



LS Classic Crate Engine Information Sheet

General Installation Notes:

Please read these instructions completely before beginning the installation. If you have any questions, please call.

Before beginning the installation, disconnect the negative battery cable and use wheel chocks to block the vehicle's wheels.

We recommend using anti-seize lubricant on all aluminum threads.

PLEASE READ ALL INSTRUCTIONS BEFORE PROCEEDING, STARTING WITH THESE!

- The Holley ECU provided is preprogrammed and ready to run right out of the box.
- The Holley ECU is programmed for a Lokar Billet Drive-By-Wire Electronic Throttle Control Pedal, part number BDBW-HOLLEY01.
- The Holley ECU is programmed to operate a 4L80E transmission. If you are using a 4L60E, you will need to change the transmission selection in the ECU software.
- All **EXCEPT** Tri-Power with dual throttle bodies are programmed to use the existing MAP sensor in the Holley ECU. Tri-Power with dual throttle bodies uses a separate MAP sensor (included) that must be connected to full engine vacuum.

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- If you wish to use a different drive-by-wire pedal or MAP sensor, the ECU will need to be reprogrammed with the new parts using the provided CAN to USB cable.
- The crate engine is a Chevrolet Performance LS3.
- The engine has been test fired to verify oil pressure level and that there are no vacuum leaks.
- The cap on the oil fill tube serves as the crankcase breather. There is no PCV valve.
- The engine is shipped with Mobil 1 brand 5W-30 synthetic motor oil in it.
- With the provided oil pan installed, the engine takes approximately 5.5 quarts of oil. However, it is likely that you will require a different oil pan to fit your application. If you install a different oil pan, check with the oil pan manufacturer for the proper oil fill amount.
- The fuel rails on this engine have a -6AN male fuel inlet, and will require a fuel line with a female -6AN fitting.
- The IAC and TPS leads on the wiring harness are not used in this (drive-by-wire) application. The Fuel Pressure lead on the wiring harness may be connected to an optional fuel pressure sensor, if so desired.
- A coil pack relocation kit, coil pack relocation wiring harnesses, and spark plug wire set are not included but will be required.
- We recommend using a Powermaster starter (not included), part # 9509.

Accessory Drive Kits (if equipped)

These are the parts and accessories that are installed on the engine with an Accessory Drive Kit:

- Alternator: Powermaster # 8237, 180 amp output
- Power steering pump (if equipped): Maval # 9748M (1998-2002 Camaro/Firebird LS1)
- A/C compressor (if equipped): Sanden # 4294
- Water pump: 1998-2002 Camaro/Firebird LS1
- Crankshaft balancer pulley: GM # 12553118 (F-Body) or # 19300488 (1999-up GM truck)
- Serpentine Belt Tensioner: 1998-2002 Camaro/Firebird LS1

The power steering pump is shipped with a standard-flow fitting installed that is designed for a conventional steering gearbox or most rack and pinion systems. A low-flow fitting is provided and can be installed if less power assist is desired. The threads on the fitting are 16MM-1.5.

Please refer to the provided Holley instructions for the Fuel Injection System, the provided Lokar instructions for the Intake Manifold, and the provided Chevrolet Performance instructions for the engine.

***READ
THIS
FIRST!***