

# Installation Instructions for 80093 GM LS-Series Engine Lift Plate

## Safety Guidelines

The installation begins with common sense! It is highly recommended that you support the vehicle with four heavy duty jack stands. Always use an engine hoist specifically designed for this purpose. The vehicle should be positioned on a hard flat surface (asphalt in the summer can be dangerous). NEVER use a bumper or scissor jack for support of your vehicle! ALWAYS use safety glasses. Allow the engine and transmission to cool before assembly.

## Instructions:

1. If you are unfamiliar with the vehicle wiring, fuel connections, coolant or vacuum hose routing, it is always advisable to mark each connection before removal.
2. Always make sure the engine is cold and relieve fuel pressure to minimize the possibility of personal injury or vehicle damage. Use caution in removing electrical connections due to the sensitive nature of most locking style connectors.
3. Remove the coolant hoses, fuel lines, inlet ducting, throttle cable/linkage, vacuum hoses and wiring from the alternator, battery, distributor, gauge sending units, starter and throttle body.
4. Remove the intake manifold from the engine.
5. Remove the valley cover from the top of the engine. Remove the sensor in the rear china wall of the engine (if equipped w/ this sensor).
6. Install the lift plate in place of the valley cover using the M8 bolts included with this package. The valley cover gasket is not needed w/ the lift plate. LS1, LS2, and LS6 engines will only use 10 bolts for mounting the lift plate (omit the center bolt near the back of the engine). LS3, LS7, and LSX engines will use 11 bolts. Install all 10 or 11 bolts and torque these bolts to 17 ft/lbs.
7. Install the two 3/8" Grade 8 bolts through the saw-tooth shaped slots on the U-Shaped channel of the lift plate. Install a heavy duty chain (not included) between the two bolts (inside the U-Shaped channel - if desired). Put one of the 3/8" washers on each end of the bolt on the outer edge of the U-Shaped Channel and install the Nyloc nuts on these bolts. Tighten the nuts almost all the way up to hold the washers on each side of the U-Shaped channel (tighten just enough to allow the bolts to just slide in the saw tooth grooves of the lift plate).
8. Attach the engine hoist hook to the chain or one of the 3/8" bolts as a lifting point. The saw-toothed slots will allow adjustment of the engine tilt angle where needed without disconnecting the chain or hoist from the lift plate.
9. Remove the driveshaft and insert a plug or extra yoke on the output shaft of the transmission to prevent fluid leakage. Secure to prevent the unit from becoming disengaged during the removal process.
10. Remove the remainder of the bolts from the exhaust, motor mounts, driveshaft and transmission cross-member.
11. Always utilize a helper when attempting engine removal for your own personal safety and ease of removal.

