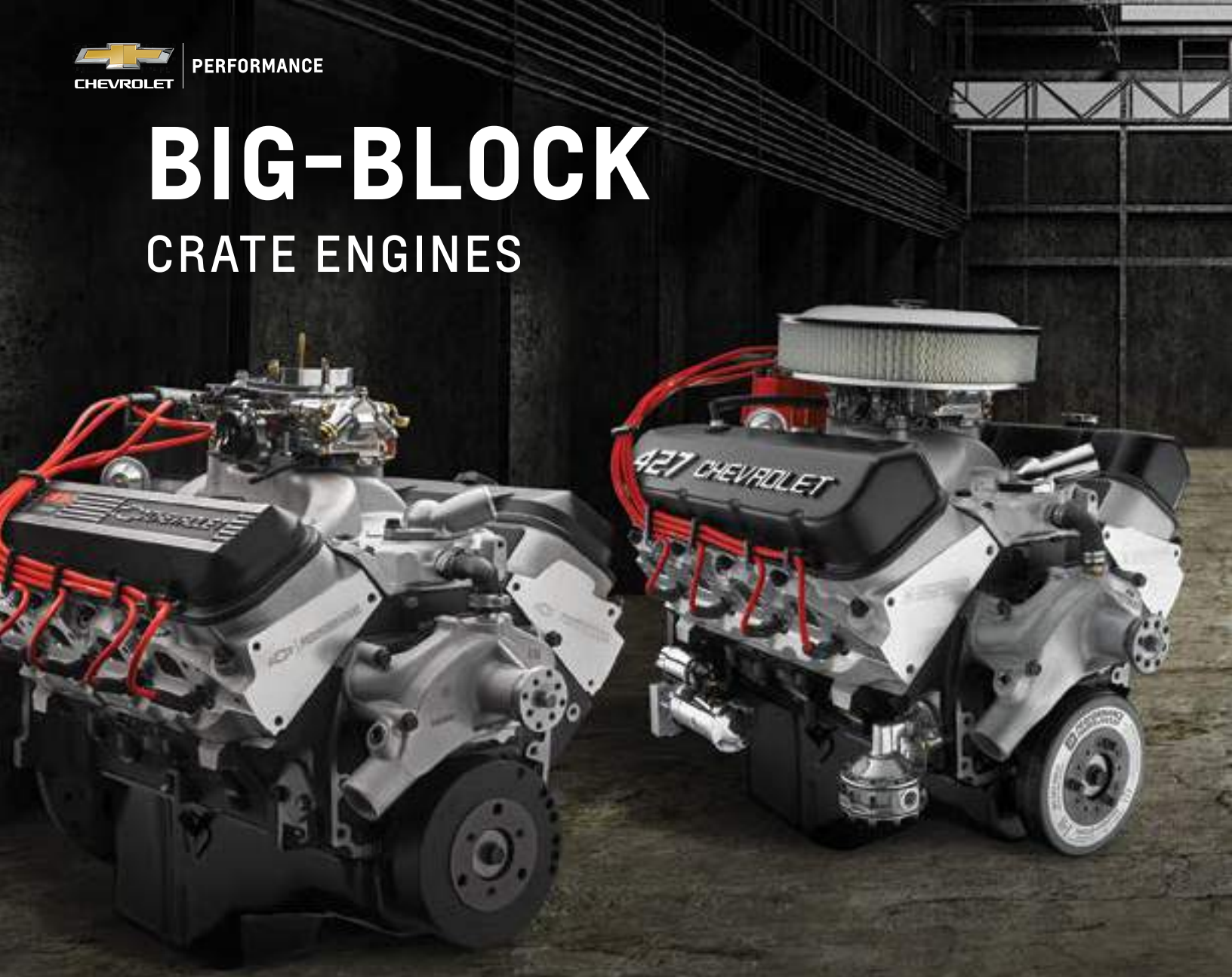
Electric Fuel Pump – High-Output

Part Number	Description	Technical Notes
19419400	Fuel Pump – High Capacity, Small-Block	For use on carbureted engines; Pump has 7 psi shutoff pressure and free-flow rating of 30 gph; Lower housing can be rotated to reposition inlet and outlet ports
854619	Fuel Filter	High-capacity in-line filter; Suitable for all high-performance carbureted applications; 5/16" inlet and outlet
12341998	Small-Block Fuel Pump Block-Off Plate	Plate has stamped Bowtie logo; Gasket included

Electric Fuel Pumps

6472657	Electric Fuel Pump	For use on all carbureted engines; Flows 30–40 gph at 6–9 psi
25115899	Electric Fuel Pump – High-Output	Heavy-duty 12-volt electric rotary pump; Flows 72 gph at 6–8 psi

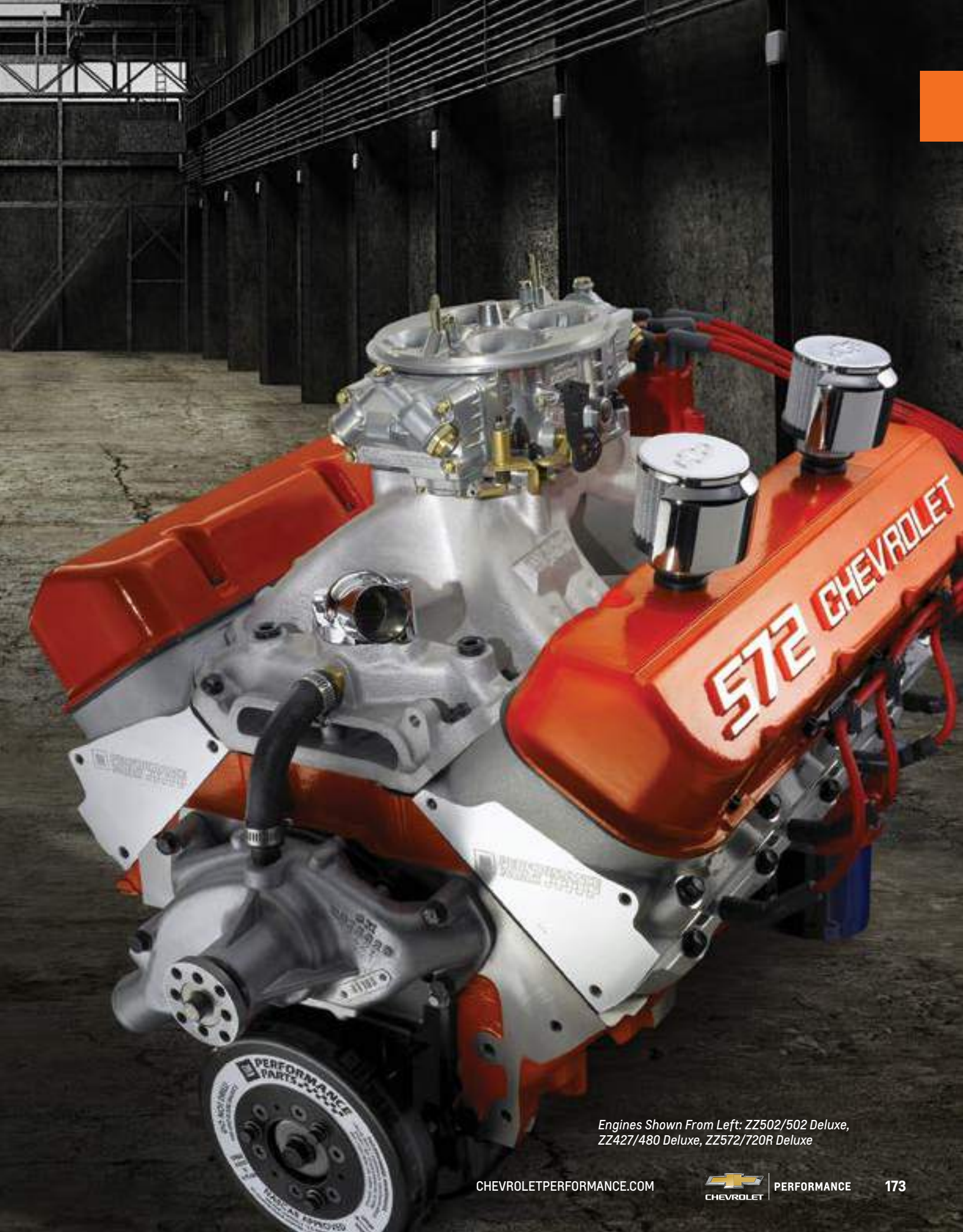
BIG-BLOCK
CRATE ENGINES



A Legacy of Torque

Chevrolet Performance Big-Block crate engines are all about uncompromising torque. They deliver the pulling power to haul your vintage Camaro or Corvette down the drag strip, or to win the heavy weight tractor pull at the fairgrounds! Use our classic ZZ427, ZZ454, ZZ502 or even the ZZ572/720R to turn your Chevy into a drag strip winner! No matter the vehicle, the Big-Block's bottom line is torque.

Check out the following pages to find the Chevrolet Performance Big-Block Engine that's right for you!



Engines Shown From Left: ZZ502/502 Deluxe, ZZ427/480 Deluxe, ZZ572/720R Deluxe

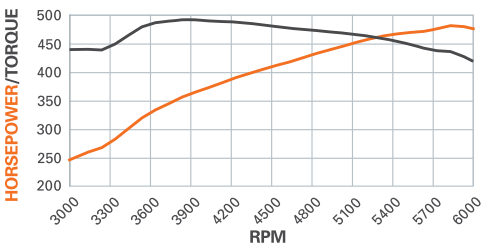
ZZ427/480 Deluxe

19331572

480 hp @ 6,000 rpm

490 lb.-ft. @ 3,800 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

The Classic L88 with a Modern Twist

The legendary L88 was the pinnacle of Chevy's Big-Block power and the ZZ427/480 crate engine carries that spirit with modern updates that enhance performance, making it the ultimate expression of Chevy heritage for your classic Corvette.

Like the original, our ZZ427/480 combines a sturdy iron cylinder block with lightweight aluminum cylinder heads and a single four-barrel carburetor. That raspy crate engine was rated at 430 horsepower, although the figure was generally thought to be on the conservative side. We've upgraded the camshaft from the original's mechanical flat-tappet design to a smoother hydraulic roller, which delivers great drivability characteristics and a broader rev range. A 10.1:1 compression ratio means it will perform great on pump gas.

INSTALLATION NOTES

- Due to crate fitment, the carburetor is shipped in a separate box and needs to be installed by an engine installer
- Requires addition of starter and fuel pump (not included)
- Clutch linkage bosses are drilled and tapped. When using cast-iron exhaust manifolds, lower head bolts may need to be replaced with bolts with shorter heads, for clearance
- Comes with an internally balanced 14" automatic transmission flexplate. See page 203 for a listing of manual transmission flywheels offered by Chevrolet Performance. Requires flywheel designed for internally balanced engines.
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19331572
Engine Type:	Chevy Big-Block V-8
Displacement (cu in):	427
Bore x Stroke (in):	4.250 x 3.750
Block (P/N 19170538):	Cast-iron with 4-bolt main caps
Crankshaft (P/N 19171620):	Forged steel
Connecting Rods (P/N 19211226):	Forged steel
Pistons (P/N 19171618):	Forged aluminum
Intake Manifold (P/N 12363406):	Dual plane
Carburetor (P/N 19170093):	770-cfm
Camshaft Type (P/N 12366543):	Hydraulic roller
Valve Lift (in):	.527 intake / .544 exhaust
Camshaft Duration (@.050 in):	224° intake / 234° exhaust
Cylinder Heads (P/N 19331423):	Aluminum oval port, 110cc chambers
Valve Size (in):	2.190 intake / 1.880 exhaust
Compression Ratio:	10.1:1
Rocker Arms (P/N 19210726):	Aluminum roller-style
Rocker Arm Ratio:	1.7:1
Water Pump (P/N 19168602):	Aluminum short-style
Recommended Fuel:	Premium pump
Distributor (P/N 88961867):	HEI type
Spark Plugs and Wires:	Included
Ignition Timing:	36° Total @ 4,000 rpm
Maximum Recommended rpm:	6,400
Balanced:	Internal
Flexplate (P/N 12561217):	14"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory engineered performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

ZZ427/480 with 4L70-E Automatic

Engine:	19331572	Torque Converter:	19299801
Transmission:	19368613	Controller:	19332775
Install Kit:	19332781		

ZZ427/480 with Super Magnum Six-Speed Manual

Engine:	19331572	Install Kit:	19329902
Transmission:	19352208		

TRANSMISSION OPTIONS

19368613

SuperMatic™ 4L70-E Four-Speed Automatic

Based on the 4L60-E, the 4L70-E electronically controlled four-speed automatic is rated for up to 495 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more, including a unique valve body calibration. Does not include converter. See page 24 for more details.

19300175

SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while a unique valve body delivers firmer shifts than production 4L85 transmissions. Does not include converter. See page 25 for more details.

19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19332780
Transmission Controller
page 28

19332784
Transmission Installation Kit
page 25

19299805
Torque Converter
page 22

12361146
High-Torque Mini Starter
page 207

19417728
Accessory Drive System – with Air Conditioning
page 204

12342071
Air Cleaner
page 208

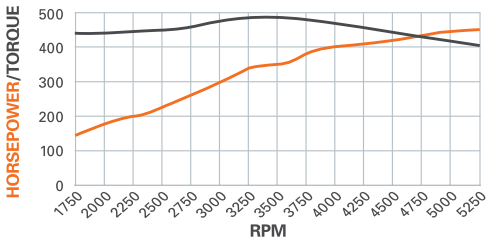
454 HO

12568774

438 hp @ 5,300 rpm

500 lb.-ft. @ 3,500 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Our Budget Big-Block Performer!

Chevrolet Performance's 454 HO crate engine offers strong Big-Block torque—500 lb.-ft.—to fit almost any builder's budget. The foundation is a brand-new, updated cylinder block, which incorporates many strength and performance design enhancements to make it a smart and economical alternative to rebuilding.

We also added an all-forged reciprocating assembly for greater durability, a roller camshaft that optimizes performance and a set of deep-breathing rectangular-port iron cylinder heads. The 454 HO is delivered with a water pump, balancer, 14-inch flexplate and aluminum intake manifold. Add a carburetor, ignition system and starter and your budget Big-Block will be ready to roar. All of the necessary parts are available from Chevrolet Performance.

INSTALLATION NOTES

- Requires addition of carburetor, starter, fuel pump, distributor and ignition system (not included)
- Clutch linkage bosses are now drilled and tapped. When using cast-iron exhaust manifolds, lower head bolts may need to be replaced with bolts with shorter heads, for clearance
- Comes with an externally balanced 14" automatic transmission flexplate; use flywheel P/N 14096987 and 11" clutch assembly for manual transmission applications
- Not intended for marine applications

TECH SPECS

Part Number:	12568774
Engine Type:	Chevy Big-Block V-8
Displacement (cu in):	454
Bore x Stroke (in):	4.250 x 4.000
Block (P/N 19170538):	Cast-iron with 4-bolt main caps
Crankshaft (P/N 14096983):	Forged steel
Connecting Rods (P/N 19170198):	Forged steel
Pistons (P/N 10215228):	Forged aluminum
Intake Manifold (P/N 19131359):	Dual plane
Camshaft Type (P/N 24502611):	Hydraulic roller
Valve Lift (in):	.510 intake / .540 exhaust
Camshaft Duration (@.050 in):	211° intake / 230° exhaust
Cylinder Heads (P/N 12562920):	Iron rectangular port; 118cc chambers
Valve Size (in):	2.190 intake / 1.880 exhaust
Compression Ratio:	8.75:1
Rocker Arms (P/N 19260993):	Stamped steel
Rocker Arm Ratio:	1.7:1
Water Pump (P/N 19168606):	Cast-iron, long-style
Recommended Fuel:	Premium pump
Ignition Timing:	36° Total @ 4,000 rpm
Maximum Recommended rpm:	5,500
Balanced:	External
Flexplate (P/N 10185034):	14"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

12498778

454 Partial Engine

For those who want the strength and convenience of our 454 bottom end, including its updated block design and modern roller camshaft, but want to add your own heads and induction system, start with our 454 Partial Engine assembly. It's a strong foundation for Big-Block performance.

TRANSMISSION OPTIONS

19368613

SuperMatic™ 4L70-E Four-Speed Automatic

Based on the 4L60-E, the 4L70-E electronically controlled four-speed automatic is rated for up to 495 lb.-ft. of torque. For strength, it features five-pinion gearsets, heat-treated stator shaft splines, an induction-hardened turbine shaft and more, including a unique valve body calibration. Does not include converter. See page 24 for more details.

19300175

SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while a unique valve body delivers firmer shifts than production 4L85 transmissions. Does not include converter. See page 25 for more details.

19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19299805
Torque Converter
page 22

19170093
Carburetor – Holley 770-cfm
page 208

19302919
Lightweight Starter
page 207

19332784
Transmission Installation Kit
page 25

93440806
HEI Distributor
page 205

19332780
Transmission Controller
page 28

19329634
Big-Block Clutch Kit
page 30

19329025
Big-Block Bell Housing Kit
page 29

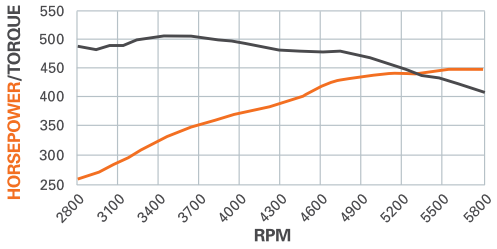
ZZ454/440

19419001

469 hp @ 5,500 rpm

519 lb.-ft. @ 3,700 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Aluminum Oval-Port Heads Add Power!

Our engineers took the tough 454 HO and matched it with a set of higher-flow, oval-port aluminum cylinder heads to pick up an additional 30 horses and push the torque to a strong 519 lb.-ft. The heads are filled with 2.19/1.88-inch valves that process the airflow through this big-power Big-Block and save weight over iron heads.

Along with the aluminum heads, the ZZ454/440 also features our latest-generation block casting with four-bolt main caps, which is filled with an all-forged rotating assembly for exceptional strength and durability. There's also a high-lift hydraulic roller camshaft for excellent drivability and a broad performance range. The crate engine assembly includes the water pump, balancer, aluminum intake manifold and a 14-inch flexplate. Add the carburetor, starter, ignition system and other accessories to get this big-power Big-Block running.

INSTALLATION NOTES

- Requires addition of carburetor, starter, fuel pump, distributor and ignition system (not included)
- Clutch linkage bosses are now drilled and tapped. When using cast-iron exhaust manifolds, lower head bolts may need to be replaced with bolts with shorter heads, for clearance
- Comes with an externally balanced 14" automatic transmission flexplate; use flywheel P/N 14096987 and 11" clutch assembly for manual transmission applications
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19419001
Engine Type:	Chevy Big-Block V-8
Displacement (cu in):	454
Bore x Stroke (in):	4.250 x 4.000
Block (P/N 19170538):	Cast-iron with 4-bolt main caps
Crankshaft (P/N 14096983):	Forged steel
Connecting Rods (P/N 19170198):	Forged steel
Pistons (P/N 10215228):	Forged aluminum
Intake Manifold (P/N 12363420):	Dual plane
Camshaft Type (P/N 24502611):	Hydraulic roller
Valve Lift (in):	.510 intake / .540 exhaust
Camshaft Duration (@.050 in):	211° intake / 230° exhaust
Cylinder Heads (P/N 19331424):	Aluminum oval port; 110cc chambers
Valve Size (in):	2.190 intake / 1.880 exhaust
Compression Ratio:	9.6:1
Rocker Arms (P/N 12675724):	Stamped steel
Rocker Arm Ratio:	1.7:1
Water Pump (P/N 19168606):	Cast-iron, long-style
Recommended Fuel:	Premium pump
Ignition Timing:	36° Total @ 4,000 rpm
Maximum Recommended rpm:	5,500
Balanced:	External
Flexplate (P/N 10185034):	14"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

12498778

454 Partial Engine

For those who want the strength and convenience of our 454 bottom end, including its updated block design and modern roller camshaft, but want to add your own heads and induction system, start with our 454 Partial Engine assembly. It's a strong foundation for Big-Block performance.

TRANSMISSION OPTIONS

19300175

SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while a unique valve body delivers firmer shifts than production 4L85 transmissions. Does not include converter. Use with electronic controller P/N 19302410 for LS/LSX-based fuel-injected engines. See page 25 for more details.

19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19299805
Torque Converter
page 22

19170093
Carburetor – Holley 770-cfm
page 208

19302919
Lightweight Starter
page 207

19332784
Transmission Installation Kit
page 25

88961867
Distributor – Aluminum Billet HEI
page 205

19332780
Transmission Controller
page 28

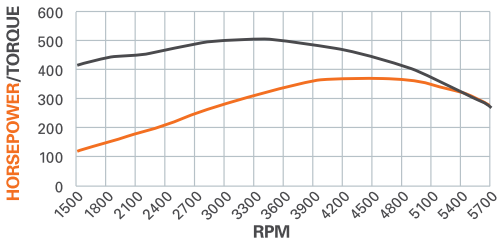
HT502

88890534

406 hp @ 4,200 rpm

541 lb.-ft. @ 3,200 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

A Powerful Alternative to Rebuilding

When it comes to repowering your trusted Big-Block-powered pulling truck, don't bother with the time it takes for rebuilding, when Chevrolet Performance's HT502 offers an affordable, durable and powerful alternative.

It is built with a brand-new, latest-generation cylinder block with four-bolt main caps and features an all-forged rotating assembly for strength. A mild 8.75:1 compression ratio also makes it suitable for pump gas at all elevations. The assembly comes with the heads and a balancer installed. An induction system, ignition, starter, water pump and other accessories are required to finish the engine. All of the necessary components are available from Chevrolet Performance.

INSTALLATION NOTES

- Requires the addition of carburetor, intake manifold, water pump, fuel pump, starter, distributor and ignition system (not included)
- Clutch linkage bosses are now drilled and tapped. When using cast-iron exhaust manifolds, lower head bolts may need to be replaced with bolts with shorter heads, for clearance
- 502 engines now have a mechanical fuel pump boss! ***(NOTE:*** *There is NO fuel pump lobe behind the boss.)*
- Comes with an externally balanced 14" automatic transmission flexplate. Use externally balanced flywheel P/N 14096987 and 11" clutch assembly for manual transmission applications
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	88890534
Engine Type:	Chevy Big-Block V-8
Displacement (cu in):	502
Bore x Stroke (in):	4.470 x 4.00
Block (P/N 19170540):	Cast-iron with 4-bolt main caps
Crankshaft (P/N 10183723):	Forged steel
Connecting Rods (P/N 19170198):	Forged steel, shot peened
Pistons (P/N 12533507):	Forged aluminum
Camshaft Type (P/N 12552296):	Hydraulic roller
Valve Lift (in):	.480 intake / .483 exhaust
Camshaft Duration (@.050 in):	204° intake / 209° exhaust
Cylinder Heads (P/N 12562917):	Iron oval port; 118cc chambers
Valve Size (in):	2.07 intake / 1.73 exhaust
Compression Ratio:	8.75:1
Rocker Arms (P/N 19260993):	Stamped steel
Rocker Arm Ratio:	1.7:1
Recommended Fuel:	Regular pump
Ignition Timing:	34° Total @ 4,000 rpm
Maximum Recommended rpm:	5,500
Balanced:	External
Flexplate (P/N 10185034):	14"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

12568782

502 Partial Engine

Similar to the HT502 and 502 HO engine assemblies. Includes a brand-new four-bolt block and forged rotating assembly, but delivered without the cylinder heads. Assembly includes the balancer, oil pan and timing gear set.

TRANSMISSION OPTIONS

19300175

SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while a unique valve body delivers firmer shifts than production 4L85 transmissions. Does not include converter. Use with electronic controller P/N 19302410 for LS/LSX-based fuel-injected engines. See page 25 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19299805
Torque Converter
page 22

19332784
Transmission Installation Kit
page 25

19302919
Lightweight Starter
page 207

19170093
Carburetor – Holley 770-cfm
page 208

19168602
Aluminum Water Pump – Short-Style
page 204

19332780
Transmission Controller
page 28

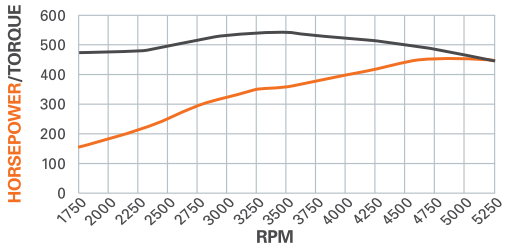
502 HO

12568778

461 hp @ 5,100 rpm

558 lb.-ft. @ 3,400 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Affordable Big-Block Performance

Whether you use it for your drag car or pulling truck, the value-driven 502 HO crate engine offers affordable performance. It's rated at 461 horsepower and 558 lb.-ft. of torque, for pulling power that exceeds anything ever offered from Chevrolet's production Big-Block engines. It's real power that only comes from a Big-Block!

To support all that torque, we built the 502 HO with a brand-new, latest-generation block casting with four-bolt main cap. We complement that with an all-forged rotating assembly for exceptional strength and durability, while a hydraulic roller camshaft is used for excellent drivability and a broad performance range. Our crate engine assembly includes an aluminum, dual-plane intake manifold, a water pump, 14-inch flexplate, balancer and more. You add the carburetor, starter and ignition system—all available from Chevrolet Performance.

INSTALLATION NOTES

- Requires addition of carburetor, fuel pump, starter, distributor and ignition system (not included)
- Clutch linkage bosses are now drilled and tapped. When using cast-iron exhaust manifolds, lower head bolts may need to be replaced with bolts with shorter heads, for clearance
- 502 engines now have a mechanical fuel pump boss! ***(NOTE:*** *There is a fuel pump lobe behind the boss.)*
- Comes with an externally balanced 14" automatic transmission flexplate. Use flywheel P/N 14096987 and 11" clutch assembly for manual transmission applications
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	12568778
Engine Type:	Chevy Big-Block V-8
Displacement (cu in):	502
Bore x Stroke (in):	4.470 x 4.000
Block (P/N 19170540):	Cast-iron with 4-bolt main caps
Crankshaft (P/N 10183723):	Forged steel
Connecting Rods (P/N 19170198):	Forged steel, shot peened
Piston and Ring Kit (P/N 12533507):	Forged aluminum
Intake Manifold (P/N 19131359):	Dual plane
Camshaft Type (P/N 24502611):	Hydraulic roller
Valve Lift (in):	.510 intake / .540 exhaust
Camshaft Duration (@.050 in):	211° intake / 230° exhaust
Cylinder Heads (P/N 12562920):	Iron rectangular port; 118cc chambers
Valve Size (in):	2.190 intake / 1.880 exhaust
Compression Ratio:	8.75:1
Rocker Arms (P/N 19260993):	Stamped steel
Rocker Arm Ratio:	1.7:1
Water Pump (P/N 19168606):	Cast-iron, long-style
Recommended Fuel:	Regular pump
Ignition Timing:	32° Total @ 4,000 rpm
Maximum Recommended rpm:	5,500
Balanced:	External
Flexplate (P/N 10185034):	14"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

12568782

502 Partial Engine

Similar to the HT502 and 502 HO engine assemblies. Includes a brand-new four-bolt block and forged rotating assembly, but delivered without the cylinder heads. Assembly includes the balancer, oil pan and timing gear set.

TRANSMISSION OPTIONS

19300175

SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while a unique valve body delivers firmer shifts than production 4L85 transmissions. Does not include converter. Use with electronic controller P/N 19302410 for LS/LSX-based fuel-injected engines. See page 25 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19299805
Torque Converter
page 22

19417728
Accessory Drive System – with Air Conditioning
page 204

19302919
Lightweight Starter
page 207

19170093
Carburetor – Holley 770-cfm
page 208

19332784
Transmission Installation Kit
page 25

19332780
Transmission Controller
page 28

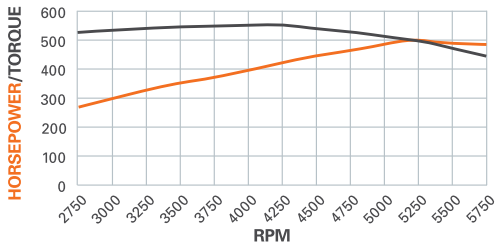
ZZ502/502 Deluxe

19419003

508 hp @ 5,200 rpm

580 lb.-ft. @ 3,600 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Big Power and Torque from our Most Popular Big-Block!

The ZZ502/502 is one of the industry's benchmark crate engines, offering excellent value with a proven combination of performance and all-forged durability that is suitable for the strip or packed clay dirt pullers. With more than 500 horsepower and an amazing 580 lb.-ft. of torque, it will grab your attention!

Thanks to a combination of high-flow aluminum oval-port cylinder heads with 2.25/1.88-inch valves and a hydraulic roller camshaft designed to support low-rpm torque production, this torque monster tops the 500-lb.-ft. mark by approximately 2,500 rpm and holds above it until about 5,000 rpm. Our ZZ502/502 Deluxe package comes complete from the oil pan to the carburetor, including an HEI distributor, plug wires, starter, water pump, balancer and an aluminum intake topped with a Holley 870-cfm four-barrel carburetor.

INSTALLATION NOTES

- Due to crate fitment, the carburetor is shipped in a separate box and needs to be installed by an engine installer
- Clutch linkage bosses are now drilled and tapped. When using cast-iron exhaust manifolds, lower head bolts may need to be replaced with bolts with shorter heads, for clearance
- 502 engines now have a mechanical fuel pump boss! (***NOTE:*** *There is a fuel pump lobe behind the boss.*)
- Comes with an externally balanced 14" automatic transmission flexplate. Use flywheel P/N 14096987 and 11" clutch assembly for manual applications
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19419003
Engine Type:	Chevy Big-Block V-8
Displacement (cu in):	502
Bore x Stroke (in):	4.470 x 4.000
Block (P/N 19170540):	Cast-iron with 4-bolt main caps
Crankshaft (P/N 10183723):	Forged steel
Connecting Rods (P/N 19170198):	Forged steel, shot peened
Pistons (P/N 12533507):	Forged aluminum
Intake Manifold (P/N 12363407):	Dual plane
Carburetor (P/N 19170094):	870-cfm
Camshaft Type (P/N 12366543):	Hydraulic roller
Valve Lift (in):	.527 intake / .544 exhaust
Camshaft Duration (@.050 in):	224° intake / 234° exhaust
Cylinder Heads (P/N 19331425):	Aluminum oval port; 110cc chambers
Valve Size (in):	2.250 intake / 1.880 exhaust; stainless steel
Compression Ratio:	9.6:1
Rocker Arms (P/N 12675724):	Stamped steel
Rocker Arm Ratio:	1.7:1
Water Pump (P/N 19168602):	Aluminum, short-style
Recommended Fuel:	Premium pump
Distributor (P/N 93440806):	HEI type
Spark Plugs and Wires:	Included
Starter (P/N 19302919):	Included
Ignition Timing:	32° Total @ 4,000 rpm
Maximum Recommended rpm:	5,800
Balanced:	External
Flexplate (P/N 10185034):	14"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

12568782

502 Partial Engine

Similar to the HT502 and 502 HO engine assemblies. Includes a brand-new four-bolt block and forged rotating assembly, but delivered without the cylinder heads. Assembly includes the balancer, oil pan and timing gear set.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory engineered performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

ZZ502/502 Deluxe with 4L85-E Automatic

Engine:	19419003	Torque Converter:	19299805
Transmission:	19300175	Controller:	19332780
Install Kit:	19420956		

ZZ502/502 Deluxe with Super Magnum Six-Speed Manual

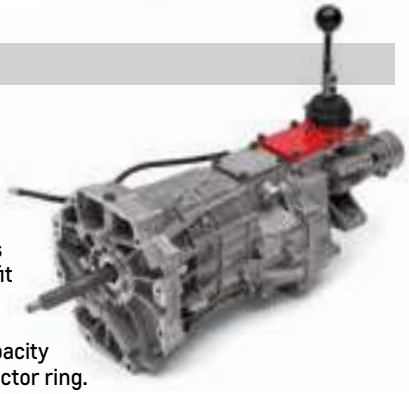
Engine:	19419003	Install Kit:	19329901
Transmission:	19352208		

TRANSMISSION OPTIONS

19300175

SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while a unique valve body delivers firmer shifts than production 4L85 transmissions. See page 25 for more details.



19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19332784

Transmission Installation Kit

page 25

19332780

Transmission Controller

page 28

19329025

Big-Block Bell Housing Kit

page 29

19329901

Transmission Installation Kit – Six-Speed Super Magnum

page 30

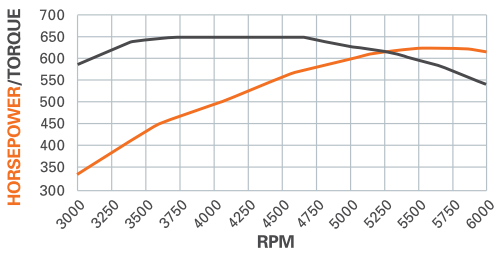
ZZ572/620 Deluxe

19331583

621 hp @ 5,400 rpm

645 lb.-ft. @ 4,200 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Go Big or Go Home!

Proving the adage that there's no replacement for displacement, the ZZ572/620 Deluxe is the ultimate expression of Chevrolet Performance's engineering capability, wrapped up in a soul-stirring combination of performance and attitude. We build the ZZ572 with huge 4.560-inch bores and a 4.375-inch stroke to help it deliver 621 horsepower and a stunning 645 lb.-ft. of torque.

Strength comes from a brand-new, latest-generation block casting with four-bolt main caps and an all-forged rotating assembly. While high-flow aluminum rectangular-port cylinder heads and a hydraulic roller camshaft—with incredible 0.632/0.632-inch lift and 254/264-degree duration specifications—work together to optimize airflow across the rpm band. We deliver the ZZ572/620 Deluxe with an 850-cfm carburetor, HEI distributor, aluminum water pump and distinctive orange powder-coated valve covers. If your project vehicle can handle the torque, the ZZ572/620 has all the power you need!

INSTALLATION NOTES

- Due to crate fitment, the carburetor is shipped uninstalled and needs to be installed by an engine installer
- Clutch linkage boss is now drilled and tapped. When using cast-iron exhaust manifolds, lower head bolts may need to be replaced with bolts with shorter heads, for clearance
- Requires addition of starter and fuel pump (not included)
- Gen VI tall-deck block has machined mechanical fuel pump boss
- Comes with a 14" automatic transmission flexplate. Requires internally balanced flywheel for manual transmission applications
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19331583
Engine Type:	Chevy Tall-Deck Big-Block V-8
Displacement (cu in):	572
Bore x Stroke (in):	4.560 x 4.375
Block (P/N 19212195):	Cast-iron with 4-bolt main caps
Crankshaft (P/N 88961554):	Forged steel
Connecting Rods (P/N 88962926):	Forged steel, shot peened
Pistons (P/N 88962925):	Forged aluminum
Intake Manifold (P/N 88961161):	Single plane
Carburetor (P/N 19170095):	850-cfm
Camshaft Type (P/N 19210721):	Hydraulic roller
Valve Lift (in):	.632 intake / .632 exhaust
Camshaft Duration (@.050 in):	254° intake / 264° exhaust
Cylinder Heads (P/N 19331429):	Aluminum rectangular port, 118cc chambers
Valve Size (in):	2.250 intake / 1.88 exhaust; stainless steel
Compression Ratio:	9.6:1
Rocker Arms (P/N 19210726):	Aluminum roller style
Rocker Arm Ratio:	1.7:1
Water Pump (P/N 19168602):	Aluminum, short-style
Recommended Fuel:	Premium pump
Distributor (P/N 88961867):	HEI
Spark Plugs and Wires:	Included
Ignition Timing:	36° Total @ 4,000 rpm
Maximum Recommended rpm:	6,000
Balanced:	Internal
Flexplate (P/N 12561217):	14"

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

Chevrolet Performance Crate Engines include a 24-month or 50,000-mile/80,000-kilometer limited warranty, whichever comes first. See your GM dealer for details.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

ADDITIONAL BUILD OPTIONS

19331581

ZZ572/620 Base Engine

This long-block assembly is based on the ZZ572/620 Deluxe and includes the cylinder heads, oil pan, front cover and flexplate. The induction system, water pump, distributor and additional accessories must be added to complete the engine.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory engineered performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

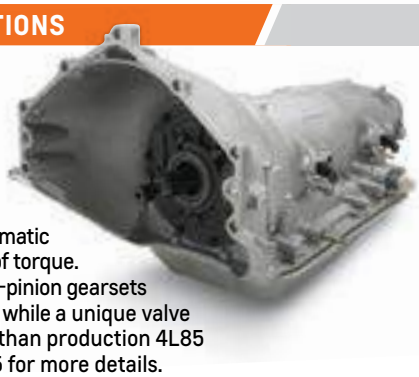
ZZ572/620 Deluxe with 4L85-E Automatic

Engine:	19331583	Torque Converter:	19299805
Transmission:	19300175	Controller:	19332780
Install Kit:	19420956		

ZZ572/620 Deluxe with with Super Magnum Six-Speed Manual

Engine:	19331583	Install Kit:	19329902
Transmission:	19352208		

TRANSMISSION OPTIONS



19300175

SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while a unique valve body delivers firmer shifts than production 4L85 transmissions. See page 25 for more details.

19352208

Super Magnum Six-Speed Manual

This high-torque capacity TREMEC six-speed manual is designed for custom, retro-fit installations with Chevrolet Performance crate engines. It has a 700-lb.-ft. torque capacity and features a 40-tooth reluctor ring. See page 29 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19299805

Torque Converter

page 22

19332784

Transmission Installation Kit

page 25

19332780

Transmission Controller

page 28

19329902

Transmission Installation Kit – Six-Speed Super Magnum

page 30

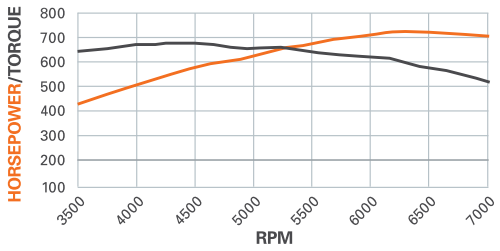
ZZ572/720R Deluxe

19331585

727 hp @ 6,300 rpm

680 lb.-ft. @ 4,900 rpm

DYNO CHART



NOTE: *Refer to page 12 for the complete horsepower and torque testing procedures.*

Designed to Dominate the Drag Strip!

Don't wait weeks, or even months, for a custom drag racing-engine. With 727 horsepower and 680 lb.-ft. of torque, the amazing ZZ572/720R is capable of pulling your bracket racer or gasser drag car down the drag strip. We deliver it fully assembled. You simply bolt on the included Dominator-style 1150-cfm carburetor, along with a starter and fuel pump (not included) and you're ready to go!

The engine assembly is all-business, starting with a brand-new, latest-generation block casting with four-bolt main caps and an all-forged rotating assembly for exceptional strength and durability. A unique mechanical roller camshaft with 0.714/0.714-inch lift and 278/282-degree duration specifications complements high-flow aluminum rectangular-port cylinder heads with massive 310cc intake passages, 118cc raised exhaust ports and 118cc combustion chambers, moving big air through the engine efficiently to make huge power.

INSTALLATION NOTES

- Due to crate fitment, the carburetor is shipped in a separate box and needs to be installed by an engine installer
- Clutch linkage boss is now drilled and tapped. When using cast-iron exhaust manifolds, lower head bolts may need to be replaced with bolts with shorter heads, for clearance
- Requires addition of starter, ignition coil, ignition box and fuel pump (not included)
- Gen VI tall-deck block has machined mechanical fuel pump boss
- Requires internally balanced flywheel for manual transmission applications
- Requires 110 octane or higher gasoline
- Not intended for marine applications

Mobil 1 *is the recommended engine oil for all Chevrolet Performance Engines*

TECH SPECS

Part Number:	19331585
Engine Type:	Chevy Tall-Deck Big-Block V-8
Displacement (cu in):	572
Bore x Stroke (in):	4.560 x 4.375
Block (P/N 19212195):	Cast-iron with 4-bolt main caps
Crankshaft (P/N 88961554):	Forged steel
Connecting Rods (P/N 88962926):	Forged steel, shot peened
Pistons (P/N 88963227):	Forged aluminum
Intake Manifold (P/N 88962218):	Single Plane
Carburetor (P/N 19170096):	1150-cfm Dominator
Camshaft Type (P/N 19210722):	Mechanical roller
Valve Lift (in):	.714 intake / .714 exhaust
Camshaft Duration (@.050 in):	278° intake / 282° exhaust
Cylinder Heads (P/N 19331430):	Aluminum rectangular port, 118cc chambers
Valve Size (in):	2.250 intake / 1.880 exhaust stainless steel
Compression Ratio:	12:1
Rocker Arms (P/N 19210726):	Aluminum roller style
Rocker Arm Ratio:	1.7:1
Water Pump (P/N 19168602):	Aluminum, short-style
Recommended Fuel:	Race gas
Distributor (P/N 10093387):	Electronic ignition
Spark Plugs and Wires:	Included
Ignition Timing:	35° Total @ 4,000 rpm
Maximum Recommended rpm:	6,750
Balanced:	Internal

NOTE: *Distributor with melonized steel gear MUST be used with long-blocks and partial engines with steel camshafts, or engine damage will occur.*

This Chevrolet Performance Racing Crate Engine is purpose-built for racing only, and has no warranty.

Chevrolet Performance does not utilize any used or remanufactured parts in this crate engine, except for the starter, alternator and power steering pump.

This part is intended for competition use only. See page 2 for complete details.

CONNECT & CRUISE CONFIGURATIONS

Chevrolet Performance's Connect & Cruise systems match our crate engines with transmissions for factory engineered performance combinations—including supporting controllers and installation kit recommendations—that take the guesswork out of your project. See page 32 for more details.

ZZ572/720R Deluxe with 4L85-E Automatic Transmission

Engine:	19331585	Torque Converter:	19299805
Transmission:	19300175	Controller:	19332780
Install Kit:	19420956		

TRANSMISSION OPTIONS

19300175

SuperMatic™ 4L85-E Four-Speed Automatic

Based on the 4L80-E, the 4L85-E electronically controlled four-speed automatic is rated for up to 690 lb.-ft. of torque. For strength, it features five-pinion gearsets and additional clutch plates, while a unique valve body delivers firmer shifts than production 4L85 transmissions. Does not include converter. Use with electronic controller P/N 19302410 for LS/LSX-based fuel-injected engines. See page 25 for more details.

ENGINE-RELATED PARTS & ACCESSORIES

19332780
Transmission Controller
page 28

19420956
Transmission Installation Kit
page 25

19302919
Lightweight Starter
page 207

19299805
Torque Converter
page 22

19417728
Accessory Drive System – with Air Conditioning
page 204

12561217
14" Flexplate
page 203

12341999
Fuel Pump Block-Off Plate
page 194

19329902
Transmission Installation Kit – Six-Speed Super Magnum
page 30

BIG-BLOCK
ENGINE COMPONENTS

Big Choices for Big-Torque Engines

Oval-port or rectangular. Iron or aluminum. H-beam or I-beam. When it comes to building the Big-Block engine for your project, Chevrolet Performance has you covered with more choices than ever.

It all starts with our latest Big-Block cylinder block casting, which blends elements of earlier Mark IV and Gen V designs, along with architectural enhancements, to optimize strength. We even have an updated version of the legendary aluminum 427 block that's perfect for projects and COPO Camaro tribute builds.

From there, our extensive portfolio of rotating components, cylinder heads, valvetrain parts, and air, fuel and spark components makes Chevrolet Performance a one-stop shop for building your ultimate Big-Block.

There's nothing like the torque of a genuine Big-Block and no one makes it easier to build one with factory-engineered power, strength and durability than Chevrolet Performance.

You can find these Chevrolet Performance Big-Block Engine Components on the following pages:

Big-Block Blocks and Components

QUICK REFERENCE CHART

Production-Based Cast-Iron Blocks

Part Number	Casting Number	Deck Height	F Pump Boss	Cyl Wall	Bore Range	Main Bolt	Main Blt Degree	Cap Material	Crank Jnl. Dia.	Oiling	Seal Type	Max Stroke	Weight (lbs)	Max HP	Usage	Page Number
19170538	–	9.800"	Yes	Open	4.250"–4.310"	4	Straight	Cast-iron	2.750"	Wet	1 pc	4.250"	247	700	Street	191
19170540	–	9.800"	Yes	Siamese	4.470"–4.500"	4	Straight	Cast-iron	2.750"	Wet	1 pc	4.250"	269	700	Mod	191

Bowtie Cast-Iron Big-Blocks

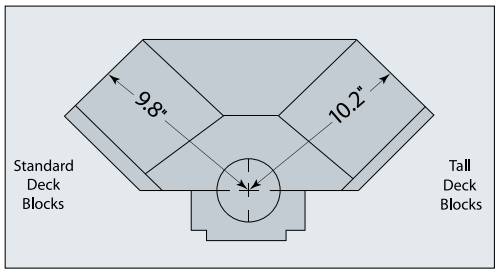
Part Number	Casting Number	Deck Height	F Pump Boss	Cyl Wall	Bore Range	Main Bolt	Main Blt Degree	Cap Material	Crank Jnl. Dia.	Oiling	Seal Type	Max Stroke	Weight (lbs)	Max HP	Usage	Page Number
19212191	24502504B	9.800"	Yes	Siamese	4.494"–4.600"	4	16°	Nodular	2.750"	Wet	2 pc	4.500"	258	800	Sport	192
19212192	24502504B	9.800"	Yes	Siamese	4.494"–4.600"	4	16°	Nodular	2.750"	Wet	1 pc	4.500"	258	800	Sport	192
19212194	24502506B	10.200"	Yes	Siamese	4.494"–4.600"	4	16°	Nodular	2.750"	Wet	2 pc	4.500"	263	800	Sport	192
19212195	24502506B	10.200"	Yes	Siamese	4.560"–4.600"	4	16°	Nodular	2.750"	Wet	1 pc	4.500"	263	800	Sport	192
19212196	24502504B	9.800"	Yes	Siamese	4.240"–4.600"	4	16°	Steel	2.750"	Wet	2 pc	4.500"	281	1200	Pro	194
19212197	24502506B	10.200"	Yes	Siamese	4.240"–4.600"	4	16°	Steel	2.750"	Wet	2 pc	4.500"	296	1200	Pro	194

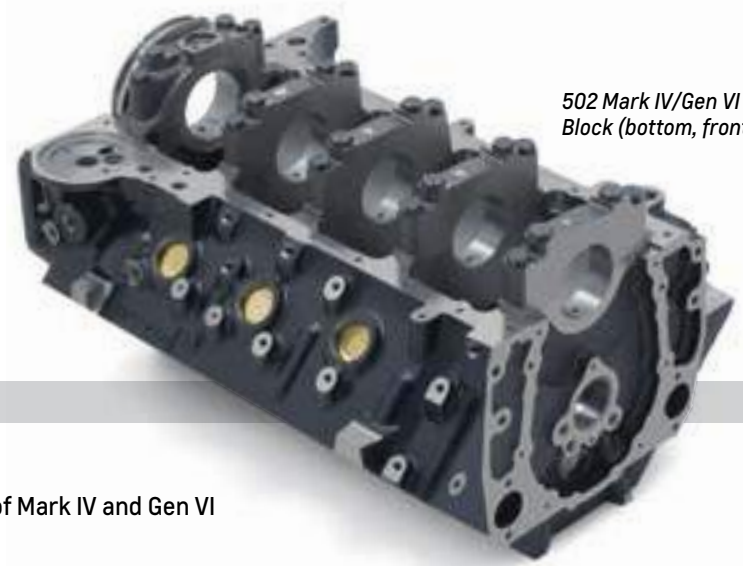
Aluminum ZL1 Block

Part Number	Casting Number	Deck Height	F Pump Boss	Cyl Wall	Bore Range	Main Bolt	Main Blt Degree	Cap Material	Crank Jnl. Dia.	Oiling	Seal Type	Max Stroke	Weight (lbs)	Max HP	Usage	Page Number
12370850	3946053	9.800"	Yes	Siamese	4.240"–4.300"	4	16°	Steel	2.750"	Wet	2 pc	4.375"	110	650	Pro	193
88958696*	88958695	9.800"	Yes	Siamese	4.250"–4.300"	4	16°	Steel	2.750"	Wet	1 pc	4.375"	110	650	Pro	N/A

**Used in Anniversary 427 P/N 19166392. Not available for service.*

Deck Height Diagram





502 Mark IV/Gen VI Bare Block (bottom, front)

BIG-BLOCK ENGINE BLOCKS

Technical Notes:

- New design casting incorporates the best designs of Mark IV and Gen VI
- Production-type cast-iron 4-bolt block
- Machined fuel pump pad
- Water jackets for use with Mark IV or Gen VI heads
- Revised oiling to allow for bigger cam bearings/cam lift
- Can be drilled for use with 10-bolt front timing cover
- Additional clearance added for roller timing chains
- Auxiliary oil pressure line added to front of block
- Racing-style oil filter cast feature with added oil pressure port
- Additional material added around lifter bosses

502 Mark IV/Gen VI Bare Block (bottom, rear)

502 Mark IV/Gen VI Bare Block (top, rear)

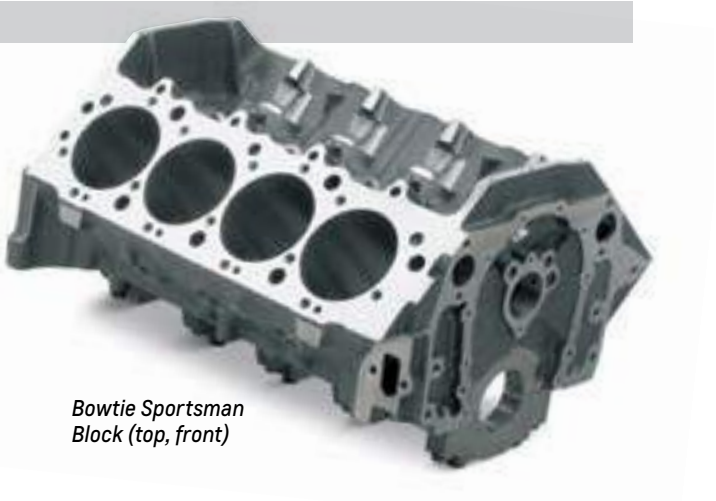
Part Number	Description	Technical Notes
19170538	427/454 Bare Block (not shown)	4.250" finished bore; 4.310" max bore (non-siamese bore); Bolt boss (not machined) added near distributor hole like 8.1L; Additional boss for manual transmission clutch pivot (machined)
19170540	502 Mark IV/Gen VI Bare Block	Improved main bearing bulkheads–Bowtie block-style bulkhead; Clearanced for bigger strokes; 4.470" finished bore; 4.500" max bore (siamese); Bolt boss (machined) added near distributor hole like 8.1L; Two bosses added for manual transmission clutch pivot (machined)

BOWTIE SPORTSMAN BLOCKS

Big-Blocks with big power are what you get when you select a Chevrolet Performance Bowtie Sportsman Block for your drag racing or competition application. These blocks comprise a full line of high-quality, precision-machined components based on performance-proven GM designs. The extensive lineup of blocks makes choosing the perfect block easy—and our quality and precision machining is second to none.

The blocks are CNC-machined, an automated process that guarantees precise tolerances. There are no approximations on these blocks—they're exactly right, which is critical to obtaining maximum performance. Chevrolet Performance offers more CNC-machined blocks than anyone.

The highest-quality materials are used to cast our Sportsman Bowtie blocks. They are also available as tall decks, allowing you to make more cubic inches with larger-stroke crankshafts. These blocks can easily be bored and stroked to 500 or more cubic inches. They can be fitted with one-piece or two-piece crankshaft seals for a smaller chance of oil leaks (one-piece seals) or more aftermarket component attachments (two-piece seals).



Bowtie Sportsman Block (top, front)

The Bowtie Sportsman blocks are available with splayed main caps, which have additional material holding the crankshaft in place. The caps are splayed at 16 degrees. Chevrolet Performance uses splayed main caps throughout the entire line of performance-built Big-Blocks.

Chevrolet Performance Bowtie Sportsman Blocks are ideal for drag racers, where the goal is 800 horsepower and long-lasting reliability.

Bowtie Sportsman Block Technical Notes:

- Available in short deck (9.800") or tall deck (10.200") configurations
- Blocks have clearance for 4.500" stroke crankshafts
- CNC-machined to +/- .005" tolerance
- Siamese cylinder bores
- Bore finishes are ready to hone to size
- Machined for mechanical fuel pump
- Machined for hydraulic roller and flat tappets
- Nodular iron 4-bolt main caps splayed 16° on the 3 center mains
- Priority main oiling system
- Blocks with a 1-piece rear main seal use the 6-bolt, Gen VI-style front cover (P/N 10230954) and Gen VI-style oil pan
- Blocks with a 2-piece rear main seal use the 10-bolt, Mark IV-style front cover and Mark IV-style oil pan

See chart on page 191 for complete specifications.

Bowtie Sportsman Block (top, rear)

2-Piece Rear Main Seal

Tall Deck Bowtie Sportsman Bare Block (top, front)

Tall Deck Bowtie Sportsman Bare Block (bottom, rear)

1-Piece Rear Main Seal

Standard Deck Sportsman Blocks

Part Number	Description	Technical Notes
19212192	Standard Deck Bowtie Sportsman Block	1-piece rear main seal; CNC-machined cast-iron 4-bolt block; 4.494" finished bore; 4.600" max bore; Tested to 800 horsepower!
19212191	Standard Deck Bowtie Sportsman Block	2-piece rear main seal; CNC-machined cast-iron 4-bolt block; 4.494" finished bore; 4.600" max bore; Tested to 800 horsepower!

Tall Deck Sportsman Blocks

Part Number	Description	Technical Notes
19212194	Tall Deck Bowtie Sportsman Bare Block (not shown)	2-piece rear main seal; CNC-machined cast-iron 4-bolt block; 4.494" finished bore; 4.600" max bore; Tested to 800 horsepower!
19212195	Tall Deck 572 Bowtie Sportsman Bare Block	1-piece rear main seal; Uses Mark IV-style front cover and oil pan mounting; CNC-machined cast-iron 4-bolt block; 4.560" fully honed bore; 4.600" max bore; Powder-coated Chevy orange; 5 windage tray bolts installed; Tested to 800 horsepower; This is the block used for our 572 engines

ZL1 ALUMINUM BIG-BLOCK

ZL1 was the legendary regular production option (RPO) code that struck fear into all competitors who came up against 1969 Camaros—and a couple of Corvettes—that were equipped with this fearsome 427-cubic-inch Big-Block from the factory. The price to own an original ZL1 has exceeded the value of many homes, but you can build your own ZL1-powered supercar thanks to Chevrolet Performance. By reintroducing this fabled aluminum Big-Block, Chevrolet Performance has made it possible for everyone to experience the raw horsepower and tremendous torque of the ZL1. The Chevrolet Performance ZL1 aluminum block is made from premium materials and is precision machined to blueprinted specifications.

See chart on page 191 for complete specifications.

ZL1 Aluminum Big-Block (top, front)

ZL1 Aluminum Block Technical Notes:

- 356-T6M aluminum block
- Standard deck height (9.800")
- 4.300" maximum bore
- 4.240" finished bore
- 4.375" maximum stroke
- Siamesed cylinder walls
- Centrifugally spun cast-iron cylinder sleeves
- Steel 4-bolt main caps splayed 16° on the 3 center mains (dowel located)
- Provision for hydraulic roller camshafts
- AN O-ring oil and water plugs
- Tested to 650 horsepower

ZL1 Aluminum Big-Block (top, rear)

ZL1 Aluminum Big-Block (4-Bolt Mains)

Part Number	Description	Technical Notes
12370850	ZL1 Aluminum Big-Block	4.240" finished bore; 4.300" max bore; 4.375" max stroke; Use cylinder sleeve (P/N 12480035); 2-piece rear main seal; Uses Mark IV front timing cover

CAST-IRON BOWTIE RACE BLOCKS

If you're looking to build a drag racing engine capable of producing 1,200 horses or more, a Chevrolet Performance cast-iron Bowtie Race Block is your starting point. It is designed for engine builders who want to custom-machine their blocks for specific racing applications. Toward that end, these premium castings have thick deck surfaces, improved oiling, improved coolant flow and splayed 4-bolt steel bearing caps. Everything is secured with premium fasteners. The combination of a Chevrolet Performance cast-iron Bowtie Race Block and your unique engine-building skills will put you down the track ahead of the competition.

See chart on page 191 for complete specifications.

Tall Deck Bowtie Race Bare Block (top, front)

Cast-iron Bowtie Race Block Technical Notes:

- Precision CNC machining means +/- .005" tolerances
- Blocks are available in short deck (9.800") or tall deck (10.200")
- A sonic bore check data sheet is provided with each block
- Siamese cylinder bores
- Improved cooling around number-1 cylinder
- Accepts Mark IV or Gen V, VI cylinder heads
- Use Gen V head gaskets with Mark IV and Gen V cylinder heads
- Use Gen VI head gaskets with Gen VI cylinder heads
- Requires Mark IV design 2-piece rear main seal oil pans
- Requires Mark IV design crankshafts
- Blind-tapped head bolt holes; extra inner head bolt bosses provided
- Can use Mark IV and Gen V, VI camshafts, timing sets, lifters and timing cover (aftermarket belt-drive timing covers may require clearancing)
- 4-bolt SAE 8620 steel main caps splayed 16° on the 3 center mains
- Priority main oiling wet-sump system
- Provisions for dry-sump oil line provided
- Honed camshaft and crankshaft bores
- .842" lifter bores (maximum 1.06") may be relocated
- Distributor gear clearance at bottom of number-8 cylinder bore should be checked
- Machined mechanical fuel pump pad

Cast-iron Bowtie Race Blocks continued

Tall Deck Bowtie Race Bare Block (Nodular 4-Bolt Splayed Caps)

Tall Deck Bowtie Race Bare Block (top, rear)

Part Number	Description	Technical Notes
19212196	Standard Deck Bowtie Race Bare Block (not shown)	CNC-machined cast-iron 4-bolt block; 4.240" finished bore; 4.600" max bore (.250" min. wall thickness); Standard deck height (9.800"); Lifter bosses are .300" taller than standard blocks; Tested to 1,200 horsepower!
19212197	Tall Deck Bowtie Race Bare Block	CNC-machined cast-iron 4-bolt block; 4.240" finished bore; 4.600" max bore (.250 min. wall thickness); Tall deck height (10.200"); Lifter bosses are .300" taller than standard blocks; Tested to 1,200 horsepower!

CYLINDER BLOCK COMPONENTS

O-Ring Seal

Inner Main Cap Bolt (Gen V and Gen VI)

Main Bearings – 572 Engine

Part Number	Description	Technical Notes
6264902	O-Ring Seal (sold individually)	Use under the rear main bearing cap on all 1991-and-newer Gen V and Gen VI 454 and 502 engines
10106461	Inner Main Cap Bolt – Gen V and Gen VI	Used with Gen V and Gen VI (1991-and-newer) Big-Blocks with 4-bolt mains; Sold individually, order 10 per engine
88962212	Main Bearings – 572 Engine	Complete main bearing kit for 572 block with standard-size mains
3902885	Windage Tray Stud (not shown)	Used for mounting splash shield P/N 3967854
10224104	Windage Tray Stud – Gen V 454 and 502 (not shown)	Used with Gen V 454 and 502 engines

FRONT COVERS, PLUGS AND BLOCK-OFF PLATES

Timing Chain Cover – Gen V and Gen VI

Big-Block Fuel Pump Block-Off Plate

Big-Block Crank Trigger Ignition Conversion Kit

Part Number	Description	Technical Notes
10230954 ❗	Timing Chain Cover – Gen V and VI	Aluminum cover with timing indicator fits all 1996-and-newer Gen V and Gen VI engines; Used on all Chevrolet Performance Big-Block crate engines
11609914	Front Oil Galley Plug (not shown)	Fits front oil galley (cam tunnel) holes; .030" oil squirter hole for cooling and lubricating the timing chain
12341999	Big-Block Fuel Pump Block-Off Plate	Plate has stamped Bowtie logo; Special gasket included
19260247	Big-Block Crank Trigger Ignition Conversion Kit	Enables the use of the latest aftermarket electronic control systems; 58x reluctor ring for installation on the front of the crankshaft timing gear; 4x camshaft gear; New design front cover with camshaft position and crankshaft position sensors; Double-row timing chain for greater durability, stability and timing accuracy; Requires aftermarket ignition controller capable of 58x signal (not included); Coil packs are not included; Comes with cover and sensor fasteners ***NOTE:*** *Minor machining of the cylinder block and the damper is required.*

Freeze Plugs and Oil Plugs

Part Number	Description	Quantity
03999200	Plug, Camshaft Bearing Hole	1
00444776	1/4 PTF Square Socket Plug	8
14090911	Plug, Water Outlet	1

Part Number	Description	Quantity
08654382	1/8-27 NPTF 7/16 Head Plug	1
12558081	Pin, Cylinder Head Locating	4
1453658	Pin, Transmission	2

❗ Timing Covers: Additional Required Components

Part Number	Bolts (Quantity)	Seals (Quantity)	Gasket (Quantity)	Engine Application
11562458	11562458 (6)	10191640 (1)	10198910 (1)	19331574, 12498778, 88890534, 19331585, 12568778, 12568779, 12568778, 19331579, 12568774, 12568782, 19331576, 19166392, 19331572

❗ *Additional components required for installation. See chart above.*

Big-Block Cylinder Heads

QUICK REFERENCE CHART

Part Number	Description	Casting Number	Material	Port Size	Port Type	Valve Angle	Chbr (cc)	Int Vlv (in)	Exh Vlv (in)	Exh Port	Plug Type	Heat Riser	Rocker Stud	Notes	Page Number
12562920	Gen V, VI BBC	12562934	Iron	325	Rect	BBC	118	2.180	1.880	Square	Std	yes	Screw-in	Ass'd 2925's	195
12562925	Gen V, VI BBC	12562934	Iron	325	Rect	BBC	118	2.180	1.880	Square	Std	yes	Screw-in	7/16 accy holes	195
12562926	Gen V, VI BBC	12562934	Iron	325	Rect	BBC	118	2.180	1.880	Square	Std	yes	Screw-in	3/8 accy holes	195
12562917	Gen V, VI BBC	12562932	Iron	–	Round	BBC	118	2.070	1.720	Square	Std	yes	Screw-in	HT 502 head	N/S
19331427	NHRA L88	12363401	Alum	315	Rect	BBC	118	2.190	1.880	Square	Std	no	Screw-in	Bare, NHRA legal	196
19418911	Rect alum	12363401	Alum	300	Rect	BBC	118	2.250	1.880	Square	Std	no	Screw-in	Assembled	196
19331426	Rect alum	12363401	Alum	300	Rect	BBC	118	2.250	1.880	Square	Std	no	Screw-in	Bare 3400	196
19418910	Oval alum	12363391	Alum	290	Oval	BBC	110	2.250	1.880	Square	Std	no	Screw-in	Semi-open, oval port	197
19418909	Oval alum	12363391	Alum	290	Oval	BBC	110	2.190	1.880	Square	Std	no	Screw-in	Semi-open, oval port	197
19331422	Oval alum	12363391	Alum	290	Oval	BBC	110	2.190	1.880	Square	Std	no	Screw-in	Bare 3392	197
19331429	572/620	–	Alum	310	Rect	BBC	118	2.250	1.880	Square	Std	no	Screw-in	ZZ572/620	196
19331430	572/720	–	Alum	310	Rect	BBC	118	2.250	1.880	Square	Std	no	Screw-in	ZZ572/720R	196

SERVICE REPLACEMENT HEADS

Chevrolet Performance service replacement cylinder heads are direct replacements on most 1990-and-later GM Big-Block 454-cubic-inch and 502-cubic-inch engines. These cylinder heads meet GM's stringent quality standards and provide excellent service and durability not found in used cylinder heads. The cylinder heads have rectangular intake ports.*

Bare Cast-Iron Gen V and Gen VI Cylinder Head (exhaust)

Service Replacement Head Technical Notes:

- Cast-iron
- Rectangular intake ports
- Machined for 2.180"/1.880" (3/8" stems) valves
- Non-adjustable rocker arm design
- Heads have heat risers
- Will not work on production Mark IV cylinder blocks

**They are an ideal head for those Big-Block enthusiasts who want more power.*

Part Number	Description	Technical Notes
12562925	Bare Cast-Iron Gen V and Gen VI Cylinder Head	Bare cast-iron head; 118cc combustion chambers; 7/16" accessory bolt holes
12562926	Bare Cast-Iron Gen V and Gen VI Cylinder Head (not shown)	Bare cast-iron head; Machined for 2.180"/1.880" 3/8" stem valves; 118cc combustion chambers; 3/8" accessory bolt holes (otherwise identical to P/N 12562920)
12562920	Cast-Iron Gen V and Gen VI Cylinder Head Assembly (not shown)	Cast-iron head; Completely assembled with 2.180"/1.880" valves; 118cc combustion chambers; Uses P/N 12562925 bare casting

Bare Cast-Iron Gen V and Gen VI Cylinder Head (intake)

Bare Cast-Iron Gen V and Gen VI Cylinder Head (combustion chamber)

Additional components required for installation. See chart on page 197

Parts intended for competition use only. See page 2 for details.

ALUMINUM BOWTIE CYLINDER HEADS

Chevrolet Performance Bowtie high-performance cylinder heads are ideal for drag-strip performance. They provide a broad power range with ample low-end torque, excellent throttle response, good mid-range torque and enough top-end power to beat your competitors to the finish line. Chevrolet Performance Bowtie cylinder heads are designed for high-performance applications, with thick deck surfaces and high-velocity airflow passages. The heads are manufactured to precise machining tolerances.

Chevrolet Performance Bowtie cylinder heads are available in either rectangular or oval intake port configurations. Rectangular intake ports are larger in volume and are designed to enhance high-rpm horsepower. Cylinder heads with oval intake ports are smaller in volume and are designed for greater low-rpm torque. Oval port heads are best where lots of bottom end, off-the-line power is desired.

Bowtie 572/620 Cylinder Head Assembly

Bowtie Cylinder Head Technical Notes:

- Made from 356-T6 aluminum
- Available in rectangular- or oval-port designs
- Will work on Mark IV and Gen V, VI blocks
- 9/16"-thick decks
- As-cast intake and exhaust ports
- No heat risers
- 1.55" valve spring seat diameter
- Heli-coiled 7/16" screw-in rocker stud holes
- Designed for use with 3/8" pushrods
- Use intake gasket P/N 12366985 and bolt kit P/N 12367959
- Use head gasket P/N 12363414 for bores to 4.370" and P/N 12363411 for bores 4.470" to 4.540" (Mark IV)
- Use head gasket P/N 12363412 for bores to 4.370" and P/N 12363411 for bores 4.470" to 4.540" (Gen V, VI)
- Use head bolt kit P/N 12367779

Bowtie Rectangular-Port Aluminum Cylinder Head Assembly (intake)

Bowtie Rectangular-Port Aluminum Cylinder Head Assembly (exhaust)

Bowtie Rectangular-Port Aluminum Cylinder Head Assembly (combustion chamber)

Rectangular Port Heads

Part Number	Description	Technical Notes
19331427	Bowtie Rectangular-Port Aluminum Bare Cylinder Head (not shown)	This NHRA-legal aluminum cylinder head is a replacement for the L88 Big-Block cylinder heads used on 1968–1971 Corvettes and 1969 Camaros; Aluminum performance cylinder head; 315cc rectangular intake ports; Machined for 2.250"/1.880" 11/32" valve stems; 110cc exhaust ports; 118cc combustion chambers
19331426	Bowtie Rectangular-Port Aluminum Bare Cylinder Head (not shown)	Bare aluminum performance head; Machined for 2.250"/1.880" valves; 300cc rectangular intake port; 110cc exhaust port; 118cc combustion chamber
19418911	Bowtie Rectangular-Port Aluminum Cylinder Head Assembly	Aluminum performance head; Completely assembled with 2.250"/1.880" 11/32" stem valves; 300cc rectangular intake port; 110cc exhaust port; 118cc combustion chamber; Uses bare head P/N 19331426
19331429	Bowtie 572/620 Cylinder Head Assembly	Aluminum head assembly; Used in the 572/620 Chevrolet Performance crate engine; Completely assembled with 2.250"/1.880" 11/32" stem valves; Valve springs for hydraulic roller cams for up to .632" lift; 310cc rectangular intake port; 118cc exhaust port–raised 5/8"; 118cc combustion chamber
19331430	Bowtie 572/720R Cylinder Head Assembly (not shown)	Aluminum racing head assembly; Used in the 572/720R Chevrolet Performance crate engine; Completely assembled with 2.250"/1.880" 11/32" stem valves; Mechanical roller valve springs–not for use with hydraulic roller cams; Good to .720" valve lift; 310cc rectangular intake port; 118cc exhaust port–raised 5/8"; 118cc combustion chamber

Bowtie 572/620 Cylinder Head Assembly (intake)

Bowtie 572/620 Cylinder Head Assembly (exhaust)

Bowtie 572/620 Cylinder Head Assembly (combustion chamber)

Bowtie Oval-Port Aluminum Cylinder Head (exhaust)

Bowtie Oval-Port Aluminum Cylinder Head (intake)

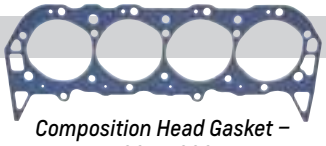
Bowtie Oval-Port Aluminum Cylinder Head (combustion chamber)

Oval Port Heads

Part Number	Description	Technical Notes
19331422	Bowtie Oval-Port Aluminum Cylinder Head, Bare (not shown)	Fully machined; Semi-finished for 2.190"/1.880" valves; Bronze guides can be finished to 11/32" or 3/8"; 290cc high-velocity oval intake ports; 110cc exhaust ports; 110cc semi-open combustion chambers
19418909	Bowtie Oval-Port Aluminum Cylinder Head Assembly	Completely assembled with 2.190"/1.880" 11/32" stem valves; 290cc oval intake ports; 110cc exhaust ports; 110cc combustion chambers
19418910	Bowtie Oval-Port Aluminum Cylinder Head Assembly (not shown)	Completely assembled with 2.250"/1.880" 11/32" stem valves; 290cc oval intake ports; 110cc exhaust ports; 110cc combustion chambers

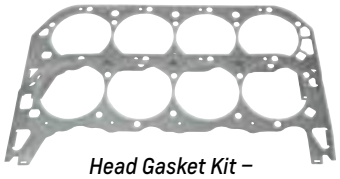
CYLINDER HEAD GASKETS

Secure sealing between the cylinder heads and the block is a critical component of making reliable horsepower, so Chevrolet Performance puts the same engineering excellence and manufacturing precision into their gaskets, head bolts, and cylinder head studs as the blocks and heads they secure. Big-Block cylinder head gaskets are available in a variety of materials and thicknesses. Piston-to-head clearances should be considered when selecting gaskets. Use Gen V for 1991–1992 applications. Gasket packages contain one gasket unless otherwise specified.



Composition Head Gasket – 1965–1990

Head Gasket – 572 Engine



Head Gasket Kit – 502 Engine

Rectangular Port Heads

Part Number	Description	Technical Notes
12363414	Composition Head Gasket – 1965–1990	With pre-flattened copper wire ring and permatorque/blue stripe coating for engines with aluminum heads; Bore sizes between 4.250" and 4.370"; Use with Mark IV (1965–1990) engines only; Compressed thickness is .039"
12363412	Composition Head Gasket – 1991–newer (not shown)	For 1991-and-newer Gen V and Gen VI Big-Blocks with aluminum heads and 4.250" to 4.370" bore size; Has pre-flattened wire ring and stainless core, which make it ideal for saltwater marine use; Compressed thickness is .039"
12555728	Head Gasket – 454 Engine (not shown)	Head gasket for 1991–2000 Gen V 454 Big-Blocks
12366984	Head Gasket Kit – 502 Engine	For all Gen V and Gen VI 502 Big-Blocks with cast-iron heads; Has additional water hole for improved cooling of siamesed cylinder walls; Includes 2 gaskets (right and left) per package; Compressed thickness is .041"
12363411	Composition Head Gasket – 991–newer (not shown)	For Gen V and Gen VI Big-Blocks with aluminum heads and 4.375" to 4.540" bore size; Has pre-flattened wire ring and stainless core, which make it ideal for saltwater marine use; Compressed thickness is .039"
88961561	Head Gasket – 572 Engine	With pre-flattened wire ring for all 572 Big-Blocks with either cast-iron or aluminum heads; Compressed thickness is .030"

Head bolts and Studs

Part Number	Description	Technical Notes
12367779	Cylinder Head Bolt Kit (not shown)	Universal kit for cast-iron and aluminum Big-Block heads; Includes (8) 7/16"-14 x 2.08" bolts P/N 88960334, (24) 7/16"-14 x 4.060" bolts P/N 88960333, (8) 7/16"-14 x 5.06" bolts P/N 88960332, and (40) hardened washers P/N 14011040; Use part numbers above for replacement parts; Use thread sealant on all Big-Blocks except 502, due to blind bolt holes

Cylinder Heads: Additional Required Components

Part Number	Gaskets (Quantity)	Bolts (Quantity)	Spark Plug	Engine Application
12562920	14097001 (2) OR 12555728 (2)	10141204 (24), 10141205 (8)	19355200	12568778, 12568774
12562926	14097001 (2) OR 12555728 (2)	10141204 (24), 10141205 (8)	19355200	12568778, 12568774
12562925	14097001 (2) OR 12555728 (2)	10141204 (24), 10141205 (8)	19355200	12568778, 12568774
19418910	12363411 (2)	12367779 (1 Kit)	19307141	12499121, 12371204, 12497323, 19331578, 19331576
19418909	12555728 (2)	88960333 (16), 88960334 (8)	19307141	19331574
19331422	12555728 (2)	88960333 (16), 88960334 (8)	19307141	12498777, 19331574
19331430	88961561 (2)	88960333 (16), 88960334 (8)	19302733	12498826, 19331585
19331429	88961561 (2)	88960333 (16), 88960334 (8)	19382850	19331581

Parts intended for competition use only. See page 2 for details.

Additional components required for installation. See chartabove.

VALVES

Intake Valve – 2.250"

Exhaust Valve – 1.880"

Intake Valves

Part Number	Valve Size	Stem Size	Description
12556317	2.190"	3/8"	Stock replacement valve for Gen V and Gen VI 454 and 502 HO engines
12366986	2.190"	11/32"	Stainless-steel valve with undercut chrome-plated stems, single-groove design, hardened tips; Used on ZZ454, ZZ427 and the Anniversary Edition 427 crate engines
12366987	2.250"	11/32"	Stainless-steel valve with undercut chrome-plated stems, single-groove design, hardened tips; Used on ZZ502 and ZZ572

Exhaust Valves

Part Number	Valve Size	Stem Size	Description
14097049	1.880"	3/8"	Stock replacement valve for Gen V and Gen VI 454 and 502 HO engines
12366988	1.880"	11/32"	Stainless-steel valve with undercut chrome-plated stems, single-groove design, hardened tips; Used on ZZ454, ZZ427 and the Anniversary Edition 427 crate engines
88963128	1.880"	11/32"	Stainless-steel valve with undercut chrome-plated stems, single-groove design, hardened tips; Used on ZZ502 and ZZ572

VALVE SPRINGS AND COMPONENTS

Dual Valve Spring – 1.540"

Valve Spring Retainer

Valve Spring Key

Valve Springs

Part Number	Spring Type	Outside Diameter	Pressure at Installed Height	Retainer Part Number	Valve Seal Kit	Technical Notes
88963934	Dual Spring	1.540"	197# @1.800"	12366990	88963936	Used with 572/620 HP engines; 1 valve spring, order 16 per engine
19172596	Dual Spring	1.567"	230# @2.000"	12366990	88963936	Used with 572/720 HP engines; 1 valve spring, order 16 per engine

Valve Spring Components

Part Number	Description	Technical Notes
12550421	Valve Spring Retainer	For 1991-and-newer Gen V and Gen VI engines
3947880	Valve Spring Key	Hardened steel split locks for production and racing engines; Color-coded purple; Sold individually
12550422	Valve Stem Seal (not shown)	Seal for 1991-and-newer Gen V and Gen VI engines; The valve guide boss must be machined slightly for seal to retain clearance when using high-lift cams
88963936	Valve Spring Seal (not shown)	Use with all 572 engines
3875916	Spring Shim (not shown)	55/64" I.D. x 1 31/64" O.D. x .015" thick
88963937	Spring Shim (not shown)	Shim for all 572 engines
88963935	Valve Spring Locator (not shown)	Valve spring locator for setting the valve spring in the right location on all 572 engines

ROCKER ARMS

Steel Rocker Arms – Steel rocker arms are designed for long-term durability. Chevrolet Performance steel rocker arms are intended for 454- and 502-cubic-inch Big-Blocks. Rocker arm kits include one rocker arm and ball.

Aluminum Roller Big-Block Rocker Arm for 7/16" Studs – Chevrolet Performance aluminum roller rocker arms have bearings and fulcrums with an extra-wide design for improved load distribution. The rockers are lubricated with pressurized oil. The rockers have a 1.7:1 ratio for 7/16" studs. The roller-tip axle is made from 4130 steel and the roller tip is machined and ground from 8620 steel.

***NOTE:** Not for use with production-height valve covers.*

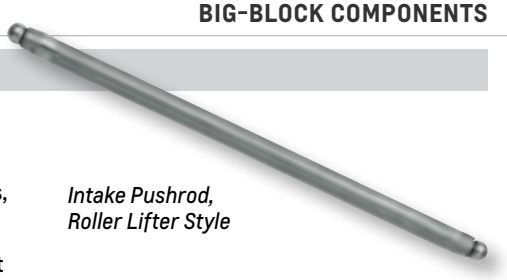
Roller Rocker Arm Set, 1.7:1 Ratio

Part Number	Description	Technical Notes
19355321	L-18 Design Steel Long-Slot Rocker Arm, 1.7:1 Ratio (not shown)	These 1.7:1 ratio hardened steel rocker arms have elongated slots to provide extra clearance for high-lift (.600" and greater) camshafts; Use with all 396-502 Big-Block heads with adjustable rockers; Each assembly includes rocker arm as well as the ball and nut ***NOTE:** Can be used on any Gen V or Gen VI by using rocker stud P/N 12368941. Will not work with ZZ502 valve covers.*
19210726	Aluminum Roller Rocker Arm Set, 1.7:1 Ratio	Set includes 16 roller rocker arms and nuts for 7/16" studs; Used on 572-cubic-inch Big-Block engines; Use P/N 19244484 for single replacement part

Parts intended for competition use only. See page 2 for details.

PUSHRODS

Chevrolet Performance offers a complete line of premium-quality, heavy-duty pushrods for most GM Big-Block engines. Pushrods are that critical link between the camshaft and the rocker arms. These seemingly innocuous parts play a very important role in the combustion process. Two materials are used: 1010 mild steel for high-performance street cars, power boats, and limited competition applications, and 4130 chrome-moly steel for maximum-performance racing engines. Chevrolet Performance pushrods are case-hardened for use with pushrod guideplates. Pushrods are available in standard and extended lengths. Check the usage chart below to verify proper applications.



Intake Pushrod, Roller Lifter Style

Part Number	Material	Diameter	Length	Usage	Port	Description
10227762	1010 steel	3/8"	7.592"	Hyd. roller	Intake	(1) heavy-duty heat-treated .060" for use in Gen VI 454 and 502 engines with hydraulic roller lifters
10227763	1010 steel	3/8"	8.569"	Hyd. roller	Exhaust	(1) heavy-duty heat-treated .060" for use in Gen VI 454 and 502 engines with hydraulic roller lifters
12368081	1010 steel	3/8"	7.592"–8.569"	Hyd. roller	–	Kit of (8) P/N 10227762 and (8) P/N 10227763
88961559	4130 steel	3/8"	7.900"	Hyd. roller	Intake	Chrome-moly 1-piece for 572/620 (Tall Deck Block)
88961558	4130 steel	3/8"	8.900"	Hyd. roller	Exhaust	Chrome-moly 1-piece for 572/620 (Tall Deck Block)
88962284	4130 steel	3/8"	8.550"	Mech. roller	Intake	Chrome-moly 1-piece for 572/720 (Tall Deck Block) for engines built May 2010 or prior
88962283	4130 steel	3/8"	9.525"	Mech. roller	Exhaust	Chrome-moly 1-piece for 572/720 (Tall Deck Block) for engines built May 2010 or prior
19330131	4130 steel	3/8"	9.750"	Mech. roller	Exhaust	Chrome-moly 1-piece for 572/720 (Tall Deck Block) built after May 2010
19330132	4130 steel	3/8"	8.750"	Mech. roller	Intake	Chrome-moly 1-piece for 572/720 (Tall Deck Block) built after May 2010

VALVE COVERS

Top off your high-performance Big-Block with a pair of handsome Chevrolet Performance valve covers. These stylish, precision-fit valve covers come in a variety of finishes and colors. They're made out of die-cast aluminum or heavy-gauge stamped steel. Quality construction methods provide better sealing and less chance of leakage from deflection caused by over-tightened fasteners. Competition valve covers are designed to clear taller valvetrains.

NOTE: *Valve covers are sold in pairs unless otherwise specified.*

12342093 ❗
Short Chrome Bowtie Valve Covers

- Show-quality covers embossed with the famous Bowtie logo and Chevrolet name
- Standard height, for use with 1965–1994 engines
- May not clear brake booster on some Corvette models

12495488 ❗
Custom Aluminum Valve Covers

- Die-cast aluminum valve covers are black with a brushed aluminum finish on top, revealing the Chevrolet name and Bowtie logo
- Can be finished with a custom engine designation badge (see page 287) not included
- For use on 1965–1994 engines
- Includes 2 covers, 1 grommet P/N 10198941, 1 grommet P/N 10198949, oil cap P/N 15681150 and 14 retaining bolts

12371244 ❗
Aluminum Competition Design Valve Covers

- Display the Chevrolet name and Bowtie logo in natural aluminum finish, or paint to match engine or vehicle color
- No holes for PCV or oil fill, but bosses for drilling them
- Can be used on most Big-Block Chevrolet cylinder heads
- Use P/N 12370836 for single replacement part

NOTE: *Use with valve cover gasket P/N 14085759.*

25534374 ❗
Aluminum Competition Design Valve Covers – Orange Powder-Coat

- Display the Chevrolet name and Bowtie logo in orange powder-coated covers
- One hole each cover for PCV or oil fill
- Can be used on most Big-Block Chevrolet cylinder heads

NOTE: *Use with valve cover gasket P/N 14085759.*

12499200 ❗
Valve Covers – "572 Chevrolet"

- Used on all 572-cubic-inch crate engines and can be used on most Big-Blocks
- Cast aluminum with "572 Chevrolet" as part of the casting
- One cover has oil fill and breather holes and the second cover has the breather hole only

NOTE: *Requires push-in oil cap P/N 12341993, breather P/N 25534355 and breather tube P/N 88962074, which incorporates a baffle in the tube.*

Valve Covers continued

19202588 ❗
Valve Covers – "427 Chevrolet," Natural Appearance

- Natural finish
- Used on the Anniversary Edition 427 crate engine
- Can be used on any Big-Block engine

19202589 ❗
Valve Covers – "427 Chevrolet," Black Powder-Coat

- Used on the ZZ427/480 crate engine
- Can be used on any Big-Block engine

VALVE COVER COMPONENTS

ZZ572 Breather

Push-In Oil Filler Cap

Valve Cover Badge – "502"

Rocker Adjusting Nut

Hardware and Breathers

Part Number	Description	Technical Notes
88962074	Oil Baffle Tube (not shown)	Pushes easily into most valve covers that have an oil baffle; Requires breather P/N 25534355, used on ZZ572 engines
25534355	ZZ572 Breather	Special breathers for the ZZ572 valve covers; Chrome breathers are 1-3/8", hose-clamp-style with the Bowtie logo on top; Use with oil baffle tube P/N 88962074; Includes 2 breathers
12341993	Push-In Oil Filler Cap	For valve covers with 1.220" hole
19131218	Chrome Push-In Breather (not shown)	2-3/4" O.D. x 1-1/2" tall with 3/4" nipple; Use with rubber grommet P/N 3894337
3894337	Rubber Grommet – Bowtie Valve Covers (not shown)	Has 15/16" I.D. x 17/32" O.D.; Can be used to plug the oil filler hole in Bowtie valve covers or to mount a push-in breather
14085759	Valve Cover Gasket (not shown)	Steel-reinforced gasket fits all Big-Block Chevy valve covers; Order 2 per engine

Valve Cover Badges

Part Number	Description	Technical Notes
12363952	Valve Cover Badge – "454" (not shown)	Designed to fit mounting area on valve covers P/N 12495488 (see page 199), but these good-looking badges will also fit some other Big-Block valve covers. ***NOTE:*** *1 badge per package. Order 2 per engine.*
12363953	Valve Cover Badge – "502"	Designed to fit mounting area on valve covers P/N 12495488 (see page 199), but these good-looking badges will also fit some other Big-Block valve covers. ***NOTE:*** *1 badge per package. Order 2 per engine.*

Rocker Arm Studs and Accessories

Part Number	Description	Technical Notes
3896648	Rocker Adjusting Nut	Positive locking 7/16"-20 nut for all Big-Block V-8s

❗ Valve Covers: Additional Required Components

Part Number	Gaskets (Qty)	Bolts (Qty)	Grommets (Qty)	Oil Fillers (Qty)	Engine Application
12342093	14085759 (2)	88961871 (4)	12341988 (1)	12341993 (1)	12499121, 19331579, 12497323, 19331576, 19331579, 19331576, Mark IV, V, VI BB
12495488	14085759 (2), OR Mark IV, V, VI (2)	25520079	10198941 OR 3989350	15681150	12499121, 19331579, 12497323, 19331576, 19331579, 19331576, Mark IV, V, VI BB
12371244	14085759 (2)	88961871 (4)	N/A	12341993 (1)	19331583, 12498827, 19331581, 19331583, 19331585, 19311581
25534374	14085759 (2)	88961871 (4)	N/A	12341993 (1)	19331583, 12498827, 19331581, 19331583, 19331585, 19311581
12499200	14085759 (2)	88961871 (4)	12341988 (1)	12341993 (1)	19331583, 12498827, 19331581, 19331583, 19331585, 19311581
19202588	14085759 (2)	88961871 (4)	12341988 (1)	12341993 (1)	19331583, 12498827, 19331581, 19331583, 19331585, 19311581
19202589	14085759 (2)	88961871 (4)	12341988 (1)	12341993 (1)	19331583, 12498827, 19331581, 19331583, 19331585, 19311581

❗ *Additional components required for installation. See chart above.*

GUIDE PLATES AND VALVE LIFTERS

Pushrod Guide Plate (3/8")

Hydraulic Lifter Kit

Hydraulic Roller Lifter Installation Kit

Mechanical Roller Lifter – ZZ572/720R

Big-Block Guide Plates

Part Number	Description	Technical Notes
3860038	Pushrod Guide Plate – 3/8"	Designed for all 1965–1990 iron and aluminum cylinder heads with 3/8" diameter pushrods; Slotted style with hardened steel construction, aligns rocker arms with valve stem tips on Big-Block's splayed-valve head; 8 required for each engine. ***NOTE:*** *Use with screw-in rocker stud P/N 3921912.*
3879620	Pushrod Guide Plate – 7/16" (not shown)	Similar to guide plate described above, but for use with heavy-duty 7/16" diameter pushrods
12562369	Pushrod Guide Plate – Gen V 454/502 style (not shown)	Used on all Gen V 454 and 502 engines with 3/8" diameter pushrods

Valve Lifters and Components

Part Number	Description	Technical Notes
12371044	Hydraulic Lifter Kit – set of 16	For use on all 396, 427, 454, and 502 engines that use hydraulic flat tappet lifters; For single-service replacement use P/N 5232720
17120060	Hydraulic Roller Lifter – ZZ572/620 (not shown)	Roller valve lifters used on the ZZ572/620 engines; Use with camshaft P/N 19210721, intake pushrod P/N 88961559, exhaust pushrod P/N 88961558 and rocker arm P/N 19210726
12371056	Hydraulic Roller Lifter Installation Kit	Hydraulic roller lifter retainer kit can be used on all Gen VI 454 and 502 engines that are machined for hydraulic roller lifters; Includes 16 roller lifters P/N 17120061, 8 lifter guides, 1 lifter guide retainer and 4 retainer bolts; For single-service replacement lifter, use P/N 17120061; ***NOTE:*** *These lifters allow more oil to the rocker arms than the late-model truck roller lifters.*
19356323	Mechanical Roller Lifter – ZZ572/720R	Mechanical roller valve lifters used on the ZZ572/720R engines; Use with camshaft P/N 19210722, intake pushrod P/N 88962284, exhaust pushrod P/N 88962283 and rocker arm P/N 19210726; Kit of 16 lifters
12551397	Roller Tappet Guides (not shown)	Roller tappet guides used with all 502 engines and 454 HO engines; Used with roller camshaft engines; Sold individually; order 8 per engine
12551399	Roller Tappet Guide Retainer (not shown)	Roller tappet guide retainer used with all 502 engines and 454 HO engines; Used with roller camshaft engines; Order only 1 per engine

CAMSHAFTS

The camshaft is one of the most important factors in determining an engine's overall performance profile and capability. The wide array of precision-engineered, extensively tested camshafts from Chevrolet Performance allows you to choose the best cam for your application. In order to avoid possible engine damage, a distributor with a melonized steel gear must be used with steel camshafts.

Part Number	Description	Duration @ .050" Lift (deg)	Maximum Lift (in)	Lobe Centerline (deg)	Technical Notes
12366543	Steel hydraulic roller	I: 224 / E: 234	I: .527 / E: .544	110	For 502/502 special engine; Must use distributor gear P/N 10456413
24502611	Steel hydraulic roller	I: 211 / E: 230	I: .510 / E: .540	112	For 454 and 502 HO engines; Must use distributor gear P/N 10456413
19210721	Steel hydraulic roller	I: 254 / E: 264	I: .632 / E: .632	112	For ZZ572/620 engine
19210722	Mechanical roller	I: 278 / E: 282	I: .714 / E: .714	112	For ZZ572/720 engine

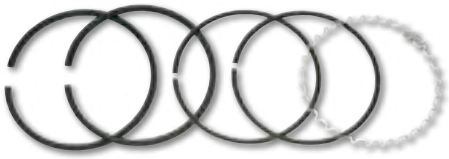
Camshaft Components

Part Number	Description	Technical Notes
12499434	Camshaft Bearings – 572 Engine	5 standard-size premium camshaft bearings for the ZZ572 engine

Camshaft Bearings – 572 Engine

PISTONS AND PISTON RINGS

Pistons and rings operate in a very explosive environment, so they have to be extremely tough. Chevrolet Performance pistons and rings are designed to withstand the rigors of high-performance engines. The pistons are factory-tested for quality assurance. Chevrolet Performance pistons are sold in a variety of sizes and compression ratios. There are pistons for GM Big-Block engines ranging in displacement from 427 cubic inches to 572 cubic inches. Pistons are sold individually and are fitted with wrist pins.



NOTE: *Part numbers are for one piston; order eight per engine.*

Big-Block Pistons

Part Number	Engine Size	Bore Size	Oversize	Rod Length	Pin Type	Compression Ratio	Chamber Size	Ring Size	Description
12533507	502	4.470"	–	6.135"	Pressed	8.75:1	118cc	5/64", 1/16", 3/16"	Forged Gen V and Gen VI 502 replacement
88962925	572	4.560"	–	6.535"	Floating	9.6:1	118cc	1/16",, 1/16",, 3/16"	Forged 572/620
88963227	572	4.560"	–	6.535"	Floating	12.0:1	118cc	1/16", 1/16", 3/16"	Forged 572/720R

Big-Block Piston Rings

Part Number	Bore Size	Oversize	Ring Thickness	Description
12523921	4.250"	Standard	5/64", 5/64", 3/16"	Standard-size ring pack for Gen V 454 HO
12524293	4.470"	Standard	5/64", 1/16", 3/16"	Standard-size low-tension ring pack for all 502 engines
12524294	4.470"	+.030"	5/64", 1/16", 3/16"	Oversize low-tension ring pack for all 502 engines
19356319	4.560"	Standard	5/64", 1/16", 3/16"	Standard-size ring pack for 572 engines

CONNECTING RODS AND COMPONENTS

Forged Steel Connecting Rod

572 Connecting Rod

572 Connecting Rod Bearing Kit

Part Number	Description	Technical Notes
19170198	Forged Steel Connecting Rod	Magnafluxed 4340 steel with heavy-duty 7/16" bolts; Machined for pressed piston pins and color-coded white; Used in Gen V 454 and 502 engines; 6.135" c–c length
19211226	427 Forged Connecting Rod (not shown)	4340 steel with 7/16" heavy duty bolts; Machined for pressed piston pins; Used in 427 Anniversary and ZZ427 engines; Big end chamfered for large crank pin radius; 6.135" c–c length
88962926	572 Connecting Rod	Forged 4340 steel H-beam for all 572 engines; 6.535" c–c length; Use rod bearing P/N 88961556
88961556	572 Connecting Rod Bearing Kit	Standard-size, premium connecting rod bearings; Includes all 8 rod bearing sets

CRANKSHAFTS

Crankshafts are a critical, central component of any engine. Strength and durability are important traits of a great crankshaft. Chevrolet Performance crankshafts are precision-engineered to be both strong and durable. Chevrolet Performance understands how catastrophic crankshaft failure can be, so that's why our crankshafts are manufactured to such exacting specifications and tested to withstand the forces of high-performance engines. These crankshafts are the same tough parts used in Chevrolet Performance crate engines.

Crankshaft, Forged Steel (Gen V and Gen VI 502)

Part Number	Description	Technical Notes
14096983	Crankshaft, Forged Steel (Gen V and Gen VI 454) (not shown)	Externally balanced; Forged 1053 steel crankshaft with 1-piece rear main seal
10183723	Crankshaft, Forged Steel (Gen V and Gen VI 502)	Externally balanced; Cross-drilled; Nitride-treated forged 1053 steel crankshaft with 1-piece rear main seal; Forging P/N 14097044
19171620	Crankshaft, Forged Steel (Gen V and Gen VI 427)(not shown)	Steel crankshaft with 3.750" stroke for 1991-and-later, 427-cubic-inch engines; 1-piece rear main seal; Requires chamfered connecting rods (P/N 19211226 or 88962926) and rod bearings P/N 88961556; Used in ZZ427 and Anniversary Edition 427 engines; Internally balanced
14061685	Roller Pilot Bearing (not shown)	Used in high-performance manual transmission applications

Parts intended for competition use only.
See page 2 for details.

BALANCERS

Balancers are relatively small parts that play a big role in helping engines run smoothly. Balancers are also known as torsional dampers or harmonic balancers, which is indicative of how they help control unwanted crankshaft vibrations. By controlling vibrations, Chevrolet Performance balancers help engines run smoothly, which also extends engine life.

Part Number	Description	Technical Notes
10216339	454 and 502 with 4.000" stroke crank, 1970 to present (not shown)	8" outside diameter; Counterweighted for externally balanced engines
88962814	427/572 Balancer	8" outside diameter; This internal balance damper is designed with inner and outer shells; Utilizes matched O-rings to control destructive crankshaft vibrations; Black zinc chromate finish; Laser engraved 360˚ timing marks

FLYWHEELS AND FLEXPLATES

Chevrolet Performance offers both internally and externally balanced flywheels and flexplates. It is critical that you use the correct design for your specific engine application. Engines with one-piece crankshaft seals require externally balanced flywheels or flexplates (except for ZZ427, ZZ572/620, ZZ572/720R and the Anniversary Edition 427). Check the accompanying charts to find the correct parts for specific engine applications.

P/N 14096987 Flywheel (see chart below)

P/N 12561217 Flexplate (see chart below)

Big-Block Flywheels

Part Number	Year of Engine	Outside Diameter	Crank Flange Bolt Pattern	Clutch Diameter	Starter Ring Gear Teeth	Technical Notes
14085720	1965-present	12.750"	3.580"	10.4"	153	Lightweight nodular iron; weighs approximately 15 lbs; For internally balanced engines
14096987	1991-present	14"	3.580"	11"	168	Lightweight nodular iron; For externally balanced engines
12582964	1965-present	14"	3.580"	11.500"	168	Used with 427 or 572 crate engine; Internally balanced

Big-Block Flexplates

Part Number	Year of Engine	Outside Diameter	Crank Flange Bolt Pattern	Converter Bolt Pattern	Starter Ring Gear Teeth	Technical Notes
10185034	1991-up	14"	3.580"	10.750" and 11.500"	168	Use with forged steel crank; Has dual-converter bolt pattern (502 & 454 1-piece rear main seal)
12561217	1991-up	14"	3.580"	11.500"	168	427 crate engine production internally balanced (.100" thick)
471598	1965-present	14"	3.580"	10.750" and 11.500"	168	For internally balanced engines; Use with 572/620 crate engine; Has dual-converter pattern (.120" thick)
14001992	1970-1990	14"	3.580"	11.500"	168	For externally balanced 454 Mark IV 2-piece rear main seal engines

Bolts and Dowels

Part Number	Description	Technical Notes
12337973	Flywheel Bolt (not shown)	Fits all Chevy Small-Block V-8, Big-Block V-8 and 90˚ V-6 engines; Sold individually; 6 required per engine
10046031	Flywheel Dowel (Big-Block, not shown)	Highly recommended for all high-performance and competition Big-Block engines
1453658	Bellhousing Dowel, Clutch Housing/Transmission Dowel (Big-Block) (not shown)	Use with Big-Block engine; Sold individually; 2 required per engine
3727207	Flexplate Bolt (not shown)	Fits all Chevy Small-Block V-8, Big-Block V-8 and 90˚ V-6 engines; Sold individually; 6 required per engine

TIMING CHAINS AND SPROCKETS

Chevrolet Performance's strong, accurate timing chains and sprockets provide top performance and dependable service.

Timing Chain Kit – 502, second-design Gen VI

Timing Chain – 502, second-design Gen VI

Camshaft Bolt

Part Number	Description	Technical Notes
12371053	Timing Chain Kit – 502, second-design Gen VI	Heavy-duty timing chain kit for all second-design 502 Gen VI roller-lifter engines with aluminum front timing cover; Kit includes chain P/N 10114177, crankshaft sprocket P/N 12550039, camshaft sprocket P/N 12551401, camshaft retainer and bolts; Also used in 572
10114177	Timing Chain – 502, second-design Gen VI	Single-roller design for all second-design 502 Gen VI engines; Use with crankshaft sprocket P/N 12550039 and camshaft sprocket P/N 12551401
12554553	Camshaft Dowel Pin (not shown)	
9424877	Camshaft Bolt	$^{5}/_{16}$"-18 x .75" bolt

WATER PUMPS

Aluminum Water Pump – Short-Style

Cast-Iron Water Pump – Long-Style

Part Number	Description	Technical Notes
19168602	Aluminum Water Pump – Short-Style	Lightweight standard-rotation pump has reinforced snout and large-diameter hub with dual bolt patterns for early- and late-model pulleys; Has short mounting legs; Use with early-design V-belt drive rotation
19168606	Cast-Iron Water Pump – Long-Style	Same standard-rotation pump used on all Chevrolet Performance 454 and 502 crate engines; Not for use with a serpentine belt system

ACCESSORY DRIVE SYSTEMS

19417728 – DISCONTINUED - NO LONGER AVAILABLE

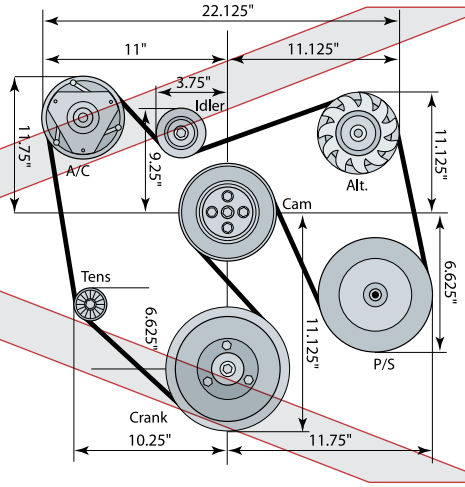
Serpentine Accessory Drive Belt System – with Air Conditioning

- Deluxe kit includes all the components and hardware necessary to install on a 9.800" deck or 10.200" tall deck engine (including bolts, nuts and spacer)
- Belt included

19417729 – DISCONTINUED - NO LONGER AVAILABLE

Serpentine Accessory Drive Belt System – without AirConditioning (not shown)

- Deluxe kit includes all the components and hardware necessary to install on a 9.800" deck or 10.200" tall deck engine
- Kit includes hardware and belt



OIL PANS, OIL PUMPS, GASKETS AND COMPONENTS

Oil is an engine's lifeblood, and a high-quality Chevrolet Performance oil pan is what keeps it where it belongs. Properly designed and manufactured oil pans fit right, and when used with matching Chevrolet Performance gaskets, they prevent leaks. We have oil pans for street and competition applications. Oil pans are sold without dipsticks or other hardware unless otherwise noted.

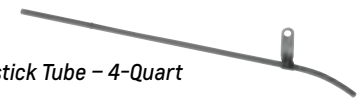
Corvette Oil Pan – 1965 –1974

6-Quart Oil Pan – Gen V and Gen VI

Part Number	Description	Technical Notes
14091356	Corvette Oil Pan – 1965–1974	5-quart pan has a trap-door baffle that controls oil slosh during cornering and heavy braking; Windage tray is included and requires 4 mounting studs, P/N 3902885
10240721	6-Quart Oil Pan – Gen V and Gen VI	6-quart pan fits all 1991-and-newer Gen V and Gen VI, 427, 454, 502 and 572 engines

Dipsticks

Dipstick Tube – 6-Quart



Dipstick Tube – 4-Quart

Part Number	Description	Technical Notes
12557083	Dipstick – 6-Quart (not shown)	For use with production 6-quart oil pan P/N 10240721; Use oil dipstick tube P/N 12550533 and seal P/N 274244
12550533	Dipstick Tube – 6-Quart	For use with production 6-quart oil pan P/N 10240721; Use oil dipstick P/N 12557083 and seal P/N 274244
274244	Oil Dipstick Tube Seal – 6-Quart (not shown)	For use with the production 6-quart oil pan P/N 10240721; Use oil dipstick tube P/N 12550533 and dipstick P/N 12557083
329231	Dipstick Tube – 4-Quart	For use with 4-quart oil pan kit P/N 12495360; Use oil dipstick P/N 3989391
3989391	Dipstick – 4-Quart (not shown)	For use with 4-quart oil pan kit P/N 12495360 for all Gen V and Gen VI engines; Use dipstick tube P/N 329231


Windage Tray


Windage Tray


Windage Tray – 572 Engine


Oil Pump and Pick-Up – 572 Engine


Oil Pump Shaft


Oil Filter Adapter


Oil Cooler Bypass Valve

Oil Pan Components

Part Number	Description	Technical Notes
14097040	Windage Tray	Use with the Gen V and Gen VI 454 and 502 engines
3967854	Windage Tray	Separates the oil from the spinning crank assembly to reduce aeration of the oil, aids in oil control and minimizes oil slosh under hard braking; Use with oil pan P/N 14091356; Requires 4 mounting studs P/N 3902885
88962187	Windage Tray – 572 Engine	Used on all 572-cubic-inch engines; Use with oil pan P/N 14091356
19131250	Oil Pump and Pick-Up – 572 Engine	For use with all 572-cubic-inch engines; Use with oil pan P/N 10240721, oil pan gasket P/N 19213986 and windage tray P/N 88962187
3865886	Oil Pump Shaft	Heavy-duty all-metal; Intermediate shaft fits all Big-Block engines
19210599	Oil Pump and Pick-Up – Gen V and Gen VI (not shown)	For use with the Gen V and Gen VI 454 and 502 engines with 1-piece rear main seal; Pump has 1.300" gears and will fit Mark IV engines; Distance from the mounting surface to the bottom of the screen is 5.870" ***NOTE:*** *Tack-welding pick-up tube to pump is recommended.*
3955281	Oil Pump Pick-Up (not shown)	Distance from pump mounting surface to lowest point of screen is 4.880" ***NOTE:*** *Weld or braze the pick-up tube to the pump cover for off-highway applications.*
19299222	Oil Filter Adapter (fits Mark IV Blocks only)	Mounts a spin-on cartridge oil filter; Contains a filter bypass valve used on all V-8 engines
25013759	Oil Cooler Bypass Valve	For high-performance and Bowtie Big-Blocks with 4-bolt main bearing caps; Must be installed in the rear hole behind the oil filter adapter bolt to route oil through the cooler

DISTRIBUTORS AND COMPONENTS

The high-quality distributors in this group are interchangeable with Small-Block Chevrolet V-8 components. Chevrolet Performance distributors cannot be used with Tall-Deck Bowtie blocks, except adjustable distributor P/N 10093387.


Distributor – HEI


Distributor – Billet HEI


Distributor – Ram Jet 350 & Ram Jet 502


Distributor – Competition Adjustable Slip Collar

Part Number	Description	Technical Notes
93440806	Distributor – HEI	Cast aluminum; High-performance mechanical advance curve; Vacuum advance canister included; Use connector P/N 12167658 to attach tachometer and 12-volt power supply wire to distributor; Includes module P/N 19180771, cap P/N 19110931 and rotor P/N 19110934
88961867	Distributor – Billet HEI	Chevrolet Performance's most powerful and durable distributor; For strength and high rpm stability the oversized shaft is guided by a sealed ball bearing and long sintered bushing; Treated coating on the shaft provides low friction; Advance assembly features chrome-moly weights that slide on nylon pads for smooth timing advancement through the entire rpm range; Vacuum advance canister and billet aluminum housing is CNC-machined for greater accuracy; Has melonized cam drive gear P/N 19416758 for steel roller camshafts; High-quality cap with brass terminals
1104060	Distributor – Ram Jet 350 and Ram Jet 502	Used on the fuel-injected Ram Jet 350 and Ram Jet 502; Includes ignition module P/N 19352928, cap P/N 19166099 and rotor P/N 10477219
10093387	Distributor – Competition Adjustable Slip Collar	Designed primarily for competition use; Billet-aluminum housing, ball-bearing guide and adjustable mechanical-advance assembly; Magnetic pickup provides accurate trigger signals to Chevrolet; CDI Ignition Box (not included); Uses a standard Chevrolet V-8 cap and rotor; Will clear most induction systems; Slip collar that can be adjusted to make up for block or head machining, or a tall-deck Bowtie block
19052845	Distributor Gear (not shown)	Melonized iron gear is required on all crate engines with steel roller camshafts; Assembly without using this gear may affect the warranty
10456413	Distributor Gear (not shown)	Melonized iron gear is required on all Chevrolet Performance crate engines ***NOTE:*** *Supplied on distributors P/N 93440806 and P/N 88961867.*
12167658	Connector – HEI Distributor Power and Tachometer (not shown)	Used to attach the power and tachometer wires to the cap of the HEI distributor
12498335	Coil – HEI (not shown)	Production HEI coil

Parts intended for competition use only.
See page 2 for details.

INTAKE MANIFOLDS, GASKETS AND COMPONENTS

The wide range of Chevrolet Performance intake manifolds are cast-iron and aluminum, for carbureted and fuel-injected applications. These intake manifolds were designed specifically for GM engines, so you know they will deliver optimum performance. Due to the profile of some Chevrolet Performance high-rise intake manifolds, hood clearance should be carefully checked before ordering an intake manifold.

14097092

Intake Manifold – Oval-Port, iron, spread bore

- Economical iron 4-bbl intake manifold
- Fits all 396–502 engines with large oval-port heads

NOTE: *Open carburetor spacer is not recommended with use of dual-plane manifolds.*

19131359

High-Rise Intake Manifold – Rectangular-Port, square bore, Holley Carburetors

- Aluminum, dual-plane manifold can be used with high-performance cast-iron or aluminum rectangular port heads
- Same as used on 454 HO and 502 HO engine assemblies

NOTE: *Ports do not match Bowtie cylinder heads P/N 12363425.*

NOTE: *Open carburetor spacer is not recommended with use of dual-plane manifolds.*

12363420

High-Rise Intake Manifold – Oval-Port

- Designed for all 396–502 engines with GM aluminum heads (1975 and earlier) and large oval-port iron heads
- Has a dual-plane design with spread bore flange and a dual-bolt pattern
- Has no provisions for a hot-air choke, but will accept a divorced choke or electric choke
- Accepts air conditioning and alternator brackets
- Use intake manifold gasket P/N 12366985 and bolt kit P/N 12367959

NOTE: *May not fit on many Corvette models. Manifold height is 6" at the rear and 4.5" in front. Check for hood clearance before ordering.*

NOTE: *Open carburetor spacer is not recommended with use of dual-plane manifolds.*

12363421

High-Rise CNC-Port-Matched Intake Manifold – Oval-Port, spread bore (not shown)

- Similar manifold design as P/N 12363420 (see above), but it is "CNC" port-matched to Chevrolet Performance oval-port aluminum cylinder heads

NOTE: *Open carburetor spacer is not recommended with use of dual-plane manifolds.*

12363406

Intake Manifold – Oval-Port, square bore, Holley Carburetors

- Same as manifold P/N 12363420 (see above), but designed for use with a Holley carburetor
- Dual-plane design requires bolt kit P/N 12367959, which includes 16 bolts (8740 chrome-moly ⅜"-16 x 1.5" with ⅜" hex head and 16 ⅝" O.D. washers), and manifold gasket kit P/N 12366985
- Accepts air conditioning and alternator brackets and a late-model water neck

NOTE: *Will not fit production Corvettes, and may not fit Chevelles. Manifold carb flange height is 4.450".*

NOTE: *Open carburetor spacer is not recommended with use of dual-plane manifolds.*

12363407

CNC-Port-Matched Intake Manifold – Oval-Port, square bore, Holley Carburetors

- Same as P/N 12363406 except it has been CNC-port-matched for GM aluminum oval-port heads with large oval-port heads (1975-and-older), and all aluminum heads with oval ports

NOTE: *Open carburetor spacer is not recommended with use of dual-plane manifolds.*

88961161

Intake Manifold – ZZ572/620 Engine, square bore, Holley Carburetors

- Aluminum single-plane intake manifold is used on the ZZ572/620 engine
- The carburetor flange is for a 4150-style carburetor
- Use intake gasket P/N 88962213
- For tall-deck blocks

88962218

Intake Manifold – ZZ572/720R Engine

- Aluminum single-plane intake manifold is used on the ZZ572/720R engine
- The carburetor flange is for a 4500 Dominator-style carburetor
- Use intake gasket P/N 88962213
- For tall-deck blocks

Oil Shield

Gasket, Aluminum Oval-Port Heads

Bolt Kit, Intake Manifold

Chrome Water Neck

Gaskets and Components

Part Number	Description	Technical Notes
12555320	Oil Shield	Isolates hot engine oil from the air/fuel mixture
12366985	Gasket – Aluminum Oval-Port Heads	Designed for Big-Block aluminum heads P/N 19418910, P/N 19418909, P/N 19331422, P/N 19418910, P/N 19418909 and P/N 19331422; Use with manifold P/N 12363406, P/N 12363407, P/N 12363420 or P/N 12363421
88962213	Intake Manifold Gasket (not shown)	Use on all Big-Block engines with rectangular intake port heads 396- through 572-cubic-inch; Includes 2 gaskets
12506106	Gasket – 454 and 502 Engines (not shown)	Used on 454 and 502 engines; with restricted heat crossover passages; 1 gasket per package; Order 2 per engine
12367959	Bolt Kit – Intake Manifold	For any Big-Block Chevrolet engine; Includes 16 bolts: 3/8"-16 x 1.5" with wide, underhead flange with a 7/16" hex head; Rated at 170,000 psi and will give consistent torque load; Includes 16 hardened flat washers ***NOTE:*** *Four of these washers are smaller in diameter for use around the front water passages.*

Water Necks

Part Number	Description	Technical Notes
12342024	Chrome Water Neck	Chrome water neck with neoprene O-ring and chrome bolts; For 1966–1975 full-size Chevrolet, Camaro, and Chevelle V-8 engines
10108470	Aluminum Water Outlet (not shown)	

Intake Manifolds: Additional Required Components

Part Number	Gaskets (Qty)	Bolts (Qty)	Engine Application
12464484	12366985 (1)	12497460 (1)	12499121
12464482	12366985 (1)	12367959 (1)	12499121
88961161	88962213 (1)	12367959 (1)	19331583
12363420	12366985 (1)	12367959 (1)	19801332, BB oval-port high-rise
12363407	12366985 (1)	12367959 (1)	12371171, CNC version of 12363406
19131359	12506106 (2)	10198997 (14)	12568774, BB dual-plane
88962218	88962213 (1)	12367959 (1)	19331585

STARTERS

Flywheels with two different diameters are used on Chevrolet Small-Block, Big-Block, and 90° V-6 engines. Large flywheels are 14" in diameter and have 168 teeth on the starter ring gear. Small-diameter flywheels are 12.750" in diameter, with 153 teeth on the ring gear.

This difference in flywheel diameters requires two distinct starter housings. Starter noses used with large-diameter flywheels have two offset bolt holes, while starters for small flywheels have two bolt holes that are parallel to the back of the block. Most Chevy blocks are drilled for both types of starters.

High-Torque Mini Starter

High-Torque Mini Starter – Chrome

Lightweight Starter – (remanufactured)

Lightweight Starter – Big-Block and Small-Block

Part Number	Description	Technical Notes
12361146	High-Torque Mini Starter	Gear reduction starter is designed for 1958–1996 V-8 and all 90° V-6 engines; Compact design provides increased clearance; Weighs only 10.5 pounds and has a gear reduction of 3.75:1; Equipped with a dual bolt pattern for 12.750" (153-tooth) and 14" (168-tooth) flywheels; Housing can be rotated to clear exhaust systems; Includes starter, mounting bolts, shims, gaskets and electrical connectors
12363128	High-Torque Mini Starter – Chrome	Same as starter P/N 12361146 (above), but with a chrome housing
10465143	Lightweight Starter (remanufactured)	Lightweight high-performance starter was originally used on 1993–1997 Camaros and Firebirds with the LT1 engine; Can be used on any Small-Block or Big-Block engine with a 12.750", 153-tooth flywheel
19302919	Lightweight Starter – Big-Block and Small-Block	Gear reduction starter can be used on Big-Block and Small-Block engines with a 14", 168-tooth flywheel

Starters: Additional Required Components

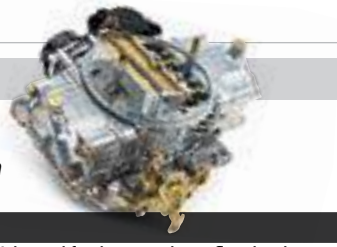
Part Number	Bolts (Qty)	Engine Application
12361146	12338064 (2)	Big-Block
10465143	12338064 (2)	Big-Block
19302919	12338064 (2)	Big-Block and 19419003
12363128	12338064 (2)	Big-Block

Parts intended for competition use only. See page 2 for details.

Additional components required for installation. See chart above.

CARBURETORS AND THROTTLE BODIES

Chevrolet Performance has the right carburetor or throttle body to complete your new crate engine or give life to your rebuilt engine. Then, top off your engine with one of our great-looking air cleaners.



Carburetor – Holley 870-cfm

Part Number	Description	Technical Notes
19170093	Carburetor – Holley 770-cfm (not shown)	Holley 4150-style 770-cfm 4-bbl carburetor; Features show-car-quality polished finish; Dual feed, center-hung float bowls; Vacuum secondaries; Automatic electric choke; Quick-change adjustable vacuum secondary; Recommended for Small-Block and Big-Block engines; Bolts and gaskets included
19170095	Carburetor – Holley 850-cfm(not shown)	Holley 4150-style 850-cfm 4-bbl carburetor; Features show-car-quality polished finish; Mechanical secondaries; Electric choke; Four-corner idle adjustment; Power valve blowout protection; Custom-calibrated for the ZZ572/620 crate engine; Recommended for 502 crate engines and suitable for Big-Block engines; Bolts and gaskets included ***NOTE:*** *Carburetor can only be recalibrated for use with other large-displacement engines.*
19170094	Carburetor – Holley 870-cfm	Holley 4150-style 870-cfm 4-bbl carburetor; Features show-car-quality polished finish; Dual feed, center-hung float bowls; Vacuum secondaries; Automatic electric choke; Quick-change adjustable vacuum secondary; Recommended for 502 crate engines and suitable for Big-Block engines; Bolts and gaskets included
19170096	Carburetor – Holley Dominator 1150-cfm (not shown)	Dominator-style 1150-cfm 4-bbl carburetor; Features show-car-quality polished finish; Mechanical secondaries; Four-corner idle adjustment; Power valve blowout protection; Custom-calibrated for the ZZ572/720R crate engine; Bolts and gaskets included
17113524	Throttle Body – Ram Jet 502 (not shown)	Used on the Ram Jet 502 crate engine; Use throttle body gasket P/N 10105379 and bolt; P/N 11516344 for installation; Dual 49.9mm blades

AIR CLEANERS

Air Cleaner – Chevrolet-Logo High-Performance Design

Air Cleaner – Chevrolet-Logo Classic Design

Part Number	Description	Technical Notes
12342080	Air Cleaner – Chevrolet-Logo High-Performance Design	14" round high-performance style air cleaner has chrome lid with embossed Chevrolet name; Fits most 4-bbl and 2-bbl carburetors; Will not fit Dominator-style carburetors; Bowtie nut not included ***NOTE:*** Check clearance between hood and top of air cleaner. Minimum clearance is 3.750" from top of carburetor gasket area to underside of hood.
12342071	Air Cleaner – Chevrolet-Logo Classic Design	14" round classic-style air cleaner has chrome lid with embossed Chevrolet name and Bowtie attaching nut; Fits most 4-bbl and 2-bbl carburetors; Will not fit Dominator-style carburetors

SPARK PLUG WIRES

Chevrolet Performance spark plug wire kits are designed to fit your GM engine, eliminating the guesswork in selecting the correct length. These performance 8mm spark plug wires exhibit only 600 ohms per foot of resistance, with high noise suppression capabilities. Features include red wires with white Chevrolet insignia and black boots. Manufactured with double-wall silicone construction.

Spark Plug Wires – Chevrolet Bowtie Logo

Wire Loom Kit – Big-Block

Part Number	Description	Technical Notes
12368384	Chevrolet Bowtie Logo Wires	Kits include a 10" coil wire for engines, such as Ram Jet 350 and ZZ572 engines that have remote-coil HEI, plus 4 wire separators and HEI terminals and boots for the distributor cap; Custom-fit set designed to be used with black wire loom P/N 12495502
12495502	Wire Loom Kit – Big-Block	Used on late-model Big-Block trucks; Supplied with 1 left-hand support P/N 12553397, 1 right-hand support P/N 12553398, 3 four-wire retainers P/N 88891792, 2 three-wire retainers P/N 12163607, 2 two-wire retainers P/N 12132229, and 2 single-wire retainers P/N 12132228

ELECTRIC FUEL PUMPS AND COMPONENTS

Electric Fuel Pump

Camaro ZL1 Fuel Pump Module

Electric Fuel Pump – High-Output

Part Number	Description	Technical Notes
6472657	Electric Fuel Pump	For use on all carbureted engines; Flows 30–40 gph at 6–9 psi
19303293	Camaro ZL1 Fuel Pump Module	Production fuel pump module for the 2012 Camaro ZL1 with supercharged LSA engine; Supports approximately 600 horsepower; Direct replacement for 2010+ Camaro SS fuel pump modules; 250 liters per hour capacity at 65 psi; Pulse-width modulated, eliminates need for conventional pressure regulator; Kit includes fuel pump module/sender assembly tank seal and instruction sheet
25115899	Electric Fuel Pump – High-Output	Heavy-duty 12-volt electric rotary pump; Flows 72 gph at 6–8 psi
19245530	Fuel Pressure Regulator Kit (not shown)	Used on Ram Jet 502 crate engine; Fits other fuel-injected engines
854619	Fuel Filter (not shown)	High-capacity in-line filter; Suitable for all high-performance carbureted applications; 5/16" inlet and outlet

GM LICENSED PARTS

SLANT-EDGE DRESS-UP PARTS

Slant-Edge Engine Dress-up Parts have the aggressive, stylish look that showcases your Chevrolet pride every time you pop the hood. Choose from seven matching finishes and multiple emblem configurations to personalize a unique look that stands out at the show! Utilizing cutting-edge aluminum die-casting technology in the manufacturing process, Slant-Edge Valve Covers, Air Cleaners, and Breather Caps are every bit the premium offering their look suggests. See more on next page or the full line at www.FactoryPerformanceParts.com.

NEW KILLER LOOK! SHARK GRAY DRESS-UP PARTS!

Ride the wave with Shark Gray Engine Dress-Up Parts, and complete your engine's look with premium components, adorned with the famous CHEVROLET & Bowtie Emblems, recessed and hand-painted red. The durable Shark Gray epoxy finish offers long-term corrosion resistance so your engine bay will still be looking good under the hood, even after a long weekend of cruising!

Features:

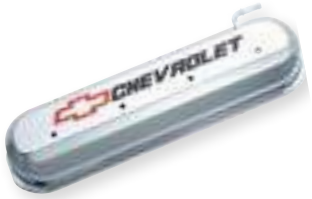
- **Sleek Shark Gray Finish; Recessed Red CHEVROLET & Bowtie Emblems**
- **Durable Epoxy Finish for Long-Term Corrosion Resistance**
- **Inlaid, Hand-Painted Red Emblems**
- **Manufactured from Stamped-Steel**
- **Officially Licensed Chevrolet Performance Products**

SCAN QR CODES FOR MORE INFO!

Shark Gray Air Cleaner Kit – P/N: 141-882
Shark Gray Small Block Valve Covers – P/N: 141-881
Shark Gray Engine Timing Chain Cover – P/N: 141-883

SLANT-EDGE DRESS-UP PARTS

SLANT-EDGE VALVE COVERS



P/N: 141-265

P/N: 141-256

GM LS ENGINES LS1-LS7

LS Slant-Edge Valve Covers are available in eight different looks. Choose from multiple finishes and emblem configurations to fit your taste and styles. LS Slant-Edge Valve Covers are also supplied with mounting hardware and an oil filler cap. Sold in pairs. Can accomodate coil relocation brackets (P/N 69520 and 69521). U.S. Pat. D657,798.

P/N: 141-840

P/N: 141-844

SMALL-BLOCK GEN II VALVE COVERS

These valve covers have generous internal clearance for larger valve train setups, and come in one of five finishes, with the Bowtie & CHEVROLET Emblem. Tall-style, with removable baffle. Includes grommets and mounting bolts. Sold in pairs. U.S. Pat. D727,362.

P/N: 141-922

P/N: 141-931

SMALL-BLOCK GEN I VALVE COVERS

These premium valve covers showcase the iconic Bowtie & CHEVROLET Emblem across one of 16 styles. They also allow more internal clearance than stock covers. Equipped with grommets for air breather and PCV, unless otherwise specified. Sold in pairs. U.S. Pat. D580,954.

P/N: 141-836

P/N: 141-834

P/N: 141-835

SLANT-EDGE AIR CLEANER KITS

These mighty air cleaners will bring head-turning fashion to your engine bay! The air cleaner's base is recessed for a low-profile appearance, maximum performance, and hood clearance. They are supplied with genuine three-inch GM air filters for maximum airflow, and supplied with necessary mounting hardware. US Pat D813,274.

P/N: 141-856

P/N: 141-860

P/N: 141-859

SLANT-EDGE BREATHER CAPS

Continuing the tradition of the hottest design in engine dress-up today, Slant-Edge Breather Caps are not only functional, but also showcase the iconic Chevrolet Bowtie in vivid 3D. Choose from thirteen styles, and add a small touch of added cool under your hood. Patent Pending.

CLASSIC-STYLE DRESS-UP PARTS

VALVE COVERS

Flaunt your Bowtie style with these gorgeous dress-up valve covers. Manufactured from die-cast aluminum or heavy-gauge stamped steel, they are tall-style, or for select P/N's, production height (short). Oil-restricting baffles are included with most valve covers, as well as rubber grommets for PCV and breather caps.

SMALL-BLOCK GEN I VALVE COVERS

Chevrolet Small-Block 262 to 400 Engines (1959-1986)

P/N: 141-881

P/N: 141-117

SMALL-BLOCK GEN II CENTER BOLT VALVE COVERS

Chevrolet Small-Block 305-350 Engines (1987-Pre-LS)

P/N: 141-105

P/N: 141-131

BIG-BLOCK MARK IV, GEN V/VI VALVE COVERS

Chevrolet Big-Block 396-454 Engines (1965-1996)

P/N: 141-142

P/N: 141-787

BLACK CRINKLE BOWTIE DIFFERENTIAL COVERS

Reduce deflection under heavy torque loads with cast-aluminum Bowtie Emblem Differential Covers. These reinforced differential covers look great and enhance undercar appearance. The Bowtie emblem is prominently displayed with a precision CNC-milled finish. Each cover includes two adjustable bolts to stabilize bearing main caps; fluid capacity and magnetic drain plugs; and mounting bolts.

P/N: 141-696

P/N: 141-697

CLASSIC-STYLE DRESS-UP PARTS

P/N: 141-758

P/N: 141-780

DELUXE DRESS-UP KITS

Small Block 262 to 400 Engines (1959-1986)

Get everything you need to give your Small-Block a fresh new look in one package. Any one of the four finishes, with boldly striking CHEVROLET and Bowtie Emblems, offer a distinctive look which is a must have when showing off your Chevrolet Pride! Please visit www.FactoryPerformanceParts.com for more details.

P/N: 141-882

P/N: 141-307

AIR CLEANERS

These 14-inch steel air cleaners are available in both the classic GM style and the high-performance look. They feature the Bowtie & Chevrolet Emblem and come with maximum flow ACDelco air filter elements and mounting hardware. Included with each kit (except 141-906 and 141-307) is a die-cast Bowtie center nut. The air filter bases are recessed for a low profile and maximum hood clearance (a minimum of 3.750" from the top of carburetor gasket area to hood underside).

P/N: 141-335 P/N: 141-338 P/N: 141-333

AIR CLEANER CENTER NUTS

Add some extra flair to your custom air cleaner by topping it with a distinctive Bowtie chrome or Black Crinkle die-cast center nut. The center nuts are available in small, large, and deluxe sizes. They fit both 1/4"-20 and 5/16"-18 studs.

P/N: 141-601 P/N: 141-367 P/N: 141-756 P/N: 141-902

VALVE COVER MINI NUTS & WING NUTS

These custom valve cover fasteners feature a Bowtie logo on the top of each hex head. 1/4"-20 thread, 1-inch studs are included for precise gasket and valve cover positioning. Sold 4 per package.

P/N: 141-753 P/N: 141-783 P/N: 141-904

TIMING CHAIN COVERS

Add a distinctive look to the front of any Chevrolet Small-Block or Big-Block engine with a custom timing cover that's accented with Chevrolet and Bowtie emblems. These stamped-steel covers are engineered to GM specifications and come with a GM production oil seal pre-installed. The covers use bolt-on timing pointers (sold separately).

CHEVROLET PERFORMANCE 12-VOLT ELECTRICAL PARTS

BOWTIE EMBLEM 1-WIRE ALTERNATORS

Chevrolet Performance Bowtie Alternators are 1-wire, 10 SI Case Style, complete with internal regulator, external fan and machined v-belt pulley.

P/N: 141-662

CHEVROLET PERFORMANCE HEI DISTRIBUTORS

Put some spark in that ignition with these HEI Distributors, loaded with premium components like a melonized distributor gear, adjustable vacuum advance, polished shaft, and a choice of three cap colors.

P/N: 141-683

CHEVROLET PERFORMANCE STARTERS

Deliver maximum cranking power for your street machine with this high-torque mini starter that features 12V 2.2 KW motor, 15-to-1 compression and 3.75:1 gear reduction ratio. Here is your answer to quality and affordable ignition.

P/N: 141-684

BOWTIE EMBLEM ELECTRIC WATER PUMPS

The lightweight but durable die-cast aluminum pumps have a 35 GPM flow rate and are decorated with a red Bowtie emblem. A stepped fitting (1" pipe to 1.750" hose) and weather-tight connector are included. For SBC and BBC.

P/N: 141-651

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Your engine is a source of pride. Show it off with accessories designed to complement its style and support its performance at FactoryPerformanceParts.com! These parts are manufactured under license for General Motors and Chevrolet Performance. They meet strict dimensional and quality standards, ensuring you high quality, great fit, and long-lasting components. Finish your project your way with dress-up accessories and other licensed components from Chevrolet Performance.

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$10 Cash rebate with $50 purchase from www.FactoryPerformanceParts.com

Go to: FactoryPerformanceParts.com for details on rebates available on these licensed parts.

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ORDERING INFORMATION

The licensed engine dress-up parts displayed on the GM Licensed Parts pages may be purchased online through FactoryPerformanceParts.com, as well as from Chevrolet Performance Authorized Centers and participating GM dealers. To locate products, find additional product information, or receive technical support, please visit www.FactoryPerformanceParts.com.

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Parts intended for competition use only.
See page 2 for details.

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It was a chance find, based on a story recounted by a friend of a friend. But there it was – the classic muscle car you'd been searching for, hidden beneath a dusty tarp in an old barn. You worked hard and finally convinced the stubborn farmer to sell it.

With the car safely in your garage, the thrill of the hunt morphs into the realization that a careful and accurate restoration is needed to bring that vintage car back to its original glory. That means hunting for the right parts—everything from the carburetor to the clamps that hold the fuel lines in place.

GM knows it's the little things that count with a restoration. With countless resources for restoration components, assurance that you're getting the most authentic and best-fitting parts comes when you buy officially licensed GM Restoration Parts. They're made by manufacturers who build to GM's specifications and label them accordingly. Many even use original tooling for unparalleled accuracy in look, feel, and performance.

You can find licensed GM Restoration Parts for everything from the grille badge for a 1969 Camaro to the body shell itself for that Camaro. That's right – an entire classic Camaro body!

Before purchasing any reproduction parts for your valuable project, make sure the manufacturer is licensed by GM Restoration Parts. With mint condition on your mind, licensed GM Restoration Parts are the only parts that should go into your barn-find beauty.

GM Restoration Parts – Licensed Manufacturers

Company	Phone	Website
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Ground Up Restorations, Inc.	203-235-1200	www.ss396.com
Quanta Products, LLC	410-658-5700	www.quantaproducts.com
Z-06 Products, LLC	616-426-4340	www.corvettecentral.com
BODY PARTS		
Auto Metal Direct	866-591-8309	www.autometaldirect.com
Dynacorn International, LLC	805-486-2612	www.dynacorn.com
Fit-Rite Auto Body Parts, Inc.	800-992-1064	www.keypartsonline.com
Golden Star Company	214-544-2395	www.goldenstarauto.com
Mar-K Specialized Manufacturing, Inc.	405-721-7945	www.mar-k.com
Triplus Co. Ltd.	011-886-2-27557686	www.triplus.com.tw
BUICK		
Bob's Automobilia	805-434-2963	www.bobsautomobilia.com
Bright Ideas	270-535-5623	
CAR Motorsports, LLC	877-367-2279	www.carmotorsports.com
CARS, Inc.	908-369-3666	www.carsinc.com
Highway Stars, Inc.	847-599-1600	www.highwaystars.net
CADILLAC		
Beaulin Enterprises, Inc.	913-722-2783	www.mcveys.com
Cadillac King	818-890-0621	www.cadillacking.com
CHEVROLET		
Adept Classic Bodies	214-689-0468	www.adeptclassics.com
Ausley's (J'Leys and Co.)	336-228-6701	www.chevelle.com
Auto Pro USA, Inc.	310-637-4500	www.autoprousa.net
Autocraft Investments, Inc., d/b/a (NPD)	352-378-2473	www.npdlink.com
B-Rod or Custom	865-281-8821	www.b-rodorcustom.com
Carfre, Inc.	626-282-8381	www.genesmithparts.com
CHQ Reproductions	800-441-3866	www.classichq.com
Clark's Corvair Parts, Inc.	413-625-9776	www.corvair.com
***Classic Industries, Inc. (OER)**	800-854-1280	www.classicindustries.com
D&R Classic Automotive, Inc.	630-393-0009	www.drclassic.com
Danchuk Manufacturing, Inc.	714-540-4363	www.danchuk.com
Dynacorn Classic Bodies, Inc.	805-486-2612	www.dynacorn.com
El Camino Manufacturing, Inc.	360-417-9201	www.elcaminomanufacturing.com
Hubbard's Impala Parts, Inc.	336-227-1589	www.impalaparts.com
I&I Reproductions, Inc.	562-531-8117	www.iandireproduction.com
KNS Accessories Manufacturing	310-631-2589	www.knsacc.com
Muscle Factory	714-635-2314	www.muscle-factory.com
Original Parts Group, Inc.	800-243-8355	www.opgi.com
Premier Street Rod Parts	800-447-5000	www.premierstreetrod.com
R3 Performance	760-364-3001	www.r3pp.com
Real Deal Steel	407-585-1957	www.realdealsteel.com
United Pacific Industries, Inc.	310-638-5988	www.uapac.com
Vintique, Inc.	714-634-1932	www.vintiqueinc.com
Woody's Custom Hot Rodz	855-567-1957	www.woodyshotrodz.com
CORVETTE		
AFCO Performance Group	800-632-2320	www.afcoperformancegroup.com
American Custom Industries (Bobbart)	800-822-8020	www.acivette.com
CC Industries, LLC, d/b/a Corvette Central	269-426-3342	www.corvettecentral.com
Corvette America	717-667-3004	www.corvetteamerica.com
Corvette Specialties Manufacturing	410-795-3180	www.grilleteeth.com
Corvette Stainless Steel Brakes aka CSSB, Inc.	800-262-9595	www.cssbinc.com
EC Products Design	805-466-4703	www.corvettepacifica.com
Eckler Industries, LLC	800-327-4868	www.ecklerscorvette.com
Just Corvette	636-947-6060	www.justcorvettes.net
Keen Parts, Inc.	513-353-3449	www.keenparts.com
Lone Star Caliper Company	903-873-8400	www.lonestarcaliper.com
Long Island Corvette Supply, Inc.	631-225-5030	www.licorvette.com
Melrose T-Top International	815-758-2783	www.melroset-tops.com
Paragon Reproductions, Inc.	800-882-4688	www.paragoncorvette.com

Company	Phone	Website
EMBLEMS/LENSES/DECALS/TRIM		
Belly Acre Studios, LLC	405-921-8903	www.bellyacrestudios.com
Bill's Birds, Inc.	631-667-3853	www.bb-ny.com
Bob's Antique Auto Parts	310-515-1089	www.bobsantiques.com
Counterpart Automotive, Inc.	714-771-1732	
Drake Automotive Group, Inc.	702-853-2064	www.scottdrake.net
ECS Automotive Concepts, LLC	636-207-7767	www.ecsautomotive.com
GT Performance Products	818-847-9611	www.gtperformanceproducts.com
Jim Osborn Reproductions, Inc.	770-962-7556	
Late Model Reproductions	864-855-2694	www.hawksmotorsports.com
Legendary Auto Interiors, Ltd.	800-363-8804	www.legendaryautointeriors.com
Millenium Industries, Inc.	708-895-1381	
Motor City Vinyl Graphics	586-243-0733	www.motorcityvinyl.com
Mutton Hollow Chevys, LLC	801-546-3274	www.muttonhollowchevys.com
Phoenix Graphix, Inc.	800-941-4550	www.phoenixgraphix.com
Proline Restoration	678-887-6750	Email: kburwell@aol.com
Specialty Reproductions	515-727-1310	
Stencils and Stripes Unlimited Inc.	847-692-6893	www.stencilsandstripes.com
Trim Parts, Inc.	513-934-0815	www.trimparts.com
Year One, Inc.	800-950-9503	www.yearone.com
GLASS		
Pilkington North America, Inc.	614-443-0231	www.pilkington.com
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Custom Autosound	714-535-1091	www.casmfg.com
Forever Sharp Products, Inc.	888-878-2156	www.foreversharp.com
Instrument Sales and Service, Inc.	503-286-3938	www.instrumentsales.com
Jim Carter's Antique Truck Parts	816-833-1913	www.oldchevytrucks.com
Ken Harrison	800-497-5294	www.vintagecaraudio.com
Nunnbetter Reproductions	405-364-0416	
Shafer's Classic Reproductions, Inc.	813-628-0092	www.shafersclassic.com
Steele Rubber Products, Inc.	800-544-8665	www.steelerubber.com
Tedd Cycle, Inc.	914-565-2806	www.vtwinmfg.com
The Right Stuff	614-440-9994	www.rightstuff.com
OLDSMOBILE		
Fusick Automotive Products, Inc.	860-623-1589	www.fusickautomotiveproducts.com
Thornton Reproductions, LLC	610-282-2494	www.thorntonmusclecars.com
PONTIAC		
Leader Industries, Inc., d/b/a The Fiero Store	860-684-6762	www.leaderind.com
Max Performance	267-638-3500	www.maxperformanceinc.com
Stephen R. Ames, d/b/a Ames Automotive Ent.	603-876-3932	www.amesperf.com
WHEEL PARTS		
Hubcap Kingdom, LLC	918-622-2277	www.hubcapkingdom.com
Jenica, Inc., d/b/a Excalibur Wheel Accessories	909-923-8300	www.excaliburwheel.com
Revolution Supply Co., Inc.	877-738-9990	www.revolutionsupply.com
Roadster Wheels, LLC	310-503-8637	www.wheelvintiques.com
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Gardner-Westcott Co.	800-521-9805	www.gardner-westcott.com
Lectric Limited Inc.	708-563-0400	www.lectriclimited.com
Quality Lapel Pins	800-952-0305	www.qualitylapelpins.com
QuietRide Solutions	209-942-4777	www.quietride.com
Retro Manufacturing, LLC	702-483-2222	www.retrosound.com
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ALABAMA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Edwards Chevrolet	Wayne Myers	1400 Third Ave N	Birmingham	35203	205.716.3301	downtown.chevyman.com	wmyers@chevyman.com

ALASKA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Chevrolet Buick GMC of Fairbanks	Jesse Calice	3300 S Cushman St	Fairbanks	99701	907.374.5236	fairbankschevy.com	jcalice@Lithia.com

ARIZONA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Autonation Chevrolet Gilbert	Brad England	3215 S Auto Way	Gilbert	85297	480.827.3401	autonationchevroletgilbert.com	englandb@autonation.com
Courtesy Chevrolet	Mark Skinner	1233 E Camelback Rd	Phoenix	85014	602.248.7710	courtesychev.com	mskinner@courtesychev.com
Midway Chevrolet	Casey Dahmen	2323 W Bell Rd	Phoenix	85023	602.866.0102	midwaychevy.com	cdahmen@vtaig.com
Watson Chevrolet, Inc.	Ron Kiepke	625 W Auto Mall Dr	Tucson	85705	520.292.3227	watsonchevrolet.com	parts@watsonchevrolet.com

CALIFORNIA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Courtesy Chevrolet Center	Robert Medina	750 Camino Del Rio N	San Diego	92108	619.297.4321	courtesysandiego.com	rmedina@courtesysd.com
Dublin Chevrolet-Cadillac	Jack Sandri	4200 John Monego Court	Dublin	94568	925.479.3544	dublinchevrolet.com	jacks@cacargroup.com
FH Dailey Chevrolet	Floyd Amerino	800 Davis Street	San Leandro	94577	510.351.5800	fhdailey.com	floyd.amerino@fhdailey.com
Guaranty Chevrolet Motors, Inc	Carl Lutes	711 E 17th Street	Santa Ana	92701	714.560.4277	occhevy.com	clutes@occhevy.com
Maita Motorsports	Art Wong	9650 Auto Center Drive	Elk Grove	95757	916.825.5562	maitamotorsports.com	artwong@maita.net
Mark Christopher Auto Center	Steve Johnson	2131 Convention Center Way	Ontario	91764	909.390.2924	markchristopher.com	sjohnson@markchristopher.com
Paradise Chevrolet	Rene Medina	6350 Leland St	Ventura	93003	805.642.0134	paradisechevrolet.com	parts@paradisechevrolet.com
Paradise Chevrolet Cadillac	Ruben Aranda	27360 Ynez Road	Temecula	92591	951.699.2699	paradiseautos.com	raranda@paradiseautos.com
Rally Auto Group	Brenden Herem	39012 Carriage Way	Palmdale	93551	661.947.6000	4rally.com	gmparts@4rally.com
Rydell Automotive Group	Jeff Jensen	18600 Devonshire St	Northridge	91324	818.832.1660	chevynorthridge.com	jjensen@rydells.com

COLORADO

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
John Elway Chevrolet	Ken Casey Jr.	5200 S Broadway	Englewood	80113	800.345.5744	elwaydealers.com	kcasey@elwaydealers.net

DELAWARE

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Nucar Chevrolet	William Grasso	174 N Dupont Hwy	New Castle	19720	800.633.6606	nucar.com	bgrasso@nucar.com

FLORIDA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Autonation Chevrolet Coral Gables	Franco Carrasco	4181 SW 8th Street	Coral Gables	33134	305.446.7000	autonationchevroletcoralgables.com	carrascof1@autonation.com
Autonation Chevrolet South Clearwater	Jim Kubisiak	15005 US Hwy 19 N	Clearwater	33764	813.267.4257	autonationchevroletclearwater.com	kubisiakj@autonation.com
Jon Hall Chevrolet, Inc.	Tom Brammer	551 N Nova Road	Daytona Beach	32114	386.236.4509	jonhallchevrolet.com	tom.brammer@jonhall.com
Phil Smith Chevrolet	Humberto Napoles	1640 N State Road 7	Lauderhill	33313	954.733.6000	philsmithchevrolet.com	humberton@philsmithchevy.com
Sandy Sansing Chevrolet Inc	Scott Clanton	6200 Pensacola Boulevard	Pensacola	32505	850.748.0111	sandysansingchevy.com	clantons@sandysansing.com
Stingray Chevrolet	Mike Garcia/ Aaron Springer	2002 N Frontage Rd	Plant City	33563	800.575.5123	stingraychevrolet.com	mgarcia@stingraychevrolet.com
Nimnicht Chevrolet Company	Eric Rakers	1550 Cassat Ave	Jacksonville	32210	904-713-2514	nimnichtchevy.com	Erakers@Nimnicht.com

GEORGIA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Nash Chevrolet	George Pittman	630 Scenic Hwy S	Lawrenceville	30046	770.963.9266	nashchevy.com	gpittman@nashchevy.com
Vaden Chevrolet Savannah	Rick Freeman	1010 Lynes Ave	Savannah	34145	833.823.3678	danvadenchevrolet-cadillac.com	vadenpt@danvaden.com

IDAHO

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Kendall Chevrolet Buick GMC Cadillac of Nampa	Matt Tanoury	15700 Idaho Center Blvd	Nampa	83687	208.249.3509	kendallgmnampa.com	matttanoury@kendallauto.com

ILLINOIS

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Jennings Chevrolet	Jim Norman	241 Waukegan Road	Glenview	60025	847.729.0820	jenningschevrolet.com	jimnorman@jenningschevrolet.com
Uftring Weston Chevrolet Cadillac	Robert Humphrey	1600 W War Memorial	Peoria	61614	309.688.5940	uftringweston.com	bobhumphrey@uftringweston.com
Weir Chevrolet-Buick-GMC	Verllyn Proctor	1507 S. Main Street	Red Bud	62278	618.282.3111	weirinredbud.com	verllyn.proctor@weirparts.com

INDIANA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Hubler Chevrolet	Rick Bell	8220 S US 31	Indianapolis	46227	317.730.3700	hublerparts.com	rbell@drivehubler.com

IOWA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Karl Kustoms	Adam Moore	1101 SE Oralabor Rd	Ankeny	50021	515.299.4411	karlkustoms.com	adamm@karlchevrolet.com
Rydell Chevrolet	Brian Tenley	1325 E San Maran Drive	Waterloo	50702	319.234.4601	rydellauto.com	brian@rydellauto.com
Shottenkirk Fort Madison	Brad Richardson	5031 Ave O	Fort Madison	52627	319.376.2785	shottenkirkfortmadison.com	gmparts@shottenkirk.com

KANSAS

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Hendrick Chevrolet Shawnee Mission	Melanie Youngs	8300 Shawnee Mission Pkwy	Shawnee Mission	66202	913.789.4347	chevyusa.com	melanie.youngs@hendrickauto.com

KENTUCKY

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Bachman Auto Group	Tom Finley	9650 Bluegrass Parkway	Louisville	40299	502.719.3850	bachmanchevrolet.com	tfinley@bachmanautogroup.com

MAINE

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Quirk Chevrolet	Andrew Dollof	293 Hogan Road	Bangor	04401	207.945.9401	quirkchevyofbangor.com	adolloff@quirkauto.com

MICHIGAN

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Berger Chevrolet	Andrew Ruthven	2525 28th Street SE	Grand Rapids	49512	616.322.2599	bergerchevy.com	aruthven@bergerchevy.com
Ed Rinke Chevrolet	Jim Hensley	26125 Van Dyke Ave	Center Line	48015	586.497.4100	edrinke.com	jhensley@edrinke.com
Lafontaine Performance Center	Marcus Montague	2800 N Milford Road	Highland	48357	248.714.1519	lafontaineperformancecenter.com	mmontague@lafontaine.com
Shaheen Chevrolet	Royce King	632 American Road	Lansing	48911	517.394.2459	shaheenlansing.com	rking@shaheenchevrolet.com

MINNESOTA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Suburban Chevrolet	Mike Kraft	12475 Plaza Drive	Eden Prairie	55344	952.947.5406	needgmparts.com	mkraft@suburbanchev.com

MISSISSIPPI

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Rogers-Dabbs Chevrolet	Bo Weeks	1501 W Government St	Brandon	39042	601.824.5152	rogersdabbs.com	bweeks@rogersdabbs.com

MISSOURI

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Cable-Dahmer Chevrolet	Paul Cassidy	1834 S Noland Rd	Independence	64055	800.821.8467	cabledahmerind.com	kwberry@cabledahmer.com

NEBRASKA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Friesen's Chevrolet	Al Walters	S Way Ave	Sutton	68979	402.630.4894	friesenchevrolet.com	partsal@ymail.com

NEVADA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Fairway Chevrolet	Brad Oaks	3100 E Sahara Ave	Las Vegas	89104	702.641.1446	fairwaychevy.com	parts@fairwaychevy.com

NEW HAMPSHIRE

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Banks Chevrolet-Cadillac	Dave Corcoran	137 Manchester Street	Concord	03301	603.229.4051	banksautos.com	dcorcoran@banksautos.com

NEW MEXICO

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Quality Buick GMC of Albuquerque	Garry Ricci	7901 Lomas Blvd NE	Albuquerque	87110	505.348.1103	qualitybydilorenzo.com	garryr@qualitydeal.com

NEW YORK

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Eagle Chevrolet	Mike Migliore	1330 Old Country Rd	Riverhead	11901	631.727.1900	eaglechevy.com	mikem@eagleautomall.com

NORTH CAROLINA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Modern Chevrolet Company	Ivil Porter	5415 Kelly-Moore Dr	Winston-Salem	27105	800.722.4828	modernchevy.com	iporter@modernauto.com
Rick Hendrick City Chevrolet	Darrell Langford	5101 E Independence Blvd	Charlotte	28212	704.566.7460	citychevrolet.com	darrell.langford@hendrickauto.com

NORTH DAKOTA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Gateway Chevrolet Cadillac	Mark Castor	501 38th Street S	Fargo	58103	701.282.8880	gatewayfargo.com	mcastor@gatewayfargo.com
Rydell Chevrolet Buick GMC Cadillac	Romao Maresca	2700 South Washington	Grand Forks	58201	701.757.5840	autopartsnd.com	rmaresca@rydellcars.com

OHIO

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Coughlin Chevrolet Buick	Brian Dixon	15801 US-36	Marysville	43040	740.513.7033	coughlinmarsvillegm.com	briandixon@coughlincars.com
Sweeney Buick GMC	Matt Fullerton	7997 Market Street	Youngstown	44512	330.367.5461	sweeneycars.com	mattf@sweeneycars.com

OREGON

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Kendall Chevrolet GMC	Jerry Washam	846 Goodpasture Island Rd	Eugene	97401	541.342.2431	chevroletofeugene.com	jerrywasham@kendallauto.com

PENNSYLVANIA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Bob Fisher Chevrolet Inc	David Wagner	4111 Pottsville Pike	Reading	19605	610.921.0261	bobfisherchev.com	d.wagner@Bobfisherchev.com
Bowser Buick GMC	Dave McManus	1001 Clairton Blvd	Pleasant Hills	15236	412.469.2100	bowserbuickgmc.com	bmckinney@cochran.com
Fred Beans Parts	Dennis Loux	131 Doyle Street	Doylestown	18901	215.348.0202	fbparts.com	dloux@fredbeans.com
Rohrich Cadillac	Paul Lilja	2116 W Liberty Ave	Pittsburgh	15226	412.427.2254	rohrichcadillac.com	plilja@rohrich.com

SOUTH CAROLINA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Newsome Raceway Parts Network	Tracy Haynes	1111 South 5th Street	Hartsville	29550	877.497.3624	newsomeparts.com	thaynes@newsomeparts.com

SOUTH DAKOTA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Billion Motors, Inc.	Dale Zimmer	4200 W 12th St	Sioux Falls	57107	605.988.8538	billionautoparts.com	parts@billionauto.com

TENNESSEE

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Freeland Chevrolet	Richard Purcell	5333 Hickory Hollow Pky	Nashville	37013	615.731.3000	freelandchevy.com	richard.purcell@freelandauto.com

TEXAS

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Autonation Chevrolet N Richland Hills	Jennifer Solis	7769 Boulevard 26	North Richland Hills	76180	800.792.8743	autonationchevroletnorthrichlandhills.com	solisj@autonation.com
Classic Chevrolet	Rick Johnston	1101 W State Hwy 114	Grapevine	76051	866.673.1597	nationalgmparts.com	tlcross@classicchevrolet.com
Classic Chevrolet Sugar Land	Aaron MacHacek	13115 SW Freeway	Sugar Land	77473	800.800.7248	classicchevysugarland.com	amachacek@classicchevysugarland.com
Covert Buick GMC	KC Kalmon	11750 Research Blvd	Austin	78759	800.880.8291	covertbuickgmc.com	johnarygo@covertauto.com
Don Hewlett Chevrolet-Buick	Jeff Gilbert	7601 S Interstate 35	Georgetown	78626	512.681.3013	donhewlett.com	jeff@donhewlett.com
Freedom Chevrolet Buick GMC	Randy Thorn	8008 Marvin D Love Fwy	Dallas	75237	972.780.3367	freedomchevydallas.com	randythorn@freedomchevydallas.com
Friendly Chevrolet	Robert Fayette	2754 N Stemmons Blvd	Dallas	75207	214.920.1900	friendlychevy.com	rfayette1@friendlychevy.com
Scoggin Dickey Chevrolet	Chris Storie	5901 Spur 327	Lubbock	79424	800.456.0211	sdparts.com	cstorie@scoggindickeyparts.com

VIRGINIA

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Radley Chevrolet	Chris Rogers	3670 Jefferson Davis Hwy	Fredericksburg	22408	540.376.3685	radleychevrolet.com	chrisrogers@radleyautogroup.com

WASHINGTON

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Camp Automotive, Inc.	Rick Nowaski	101 E Montgomery	Spokane	99207	509.444.0799	campchevrolet.com	richardnowaski@lithia.com
Jet Chevrolet	Steve Haase	35700 Enchanted Pky S	Federal Way	98003	800.257.6655	jetchevrolet.com	parts@jetchevrolet.com

WISCONSIN

Company Name	Contact Name	Address	City	Zip	Phone	Website	Email Address
Broadway Automotive - Green Bay	Ken Reinke	2700 South Ashland Ave	Green Bay	54304	920.615.5287	broadwayautomotive.com	kreinke@broadwayautomotive.com
Gandrud Chevrolet, Inc.	Chris Slack	919 Auto Plaza Drive	Green Bay	54302	888.284.7491	gmperformancemotor.com	parts@gandrud.com
Holz Motors, Inc.	Chad Kallies	5961 South 108 Place	Hales Corners	53130	414.209.1300	holzmotors.com	ckallies@holzmotors.com

GM SERVICE REPLACEMENT POWERTRAIN & CHEVROLET PERFORMANCE PARTS LIMITED WARRANTY FOR:

Engines, Engine Components, Transmissions, Transmission Components & Transfer Cases

General Motors Company ("GM") warrants to the purchaser for the time and/or mileage indicated below that it will repair or replace, at its option, any Genuine GM Parts Service Replacement Engine, Engine Component, Transmission/Transaxle, Transmission Component, Transfer Case, and Chevrolet Performance Engine, Transmission, Component and Short Block Assembly (as noted below) that fails due to a defect in material or workmanship. GM will use new or remanufactured parts for repair or replacement.

Warranty coverage is based on months/mileage, whichever comes first, and begins on the date of installation by an authorized GM dealer or by a qualified Independent Service Center (ISC). For all consumer installed, over-the-counter sales, warranty begins on date of retail sale.

GENUINE PARTS

Product	Cataloged Passenger Car & Light-Duty Truck (Series 10-30) 6	Cataloged Medium-Duty Truck (Series 40-80) Class A Motor Home, Taxi & Police 6	Non-Cataloged Passenger Car, Light-Duty Truck & Medium-Duty Truck2 ,6	Other5 (Start-up Warranty)
Engines, Automatic Transmissions & Transfer Cases[3,4]	36 months or 100,000 miles[1,2]	18 months or 100,000 miles[1,2]	12 months or 12,000 miles	30 Days
Manual Transmissions V T i (CVT)	12 months or 12,000 miles[1,2]	12 months or 12,000 miles[1,2]	12 months or 12,000 miles	N/A
Engine & Transmission Components[5,8]	24 months/ unlimited miles	24 months/ unlimited miles	24 months/ unlimited miles	N/A

CHEVROLET | PERFORMANCE
VEHICLES / PARTS / RACING

Product	Passenger Car & Light-Duty Truck (Series 10-30)6	Other5 (Start-up Warranty)
Performance Part Engines[4]	24 months or 50,000 miles[1,2]	30 Days
Performance Transmissions[1, 5]	12 months/ umlimited miles	30 Days
E-ROD & E-ROD Connect & Cruise Crate Powertrain Systems[7,9]	36 months or 50,000 miles[1,2]	N/A
Connect & Cruise Crate Powertrain Systems[7,9] (non-E-ROD)	24 months or 50,000 miles[1,2]	N/A
Performance Parts, Short Block Assemblies & Components[5,8]	24 months/unlimited miles	30 Days

*[1]**Parts and labor warranty** when installed by a **GM Dealer or** qualified installing Independent Service Center (ISC). [2]**Parts and labor warranty** when sold over the counter and **REPAIRED by a GM Dealer or qualified installing Independent Service Center (ISC), on-highway applications only**. Parts-only warranty when consumer repaired or when installed in non-highway application. Coverage limited to defects in material and/or workmanship of the specific part only. [3]Includes Allison 1000 Series assemblies sold through GM Dealers. [4]Engine upgrades require appropriate associated parts to ensure proper engine and transmission cooling and torque capacity, fuel/air delivery and emission controls (upgrade example: 305 engine replaced with 350 engine). [5]**Parts-only warranty** when sold over the counter. [6]Must be installed in a "street legal" automotive application for use on public roads. [7]Warranty valid when all required components are installed on the same vehicle and purchased on one invoice. [8]**Parts and labor warranty** when installed by a GM Dealer. [9]Transmissions and components receive unlimited mileage warranty as part of the connect and cruise packages.*

THIS WARRANTY DOES NOT COVER:

- Damage due to improper installation, negligence, alteration (including changes to engine controls), accident, or improper use. Proper vehicle use is discussed in the vehicle Owner's Manual.
- Any vehicle that has been used for racing (on or off track), stunt driving, performance testing, or used under other extreme operating conditions.
- Any vehicle where the odometer has been disconnected or the mileage reading has been altered.
- Damage caused by lack of proper maintenance as described in the vehicle's original Owner's Manual/ Maintenance Schedule, failure to follow Maintenance Schedule intervals, or failure to use or maintain proper type and levels of fluid, fuel, oil, and lubricants recommended in the Owner's Manual/Maintenance Schedule. Proof of proper maintenance is the owner's responsibility. Keep all receipts and be prepared to present them if questions arise about maintenance.
- Damage as a result of overheating, contamination or lack of lubrication.
- Damage caused by a turbocharger, supercharger, nitrous oxide, or similar product, which is not an approved Chevrolet Performance Part or Accessory.
- Racing engines and/or their components.
- Use of components in excess of maximum torque specification.
- Damage as a result of modification/replacement of torque converter that is part of transmission assembly.
- Loss of time, inconvenience, loss of use, or other economic loss.
- Vehicles registered and normally operated outside of North America.
- This warranty does not apply to any unit installed under the General Motors New Vehicle Limited Warranty.

DOCUMENTATION REQUIREMENTS:

The GM Dealer or Independent Service Center must be furnished with the purchaser's original repair order or sales slip (or dealer's photo copy) showing vehicle identification number, installation date and mileage. This warranty is transferrable to subsequent owners, free of charge, by providing the above required documents to any purchaser of the vehicle in which the assembly/ component was originally installed.

OBTAINING REPAIRS:

GM Dealer Installation – The GM Dealer who initially installed the assembly/ component or any other GM Dealer may perform the repairs. You must allow a reasonable period of time for repairs following delivery of the vehicle to the GM Dealer.

Independent Service Center Installation – The Independent Service Center (ISC) that installed the assembly/component or any GM Dealer may perform repairs. Before any repairs can be performed under warranty by an Independent Service Center, the selling GM Dealer (or any GM Dealer) must first authorize needed repairs as a sublet service.

Towing – for GM Parts Engine, Transmission, and Transfer Case assemblies, will be covered to the nearest GM Dealership or ISC who performed the installation, not to exceed $150.00, under the following conditions:

– The vehicle is inoperative.
– The failure was the result of the unit; not the installation.
*Chevrolet Performance Parts Engines and Transmissions are excluded.

Emergency Repairs (GM Dealers Only): Reimbursement to an owner for repairs performed by other than a GM Dealer will be considered when GM Dealer service was not available (e.g.,weekends, evenings, etc.) or when repairs were made in a foreign country where warranty repairs by a GM Dealer are difficult to obtain.

OTHER TERMS:

GM sells other engines and transmissions in various states of completion. This warranty covers only those engines and transmissions that are marketed by GM as GM Parts or Chevrolet Performance Parts.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

General Motors does not authorize any person to create for it any other obligations or liability in connection with these assemblies.

ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO ASSEMBLIES OR PARTS IS LIMITED IN DURATION TO THE DURATION OF THIS WRITTEN WARRANTY. THE PERFORMANCE OF REPAIRS OR REPLACEMENT IS THE EXCLUSIVE REMEDY UNDER THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. GM SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.

Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, therefore, the above limitation or exclusions may not apply to you.

SERVICE CHECKS:

Transmissions: It is important for you or a service technician to check the transmission/transaxle fluid level at regular intervals.

Engines: It is important for you or a service technician to perform these underhood checks at each fuel fill:

- Check engine oil level and add if necessary.
- Check engine coolant level in coolant reservoir and add if necessary.
- Check belts and hoses for visible wear and replace if necessary.

The parts listed in this catalog are intended primarily for use in race or "off-highway" vehicles only. Federal law restricts the removal, modification or knowingly making inoperative of any part or element of design installed in compliance with an applicable Federal Motor Vehicle Safety Standard or any part of federally required emission control systems on a motor vehicle used on public roads. Further, many states have enacted laws with various penalties for tampering with or otherwise modifying any required emission or noise control system. Parts which have been granted an exemption by the California Air Resources Board (CARB) are noted as such.

***Unless specifically noted to the contrary herein, vehicles equipped with Chevrolet Performance Parts may not meet Federal Motor Vehicle Safety Standards and should not be operated on public roads.** Unless specifically noted to the contrary herein, vehicles equipped with Chevrolet Performance Parts that are emissions-related may not meet Federal and state laws and regulations relating to motor-vehicle emissions. These parts are designed and intended for use in vehicles operated exclusively for competition in racing or organized competition on courses separate from public streets or highways, See page 2 for more information. Chevrolet Performance customers are responsible for ensuring their use of Chevrolet Performance Parts complies with applicable federal, state and local laws, regulations and ordinances. Chevrolet Performance customers are responsible for ensuring their use of Chevrolet Performance Parts complies with applicable federal, state and local laws, regulations and ordinances.*

Many parts intended for racing or other "off-highway" use are not designed or tested for crash worthiness or to meet the safety needs of the motoring public, and may adversely affect the original intended performance or handling characteristics of the vehicle. These parts are designed and intended to be used with experts supervising their installation and use, to help assure the proper and safe operation of the vehicle.

***Direct any inquiries to:** General Motors Co., Consumer Relations Dept., P.O. Box 33136, Detroit, MI 48232-5136*

GM SERVICE REPLACEMENT POWERTRAIN & CHEVROLET PERFORMANCE LIMITED WARRANTY

Engines, Engine Components, Transmissions, Transmission Components & Transfer Cases

To retain the safety and dependability built into this product, it is essential that your product receives the scheduled maintenance at the recommended intervals contained in your vehicle Owner's Manual/Maintenance Schedule or Chevrolet Performance Engine Instruction Sheet. Since emissions-related components vary by model and engine application, you should follow the emissions maintenance recommendations also contained in your vehicle's manuals.

General Motors of Canada Company ("GM Canada") warrants to the purchaser for the time and/or mileage indicated below that it will repair or replace, at its option, any GM Parts Service Replacement Engine, Engine Component, Transmission/Transaxle, Transmission Component, Transfer Case or Short Block Assembly that fails due to a defect in material or workmanship. GM Canada will use new or remanufactured parts for repair or replacement.

Warranty coverage is based on months/mileage, whichever comes first, and begins on the date of installation by an authorized GM Canada dealer or by a qualified Independent Canadian Service Center (ISC). For all other over-the-counter sales, warranty begins on date of retail sale.

GM Canada only warrants GM Canada supplied parts and components purchased in Canada from a GM Canada Dealer or Canadian qualified ISC.

GM Canada Parts

Product	Cataloged Passenger Car & Light-Duty Truck (Series 10-30)[6]	Medium-Duty Truck (Series 40-80) Class A Motor Home, Taxi& Police[6]	Non-Cataloged Passenger Car & Light-Duty Truck[2, 6]	Other[5] (Start-up Warranty)
Engines, Automatic Transmissions & Transfer Cases[3,4]	36 months or 160,000 kilometers[1,2]	18 months or 160,000 kilometers[1,2]	12 months or 20,000 kilometers	30 Days
Manual Transmissions & CVT	12 months or 20,000 kilometers[1,2]	12 months or 20,000 kilometers[1,2]	12 months or 20,000 kilometers	N/A
Engine & Transmission Components[1,5]	12 months/ unlimited kilometers	12 months/ unlimited kilometers	12 months/ unlimited kilometers	N/A

CHEVROLET PERFORMANCE VEHICLES / PARTS / RACING

Product	Passenger Car & Light-Duty Truck (Series 10-30)[6]	Other[5] (Start-up Warranty)
Chevrolet Performance Engines[4]	24 months or 80,000 kilometers [1,2]	30 Days
Performance Transmissions[1, 5]	12 months/ umlimited kilometers	30 Days
E-ROD & E-ROD Connect & Cruise Crate Powertrain Systems[7,9]	36 months or 80,000 kilometers[1,2]	N/A
Connect & Cruise Crate Powertrain Systems[7,9] (non-E-ROD)	24 months or 80,000 kilometers[1,2]	N/A
Chevrolet Performance Parts[7], Short Block Assemblies & Components[5,8]	12 months/unlimited kilometers	30 Days

*[1]**Parts and labor warranty** when installed by a **GM Canada Dealer** or qualified installing Independent Canadian Service Center (ISC). [2]**Parts and labor warranty** when sold over the counter and **REPAIRED by a GM Canada Dealer or qualified installing Independent Canadian Service Center (ISC), on-highway applications only**. Parts-only warranty when installed by others or when installed in non-highway application. Coverage limited to defects in material and/or workmanship of the specific part only. [3]Includes Allison 1000 Series assemblies sold through GM Dealers. [4]Engine upgrades require appropriate associated parts to ensure proper engine and transmission cooling and torque capacity, fuel/air delivery and emission controls (upgrade example: 305 engine replaced with 350 engine). [5]**Parts-only warranty** when sold over the counter. [6]Must be installed in a "street legal" automotive application for use on public roads. [7]Warranty valid when all required components are installed on the same vehicle and purchased on one invoice. [8]**Parts and labor warranty** when installed by a GM Dealer. [9]Transmissions and components receive unlimited mileage warranty as part of the connect and cruise packages.*

WARRANTY BEGINS ON THE DATE OF INSTALLATION BY AN AUTHORIZED GM CANADA DEALER OR BY A CANADIAN QUALIFIED INDEPENDENT SERVICE CENTER. PARTS-ONLY WARRANTY (NO LABOUR) APPLIES FOR WARRANTY REPAIRS NOT PERFORMED BY A CANADIAN AUTHORIZED GM CANADA DEALER OR QUALIFIED INDEPENDENT SERVICE CENTER.

GM Canada sells other engines and transmissions in various states of completion. This warranty covers only those engines and transmissions that are marketed by GM Canada as Goodwrench or GM Parts.

THIS WARRANTY DOES NOT COVER:

- Damage due to improper installation, negligence, alteration (including changes to engine controls), accident, improper use, or any use related to racing or competition. Proper vehicle use is discussed in the vehicle Owner's Manual. In addition, coverage does not apply if the odometer has been disconnected or the mileage reading has been altered.
- Any vehicle that has been used for racing (on or off track), stunt driving, performance testing, or used under other extreme operating conditions.
- Damage caused by lack of proper maintenance as described in the vehicle's original Maintenance Schedule/Owner's Manual, failure to follow Maintenance Schedule intervals, or failure to use or maintain proper type and levels of fluid, fuel, oil and lubricants recommended in the Maintenance Schedule/ Owner's Manual. Proof of proper maintenance is the owner's responsibility. Keep all receipts and be prepared to make them available if questions arise about maintenance.
- Damage as a result of overheating, contamination or lack of lubrication.
- Damage caused by a turbocharger, supercharger, nitrous oxide, or similar product, which is not an approved GM Performance Part or Accessory.
- Racing engines and/or their components.
- Use of components in excess of maximum torque specification.
- Damage as a result of modification/replacement of torque converter that is part of transmission assembly.
- Loss of time, inconvenience, loss of use, or other economic loss.
- Vehicles registered and normally operated outside of North America.
- This warranty does not apply to any unit installed under the General Motors New Vehicle Warranty.

DOCUMENTATION REQUIREMENTS

The GM Canada dealer or independent service center must be furnished with this warranty statement, purchase receipt, installation date invoice with mileage and proof of proper maintenance. This warranty is transferable to subsequent owners by providing the above required documents to any purchaser of the vehicle in which the assembly/component was originally installed.

OBTAINING REPAIRS

GM Canada Dealer Installation–The GM Canada dealer who initially installed the assembly/component or any GM Canada dealer may perform the repairs. You must allow a reasonable period of time for repairs following delivery of the vehicle to the GM Canada dealer's place of business.

Independent Service Center Installation–The Canadian independent service center that installed the assembly/component or any GM Canada dealer may perform repairs. Before any repairs can be performed under warranty by a Canadian independent repair center, the selling GM Canada dealer (or any GM Canada dealer) must first authorize needed repairs as a sublet service.

Towing–for GM Parts Engine, Transmission, and Transfer Case assemblies will not be covered.

OTHER TERMS

TO THE FULL EXTENT PERMITTED BY APPLICABLE CANADIAN LAW: The foregoing warranty is the only and the entire warranty provided by GM Canada and is in lieu of and excludes all other representations, warranties or conditions, express or implied (including any implied warranty or condition of merchantability or fitness for a particular purpose).

The performance of repairs, the provision of replacement parts, or reimbursement thereof, as described above, is the exclusive remedy under this written warranty or under any otherwise applicable implied warranty or condition.

Any implied warranty or condition that cannot be disclaimed or excluded is limited in duration to the periods specified in this written warranty.

GM CANADA DOES NOT AUTHORIZE ANY PERSON TO CREATE FOR IT ANY OTHER OBLIGATIONS or liability in connection with the products and no person is permitted to extend or enlarge this warranty on behalf of GM Canada by written, verbal or other representation and if made, such representation or warranty will not be enforceable against GM Canada.

DISCLAIMER OF LIABILITY: Except as provided in this limited warranty, GM Canada will not be liable in contract, tort or otherwise for any direct, indirect, economic, commercial, incidental, or consequential or special loss or damage or expense or claim howsoever caused, arising in connection with the sale, use, loss of use, performance or non-performance of the product.

NOTICE REGARDING LIMITATIONS: The terms contained in this limited warranty are not intended to limit or otherwise modify or exclude any warranty that by law cannot be limited, disclaimed or excluded. When and to the extent that any applicable Canadian law prohibits in a particular situation, any term contained in this warranty, such term will be considered severable and deemed deleted from this warranty in that situation.

Some provinces do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, therefore, the above limitation or exclusions may not apply to you.

SERVICE CHECKS:

Transmissions: It is important for you or a service technician to check the transmission/transaxle fluid level at regular intervals.

Engines: It is important for you or a service technician to perform these under-hood checks at each fuel fill:

- Check engine oil level and add if necessary.
- Check engine coolant level in coolant reservoir and add if necessary.
- Check belts and hoses for visible wear and replace if necessary.

Unless specifically noted to the contrary herein, vehicles equipped with Chevrolet Performance Parts may not meet Federal Motor Vehicle Safety Standards and emissions regulations and should not be operated on public roads. Chevrolet Performance customers are responsible for ensuring their use of Chevrolet Performance Parts complies with applicable federal, provincial and local laws, regulations and ordinances.

The only motor oil recommended by Chevrolet Performance

Whether you are building a project vehicle for fun or show, or racing on the track, your crate engine can rely on the race-proven protection of Mobil 1™ and Mobil 1 Racing™ advanced full synthetic motor oils. When you purchase a Chevrolet Performance crate engine, your authorized dealer can also recommend the perfect Mobil 1 or Mobil 1 Racing motor oil for your application.

Contact your local Chevrolet Performance dealer for purchasing information.

Select engine type	Track use
Small Block	Mobil 1 Racing 0W-30* Mobil 1 Racing 0W-50*
Circle Track	Mobil 1 Racing 0W-50* Mobil 1 15W-50*
LS	Mobil 1 Racing 0W-30* Mobil 1 Racing 0W-50*
LT	Mobil 1 Racing 0W-30* or 0W-50* dexos2® GM-approved Mobil 1 ESP Formula 0W-40* Mobil 1 15W-50*
Big Block	Mobil 1 Racing 0W-30* Mobil 1 Racing 0W-50*
E-Rod	Mobil 1 Racing oils must not be used in vehicles fitted with E-ROD engines.

***Consult your local engine builder.**

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