



**PART # 68321 & 66321 w/ A.I.R.**  
**INSTRUCTION SHEET**  
1981-1988 CHEVELLE, EL CAMINO, MALIBU,  
MONTE CARLO LG-4 LOW OUTPUT 5.0L V-8

**CAUTION!**

This is a custom designed exhaust header system, designed for this particular application (s). Do not bend, bang, cut, dent, drill or heat any portion of this header! Any alteration other than those suggested in this instruction sheet will void the Hedman Lifetime Guarantee!

To prevent leaks, install your headers using Hedman Hedderts exhaust gaskets ONLY and a spray copper gasket sealant.

**BEFORE STARTING INSTALLATION:**

It is necessary to raise the vehicle at least 36 inches from the ground. A floor hoist is recommended, if not available, use a hydraulic floor jack with jackstands. **DO NOT USE A BUMPER JACK!**

**INSTALLATION INSTRUCTIONS:**

**DISASSEMBLY:**

1. Disconnect negative (-) cable from battery to prevent electrical damage.
2. Raise vehicle and support with jackstands.
3. Remove all spark plugs (Number Wires).
4. Use penetrating oil on all nuts and bolts to be removed. This will prevent the possibility of broken or stripped nuts and bolts.
5. Making sure the converter is cool, remove the catalytic converter.
6. Remove exhaust crossover pipe.
7. Lower vehicle to the ground.

**DISASSEMBLY - LEFT SIDE:**

1. Remove air cleaner system (note position of line and hose connections).
2. Disconnect A.I.R. (air injection reactor) tube from exhaust manifold.
3. Remove air conditioner compressor rear support bracket (if air conditioning equipped).
4. Remove power steering pump support bracket (if power steering is applicable).
5. Remove O2 sensor, being careful not to rupture or destroy the unit.  
**WARNING:** Do not clean this unit in any cleaning solvent and do not rupture.
6. Disconnect temperature sensor wire at cylinder head.
7. Remove temperature sensor wire support bracket from valve cover bolt and lay wire back over engine.
8. Remove bolts and exhaust manifold from top side.
9. To install left side of system from the topside, disconnect steering column connector and lower slip tube down to steering box. **CAUTION:** Do not turn steering wheel or front wheels while this system is disconnected.

**DISASSEMBLY - RIGHT SIDE:**

1. Disconnect A.I.R. injection tube from exhaust manifold and catalytic converter tube.
2. Disconnect electrical connector and vacuum hoses from A.I.R. diverter valve assembly (note position of hose and electrical connections).
3. Remove AIR. pump feed hose from diverter valve assembly.
4. Remove nut from diverter valve support bracket at exhaust manifold and loosen alternator pivot bolt, then remove diverter valve assembly.
5. Remove dipstick and tube from engine. **CAUTION:** Do not damage tube.
6. Remove bolts and exhaust manifold from top side.
7. Clean exhaust flange surfaces on cylinder heads At this time.

**ASSEMBLY - LEFT SIDE:**

1. Install left side header manifold with gasket in place (use Permatex Copper Spray sealant on gasket) from top side.
2. Install all but the front two bolts and washers on left side (**Do not tighten at this time**).

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3. Re-install rear power steering support bracket (**Do not tighten at this time**).
4. Re-install rear A/C support bracket with bolts, lock washers, and spacers supplied.
5. Align all parts and tighten left side bolts and nuts from center out.
6. If disconnected, re-connect steering column coupler. **WARNING:** Make sure coupler bolt is tight and check to see that the steering wheel is in same orientation as prior to disassembly.
7. Form brake lines to clear header pipes.
8. Re-install spark plugs and re-connect wires on left side.
9. Change spark plug wire ends and boots as needed.
10. Re-install temperature sensor wire support bracket and re-connect wire to temperature sensor.
11. Re-install O2 sensor. Use anti-seize on threads of sensor. Re-route O2 sensor wire from wire loom to O2 sensor making sure all wires are clear of exhaust system (O2 sensor extension wire is included in kit).

### **ASSEMBLY - RIGHT SIDE:**

1. Install right side header manifold with gasket (use Permatex Copper Spray sealant on gasket) and dipstick tube from top side.
2. Install remaining bolts, lock washers, dipstick and tube. (**Do not tighten at this time**).
3. Re-install O.E.M. front stud bolt with spacer (supplied). Align all parts & tighten all right side bolts at this time.
4. Re-install spark plugs and re-connect wires.
5. Change spark plug wire ends and hoots as needed.
6. Re-install diverter valve assembly in front O.E.M. stud bolt and tighten.
7. Re-connect electrical connections and vacuum lines to diverter valve assembly.
8. Remove A.I.R. check valves from original manifolds and re-install them on header. Re-connect using rubber hose and connectors supplied in this kit.
9. Raise vehicle and support with jackstands.

### **CROSSOVER PIPE ASSEMBLY:**

1. Assemble both lower pipes. Do not clamp tight at this point.
2. Rotate E.F.E. valve 180° from its original position (the diaphragm will now be facing to the rear of the vehicle).
3. Install crossover pipe assembly on vehicle with four 3/8" bolts, lock washers and gaskets supplied. Do not tighten at this time.
4. Form A.I.R. injection tube to catalytic converter. Align and tighten all bolts and clamps.
5. Be sure that all brake and fuel lines have adequate clearance.

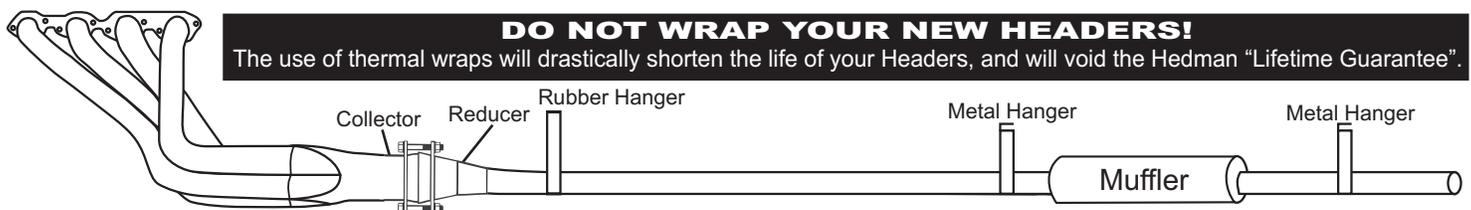
### **LOWER VEHICLE TO THE GROUND:**

1. Replace and reconnect the battery and all other parts previously removed or disconnected. Make special notice to have proper clearance of all fuel, brake lines and any shift linkage. At this point, it would be a good idea to look everything over and make sure nothing was missed in assembly.
2. Start engine, test drive vehicle, and allow the engine to gain normal operating temperature. Check for leaks and new or unusual noises. After test driving, allow engine to cool and re-tighten all header bolts.

**ENJOY YOUR HEADERS WHILE COMBINING INCREASED FUEL ECONOMY WITH BETTER PERFORMANCE.**

### **SPECIAL INSTRUCTIONS!**

After installing your headers it is very important that your exhaust system be suspended properly. As indicated in the drawing below you must place hangers as close to the header collector as possible. Rubber hangers should be used to allow the front of the system to flex with the engine torque. A hanger is needed before and after the muffler (s). When your exhaust system is unbolted from the header collector, it should remain suspended all by itself. Your Headers Are Not designed to support your exhaust system. Failure to follow these instructions will most likely result in cracks around the area where your primary tubes and collector are welded together, and will nullify your "Lifetime Guarantee".



### **DO NOT WRAP YOUR NEW HEADERS!**

The use of thermal wraps will drastically shorten the life of your Headers, and will void the Hedman "Lifetime Guarantee".

**WARNING:** Removal of catalytic converters and other factory air pollution control devices is illegal. We recommend you adhere to your state's local laws. Our testing indicates performance is not significantly affected by these devices.