

# **tti** Tube Technologies, Inc. Performance Exhaust

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## INSTALLATION INSTRUCTIONS For B&E-body Hemi Headers

### PLEASE READ INSTALLATION INSTRUCTIONS BEFORE INSTALLING

#### **2-1/8" O.D. primary tube headers with 3.5" collectors**

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

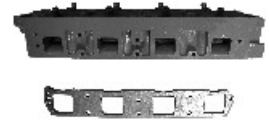
#### **2-1/4" O.D. primary tube headers with 3.5" collectors**

PART NO. TTIHEMI-214C1 (Chrome plated)  
TTIHEMI-214C4 (Ceramic Coated with a Thermal Barrier inside)  
TTIHEMI-214C5 (Polished Ceramic Coated with a Thermal Barrier)

#### **2-1/4" O.D. primary tube headers with 4" collectors**

PART NO. TTIHEMI-214-4C1 (Chrome plated)  
TTIHEMI-214-4C4 (Ceramic Coated with a Thermal Barrier inside)  
TTIHEMI-214-4C5 (Polished Ceramic Coated with a Thermal Barrier)

NOTE: Ceramic Coating is a matte silver finish.



- Fits: 1966-1974 B-bodies and 1970-1974 E-bodies
- 426 Hemi or 528 crate engines with factory cylinder heads
- Clears Automatic or Standard Transmission
- Clears Floor Shift or Column Shift
  - Column shift may require some modification of the shift linkage
- Clears Manual or Power Steering
- Recommended: Chrysler High Torque mini Starter part no.'s: P4286522, R53005984, P5249644AB or 56027702AC
  - Hemi old style direct drive starters will not fit with any TTI hemi header
- Fits with Hemi K-member or Schumacher Engine Mounts with 440 K-member
- Fits stick shift bellhousing with 11" 143 tooth flywheel.
- Lakewood scatter shield bell housings require slight modification on the passenger-side<sup>1</sup>
  - Will not fit the direct drive starter on the 1966-1967 4-speed vehicles.
  - Later style bell housing with a mini starter recommended.
- Clears stock steering linkage
  - Will not clear the quick-ratio extended length pitman arm and idler arm

<sup>1</sup>Footnote: A 1/2" moon shape notch will need to be ground down approximately 1/4" deep to clear header tube.

### **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 or between the engine block and the motor mount to achieve the proper dimensions. With the engine mounted in the correct location the headers will fit properly.

1. Disconnect the negative cable from the battery terminal.
2. Raise the front of the vehicle with an appropriate lifting device and place on jack stands.
3. Remove the stock exhaust pipes. If you are installing the complete TTI Exhaust System, then remove and discard your entire stock exhaust system, hangers included.
4. Drivers-side: Remove the starter, the left-side exhaust manifold and the oil dipstick tube.
  - **Note:** The oil dipstick tube will require re-bending. See modified Dipstick tube illustration. ([Sheet #502](#))

- If equipped with Power Steering, remove the left-side motor mount nut and raise the engine approximately 1½". Use a block of wood between the oil pan and the floor jack. You can now remove the stock cast iron manifold. If equipped with the (3)pc. kick-down linkage, remove the pivot shaft from the transmission case to allow the header to slip into place with less difficulty.
  - On models with Auto Transmission and Floor Shift, re-position the adjustable swivel and the lower rod attached to the torque shaft lever. Move them to the upper side of the torque shaft lever to clear the header collector. See modified Torque Shaft Lever illustration. ([Sheet #SHT3703](#))
5. Now is a good time to check the condition of your engine mounts. If they are worn or deteriorated, replace them. When the engine is mounted correctly the headers will fit correctly.
  6. Drivers-side Header: Turn the steering wheel to the full right stop.
    - Check the sealing surface of the exhaust ports to insure that they are clean and free of any foreign material. Insert the header into position simultaneously with the starter 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 onto the K-frame and re-install the engine mount fastener. Use the original studs and nuts or the provided header bolts to secure the header to the cylinder head. Place the supplied header gasket into position and start all of the fasteners. Tighten the center fasteners first then the end ports. Torque evenly to 35 ft. lbs. of torque to insure a proper seal.
    - Re-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.
    - Re-install the pivot shaft to the transmission case and connect the kick-down linkage.
    - Re-install the modified oil Dipstick tube.
  7. Passenger-side: Remove the right-side motor mount nuts and raise the engine approximately ½". Use a block of wood between the oil pan and the floor jack. You can now remove the stock cast iron manifold.
    - Note: Since there are no provisions on the header for the hot air tubes to the intake manifold the hot air tubes to the intake may be removed. After removing the cast iron manifold, lower the engine back onto the mount and replace the nuts.
    - If this is a 4-Speed Standard Transmission car it may be necessary to trim a casting ear from the bell housing that will interfere with the #4 header tube. This must be done prior to installation.
  8. Passenger-side Header: Check the sealing surface of the exhaust ports to insure they are clean and free of any foreign material. Turn the steering wheel to the full left position. Insert the header into position from under the car. Place the supplied header gasket into position and start all of the header bolts. Tighten the center fasteners first then the end ports. Torque the bolts evenly to 35 ft. lbs. to insure a proper seal.
    - Automatic Transmission Only - Attach fluid level tube bracket to the rear lower header flange bolt and the fluid level tube with the supplied hardware.
  9. Attach the adapter/reducers to the header collectors with the nuts, bolts and gaskets provided. Adapter / Reducers are marked Left & Right and may need to be shortened for your application.
  10. Re-connect the negative battery cable.
  11. 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.
  12. 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.

