

PART #30060

**1997-2000 C5 CORVETTE
TUNED LENGTH HEADERS**

PART #30061

**2001-2002 C5 CORVETTE
TUNED LENGTH HEADERS**

PACKING LIST FOR PART #30060				
<u>Item #</u>	<u>Check</u>	<u>Quantity</u>	<u>Part #</u>	<u>Description</u>
1	<input type="checkbox"/>	1	310301635C	Header,Coated, Driver's Side
2	<input type="checkbox"/>	1	310301637C	Header,Coated, Passenger's Side
3	<input type="checkbox"/>	1	*****	Installation Instructions

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1	<input type="checkbox"/>	1	310301635C	Header,Coated, Driver's Side
2	<input type="checkbox"/>	1	310301636C	Header,Coated, Passenger's Side
3	<input type="checkbox"/>	1	*****	Installation Instructions

INSTALLATION INSTRUCTIONS

1. Disconnect both positive and negative cables from the battery.
2. Remove the following parts from engine/engine bay:
 - The battery and plastic shroud that surrounds it
 - Both plastic covers over the ignition coil packs
 - All eight (8) spark plug wires and spark plugs
 - Both banks of ignition coil packs (remove as assemblies)
 - Serpentine drive belt and alternator
 - Unbolt A.I.R. tubes from both exhaust manifolds
 - The two (2) plastic clips that hold the positive and negative battery cables together
 - Dipstick and Dipstick Tube
3. Remove the following parts from underside of vehicle:
 - The two (2) motor mount stud nuts under the front crossmember
 - All plastic clips that secure the oxygen sensor leads and connectors to the chassis on both sides
 - Unbolt the two (2) flanges near rear transaxle that connect the O.E. midpipe assembly to the two (2) overaxle pipe/muffler assemblies. Unbolt the two (2) spring hangers near rear of midpipe assembly. (See Figure 1)
 - The two (2) bolts in front of the catalytic converters that secure front end of midpipe assembly to chassis
 - The six (6) nuts (3 per side) that secure the front end flanges of the midpipe assembly to the outlets of each side exhaust manifold, and remove the midpipe assembly from the vehicle.
 - Disconnect the engine block side of the braided ground strap on the driver side bottom of engine compartment

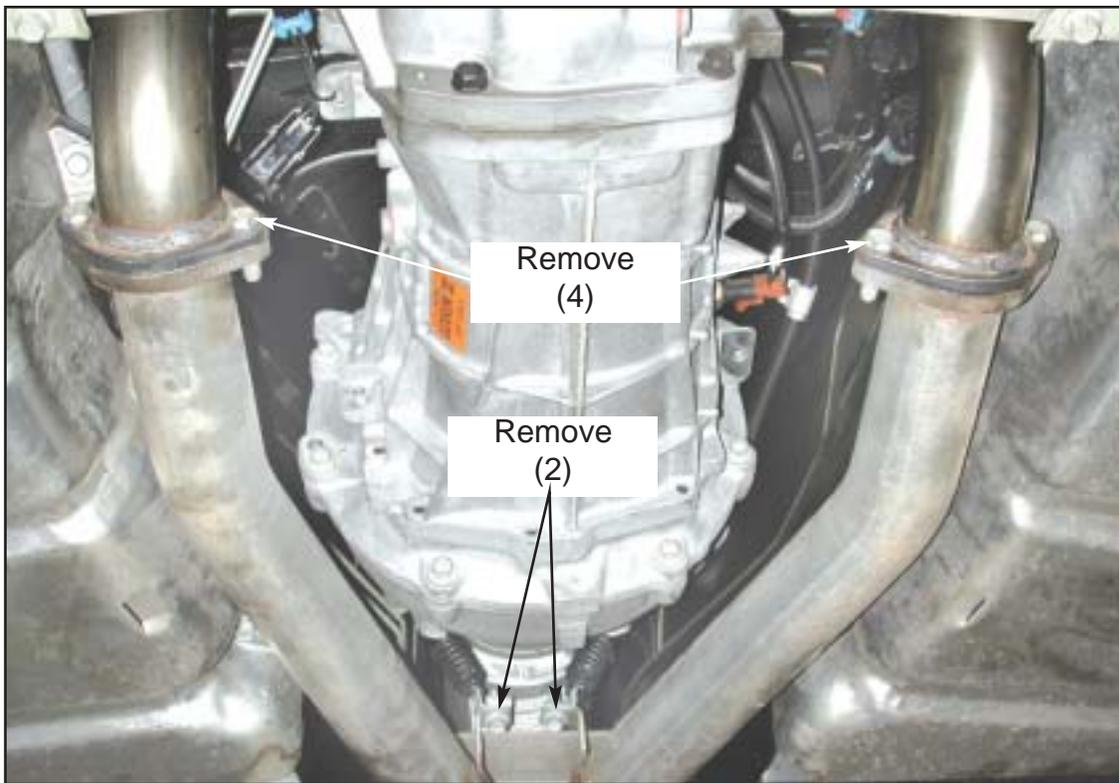


FIGURE 1

4. Unbolt each exhaust manifold from cylinder head(s) and remove the manifolds out through the top of the engine compartment. Unscrew the oxygen sensor from each manifold and set aside. Unbolt the negative battery cable and small black ground wire from passenger side of engine block just above the starter.
5. Refer to Figures 2, 3, 4, and 5 for the following steps. Locate the T-shaped junction in the wiring harness at the rear of the passenger side cylinder head (Figure 2, 3). Remove enough of the electrical tape at this joint to enable removal of the 3/4" plastic wire loom running down to the starter. Disconnect all the wires from the starter and remove it from the vehicle. Unclip the electrical connectors on the crankshaft position sensor (behind starter) and on the engine oil sensor on passenger side of oil pan.



FIGURE 2



FIGURE 3

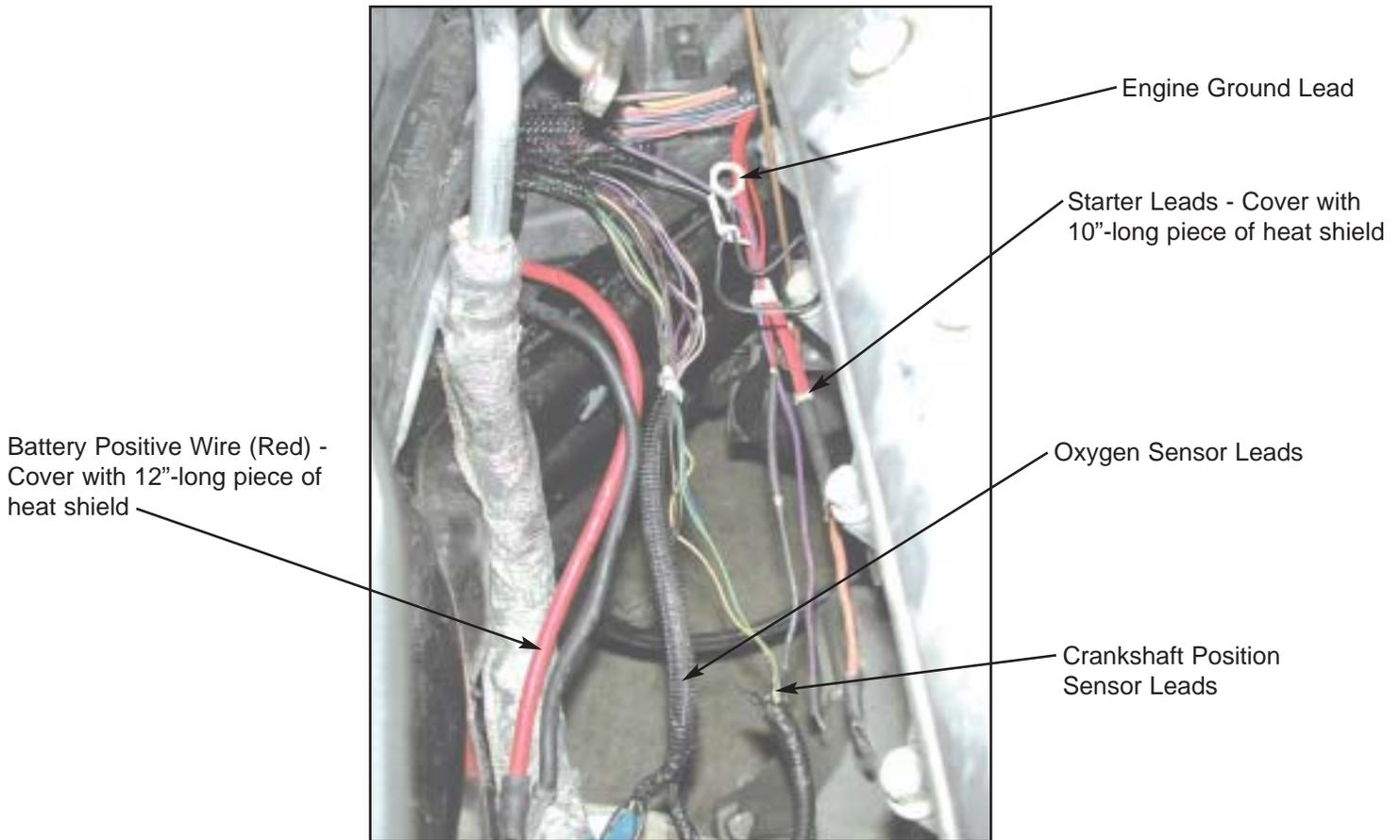


FIGURE 4

6. Separate, then group all wires together as shown in Figure 4. Route the heavy black negative battery lead and the small black ground lead to the very last rearward threaded hole in the passenger side cylinder head and bolt them there using the same bolt that held them to the engine block originally (See Figure 5). Push the excess small black ground wire into the main harness behind the cylinder head. Cover the three starter wires with a 10"-long piece of orange heat shield tubing. Cover the starter end of the red battery positive wire with a 12"-long piece of heat shield tubing. Use a piece of the 3/4" plastic wire loom removed in Step #5 to cover the remaining wires that branch out of the T-junction (11 wires total). Cover them from the T-junction to where the 3/8" plastic loom starts on the oxygen sensor leads. Add 3/8" plastic loom from install kit to finish covering the engine oil sensor lead and the crankshaft position sensor lead (if necessary). Using electrical tape, re-tape the T-junction area of harness securely. Clip on crankshaft position sensor extension lead to the sensor, and let the free end hang straight down. Route the 3/4" loom leg of the harness (containing oxygen sensor, engine oil, and crank position sensor leads) along with the covered starter leads downward and tucked behind the cylinder head (See Figure 5). Put an 8"-long piece of heat shield tubing over the engine oil sensor lead, and an 8" piece over the crankshaft position sensor lead (not the extension harness). Loop the engine oil sensor lead and crankshaft position sensor lead under starter area and attach both to their sensors. Put the starter back in with one bolt in it hand tight. Attach and tighten the three (3) starter leads in heat shielding to starter (but not the heavy red lead from battery). Locate the long, metal guide-wire bracket behind the block, just below the cylinder head. All of the above wires in their looms are to be wire-tied back to this bracket. Pre-bending the two (2) wire ties into a "U" shape will help make this easier. The finished position can be seen in Figure 5. Figure 5 also shows location of an oval, plastic plug-in wire clip that is to be removed and replaced with a high-temp cable clamp and #17 x 3/4" sheetmetal screw, installed as shown in Figure 6, with two (2) leads (engine oil sensor, and crankshaft position sensor) protected with heat shielding where they will cross over the collector section of passenger side header. Remove the single (loose) bolt holding the starter position and let starter sit down on top of oil pan wing.

MANUAL TRANSMISSION VEHICLES: (Refer to Figure 8) Locate the clip hole in chassis on driver side of engine compartment above dual brake lines. Use the smaller high-temp cable clamp and a #17 x 3/4" screw to secure the hydraulic braided clutch hose away from engine block for header clearance.

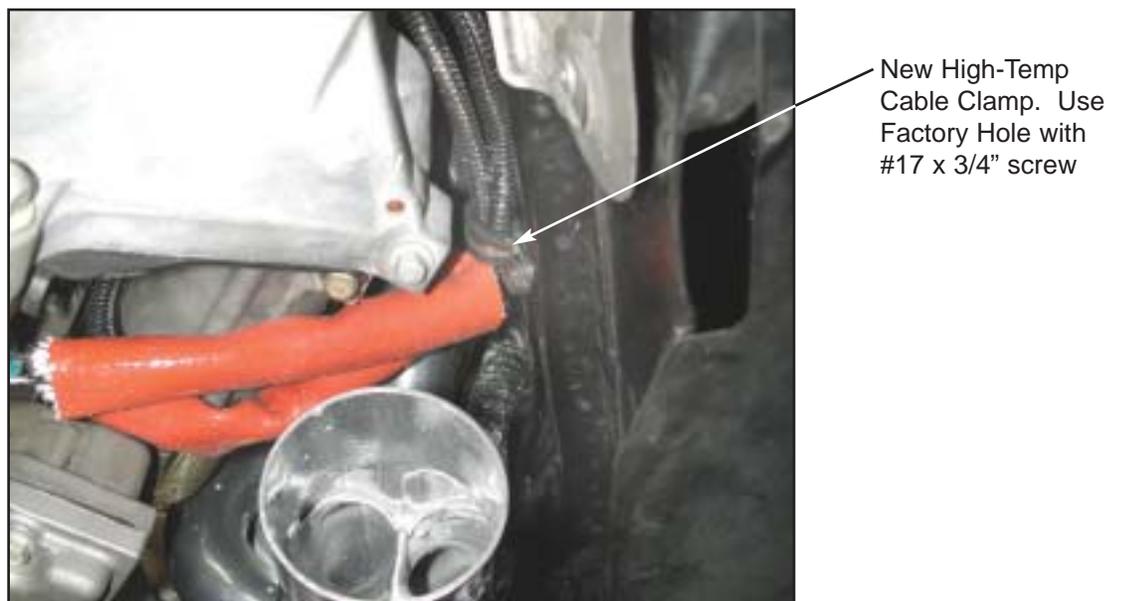
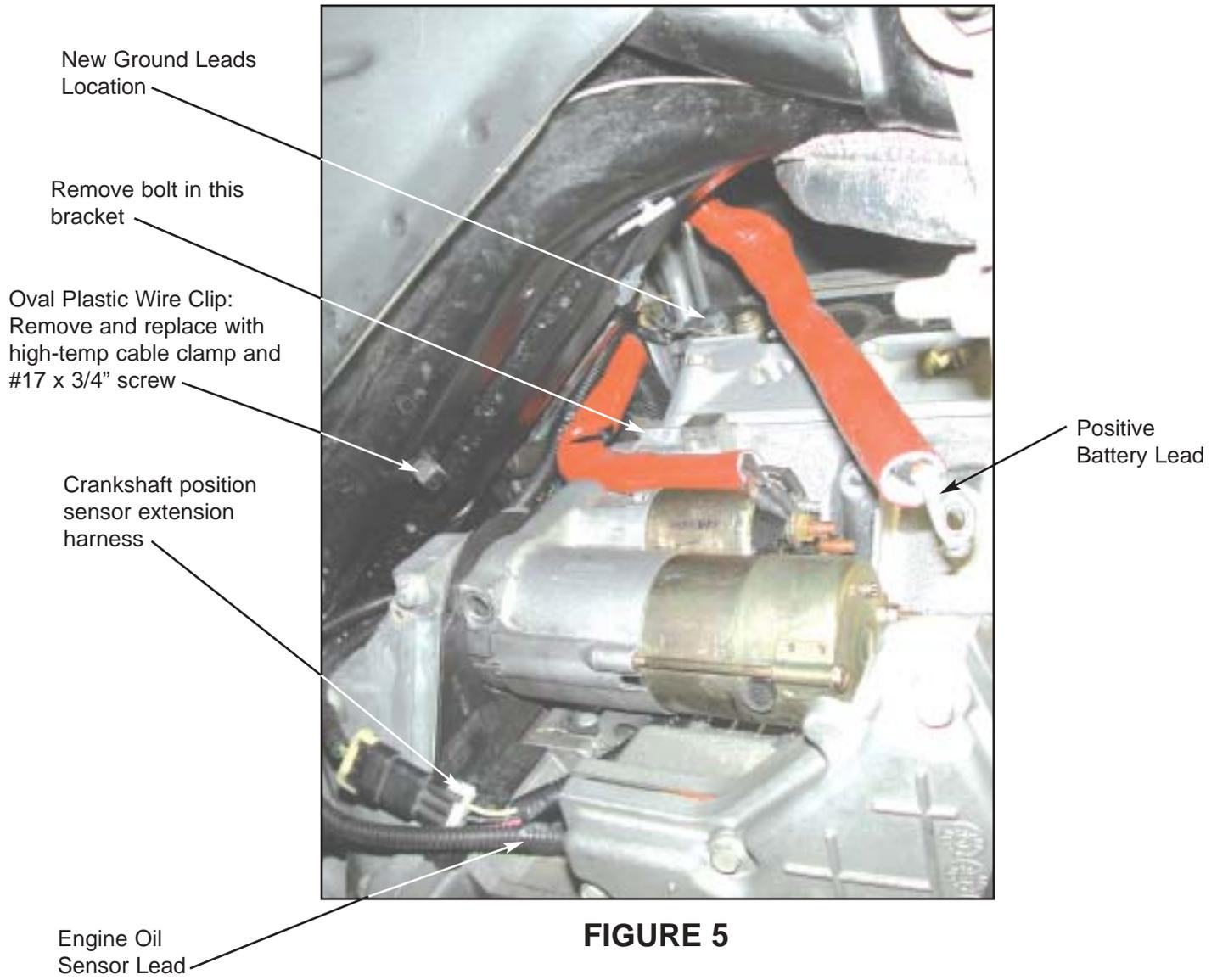




FIGURE 7

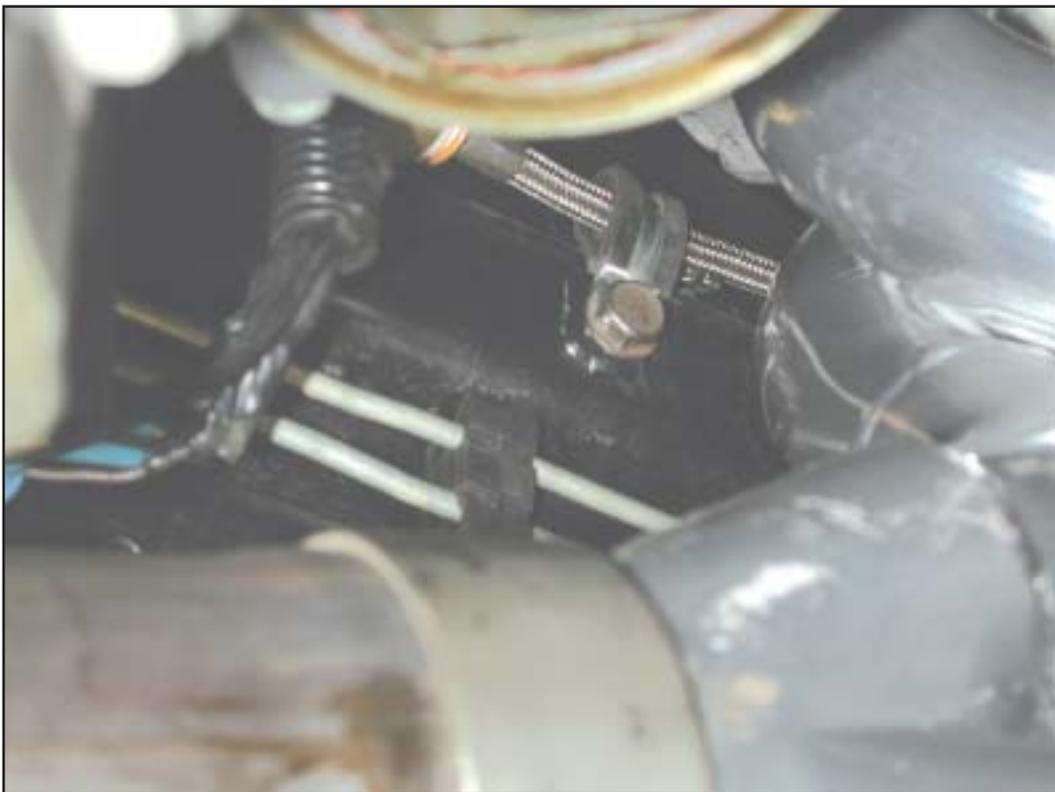


FIGURE 8

7. **NOTE: This step may require lifting the engine slightly on the passenger side.**

Slowly and carefully insert the passenger side header down into position from topside of engine compartment. Before header is fully down into position, run the starter end of the battery positive cable (previously covered in heat shield tube) through the rearmost opening in header, where the third tube back (#5 port) forms a large loop rearward. Reattach the wire to the starter stud with its brass nut. Orient the cable on the stud so that when the starter and header are in proper positions, the cable will run toward the center of the open loop in header. Tighten the brass nut, and be sure all other starter wires are also tight, then install the starter with both bolts and tighten. Use a new gasket from installation kit and the bolts removed earlier from stock manifold(s) to install the header to the cylinder head. Tighten the bolts only enough to still allow the header outlet end to move up and down. Connect the loose end of the crankshaft position sensor extension harness to the loose end of the lead for that sensor, and connect the engine oil sensor lead to that sensor. Pull the heat shield installed earlier on each wire so that it is above the header collector, and install both wires into the high-temp cable clamp installed earlier (Figure 6). Be sure the wires will not droop down and contact the header.

8. **NOTE: This step will require lifting the engine on driver side.**

Use the alternator bracket as a pry point with a block of wood (or similar) against the chassis. With the assistance of a helper, pry the engine up slowly, and carefully insert the driver side header down into position from topside of engine compartment. Mount header to cylinder head using new gasket and bolts removed earlier from manifold(s). Tighten bolts only loosely as described for passenger side header.

9. (Refer to Figure 9) Install the front pair of oxygen sensors into each half of the h-downpipe. Put the 2-1/2" unbolt clamp over the female side of the balance tube, and a 3" band clamp on each of the front female ends (inlet ends) of each h-downpipe half. Put the two halves of the h-downpipe together at the balance tube joint. The oxygen sensors should point upward. With h-downpipe assembly supported as a unit, and near installed position, connect the oxygen sensor wire to its appropriate connector. Next, raise h-downpipe assembly up into place and start each slip joint onto the header outlets. The 2-1/2" balance tube joint may have to be almost fully apart to do this. Fully seat each 3" slip joint over the header outlets. Tighten each 3" band clamp over joint JUST ENOUGH to hold joint together. Fasten the oxygen sensor wires up and out of the way, insuring they cannot fall or droop down onto h-downpipe assembly/header outlets. Loosely re-bolt the two (2) tabs on h-downpipe assembly to their support bracket along with the two (2) large flat washers from the installation kit. Figure 10 shows one version of the h-downpipe in position. From the topside of vehicle, tighten all header-to-cylinder head bolts on both sides in two passes on each; First to 15nm/11 ft. lb., second pass to 25 nm/18 ft. lb.

NOTE: If installing SLP #30068 weld-in H-Downpipe on 2000-2002 Corvettes, tighten two (2) bolts ONLY on each side header to approximately 5 ft./lbs. These bolts will be loosened later to enable removal of O.E. midpipe/converter assembly

10. (Refer to Figure 7) Clearance the brake lines that run along header tube as shown. Air gap should be at least 1/2." (Refer to Figure 9) The aluminum air conditioning tube must be carefully pushed (with a blunt, soft-ended tool) away from header and rearward. Move the tube just enough to give 3/8" clearance. DO NOT push too far, or with a sharp-edged tool, as damage may result.

On driver side, note the hose clamp that retains plastic bell-shaped guard on the steering shaft joint. Position hose clamp to clear header when wheel is turned from left to right. This is very important. Re-install/re-connect all parts listed in Step #2, as well as the two (2) nuts onto motor mount stud nuts. On 1997-2000 vehicles, use 1/4"-20 x 1/2" long bolt from installation kit to re-attach the dipstick tube to the passenger side header

TORQUE SPECIFICATIONS

Motor Mount Nuts - 65nm/48 ft. lbs.

Alternator Bolts - 15nm/11 ft. lbs.

Starter Bolts - 50nm/37 ft. lbs.

Ignition Coil Bracket Bolts - 12nm/106 in. lbs.

Ground Strap to Cylinder Heads - 32nm/23 ft. lbs.

A.I.R. Tubes - 20nm/15 ft. lbs.



FIGURE 9



FIGURE 10

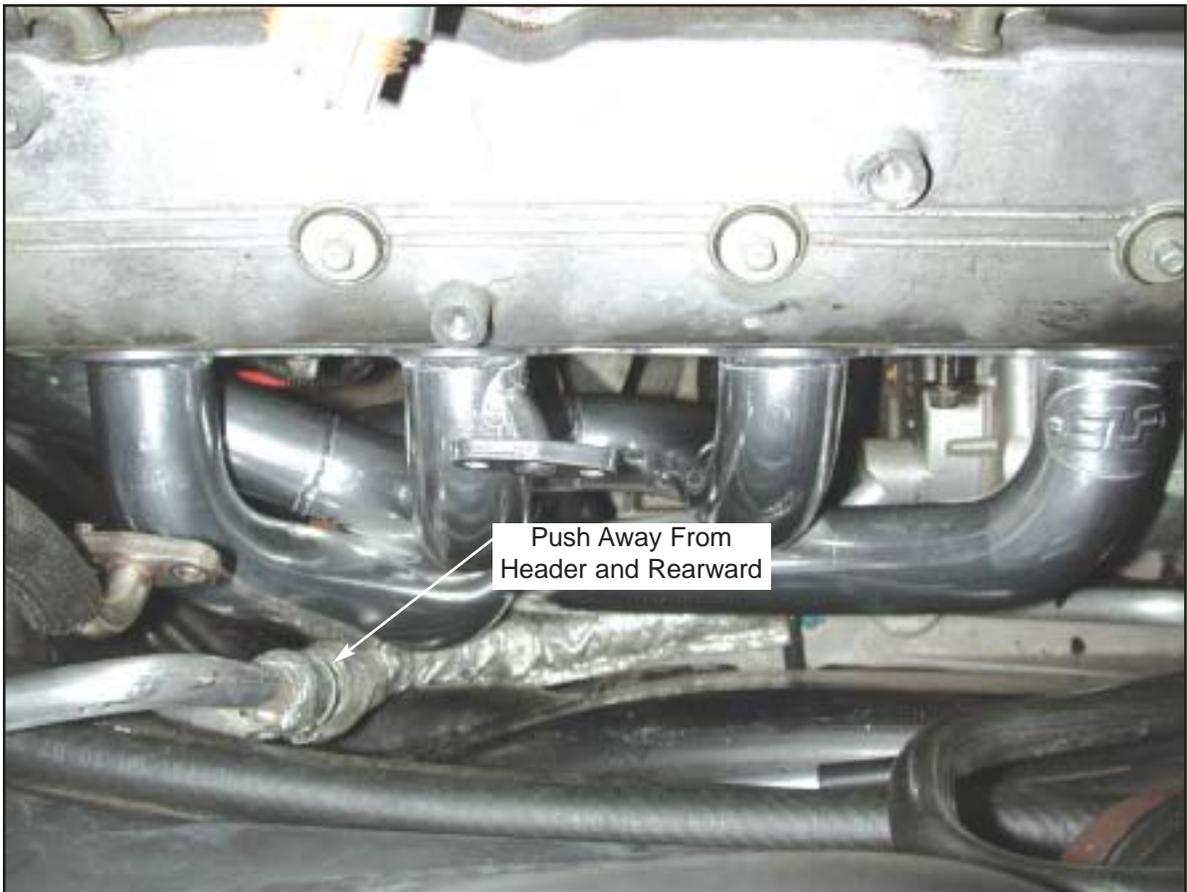


FIGURE 11