

TTi Performance Exhaust and Headers Tube Technologies, Inc. Corona, California 92880-1726 Phone (951) 371-4878 www.ttiexhaust.com

HEADER & EXHAUST INSTALLATION

Late Model: Challenger Charger Chrysler 300 Magnum

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Thank you for choosing TTi Performance Headers!

Due to the numerous engine configurations and suspension combinations, we cannot ensure headers and exhaust to fit all combinations, however, we have done our best to accommodate both factory and aftermarket component combinations. e.g. Engine blocks, cylinder heads, starters, valve covers, etc.

For further product details, footnotes & fitment information, please visit our website <u>www.ttiexhaust.com</u> or call (951)371-4878.

BEFORE STARTING

READ the entire installation instructions and understand each of the steps involved with the installation. Review all modification sheets and/or diagrams.

CAUTION - Allow time for vehicle to cool down prior to the installation. Wear protective safety equipment; Eye goggles and gloves.

Use an appropriate lifting devise to raise the vehicle; Floor hoist or hydraulic floor jack with jack stands. Do not use bumper jacks!

WARNING - We strongly suggest that you use an old set of headers or a set of cast iron manifolds for first engine runs / cam break-ins to avoid coating damage. Excessive heat damage to the ceramic coating will void all warranties. Header coating damage usually occurs during the first engine run when the exhaust temperatures exceed 1200°F. Excess exhaust temperatures are normally caused by excessively lean or excessively rich air/fuel mixtures and/or incorrect ignition timing.

DISASSEMBLY

- 1. Raise the front of the vehicle with an appropriate lifting device and place on jack stands.
- 2. Disconnect the battery.
- Remove the factory exhaust manifolds and exhaust system.
 Note: TTi exhaust systems use all factory hanger locations for a hassle free installation.
- 4. Carefully remove the (4) oxygen sensors. They will be re-installed into your new performance exhaust system later.

Note: O2 sensor wiring extension harnesses will be provided to re-connect the O2 sensors.

DRIVER-SIDE HEADER INSTALLATION

- 5. Move the air filter box and the radiator reservoir for easier access to the header bolts.
- 6. Check the cylinder head sealing surface of the exhaust ports to insure they are clean. Place the header into position and install the provided header gasket. Attach header with the provided header bolts. Torque the bolts to 25 lbs. evenly to insure a proper seal.

Recommendation when installing header gaskets: Use a very thin layer of High-Temp Silicone Sealer on each side of gasket.



O2 sensor extension harnesses

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PASSENGER-SIDE HEADER INSTALLATION

Performance

thalls

and Headers

Move the fuse/relay box under the hood for easier access to the header bolts. 7.

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- **5.7L Applications:** If your oil dip stick tube is attached to the factory manifold, use 8. the provided spacer and re-attach the tube to the header flange by using your factory manifold bolt.
- Check the cylinder head sealing surface of the exhaust ports to insure they are clean. Place the 9. header into position from under the car and install the provided header gasket. Attach header with the provided header bolts. Torgue the bolts to 25 lbs. evenly to insure a proper seal.

Recommendation when installing header gaskets: Use a very thin layer of High-Temp Silicone Sealer on each side of gasket.

EXHAUST SYSTEM INSTALLATION

- 10. Refer to photos for installation. [page 3]
- 11. Lubricate the provided rubber insulators with WD-40 or the equivalent to ease installation over the welded hangers. This system utilizes all the factory hanger locations.
- 12. Align the exhaust system components and tighten all clamps.
- 13. Install the O2 sensors. Recommendation before installing O2 sensors: Apply anti-seize on the threads of the sensors.
- 14. Connect the wiring using the supplied O2 sensor extension harnesses. Note: Due to differences in connectors, some guide rails on the connectors may require trimming.

HEADER INSTALLATION FINAL STEPS

15. Re-connect the battery and start the engine. Check for leaks.

Note: It is normal and to be expected, that the exhaust may create some smoke at the first running from residual oil inside the tubing.

16. Now that your headers and exhaust system is 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 tube surface. Never use abrasive cleaners.

To insure years of service from your headers follow our Maintenance & Care instructions.

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









Guide rails may require trimming



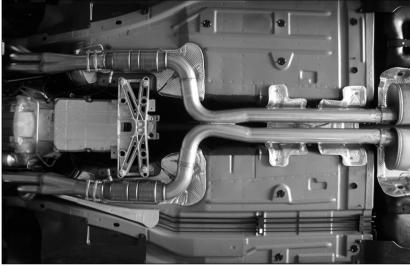
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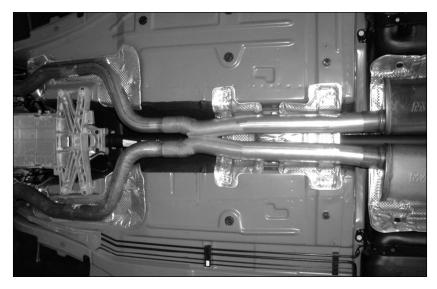
HEADER & EXHAUST INSTALLATION

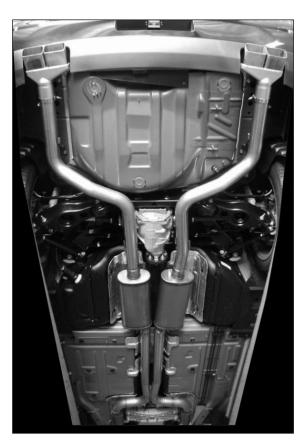
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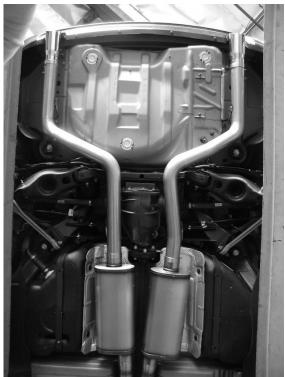
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MAINTENANCE & CARE

Helpful hint to extend the life of your Headers and Exhaust System...

Exhaust corrosion will occur if moisture (condensation) is not cleared out of the tubes. Make sure that the vehicle is driven at least 20 to 30 minutes whenever the car is started to completely dry out all liquid / acid that is created by the combustion process in the engine. Failure to do so will cause pre-mature rotting of the tubes from the inside out.

Headers

TTi strives to offer the highest quality header coatings available on the market today. However, high performance coatings do require care and maintenance. The following tips are suggested to insure years of service of your Nickel-Chrome, Ceramic-Coated, Polished Ceramic Coated & Stainless Steel Headers.

Warning: First Engine Runs - Header coating damage usually occurs during the first engine run when the exhaust temperatures exceed 1200°F. Excess exhaust temperatures are normally caused by excessively lean or excessively rich air/fuel mixtures and/or incorrect ignition timing. For this reason we strongly suggest that you use an old set of headers or a set of cast iron manifolds for your first engine run / cam break-in. This will insure that you will not damage the coating or void the warranty of your new TTi ceramic-coated headers.

After Header Installation and Before Engine Run - Remove grease and/or skin oils from the header tube surface. Stains & fingerprints will show when header gets hot.

- Nickel Chrome Plated Headers: Wipe down tubes with rubbing alcohol and a soft cloth, dry thoroughly.
- Ceramic Coated, Polished Ceramic Coated and Stainless Headers: Wipe the tubes down with an environmentally safe Orange Cleaner Degreaser or mild soap, warm water and a soft cloth, dry thoroughly.

When storing your car for an extended period of time, some precautions must be taken. Park the car over a large sheet of plastic or tarp. This will protect your car and headers from moisture seeping up through the floor. Wipe down and dry the headers thoroughly. Then coat the headers with WD-40 or an equivalent where the tubes are welded to the header flanges and where the tubes come in close proximity to each other (especially where the four tubes enter into the collector). These areas are prone to rusting, as the coating is unable to get between the tubes in the unexposed areas of the header. If rust occurs, it will travel into and under the coating and create a stain. When you are ready to start the car after storage, wash the WD-40 off by following the cleaning procedures.

Cleaning: Road grime / Oil / Grease / Surface deposits (surface rust) from water or other liquids

- Use an environmentally safe Orange Cleaner Degreaser, warm water and a soft cloth. Two or Three cleanings may be required. Be sure to dry thoroughly.
- Use cleaning compounds like, Nevr-Dull, Mothers or The Wax Shop and about 15-20 minutes of elbow grease.
- Stainless Steel: Nevr-Dull Wadding Polish

Polish to Revitalize Coating

- Nickel Chrome Plating: Bluing / discoloration is inevitable. You cannot remove it, although there are products that claim to do so like, Blue-Job Chrome Polish.
- Ceramic Coated / Polished Ceramic Coated: Mothers PowerMetal or Nevr-Dull.

For More Aggressive Cleaning: Stains / Baked-on Oils or Fluids / Melted-on Microfiber Towels or Plastic Grocery Bags (Yes, this happens a lot)

Try a Super-fine "0000" Steel wool pad or use an Ultra-fine Scotch-brite pad. If all else fails, spray paint! Use Krylon 1402 High Heat Spray Paint – Aluminum color. Once headers heat up, color will or should blend.

Unfortunately, you cannot bring back a "High Luster" Polish appearance (C3 & C5 - Coating Option).



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90-DAY LIMITED WARRANTY

Mfg. by Tube Technologies, Inc. (TTi)

TTi warrants all products to the original purchaser to be sold free of defects in material and workmanship for 90-days from date of purchase. In the event of an alleged defect in material or workmanship contact TTi at (951) 371-4878. Please provide a proof of purchase reference at time of call for quicker look-up. Ex: Invoice #, Packing List # or Sales Order #.

TTi does not warrant products that have been damaged caused by abuse, neglect, accident, improper installation or use on other applications other than recommended by TTi Performance Exhaust and Headers. Under no circumstances will TTi replace, repair or refund any product that has been altered in any way, mutilated or shows evidence of the use of insulating wrap products. TTi will not warranty cost of removal or re-installation of a product or will not be responsible for any shipping charges incurred. TTi will not assume responsibility for mufflers meeting individual customer's preference or the specific sound ordinances in any city, county and/or state. TTi reserves the right to make changes in design, materials and specifications or to make product changes as deemed necessary without prior notice.

Return Policy

Returned merchandise is subject to a 10% restocking fee. TTi does not refund freight. Contact TTi at (951) 371-4878 or the Authorized TTi Distributor from whom the merchandise was purchased through to receive a "Return Merchandise Authorization Number" (RMA #). Proof of purchase required! (Invoice, Packing List or Sales Order #) Return the merchandise along with a copy of your proof of purchase to: TTi Returns Dept. • 1555 Consumer Circle • Corona, CA 92880. Enclose a written reason for the return with a contact phone number and clearly write the RMA # on the outside of the box. Merchandise must be received in resalable condition. Final issuance of credit / refund is subject to receipt and inspection of merchandise by Tube Tech. Inc.

Note: Parts damaged in transit due to insufficient packaging may incur repair charges by TTi.

For general packaging guidelines to help prepare your package for safe shipping read our Packaging Guidelines & Procedures.

2-YEAR LIMITED CERAMIC COATING WARRANTY

by Engineered Applications L.L.C.

In the event of an alleged defect in the coating; peeling, chipping, flaking or rusting, complete a "Coating Warranty Return Form" and return it along with parts to: Engineered Applications. Proof of Purchase required! (Invoice or Packing List)

Final determination of warranty is subject to receipt and inspection of parts by EA. EA will not accept liability for products that have been damaged caused by abuse, neglect, accident, improper installation, shows evidence of insulating wrap products or show evidence of adverse conditions such as; High heat temperatures encountered during engine break-in.

Note: Engineered Applications sole responsibility is strictly to strip-off existing coating, recoat and return it back to you. EA will not warranty any labor related costs.