



**TUBULAR EXHAUST SYSTEM**  
**For 1982-1987 Camaro & Firebird**  
**with LG-4 (Low Output) 305 C.I.D. V8 Engine**  
**Catalog #68712, #68713**

**INSTALLATION INSTRUCTIONS**

Please study these instructions carefully before installing your new *Tubular Exhaust System* (TES). If you have any questions, please contact our **Technical Hotline at : 1-800-416-8628** from 7 am - 5pm, Monday-Friday, Pacific Standard Time or e-mail us at [Edelbrock@Edelbrock.com](mailto:Edelbrock@Edelbrock.com).

**TUBULAR EXHAUST SYSTEM:** These components are designed as a system to improve the exhaust efficiency of the GM 305 LG-4 V8 engine. A performance gain can be expected by the installation of the system. This system requires no welding for installation and retains all O.E.M. emissions equipment.

**Suggested Tools Needed for Installation:** This vehicle has metric fasteners.

- 3/8" ratchet socket set with extensions and universal 13mm and 15mm swivel sockets
- Combination set of open-end wrenches
- Jackstands, screwdrivers, pliers, crescent wrench, etc.
- Liquid penetrant, (GM #1052627) anti-seize compound (GM #5613695)

**SPECIAL NOTICE:** This Edelbrock Tubular Exhaust System has received an Executive Order number (E.O.#) from the California Air Resources Board (C.A.R.B.) making it legal for street use in all 50 states. To assist you with emission equipment certification, we have included a silver fan shroud decal to help testing personnel verify the this part is a legal replacement on the vehicle for which it is cataloged. The adhesive-backed decal should be affixed next to the existing emission and engine specifications decal. Do not cover any part of your original emission decal.

**WARNING:** The use of "Thermal Wrap" or any aftermarket coating process **will void the warranty** on your Edelbrock Tubular Exhaust Systems. Those products can cause excessive heat and moisture buildup resulting in corrosion and failure of the system.

**NOTE:** High temperature spark plug wires and boots are recommended to withstand heat from T.E.S.

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

**KIT CONTENTS**

**Catalog #68712 (Ceramic-Coated), #68713 (Ti-Tech Coated)**

Qty.	Description
<input type="checkbox"/> 1	Header left side #25-9331 (#68712)
<input type="checkbox"/> 1	Header right side #25-9332 (#68712)
<input type="checkbox"/> 1	Header left side #25-9003 (#68713)
<input type="checkbox"/> 1	Header right side #25-9004 (#68713)
<input type="checkbox"/> 1	Extension pipe left side #25-9503
<input type="checkbox"/> 1	Extension pipe right side #25-9504
<input type="checkbox"/> 1	Umpco clamp; 3/8" I.D.
<input type="checkbox"/> 1	Umpco clamp; 1-5/8" I.D.
<input type="checkbox"/> 1	Hex nut; 10-32
<input type="checkbox"/> 1	Hex capscrew; 10-32 x 1"
<input type="checkbox"/> 1	Star washer; 3/16" internal
<input type="checkbox"/> 2	Tube spacer; 5/8" x 1.53"
<input type="checkbox"/> 1	Tube spacer; 5/8" x .72
<input type="checkbox"/> 2	Donut gaskets; 2-1/4"

Qty.	Description
<input type="checkbox"/> 1	Flange connector
<input type="checkbox"/> 1	U-Muffler clamp; 2-1/4"
<input type="checkbox"/> 1	O2 Sensor pigtail wire; 12"
<input type="checkbox"/> 2	Chevy V8 port gaskets
<input type="checkbox"/> 1	Thermo wrap; 2" x 6"
<input type="checkbox"/> 1	Safety wire; 8"
<input type="checkbox"/> 2	Hex capscrews; 3/8" 16 x 2"
<input type="checkbox"/> 2	Header bolts; 3/8" - 16 x 3"
<input type="checkbox"/> 16	Split lock washers; 3/8"
<input type="checkbox"/> 4	Flat washers; 3/8"
<input type="checkbox"/> 12	Header bolts; 3/8" - 16 x 1"
<input type="checkbox"/> 2	Hex cap screws; 3/8" - 16 x 3"
<input type="checkbox"/> 1	O2 Sensor plug (if needed)
<input type="checkbox"/> 4	Hardened washers; 3/8"

## INSTALLATION INSTRUCTIONS

### • DISASSEMBLY

1. Disconnect battery negative cable from battery.
2. Raise vehicle and support with jackstands.
3. The use of penetrating oil when removing and the use of anti-seize compound when installing nuts and bolts will prevent the possibility of broken or stripped nuts and bolts.
4. Making sure converter is cool, remove the catalytic converter.
5. 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) hose from exhaust manifold.
3. Remove air conditioner rear support bracket (if air conditioning is applicable).
4. Remove power steering support bracket (if power steering is applicable).
5. Disconnect spark plug wires and remove spark plugs.
6. Remove O2 sensor, being careful not to rupture or destroy the unit.

**WARNING:** Do not clean this unit in any cleaning solvents and do not rupture wire.

7. Disconnect temperature sensor wire at cylinder head.
8. Remove temperature sensor wire support bracket from valve cover bolt and lay wire back over engine.
9. Remove bolts and exhaust manifold from top side.
10. 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 hose 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 A.I.R. pump feed hose from diverter valve assembly.
4. Remove nut from diverter valve support bracket at exhaust manifold and loosen lower alternator pivot bolt, then remove diverter valve assembly.
5. Disconnect spark plug wires and remove spark plugs.
6. Remove dipstick and tube from engine.

**CAUTION:** Do not damage tube.

7. Remove bolts and exhaust manifold from top side.
8. At this time, clean exhaust flange surfaces on cylinder heads.

### • ASSEMBLY LEFT SIDE

1. Install T.E.S. flange gasket and one 3/8-16 x 1" bolt and lock washer at rearmost bolt hole (leave bolt loose enough to accept T.E.S.).
2. Install left side T.E.S. manifold from top side.
3. Install all but the front two bolts and washers on left side (do not tighten at this time).
4. Re-install rear power steering support bracket. Do not tighten at this time.
5. Re-install rear A/C support bracket with bolts, lock washers and spacers supplied.
6. Align all parts and tighten left side bolts and nuts at this time.
7. Re-connect steering column coupler.

**WARNING:** Make sure coupler bolt is tight and check to see that steering wheel is in same orientation as prior to disassembly.

8. Form brake lines to clear T.E.S. pipes.
9. Re-install spark plugs and reconnect wires left side.
10. Re-install temperature sensor wire support bracket and reconnect wire to temperature sensor.
11. Re-install O2 sensor. Use anti-seize on threads of sensor and torque to 30 ft./lbs. Re-route O2 sensor wire from wire loom to O2 sensor (use O2 sensor extension lead supplied) making sure all wires are clear of exhaust system.

### • ASSEMBLY RIGHT SIDE

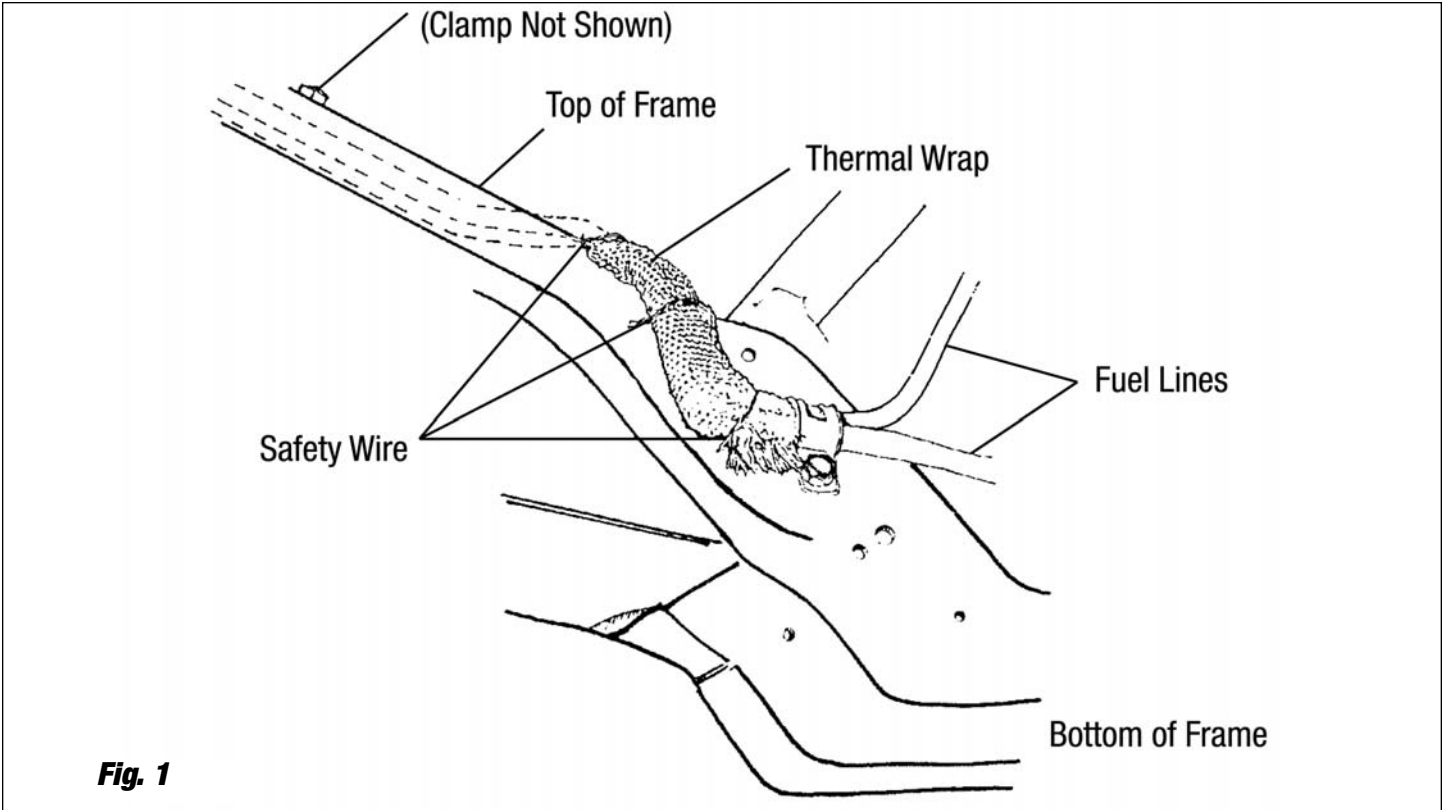
1. Remove fuel line bracket bolts on side and top of frame (two bolts) right side.
2. Pull lines away from frame approximately 1" and place any spacer between lines and frame to hold away.
3. Soak thermo wrap supplied in water, this will make it easy to form.
4. Form thermo wrap around fuel lines as shown in **Figure 1**.
5. With thermo wrap in place, wrap wire around at each end to hold in place.
6. Remove spacer.
7. Replace bolts and tighten both clamps.
8. Install T.E.S. flange gasket and one 3/8" - 16 x 1" bolt, lock washer and flat washer at rearmost bolt hole (leave bolt loose enough to accept T.E.S.).
9. Install right side T.E.S. manifold from top side concurrently with dipstick tube.
10. Install remaining bolts, lockwashers, dipstick and tube clamps (**see Figure 2**). Do not tighten bolts at this time.
11. Re-install O.E.M. front stud bolt with spacer (supplied). Align all parts and tighten all right side bolts at this time.
12. Re-install spark plugs and reconnect wires.
13. Re-install diverter valve assembly in front O.E.M. stud bolt and tighten.
14. Re-connect electrical connections and vacuum lines to diverter valve assembly.
15. Remove A.I.R. Check valves from O.E. manifolds and re-install them on T.E.S. Re-connect all injection hoses.
16. Raise vehicle and support with jackstands.

### • CROSSOVER PIPE ASSEMBLY

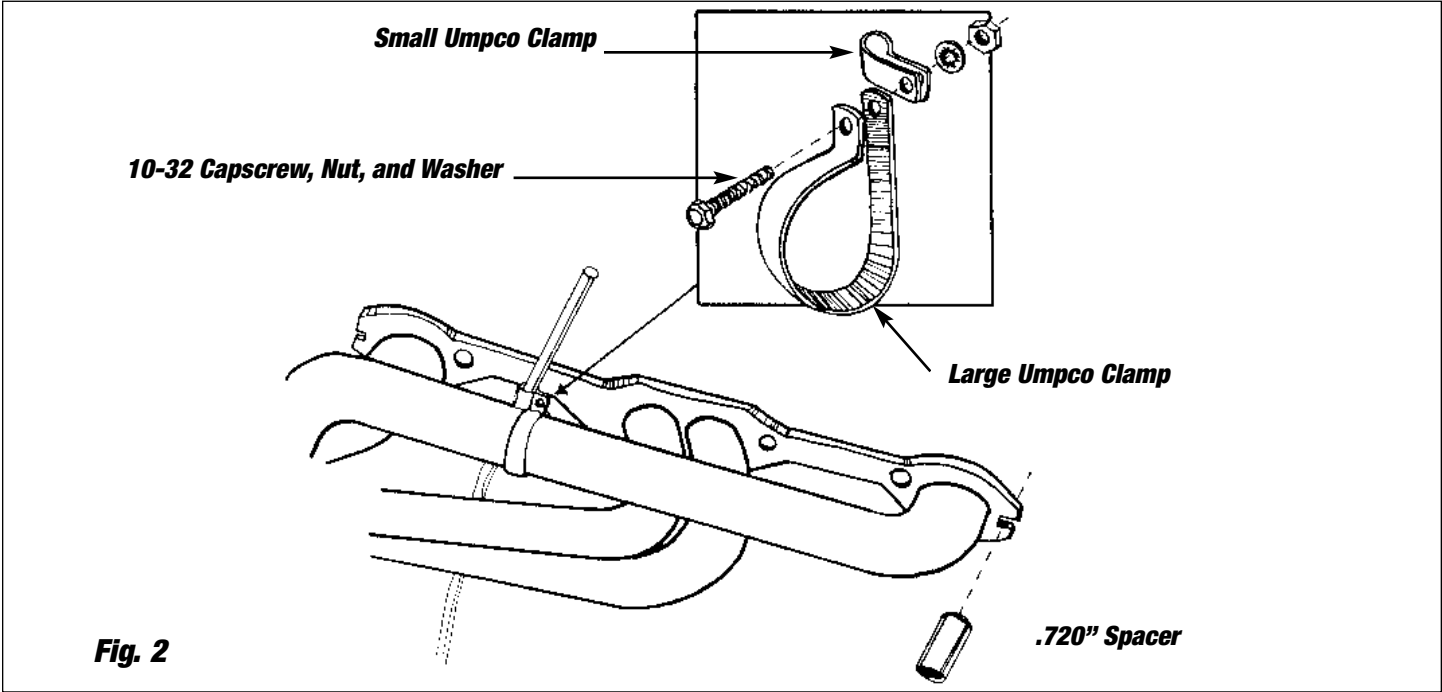
1. Assemble both lower pipes. Do not clamp tight at this point.
2. Rotate E.F.E. valve 180° from its original position (the diaphragm will now be facing to the rear of vehicle).
3. Install crossover pipe assembly on vehicle with four 3/8" bolts, lock and flat washers and gaskets supplied. Do not tighten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

### • LOWER VEHICLE TO THE GROUND

1. Connect negative cable to battery. At this point, it would be a good idea to look everything over and make sure nothing was missed in assembly.
2. Start vehicle, bring up to normal operating temperature and check for possible leaks.
3. Turn engine off and let cool. Tighten all bolts again.



**Fig. 1**



**Fig. 2**

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