



**GENERAL INSTALLATION INSTRUCTIONS**

**PLEASE** study these instructions carefully before beginning this installation. If you have any questions, please call our **Technical Hotline at: 1-800-416-8628**, 7:00 am - 5:00 pm, Pacific Standard Time, Monday through Friday or e-mail us at [Edelbrock@Edelbrock.com](mailto:Edelbrock@Edelbrock.com).

**IMPORTANT NOTE: Proper installation is the responsibility of the installer. Improper installation will void your warranty and may result in poor performance and engine or vehicle damage.**

**IMPORTANT:** This instruction sheet provides general installation guidelines which can affect your warranty. Read it carefully. It is not our intent to cover each detail of installation here as the procedures are vehicle specific. We want to caution you that installing an engine is a complicated procedure that requires a good general knowledge of automotive mechanics. It is a good idea to refer to the factory service manual for your vehicle. If you are not confident that you can complete the engine installation successfully, we suggest you consider having it installed by an experienced mechanic.

**DESCRIPTION:** Your new Signature Series crate engine is assembled using all new parts. The short block is from General Motors and Edelbrock Power Package components have been installed by trained technicians at Edelbrock. The Signature Series engine has an operating range from 1500 to 6500 rpm, and a torque converter with a stall speed of 1800 to 2200 rpm is recommended. The Performer RPM Air-Gap E-Tec intake manifold will require modifications when used with standard brackets to fit the upright Vortec style manifold bolts.

**INSTALLATION NOTES:** **There is no oil in your engine.** Signature Series engines use a right side dipstick only. Remove any paint from engine mount bosses, cylinder block to clutch housing or transmission mounting surface, and crankshaft flange before installing engine.

**Note:** These engines are **not** supplied with the crankshaft damper bolt due to many different applications. The customer must purchase and install the crankshaft damper bolt that matches the given application.

**ENGINE OIL:** Your engine is shipped without any oil in the pan or filter. Before starting engine, you will need to prime the oil system. **Do not turn engine over with starter motor for priming.** You will need to mark distributor, as it comes preset on #1 cylinder. Then, remove and use a priming tool to turn pump shaft. This tool can be purchased at your Speed Shop. Edelbrock recommends using a quality 5W-30 motor oil for the first 1,000 miles of break-in. We also recommend using a GM oil additive engine oil supplement #1052367 for the break-in. This can be purchased at your local GM dealer. After break-in, you can use 10W-30 motor oil or check your brands climate recommendations.

**FLYWHEELS AND FLEXPATES:** Your Signature Series engine includes a GM flexplate (GM #14088765) intended for use with automatic transmissions equipped with a 10.75" torque converter with 153 starter ring gear teeth. Signature Series engines use special flexplates or flywheels for one-piece seal engines (late model type). See below for other applicable GM flexplates or flywheels.

**SIGNATURE SERIES ENGINES USE FLEXPATES OR FLYWHEELS FOR ONE-PIECE CRANKSEAL ENGINES**

Flex Plates:

| GM Part Numbers | Outside Diameter | Converter Bolt Pattern | Starter Ring Gear Tooth |
|-----------------|------------------|------------------------|-------------------------|
| 14088761        | 14"              | 10.75, 11.50           | 168                     |

Flywheels:

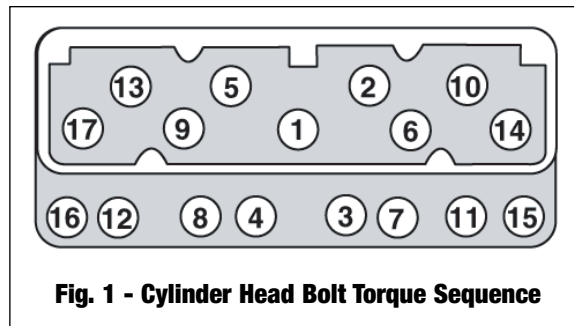
| GM Part Numbers | Outside Diameter | Clutch Bolt Pattern | Starter Ring Gear Tooth |
|-----------------|------------------|---------------------|-------------------------|
| 14088650        | 12 3/4"          | 10.4                | 153                     |
| 10105832        | 14"              | 11.0, 11.85         | 168                     |

**EXHAUST SYSTEMS:** It is to your advantage to install headers and a good free flowing muffler system. Signature Series engines must use headers and a free-flowing muffler system.

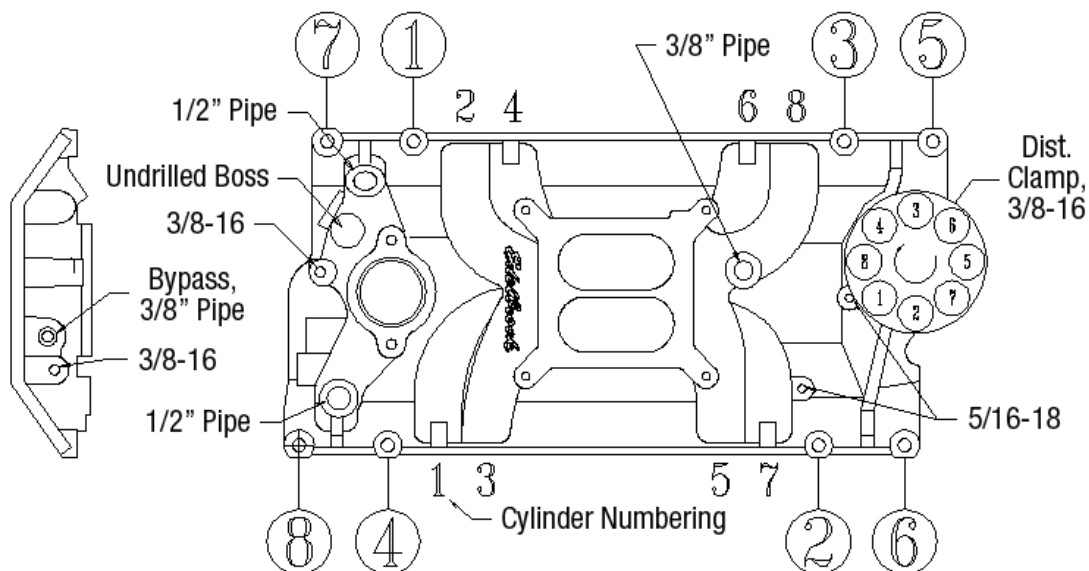
**THROTTLE BRACKETS:** Due to the design of E-Tec intake manifolds, stock Chevrolet throttle brackets will not fit. Purchase Edelbrock throttle bracket #8032 for the Signature Series engine. See the "Install Items" listed on our website and in our catalog.

**FINAL NOTES:** Install the engine assembly reversing the steps taken to remove the engine and accessories. When in doubt, refer to the factory manual. We recommend a 50-50 mix of coolant and water. We recommend a new thermostat of 160 to 180 degrees, along with new belts and hoses. Check all grounds and fluid levels. Spark plug recommendation is Champion RC-12YC or equivalent. Your MSD ignition comes with a preset advance curve and will work with an initial setting of 10 to 12 degrees. Check MSD instruction sheet for other options and also distributor hook up. Check carburetor instruction sheet for hook ups and owner's manual for tuning tips. Performer RPM engines require **91 octane fuel**. In some cases, it may be necessary to plug the vacuum advance from the distributor to the carburetor, to prevent detonation. The Performer engines always use the vacuum advance. A re-torque is recommended after initial start-up and cool-down (allow 2-3 hours for adequate cooling). Torque cylinder heads to 65 ft./lbs. following the tightening sequence (**See Figure 1**). Torque RPM Air-Gap E-Tec intakes to 11 ft./lbs. (**See Figure 2**). Save all paperwork that you receive with your engine for future reference.

**ENGINE AND CAMSHAFT RUN-IN:** Signature Series engines use a roller camshaft, and do NOT require a run-in procedure.



**Fig. 1 - Cylinder Head Bolt Torque Sequence**



**Figure 2 - Intake Manifold Bolt Torque Sequence, Cylinder Numbering, and Firing Order  
Small Block Chevy Firing Order - 1-8-4-3-6-5-7-2  
Turn Distributor Counter Clockwise to Advance Timing**

**NOTICE**

**TO PROPERLY PROTECT YOUR INVESTMENT, YOU MUST SEND IN YOUR WARRANTY INFORMATION.  
WARRANTY PAPERWORK IS SUPPLIED IN YOUR KIT.**

**Edelbrock Corporation • 2700 California St. • Torrance, CA 90503  
Tech Line: 1-800-416-8628 • E-Mail: Edelbrock@Edelbrock.com**