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## INSTALLATION INSTRUCTIONS

### For 2-1/8" "RAISED DECK STEP" Headers

2+O.D. primary tubes, 2-1/8"+secondary tubes with 3-1/2+collectors

### **PLEASE READ INSTALLATION INSTRUCTION BEFORE INSTALLING**

PART NO. TTI440BR-218C1 (Chrome plated)  
TTI440BR-218C4 (Ceramic Coated with a Thermal Barrier inside)  
TTI440BR-218C5 (Polished Ceramic Coated with a Thermal Barrier)

NOTE: Ceramic Coating is a matte silver finish.

- Designed to fit 1962-1974 B-body and 1970-1974 E-body applications with 440 RB-engines with Brodix B1-BS heads
- Clears Automatic or Standard Transmission
- Clears Floor Shift only
- Clears Manual or Power Steering
- Must use listed Chrysler high torque mini starters only (Part nos: R53005984, 56027702AC, P5249644AB, P5007860)
  - TTI will not guarantee fit if using starters other than listed
- Will not clear any starter when using an 11+143 tooth flywheel
  - The header tube interferes with the starter by approximately 1/4". Minor modification can be done to the #1 header tube to achieve starter clearance when using the 143 tooth flywheel.
- Will not clear large stock stick shift bell housing / Lakewood scatter shield bell-housing
  - With slight modification to the bell housing on the passenger-side, clearance can be achieved - A half moon shape notch will need to be ground down approximately 1/4"+deep to clear the header tube.
- Spark plug clearance: For adequate clearance NGK spark plugs with 5/8"+hex and 3/4"+reach are required. These spark plugs are 2"+long from the base of the threads to the tip of the plug and will clear the header tubes. NGK recommends: BKR5E thru BKR7E for street use and R5671A-7 thru R5671A-10 for racing.
  - This header was designed using Accel Extreme 9000 wire set (ceramic coated) because of the close proximity of the header tubes. Accel part no. 9001 is highly recommended.
  - A plug wrench designed by TTI is available for removal and tightening of the spark plugs on the B1BS cylinder heads - Plug wrench sold separately.
- Clears all cast aluminum valve covers
- Fits with Schumacher engine mounts or equivalent
- Clears stock steering linkage
  - Will not clear the quick-ratio extended length pitman arm and idler arm

## **ATTENTION: Make sure your engine is located to factory specs**

TTI's headers were designed to fit with the engines located to the factory specifications. If the engine is not located correctly in the chassis, the headers will not fit properly. Use the following dimensions to check your engine location before installing your headers. From the center of the crankshaft to the top of the K-frame the correct distance is 5-1/4". The engine is also offset toward the passenger-side. Measure from the center of the crankshaft to each frame rail. The difference should be 2 1/2". If necessary place shims between the insulator assembly and the K-frame mounting pad to achieve the proper dimensions. With the engine mounted in the correct location the headers will fit properly. (The offset difference is 3+for 62-65 B-bodies)

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1. Disconnect the negative cable from the battery terminal.
2. Disconnect the plug wires and remove all of the spark plugs. Remove the cast iron manifolds and the stock exhaust pipes. If you are installing the complete TTI Exhaust System, then remove and discard your entire stock exhaust system including hangers.
3. Raise the front of the vehicle with an appropriate lifting device and place on jack stands.
  - Drain the engine coolant into a suitable container before removing the exhaust studs from the cylinder heads.
4. Disconnect the electrical cables to the starter and remove the starter motor.
  - B & E-body vehicles: The headers can be secured with the stock studs or with header bolts. If using studs the 2nd stud from the front must be shortened for the tube clearance on both sides.
  - Standard Shift Only: Disconnect and remove the Z-bar. The Z-bar will be reinstalled after the header is in place. Remove the oil stick tube.
5. Automatic Transmission / Kick-down linkage:
  - No modification is required on models with the single section transmission throttle rod.
  - Three section Throttle Rods require modification of the swivel assembly (Bell crank & Rod) to clear the header tubes. See Throttle Rod modification instructions. ([Sheet #SHT101](#))
  - B & E Models with automatic transmission and floor shift, re-position the adjustable swivel and the lower rod attached to the shift lever. Move to the upper side of the shift lever to clear the header collector. See modified Torque Shaft Lever illustration. ([Sheet #SHT3703](#))
6. Now is a good time to check the condition of your engine mounts. If they are worn or deteriorated, replace them now.
  - When the engine is mounted correctly the headers will fit correctly. It is common to shim the mounts to achieve the proper engine location.
7. Passenger-side Header: Check the sealing surface of the exhaust ports to insure they are clean. Place the supplied header gasket into position on the studs. Turn the steering wheel to the full left position. Insert the header into position from under the car. Use the original studs and nuts or the provided header bolts to secure the header to the cylinder head. Tighten the center bolts first then the end ports. Torque the bolts to 35 lbs. evenly to insure a proper seal.
  - It may be necessary to raise the engine if you are using the original studs to secure the header to the cylinder head.
8. Drivers-side Header: Remove the drivers-side engine mount bolt and raise the engine up approximately 1-1/2". Use a block of wood between the oil pan and the floor jack. Turn the steering wheel to the full right position.
  - Check the sealing surface of the exhaust ports to insure that they are clean. Place the supplied header gasket into position on the studs. Insert the header into position from under the car. Before fastening the header to the cylinder head place the starter motor into position and tighten the fasteners. Now, lower the engine back down on to the K-frame and re-install the engine mount bolt. Secure the header to the cylinder head. Use the original studs and nuts or the provided header bolts. Tighten the center bolts first then the end ports. Torque the bolts to 35 lbs. evenly to insure a proper seal. Connect the wiring to the starter. Adjust the wiring to insure that there is absolutely no contact with the header. A minimum of 3/8+ clearance is required between the header and the wiring.
  - Due to variations in the routing of brake lines, it may be necessary to re-position a brake line to achieve adequate clearance from a header tube. A minimum clearance of 1/2" from a header tube is required. Insert the oil stick tube into position. Some designs fit between the header flange and the #1 cylinder tube, some fit outside of the #1 header tube. Slight bending may be required for proper fit.

- Re-install the clutch Z-bar at this time.
9. Re-install the spark plugs, wires and engine coolant. Re-connect the negative battery cable.
  10. Now that your headers are installed, wipe down the tubes with hot soapy water or an environmentally safe Orange Cleaner Degreaser and a soft cloth to remove any grease or skin oils (finger prints) from the header tube surface. Never use abrasive cleaners.
    - It is normal for Chrome plated headers to discolor almost immediately after firing-up engine.
    - To insure years of service from your ceramic-coated headers, it is suggested to follow our Header Care and Preventive Maintenance procedures.
  11. Start the engine and check for leaks.

**Re-torque all of the header bolts after approximately 50 miles of driving**

To complete the rest of your exhaust system installation, we highly recommend the use of our TTI Performance Exhaust Systems. The 2-1/2+ or 3+O.D. kits will bolt directly to the TTI Headers. Our exhaust systems come complete with all hardware and all new hanger assemblies. They are manufactured with aluminized tubing and are mandrel bent by the latest technology CNC tube benders insuring precision fit on every installation.

Headers supplied with:

- (12) 3/8+16x1+Header Bolts
- (2) Header Gaskets
- (2) Header Reducer Adapters

Header Reducer Adapter kit Includes:

- (2) 3 1/2" - 3-bolt 1/16+Reducer Gaskets
- (6) 3/8" - 16 x 1-1/4" Reducer Bolts
- (6) 3/8" - 16 Nuts
- (6) 3/8+Split lock washers



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