TUBULAR EXHAUST SYSTEM

CATALOG #6876/7976

1989-1992 Camaro & Firebird 305 &350 c.i.d.V8
T.P.I. auto & standard transmission (dual converters)

INSTRUCTIONS

- **PLEASE** study these instructions carefully before installing your new Tubular Exhaust System (TES). If you have any questions or problems, do not hesitate to contact our **Technical Hotline at : 1-800-416-8628.**
- **TUBULAR EXHAUST SYSTEM**: These components are designed as a system to improve the exhaust efficiency of the GM T.P. I. (tuned port injection) V8 engine. A performance gain can be expected by the installation of the system. **This system does require welding** for installation and retains all O.E.M. emissions equipment.
- **SUGGESTED TOOLS FOR INSTALLATION**: This vehicle has some metric fasteners
  — MIG welder (recommended) or gas welder. Professional welding is highly recommended.
  — 3/8" ratchet socket set with extensions and universal 13mm and 15mm swivel socketsl
  — Combination set of open-end wrenches
  — Jackstands, screwdrivers, pliers, crescent wrench, hacksaw, etc.
  — Liquid penetrant, (GM #1052627) anti-seize compound (GM #5613695)
  — Spark plug wire crimping tool
- **SPECIAL NOTICE:** This Edelbrock part has received an Executive Order number (E.O. #) from the California Air Resources Board (C.A.R.B.) making it legal for street use on pollution-controlled motor vehicles in all 50 states. To assist you with emissions equipment certification, we have included a silver fan shroud decal to verify that this part is a legal replacement part on the vehicle for which it is cataloged. The adhesive-backed decal should be affixed to your fan shroud next to the existing emission and engine specification decal. Do not cover your original equipment specification decal with the Edelbrock fan shroud decal.
- **WARNING:** The use of "Thermal Wrap" or any aftermarket coating process will void the warranty on your Tubular Exhaust System. Those products can cause excessive heat and moisture buildup resulting in corrosion and early failure of the system.
- **NOTES:** The paint used on non-coated T.E.S. is for protection during shipping and storage and will burn off soon after the engine is started. Those who desire a longer lasting finish should sand blast the T.E.S. to remove the original paint, then apply high temperature header paint, such as VHT, available at most auto parts stores.
- When cleaning any Edelbrock Pro-Tech coated TES, use only soap and warm water. The use of caustic solvents (Gunk, etc.) will mar or damage the Pro-Tech coating.
- High temperature spark plug wires and boots are recommended to withstand heat from T.E.S.

• DISASSEMBLY

1. Disconnect negative cable from battery.
2. Raise vehicle and support with jackstands.
3. Use penetrating oil on all nuts and bolts to be removed. This will prevent the possibility of broken or stripped nuts and bolts.
4. Making sure converters are cool, remove the exhaust pipe and catalytic converter assembly. **NOTE:** The small A.I.R. tube connection should be a slip joint, however, the factory clamp is usually over-tightened until is crushes the joint. If yours is stubborn, apply heat from a torch to help loosen it.
5. Lower vehicle to the ground.

Clamp in vice, then bend flats approximately 10°

Figure 1—Right side A/C support rod- top view

• 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 compressor rear support bracket. If air conditioning compressor is mounted on right side of engine, this bracket will require bending in a vice before re-installation (see Figure 1).
4. Remove power steering pump support bracket (if power steering is applicable).
5. Disconnect spark plug wires and remove spark plugs.
6. Remove 0_2 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. USE EXTREME CAUTION IF VEHICLE IS EQUIPPED WITH AIR BAG!

- **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 dip stick/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.
9. Unbolt oil coolant tube from frame rail (where applicable) and bend rear brace around tube. Bolt new flat brace (supplied) to frame rail. This will move coolant tube above and on top of frame which will allow more clearance for exhaust system.

- **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 three bolts and washers on left side (do not tighten at this time).
4. install rear power steering support bracket. Do not tighten.
5. Reinstall rear A/C support bracket with bolts, lock washers and spacers supplied (see Figure 2 for spacer locations).
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 where necessary; do not disconnect.
9. Reinstall spark plugs and re-connect wires left side.
10. Change spark plug wire ends and boots as needed.
11. Reinstall temperature sensor wire support bracket and re-connect wire to temperature sensor.

- **ASSEMBLY RIGHT 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 TES.).
2. Install right side T.E.S. manifold from top side with dip stick tube at same time.
3. Install remaining bolts, lock washers and dip stick tube clamp. (see Figure 3) Do not tighten bolts at this time.
4. Re-install O.E.M. front stud bolt with spacer (supplied). Align all parts and tighten all right side bolts at this time.
5. Re-install spark plugs and re-connect wires.
6. Change spark plug wire ends and boots as needed.
7. Reinstall diverter valve assembly in front O.E.M. stud bolt and tighten.
8. Re-connect electrical connections and vacuum lines to diverter valve assembly.
9. Remove A.I.R. check valves from O.E. manifolds and reinstall them on T.E.S. For 1986 & 1987 models, use plastic connector and 5" hose supplied. Re-connect air hoses. For 1988 models remove 1/2" from formed 900 rubber O.E.M. elbow and install plastic connector. Use 2" of hose supplied and re-connect air hose. Re-connect all injection hoses at this time.
10. Raise vehicle and support with jackstands.

- **EXTENSION PIPE PREPARATION**

1. The exhaust pipe/catalytic converter assembly must be cut off with a hack saw as shown in Figures 4, 4a, and 4b. Note that the tab which is welded to both pipes must be cut off of the right side pipe only and will be re-welded to the new pipe after it is in place.
2. With gasket in place, bolt right side T.E.S. exhaust pipe to manifold leaving bolts loose enough to align pipe.
3. Put catalytic converter/exhaust pipe assembly back into original position, slipping right pipe into T.E.S. extension pipe.
4. With gasket in place, bolt left T.E.S. pipe onto manifold and slip over OEM pipe.
5. Position T.E.S. extension pipes against T.E.S. manifolds so that an equal amount of donut gasket is showing all around the flare on both pipes (see Figure 5). This assures correct alignment of the two parts before welding the rest of the system.
6. Tighten bolts so pipes won't move and make sure the catalytic converter assembly is up in the original position, then tack weld to both extension pipes. MIG welding is recommended, but gas can be used if MIG is not available. Each pipe should be tack welded in at least three places.
7. Remove complete assembly and finish welding. Be sure to re-weld the tab between both pipes.
8. Install new extension pipe/catalytic converter assembly.
9. Before re-attaching the A.I.R. pipe, clean the mating surfaces thoroughly with sandpaper, wire brushes, etc. If the joint was difficult to loosen, it may help to apply some grease before assembly.

- **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 and bring up to normal operating temperature and check for possible leaks.
3. Turn engine off and let cool. Tighten all bolts again.

- **HARDWARE SUPPLIED**

1— Manifold left side #25-9007
1— Manifold right side #25-9008
1— Extension pipe left side #25-9560
1— Extension pipe right #25-9561
1— 12" 02 sensor pig tail wire
1— Flange connector
1— Air hose Connector
2— Chevrolet V8 port gaskets
2— 2-1/2" donut gaskets
1— Air hose 5/8" I.D. x 5" long
3— Spark plug boots and ends (if needed)
1— Coolant tube bracket
1— Umpco clamp; 3/8" I.D.
1— Umpco clamp; 1-5/8" I.D.
4— 3/8" flat washers
12— 3/8" - 16 x 1" Header bolts
2— 3/8"- 16 x 2-3/4" Ferry bolts
1— Hex nut; 10-32
4— 3/8" - 16 x 2" Hex cap screws
1— 5/8" x .72 Spacer tube
2— 5/8" x 1.53 Spacer tube
1— 5/8" x 1.12 Spacer tube
1— Hex cap screw; 10-32 x 1"
1— Star washer; 3/16" internal
12— 3/8" Split lock washers

Figure 4
OEM exhaust pipe/catalytic converter assembly

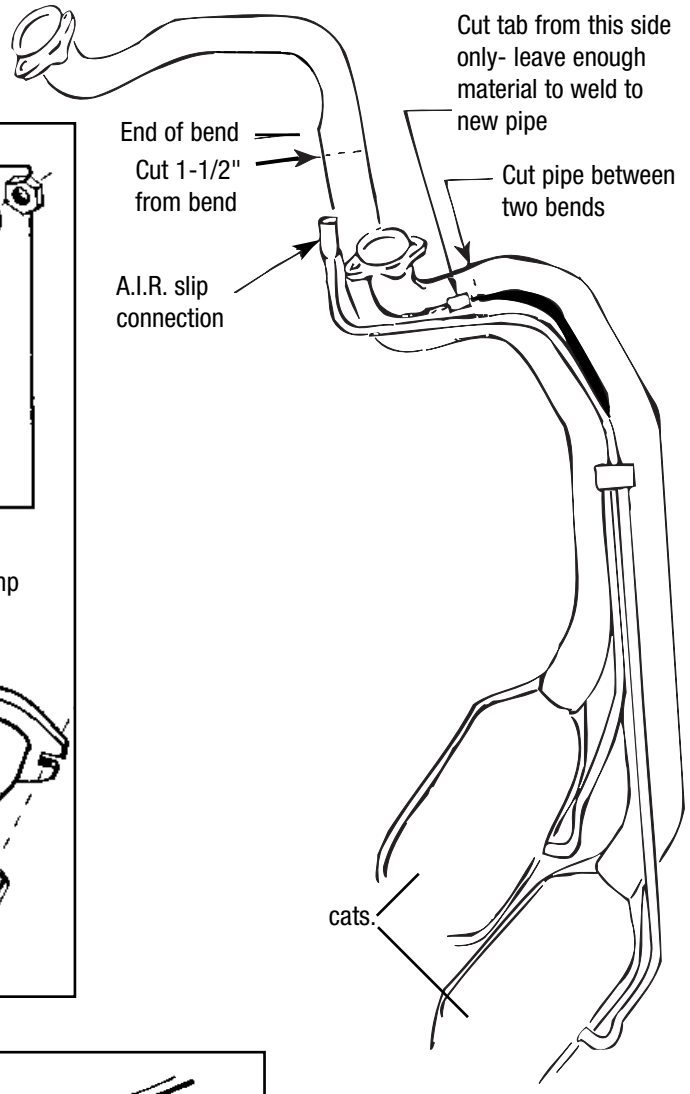


Figure 3
Right Side

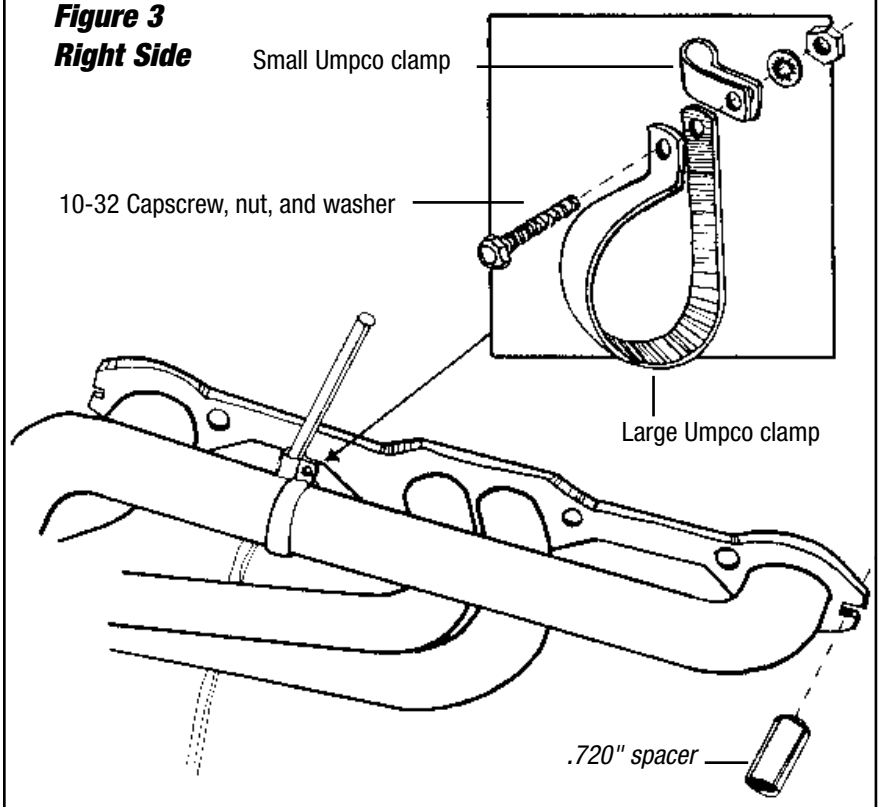
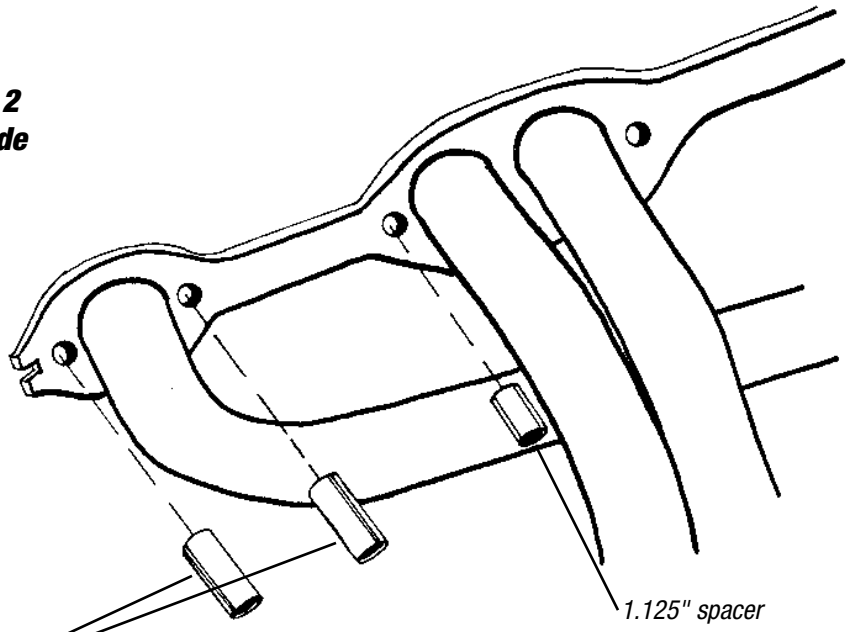


Figure 2
Left Side



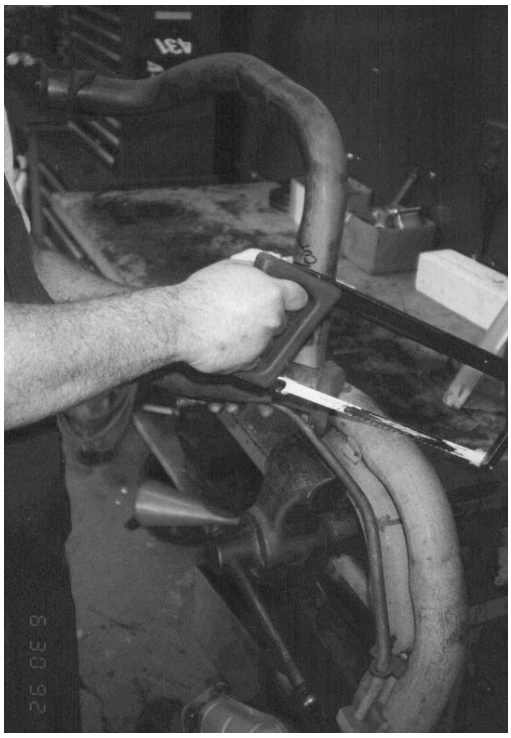


Figure 4a
After marking pipe to be cut, clamp securely, then cut with hacksaw

Figure 4b
Top view of cutting procedure

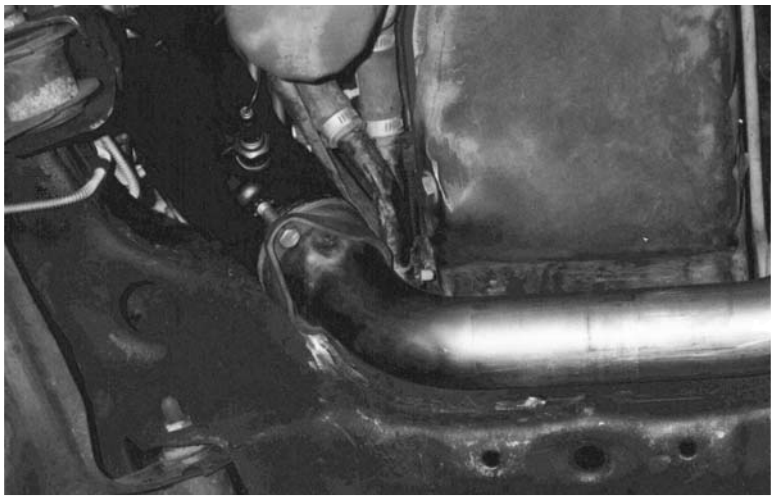


Figure 5
Align extension pipe with T.E.S. manifold so that an even amount of the donut gasket is visible all the way around the flare before tightening bolts.

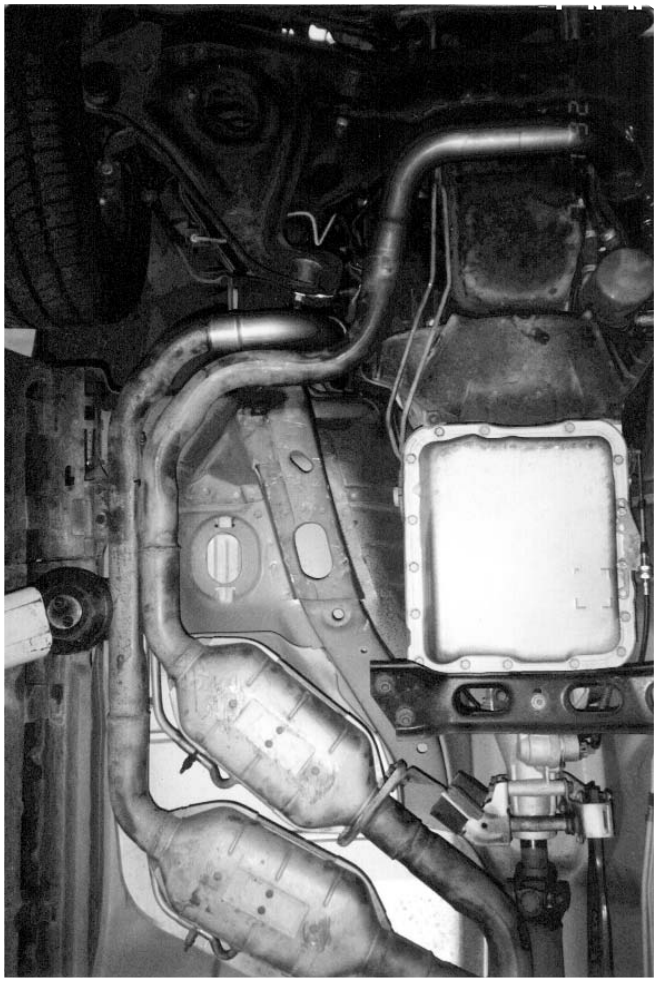


Figure 6
View from under vehicle of exhaust pipes/dual catalytic converter assembly after cutting and jointing to T.E.S.