HEADER INSTALLATION



Tube Technologies, Inc. 1555 Consumer Circle • Corona, CA 92878 951-371-4878 • Fax 951-371-6143 • www.ttiexhaust.com Header Part No's: 5761RS, 64RS

- PS Starter location
- Torsion bar suspension

Page 1 of 3

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.

Parts List			Illustration sheets attached		
1 1 16 2			 Torque shaft lever repositioning: 3703 Filter blocking plate: 3706 Motor Mounts: 57MMA, 57SMA73, 57SMB625, 57MMBE, 57SMB73 		
	2.0" Header 64RS: P/N GA-HG64				
2	COLLECTOR GASKETS	1-3/4 x 3.0" Header 5761RS: P/N GA-HG30 2.0 x 3.5" Header 64RS: P/N GA-HG35			
2	9.0" LONG HEADER REDUCER/ADAPTERS				
18	REDUCER/ADAPTER MOUNTING HARDWARE (6) 3/8-16x1.25 BOLTS, (6) WASHERS & (6) NUTS - P/N KBOR38				

BEFORE STARTING

(!) **READ INSTALLATION INSTRUCTIONS THOUROUGLY** and understand each of the steps involved with the installation. Review all photos, modification/illustration 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!

(!) CHECK THE ENGINE LOCATION: All K-members are not identical and the dimensions must be checked to ensure proper fitment of the headers or exhaust system. If the engine is not located correctly in the chassis our products will not fit properly. If necessary, place shims between the insulator assembly and the K-frame mounting pad to achieve the proper factory dimensions.

Shims: For small position adjustments, shim packs are available through Schumacher Creative Services of Seattle, WA.

From the center of the crankshaft to the top of the K-frame the correct distance is (**A**). The engine is also offset towards the passenger-side (**B**). Measure from the center of the crankshaft to each frame rail, the difference should be (**C**).

Gen III Hemi: 5.7L, 6.1L, 6.4L Factory Engine Locations	A (inches)	B (inches)	C (inches)
67-72 A-body	5-5/8	1-3/8	2-3/4
73-76 A-body (w/spool mounts)	5-7/8	1-3/16	2-3/8
62-65 B-body (w/ spool mounts)	6-3/8	1-1/4	2-1/2
66-72 B-body	5-5/8	1-1/4	2-1/2
73-74 B-body (w/spool mounts)	6	1-1/4	2-1/2
70-74 E-body	5-3/8	1-1/4	2-1/2

(!) 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.

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Header Part No's: 5761RS, 64RS

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Page 2 of 3

(!) HELPFUL HINT: Mask areas of header tubes with painters' tape to protect plating/coating from scratches during installation.

(!) HEADER NOTES...

- **Coilover suspension:** Headers designed to fit coilover suspension systems without torsion bars.
- Starter Location: Headers designed to fit transmissions with the starter on the Driver-side.
- **Clutch Linkage:** 67-76 A-body applications require a hydraulic clutch; otherwise, you must modify your Z-bar linkage to achieve clearance. TTi does not make a linkage to satisfy this situation.

62-74 B-body & 70-74 E-body applications, a hydraulic or mechanical Mopar clutch linkage systems can be used.

• Auto Trans: Some applications with a floor shifter may require the adjustable swivel & the lower rod to be re-positioned to clear the header collector. [See illustration sheet #3703]

DISASSEMBLY

- 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 cast iron manifolds and the stock exhaust pipes. If you're replacing the exhaust system, remove the entire exhaust, including hangers.
- 4. Remove the starter. (Headers designed to fit transmissions with the starter on the drivers-side only)
- 5. **67-76 A-body applications**: Remove the torsion bar.

DRIVERS-SIDE INSTALLATION

- 6. Raise the engine approximately 1-1/2".
- 7. Check the cylinder head sealing surface of the exhaust ports to insure they are clean and slip the header into position. Position the supplied header gasket into place and bolt the header to the cylinder head with the supplied bolts. Tighten the center bolts first then the end ports. Torque the bolts to 25 ft. 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.
- 8. **67-76 A-body applications**: Re-install the torsion bar by reversing the disassembly procedure. Be extremely careful to re-install all nuts, bolts and pins that were removed.

PASSENGER-SIDE INSTALLATION

9. Check the cylinder head sealing surface of the exhaust ports to insure they are clean. It is necessary to plug the EGR port on the passenger-side cylinder head before installing the header. Insert the header into position from under the car. Place the supplied header gasket into position and attach with the supplied header bolts. Tighten the center bolts first then the end ports. Torque the bolts to 25 ft. 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.

- 10. Install the starter and connect the wiring. Adjust the wiring to ensure that there is <u>absolutely no contact with the header</u>. Due to variations in the routing of brake lines, it may be necessary to re-position a brake line and/or proportioning valve to achieve adequate clearance from a header tube. A minimum clearance of ½" from a header tube is required.
- 11. Install the oil filter. [See illustration sheet #3706]

FINAL STEPS

- 12. Lower the engine and fasten to the mount. [See attached Engine Mount sheet for your application]
- 13. **Re-connect** the negative battery cable.
- 14. To transition headers to your exhaust system, attach the supplied **Header reducer adapters** directly to the 3-bolt header collectors using the provided nuts, bolts and gaskets.
- 15. 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. To ensure years of service from your headers follow our Maintenance & Care instructions.
- 16. Start the engine and check for leaks.
- 17. **Re-torque** all of the header bolts after approximately 50 miles of driving.



Header Part No's: 5761RS, 64RS

PS Starter location

• Torsion bar suspension

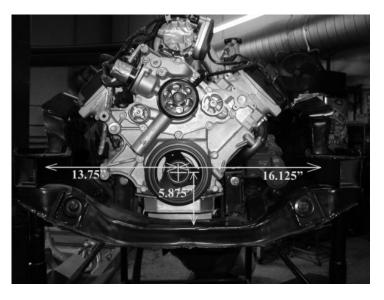
SPOOL MOUNT ENGINE LOCATION

Center of crankshaft to top of K-member should measure 5.875".

Pic1: Spool mount engine location dimensions



- Passenger-side, 13.75"
- Drivers-side, 16.125"



67-76 A-BODY applications using a the BORGESON POWER STEERING (Unit no's 800118, 800119)

DYI modification required to the mounting holes. The three (3) mounting holes must be elongated to .810" to allow the steering unit to be moved away from the engine for adequate clearance from the header tubes.

Pic1: Modified mounting holes



Pic2: Power-steering unit installed

Pic3: Power-steering unit installed

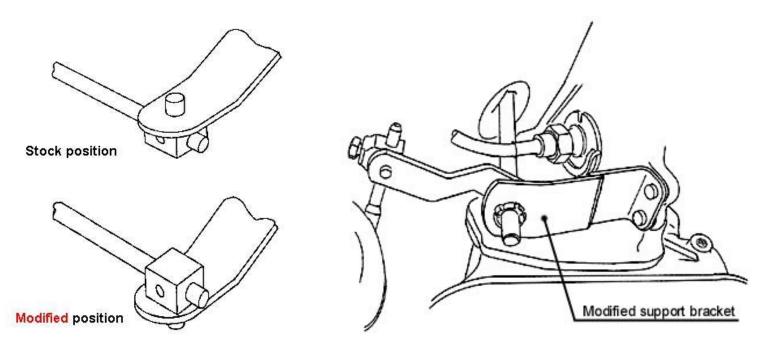


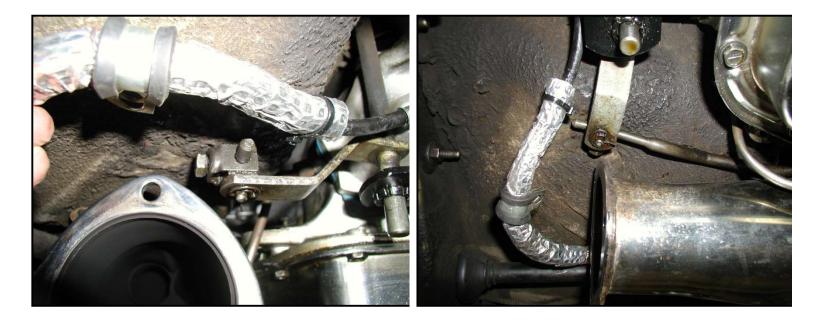


TORQUE SHAFT LEVER REPOSITIONING Auto Trans with Floor Shift

Automatic Transmission with Floor Shifter will require repositioning of the adjustable swivel and lower rod attached to the torque shaft lever. Move them to the upper side of the torque shaft lever to clear the header collector. Some models will require additional modification for clearance of the shifting lever. (See diagram)

The support bracket is cut through and overlapped approximately $\frac{1}{4}$ " and re-welded, making it shorter and moving the shift lever away from the collector.







FILTER BLOCKING PLATE 67-76 A-body 62-65 B-body 73-74 B-body

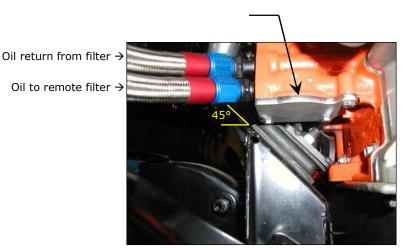
Using our 5.7, 6.1, 6.4 Hemi Headers, a TTi Filter Blocking Plate¹ must be used in conjunction with a Remote Mount Oil Filter Kit² in OEM/Stock suspension applications.

Without a filter assembly, the oil flow to the engine will be blocked and will result in engine failure.

¹TTi Filter Blocking Plate - Part #FBP5761



4130 steel blocking plate with machined O-ring grovesViton O-rings installed into the O-ring groves(3) 6mm X 1.0 pitch X 16mm long bolts and lock washers



(Passenger-side)



Remote filter mounted for illustration purposes only. Mount your filter to suit your application.

²Remote Mount Oil Filter Kit available through Milodon - Part #21560 (Not available through TTi)



67-72 A-body MOTOR MOUNTS

57MMA

BISCUIT STYLE MOTOR MOUNTS

- Designed for compatibility with our Gen III Hemi Classic Car Headers. Header part no's: 61HC, 61WPA, 64L, and 6417825
- For use with V8 K-members only.
- (!) Rubber insulator anchors are not included with mounts.

Part no: 57MMA



Includes 10mm x 25mm x 1.5 pitch bolts.

Rubber Insulators are not included with motor mounts. The stock insulators can be used, however they will require modification.

Insulators are available through...

- Schumacher Creative Services www.engine-swaps.com
- Bouchillon Performance www.bouchillonperformance.com



Modified stock rubber insulators shown.



Photo 3



Photo 1



Photo 2

OIL FILTER BLOCKING PLATE

67-76 A-body / Torsion bar suspension applications will require an Oil Filter Blocking Plate in conjunction with a remote mounted oil filter kit.

Part no: FBP5761





57SMA73 73-76 A-body MOTOR MOUNTS

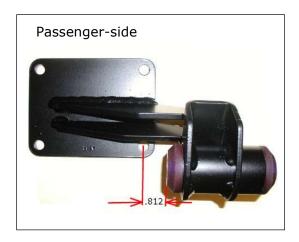
SPOOL STYLE MOTOR MOUNTS

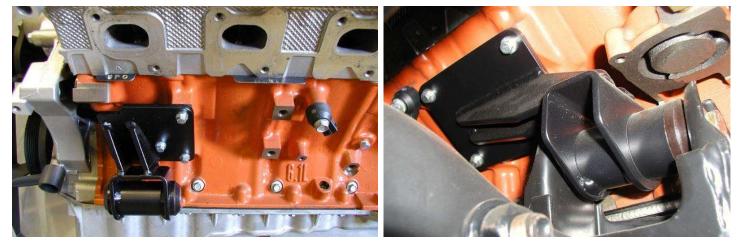
- Designed for compatibility with our Gen III Hemi Classic Car Headers. Header part no's: <u>61HC, 61WPA, 64L, and 6417825</u>
- For use with V8 K-members only.

Part no: 57SMA73



Includes 10mm x 25mm x 1.5 pitch bolts.





Drivers-side

Passenger-side



57SMB625

62-65 B-body MOTOR MOUNTS

SPOOL STYLE MOTOR MOUNTS

- Designed for compatibility with our Gen III Hemi Classic Car Headers. Header part no's: <u>61HC, 61WPA, 64L, and 6417825</u>
- For use with V8 K-members only.

Part no: 57SMB625



Includes 10mm x 25mm x 1.5 pitch bolts.



Drivers-side

Passenger-side



66-72 B-body & 70-74 E-body MOTOR MOUNTS

57MMBE

BISCUIT STYLE MOTOR MOUNTS

- (!) These mounts were designed for compatibility with our Header part no: <u>61HC</u>
- For use with V8 K-members only.
- Rubber insulator anchors are not included with mounts.

Part no: 57MMBE



Includes 10mm x 25mm x 1.5 pitch bolts.

Rubber Insulators are not included with motor mounts. The stock insulators can be used, however they will require modification.

Insulators are available through...

- Schumacher Creative Services www.engine-swaps.com
- Bouchillon Performance www.bouchillonperformance.com



Modified stock rubber insulators shown.



Photo 1



Photo 2



66-72 B-body & 70-74 E-body **MOTOR MOUNTS**

61MMBE1

BISCUIT STYLE MOTOR MOUNTS

- (!) These mounts were designed for compatibility with our Header part no's: <u>61WPBE, 64L, and 6417825</u>
- For use with V8 K-members only.
- Rubber insulator anchors are not included with motor mounts. The stock insulators can be used, however they will require modification. (See modification illustrations below)
- Insulators are available through: Schumacher Creative Services www.engine-swaps.com Bouchillon Performance - www.bouchillonperformance.com

Part no: 61MMBE1



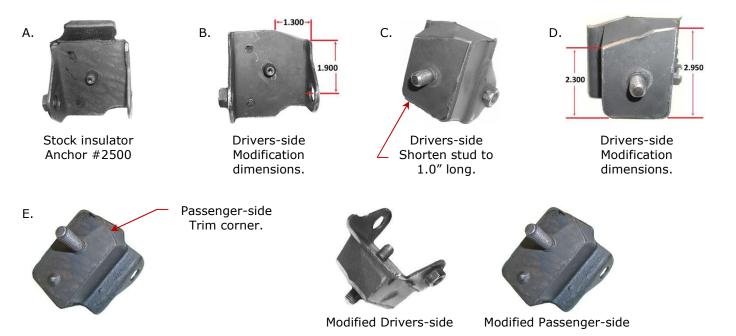
Includes 10mm x 25mm x 1.5 pitch bolts.



Photo 1

Photo 2

Modification required to the stock insulators.



111716 / R120616 / R121319



57SMB73 73-74 B-body MOTOR MOUNTS

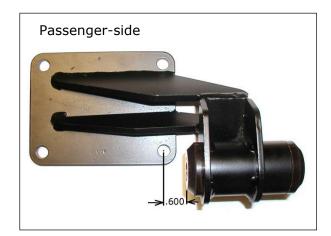
SPOOL STYLE MOTOR MOUNTS

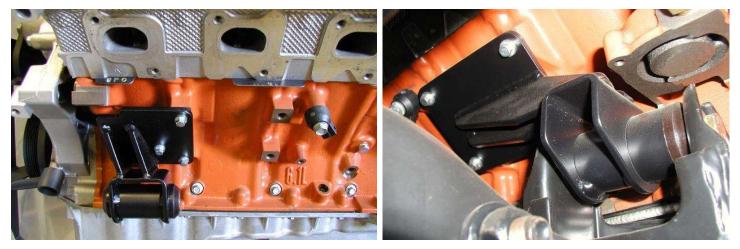
- Designed for compatibility with our Gen III Hemi Classic Car Headers. Header part no's: <u>61HC, 61WPBE, 64L, and 6417825</u>
- For use with V8 K-members only.

Part no: 57SMB73



Includes 10mm x 25mm x 1.5 pitch bolts.





Drivers-side

Passenger-side



90-DAY LIMITED WARRANTY

Mfg. by Tube Technologies, Inc. (TTi), Corona California

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.

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, Vernon California

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.



MAINTENANCE & CARE

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, Silver Ceramic Coated, Polished Silver Ceramic Coated, and Stainless Steel Headers.

AFTER 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.
- Silver Ceramic Coated, Polished Silver 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.

(!) 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.

HELPFUL HINT TO EXTEND THE LIFE OF YOUR HEADERS and EXHAUST SYSTEMS: 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.

STORING 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, and surface deposits (surface rust) created by moisture/water from your header coatings, 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.

For more aggressive header coating cleanings from baked-on oils/fluids, melted-on microfiber towels or plastic grocery bags try a Super-fine "0000" Steel wool pad or use an Ultra-fine Scotch-brite pad. If all else fails, use a high-temp aluminum color spray paint. The color should blend once the header tubes heat up. (High-heat spray paints: Krylon 1402, VHT Flameproof SP117)

Polish compounds to revitalize header coatings

- Silver Ceramic & Polished Sliver Ceramic: Nevr-Dull, Mothers PowerMetal or The Wax Shop
- Stainless Steel: Nevr-Dull Wadding Polish
- 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.

(!) Polished Silver Ceramic Coating: Unfortunately, you cannot bring back a "High Luster" Polish appearance once stained or discolored.