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INSTALLATION INSTRUCTIONS

For Small Block Early "A" Headers

1-5/8" O.D. primary tubes, 1-3/4" secondary tubes with 3" collectors

PLEASE THOROUGHLY READ THE INSTALLATION INSTRUCTIONS BEFORE INSTALLING YOU HEADERS. THIS IS NOT AN EASY INSTALLATION AND WILL REQUIRE TIME & PATIENCE

PART NO. TTI-636A-C4 (Ceramic Coated w/ a Thermal Barrier inside)
TTI-636A-C5 (Polished Ceramic Coated w/ a Thermal Barrier inside)

NOTE: Ceramic Coating is a matte silver finish.

- **Fits:** 1963-1966 A-bodies equipped with Standard Transmission with floor mounted shifter and Auto Transmission with floor mounted shifter.
- **Fits:** 273 V-8 with a 10" flywheel & Chrysler mini starter. 318 / 340 / 360 / 408 A-engines with Standard or Automatic Transmission must use the Powermaster adjustable starter part no. 636A-9543.
 - The starters can be changed without removing the header.
- Fits with Stock Heads and Edelbrock Aluminum Cylinder Heads
- The 90 degree oil filter adapter must be used with the 3/4" hex head mounting bolt or a modified 1-3/16" hex head bolt (Refer to sheet #BO306 for modification illustration)
- Clears Manual or Power Steering, Power Brakes and A/C
- Installation of a complete TTI dual exhaust system will require a Modified Transmission Crossmember (Refer to sheet #CMR0506) and will require removal of the passenger side emergency brake cable guide bracket. (Refer to Sheet #636A, Illustration #2)
- Relocation of the brake line distribution block and the brake lines may be required for adequate clearance from the header tubes. "CHECK YOUR APPLICATION" 1/2" clearance must be maintained between the header tubes and the brake lines and/or distribution block.
- Clears the small block Mopar Milodon oil pan - Part no. MIL30935 & MIL30940
- 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 4-3/4". The engine is also offset 5/8" towards the passenger-side. Measure from the center of the crankshaft to each frame rail. The difference should be 1 1/4". If necessary place shims between the insulator assembly and the K-frame mounting pad to achieve the proper dimensions. Shim kits and new engine mounts may be purchased from Schumacher Creative Services (206) 364-7151. With the engine mounted in the correct location the headers will fit properly.

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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. 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.
 4. Remove the 90 degree oil filter adapter and the starter motor. Passenger-side, remove and discard the brace between the engine and the transmission.
 5. 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.

6. **Drivers-side Header:** Use a pickle-fork to disconnect the ball joint on the tie rod at the center link and swing away.
Power Steering Only - Disconnect the center link from the pitman arm and swing the center link away.
 Disconnect the steering wheel shaft from the steering box. (Refer to the shop manual for the proper procedure)
 Disconnect the power steering hoses and remove the power steering box. The steering wheel shaft will pass thru the header when re-installed.
Manual Steering Only - Disconnect the center link from the pitman arm and swing the center link away.
 Disconnect the steering wheel shaft from the steering box. (Refer to the shop manual for the proper procedure)
 The steering wheel shaft will pass thru the header when re-installed.
 7. Remove the Torsion Bar. The torsion bar will pass thru the header when re-installed. (Refer to the shop manual for the proper procedure)
 8. **Standard Transmission Only** - Remove the Z-bar. (Now, refer to Sheet #636A, Illustration #1 of the bellhousing)
 The casting ear on the drivers-side will need to be trimmed shorter by 3/8" for header clearance. Remove the nut from the lower side of the engine mount rubber insulator. Using a floor jack and a block of wood under the oil pan, raise the engine up on the drivers-side approximately 1". Check the cylinder head 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 and let it hang loose by one header bolt. Before bolting to the cylinder head, place the steering box into place and attach with the (3) three bolts. Lower the engine and place the header into position on the cylinder head. Use the original studs and nuts or the provided headers bolts to secure the header to the cylinder head. Tighten the center bolts first then the end ports. Torque the bolts to 25 ft. lbs. evenly to insure a proper seal.
 9. In reverse order re-install all of the disassembled components. Be extremely careful to re-install all nuts, bolts and pins that were removed. Install motor mount nut.
- Note:** If you are using a stock 10" flywheel, a Chrysler mini starter can be used. All other applications 318 / 340 / 360 / 408 crate engines with 904 / 727 or standard transmissions will require a POWERMASTER adjustable starter motor.
- Install the starter and connect the wiring. Adjust the wiring to insure that there is absolutely no contact with the header. 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.
10. **Passenger-side Header:** Using a pickle fork, disconnect the tie rod at the centerlink and swing away. Remove the torsion bar. (Refer to the shop manual for the proper procedure) The torsion bar will pass thru the header when re-installed.
 11. Check the sealing surface of the exhaust ports to insure they are clean. Place the supplied header gasket into position on the studs. Insert the header into position from under the car and let it hang loose on the studs. Place the 90 degree oil filter adapter into place and attach with the 3/4" hex head bolt or the modified 1 3/16" hex head bolt. Use the original studs and nuts or the provided header bolts to secure the header to the cylinder head. Check for clearance between the header tubes and the 90 degree filter adapter hex head bolt. Tighten the center ports header bolts first then the end ports. Torque the bolts to 25 ft. lbs. evenly to insure a proper seal. Install the oil filter.
 12. Attach the adapter / reducers to the header collectors with the nuts, bolts and gaskets provided. The adapter / reducers supplied will only fit the 63 thru 66 A-body with the modified transmission crossmember.
 13. In reverse order re-install all of the disassembled components. Be extremely careful to re-install all nuts, bolts and pins that were removed
 14. 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.
 15. Re-connect the negative battery cable. 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.



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