



'03/'04 Dodge Ram 1500 Truck w/ 5.7 liter Hemi - 4WD Only  
Stainless Steel Header Exhaust System

'03 - Part # 724-84410, 724-84420

'04 - '05 Part # 724-84410, 724-84620

(Lit 997)

**Note:** We do our best to make sure the instructions in the box are the latest version. However in some cases where the system does not change for a new model year, inventory on the shelf may not have the latest version of the instruction manual. If you do not see your model / application listed above, please feel free to visit [www.dynatechheaders.com](http://www.dynatechheaders.com) or contact us at 800-848-5850 or [sales@dynatechheaders.com](mailto:sales@dynatechheaders.com) for an updated instruction manual. We assure you the parts in the box are correct. The instructions however may have added notes for a specific model year update.

Dynatech highly recommends hiring a professional installer, one that is familiar with the installation of off-road exhaust products. Headers are designed to increase the performance of your vehicle, and as such are designed differently than your stock exhaust system. Extra care must be taken to ensure that hoses, cables, electrical lines, fuel lines, hydraulic lines, or any other objects are not in contact with, or located too close to your installed system. (Nothing should be allowed to touch or be located close to the header/exhaust system.)

Dynatech will repair or replace any products found upon our inspection to be defective in workmanship or material within 12 months from date of purchase for the original purchaser.

The Dynatech Team takes pride in providing the utmost in quality and performance. Should you have a concern about the product you receive, please contact Dynatech Customer Service at [dynatechcs@dynatechheaders.com](mailto:dynatechcs@dynatechheaders.com).

## Installation Instructions

Congratulations on your purchase of the Dynatech / SuperMaXX system for the 4WD Dodge Hemi 5.7 liter 1500 truck. We believe, and think you will agree that this system is second to none in quality, performance, and ease of installation. Please read and understand each of the steps involved with the removal of your old system and the installation of your new header system prior to getting started. While slight variations in either the header or the vehicle may cause minor differences in the exact order of steps or the exact positions of components listed in this document, the following narrative and pictorial

information should guide you during the removal and installation process to a completely satisfactory install of your new header system.

**Note:** These products are intended for racing and off-road applications. Not legal for sale or use in the State of California, nor in states which have adopted California emission standards.



## What's in your new header system kit?

Your exhaust system should contain all of the following parts. Please inventory each part prior to proceeding with the installation. **The headers for the two model years 2003 and 2004 are identical. The difference in the exhaust kits is in the "Y-Pipe" assemblies and extension tubes.**

### **Parts Inventory List:**

- 1 ea. Left (driver side) Header
- 1 ea. Right ( passenger side) Header
- 1 ea. Catalytic Converter w/ Cross-over Tube Assembly (driver side)

**Note:** This part is different for the '03 and '04 system. The '03 part has no O2 sensor bungs installed in the converter or the cross-over tube. The '04 has O2 sensor bungs located in both the converter and the cross-over tube.

- 1 ea. Catalytic Converter

**Note:** This part is different for the '03 and '04 system. The '03 part has the O2 sensor bungs installed in the converter, the front bung is open and the rear one is plugged. On the '04 part the bung is located in the front extension tube in the converter.

- 1 ea. "Y"-Pipe Assembly

**Note:** This part is different for the '03 and '04 system. The '03 part has the O2 sensor bung located in the "Y-Pipe" outlet. The '04 part has the sensor bung in the passenger side leg of the "Y"-Pipe.

- 1 ea. Extension Tube

**Note:** This part is different for the '03 and '04 system. The '03 part is 3.0" dia and is a separate part. The '04 part has this piece integrated into the "Y"-pipe

- 2 ea. Stainless Band Clamps x 2.5"

- 1 ea. Header Gaskets / Bolts Skin Card
  - 1 ea. Left Side Gasket
  - 1 ea. Right Side Gasket
  - 17 ea. 8mm Header Bolts
- 1 ea. Donut Gasket Skin card
  - 2 ea. Donut Gaskets
  - 8 ea. 10mm Serrated Flange Nuts (6 nuts are included with the '04 system)
  - 6 ea. Anti-Crush Spacers
- X-mas Tree Tie Wraps (2 ea for the '03 part or 4 ea for the '04 part)
- Fuel Line Insulation Wraps (2 ea for the '03 part only)
- O2 Sensor Extension Wires (The '03 system has 2 sensors and uses 2 extensions. The '04-'05 has four sensors and uses 4 extensions.)



**4WD Dodge Hemi 1500 Headers**



**2003 4WD Dodge Hemi  
1500 Exhaust Kit**

**2004 4WD Dodge Hemi  
1500 Exhaust Kit**

**Safety Notes:**

For your safety, please allow the engine to cool for a minimum of 90 minutes before starting the removal/ installation steps.

The use of safety goggles is strongly recommended, as debris may be dislodged from beneath your vehicle while removing or installing parts.

While not required, the use of cotton gloves is recommended to protect not only your hands from sharp objects under the hood and chassis of your vehicle but also keeps the oils and grease off the header's stainless steel surface possibly preventing permanent stains on the header themselves.

**Tools needed:**

Miscellaneous hand tools are required for proper installation of these headers. We have listed a few of the required and optional tools to help with your installation.

- Small standard screwdriver
- 7/8" open end wrench
- assorted metric sockets and wrenches (10mm – 19mm)
- Ratchet and extensions
- Torque wrench
- Large screwdriver or pry bar
- Rubber Mallet or Dead Blow Hammer
- Your Dodge factory supplied lug nut wrench or after market lug wrench ( stock wheels )
- Floor jack and safety stands or a hydraulic lift
- Safety glasses or goggles
- Small bottle of Anti-seize
- Cotton Gloves (optional)
- Hand operated tailpipe expander capable of expanding tubes to slide over 3.0" stock in the case of the '03 model or 2 3/4" stock in the case of the '04 model. These are available at stores such as AutoZone and other parts stores for rent or purchase. **(Highly Recommended)**

## **Before You Get Started:**

- Take inventory of all the parts in your new system. Make sure each piece is accounted for prior to taking your vehicle out of service.
- Look at the tool and supply list to make sure you have all the needed tools and supplies before you don't have an operating vehicle to run to the store in.

## **Stock System Removal: (Dodge Hemi '03/'04 4WD)**

The '03 and '04 Dodge Hemi 4WD stock system removal is similar but not exact between year models. These instructions will differentiate between the two models with notes. Please read the instructions carefully.

Place the vehicle up on jack stands or a hydraulic lift to provide access to the bottom of the vehicle. You should plan to get the bottom of the vehicle at least 3 feet off the ground to allow for the insertion of the headers from below.

- For safety and to protect your vehicle's electrical system, remove the ground cable from the negative battery terminal.



- Loosen the lug nuts on both front wheels and remove the wheels
- Remove the inner fender panels from both the driver and passenger side of the vehicle. They are held in position by several small hex head screws and Phillips head screws in the case of mud flaps. There is at least one "christmas tree" barb holding a portion of the wiring harness to the inside of each fender panel.





**Note: O2 sensors are delicate electronic components and should be handled very carefully. Take extra care in not contaminating the sensing end with shop towel lint, finger prints, oil, etc.**

- Begin underneath the vehicle. Along the passenger side of the stock system, unplug both the front and rear O2 sensors from the wiring harness. Carefully remove both sensors from the system. Mark each sensor with a magic marker with either an “F” for front or an “R” for rear. Set these sensors aside for re-installation later in the assembly process.

**Note: The 2004 model uses O2 sensors on both the driver and passenger sides to monitor catalytic converter performance and fuel trim settings. A total of four O2 sensors are used, two in the front and two in the back of the cats. Be sure to mark each O2 sensor so that they can be reinstalled in the correct location later in the assembly process.**



- Spray the forward most OEM band clamp of the extension tube coming from the front end of the muffler with some penetrating fluid. Let it soak for a few minutes and then loosen the band clamp nut.



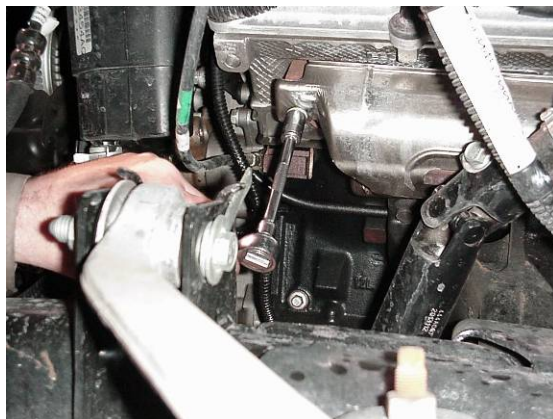
- With a piece of chalk or a paint marker draw a line parallel to the axis of the exhaust tube approximately 3" behind the rear O2 sensor bung. Use a hacksaw or saws-all to cut the tube 90 degrees to the axis across the mark. The mark provides an index for the exhaust assembly should you desire to reinstall the stock system sometime in the future. Make sure that this cut is made in front of the torsion bar cross member.
- With the exhaust system now cut in half, remove all of the rubber muffler hangers to facilitate removing the cut portion of the exhaust from the muffler extension tube. Remove cut tube.



- Remove the 2 bolts on either side holding the down tubes to both the driver side and passenger side manifolds.



- Loosen and remove the two nuts securing the transmission mount to the cross member. After supporting the rear of the transmission, loosen and remove the 4 bolts and nuts holding the cross member to the frame and remove the cross member. Set it aside for reinstallation later.
- Raise the transmission high enough toward the bottom of the cab to let the catalytic converter and “Y”-pipe slip between the torsion bar cross member attachment point and the transmission pan. Remove the “Y”-pipe/catalytic converter from beneath the vehicle.
- While under the vehicle, reinstall the cross member. Reinstall the bolts and tighten securely.
- Lower the transmission support and reinstall the mounting bolts. Securely tighten.
- Begin removing the passenger side manifold by removing the bolts holding the aluminum heat shield in position. Remove the heat shield.



Remove the bolts and heat shield for access to the exhaust manifold bolts.



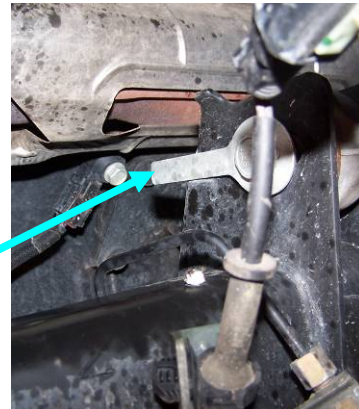


- Loosen and remove the manifold bolts. There are 9 bolts on the passenger side.
- Remove the manifold from the engine bay. It will come out the side or from below.
- Proceed to the driver side. Repeat the previous three steps to remove the driver side manifold. There are 8 bolts in the driver side manifold.

This completes the removal of the stock system. Proceed to **“Installing the New Header System”**

### **Installing the New Header System** ('03/'04 4WD Dodge Hemi 1500)

Cut or bend this tab back out of the way so that it will not interfere with the header during or after installation. It is a tough piece of steel and will require considerable effort. It seems to be used in the manufacturing process and is not used beyond that purpose. Depending on its position, it may be necessary to do this on both the passenger and driver side, but primarily it is on the passenger side only.



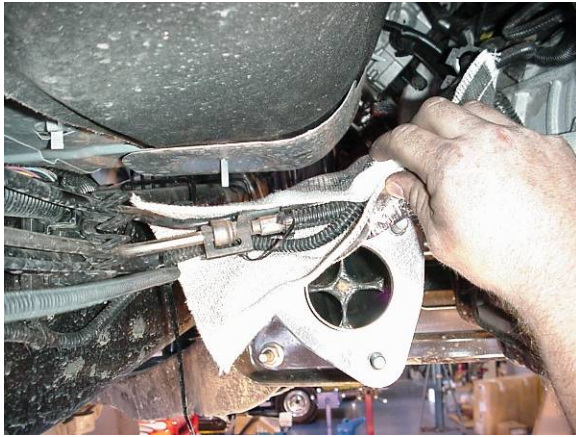
- Prepare the eight bolts to be used on the left (driver's) side by putting a small amount of anti-seize on the threads of each bolt.
- Begin the new system installation by installing locating the left (driver) side gasket. Slip the header up into position from beneath the vehicle. Align

- the header and the gasket and start a couple of header bolts to hold the alignment. Start the balance of the header bolts and screw them in by hand far enough to be sure that they are not cross-threaded. After all the bolts have been started, torque each bolt to 18 to 20 ft/lbs starting with inner-most bolts and working outward till all are tightened.
- Prepare the nine bolts to be used on the right (passenger) side by putting a small amount of anti-seize on the threads of each bolt.
  - The right (passenger) side is installed in a manner similar to the left side. Slip the header up into position from beneath the vehicle. Align the header and the gasket and start a couple of header bolts to hold the alignment. Start the balance of the header bolts and screw them in by hand far enough to be sure that they are not cross-threaded. After all the bolts have been started, torque each bolt to 18 to 20 ft/lbs starting with inner-most bolts and working outward till all are tightened.
  - The '03 system version (part # 124-843320) has a series of fuel lines, vent lines, etc running above the left (driver) side catalytic converter. These lines must be protected from the heat generated by the converter.
    1. Remove the two plastic brackets that hold the lines to the side of the frame. There are two stubs on each of the brackets. Cut the uppermost stub off flush with the bracket and install the bracket back into the frame in the uppermost hole. This has the effect of raising the line bundle about a ½" higher away from the catalytic converter.
    2. Locate and install the fuel line insulation wrap around the line group where it crosses the exhaust pipe with the Velcro toward the top next to the floor pan. Do the same with second insulation wrap along the side of where the catalytic converter will be installed with the Velcro to the outside.
    3. Use some mechanic's wire to secure the line group to the frame as high and as close to the frame as possible. Get as much of an air gap between the catalytic converter and the line group as possible.

On the '04 system version (part # 124-843360) the lines have been relocated to a different position and do not require the use of the insulation wrap.



This thermal heat shield is to wrap around the fuel line and wiring harness going across from the frame to transmission just above the catalytic converter



The reflective silver finish goes to the outside. Wrap the shielding material around the harness and fuel line and apply pressure to the Velcro strip.

**Warning – Do not run the vehicle without installing this thermal wrap. '03 only.**

**Note: the use of a good anti-seize material on all threads is recommended.**



- Install the sintered metal donut gaskets to the header collector outlets on both the left and right headers.



Install the sintered metal donut gaskets before you install the “Y”-pipe.



- Slip a small round silver colored spacer over each of the 6 studs protruding from the header collectors ( 3 on each header ) before installing the catalytic converters and “Y”-pipe.



Install one spacer per stud. This prevents the gasket from being crushed beyond its intended yield point as the catalytic converters and “Y”-pipe are being tightened into position. ( Do this on both headers )

- Slip the back end of combination catalytic converter and cross-over tube up and along side of the transfer case and insert the female ball joint onto the sintered metal donut gasket on the end of the header. Loosely install the three serrated nuts onto the collector studs.
- Slip the female ball joint of the right (passenger) side converter onto the sintered metal donut gasket on the end of the right (passenger) side header. Loosely install the three serrated nuts onto the collector studs.
- Slide the “Y”-pipe assembly over the top of the torque tube cross member. Slip the cross-over leg of the “Y”-pipe over the cross-over leg coming from the left converter, and then slide the opposite leg of the “Y”-pipe. Put a 2 ½ band clamp over each of the slip joints and start the nuts.

**SUPERMAXX**

Insert the flanged extension on to the interim tube coming from stock muffler. You may need to slightly enlarge the joint with the tail pipe expander to make things fit together so that adjustments can be made during the alignment process. (This is not required for the '04 version of the "Y" pipe. The flanged extension outlet is integrated into the "Y" itself.)

**Note:** A small amount of white grease or WD40 on the rubber tailpipe and muffler support hangers will make them slide around easier making the adjustment of the components during the alignment phase of the installation easier to accomplish.



- Align and insert the two bolt flanged extension to the outlet end of the “Y”-pipe. Install the two serrated nuts loosely. ( not required on the '04 version)
- With all the joints loosely fastened, install the O2 sensors into the appropriate bungs. Use a small amount of anti-seize on the threads of the sensors. **Be sure that no anti-seize gets on the sensor itself.**
  1. The '03 system version has two sensors only. One of them is in the front bung of the catalytic converter on the right (passenger) side and the other is in the outlet of the “Y”-pipe.
  2. The '04 system version has four sensors. The front sensors are located in the front bungs of the catalytic converters on each side and in the cross-over tube of the left side and the right side inlet of the “Y”-pipe.



(The above pictures are for reference only and may not reflect the actual part)

- Attach the O2 extension wires to the sensor and reconnect to the wiring harness. Use the Christmas tree barbs to secure the wires to the hold the wires off of the hot headers as needed.
- With the sensors connected, look at each area of the system to check for adequate clearance around each part. Begin snugging down all of the bolts and clamps to maintain those clearances. With all the parts snugged down and clearances verified, fully tighten all the connection clamps and joints.
- Re-check all the routing, connections, and tightness of the joints, then lower the vehicle.
- Reconnect the negative battery terminal, start the engine and check for any leaks while the headers are still accessible. Check each joint for possible leaks. Correct any leaks that are found prior to proceeding. Shut the engine off and continue with the next step.



- Reinstall the inner fender panels with the clips and screws that were removed during disassembly.



Install panels and screws in the same manner in which they were removed.

- Install both front wheels and tighten all the lugs nuts to factory specifications.
- Once again, verify that all hoses, cables, electrical lines, fuel lines, hydraulic lines, or any other objects are not in contact with, or located too close to your installed system. (Nothing should be allowed to touch or be located close to the header/exhaust system.)
- Lower the vehicle.
- Congratulations, this completes the installation of your new set of Hemi headers. After the headers have been run for a time (10 to 15 hrs) it

would be a good idea to recheck all bolts and joints. Retighten if necessary.

- Thank you for purchasing a **Dynatech SuperMAXX Exhaust System**. If you have questions or comments, contact us toll free at 1-800-848-5850 for assistance.

**Note:** In some instances you may experience a check engine light after the installation of an aftermarket exhaust system. If this occurs please contact Dynatech at 1-800-848-5850 and ask for customer service or e-mail [dynatechcs@dynatechheaders.com](mailto:dynatechcs@dynatechheaders.com).

Now you've got a real **HEMI!**



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