



## **'06 – '08 Dodge 1500 Hemi (5.7 liter)**

**Part # 724-84710, 724-84720**

**Part # 724-84810, 724-84820**

**LIT 1007**

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 too close to the header/exhaust system.)

Dynatech competition exhaust products are not covered under any warranty either expressed or implied.

Dynatech is not responsible for any exhaust product that has been improperly installed, crashed, welded to, or modified in any way. Dynatech does not cover damage to any related components. Neither the seller nor Dynatech will be responsible or liable for any loss, damage, or injury resulting from the direct or indirect use of this product or inability by the purchaser to determine proper use or application of this product. Dynatech competition exhaust products are built for off-highway use only and are not intended for use on street legal, pollution controlled vehicles.

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.

### **Installation Instructions**

Congratulations on your purchase of the Dynatech / SuperMAXX Dodge Truck header system. 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 kit. While slight variations in either the header or the vehicle may cause minor differences in the exact order of steps listed in this document, the following narrative and pictorial information should guide you during the removal and installation process leading 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.

#### headers.

*Tools required for proper installation.*

- 7/8" open end wrench or O2 sensor wrench
- Assorted metric wrenches (8mm – 21mm)
- Ratchet & extension
- Assorted metric sockets (8mm – 21mm)
- 9/16" socket and combination wrench
- Optional: ratchet box end wrenches 10mm,13mm (these make certain operations easier)
- Torque wrench
- Your Dodge factory supplied lug nut wrench ( stock wheels )
- Floor Jack, and stands, or hydraulic lift
- Safety glasses or goggles
- Small amount of Anti-seize

Your exhaust system should contain all of the following parts. Please inventory each item prior to proceeding with the installation.

#### **Parts Inventory List:**

- 1 ea. Left Header (124-843320L)
- 1 ea. Right Header (124-843370R)
- 1 ea. Catalytic Converter w/Cross-over Tube Assembly. (left side)
- 1 ea. Catalytic Converter (right side)
- 1 ea. "Y"-Pipe Assembly
- 1 ea. 2 ¾" to 3.0" Y-pipe Extension
- 3 ea. O2 Sensor Extension (2 rear extensions and 1 front extension)
- 1 ea. fuel and brake line heat protection wrap
- 2 ea. 2 ½" Stainless Steel Band Clamps (Two Bolt)
- 1 ea. 2 ¾" Stainless Steel Band Clamp (Single Bolt)
- 1 ea. Header Gasket /Bolts Skin Card
  - 2 ea. Multi-Layer Stainless Gaskets
  - 17 ea. 8 mm Header Bolts
- 1 ea. Donut Gasket Skin Card
  - 2 ea. Donut Gaskets
  - 6 ea. 10 mm Hex Head Bolts
  - 6 ea. 10 mm Serrated Flange Nuts
  - 6 ea. Anti-Crush Spacers
- 4 ea. "Christmas Tree" Tie Wraps



**124-843370-80 System**



### **Safety Notes:**

Please allow engine to cool for a minimum of 90 minutes before starting installation.

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

Although the use of cotton gloves is not considered a “must do”, their use is recommended to keep the oils and grease from the surface to prevent the permanent staining of the headers and also protect your hands from sharp objects under your vehicle during the removal of your old system and the installation of your new kit.

### **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.

### **Stock System Removal:**

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” tie wrap holding a portion of the wiring harness to the inside of each fender panel.



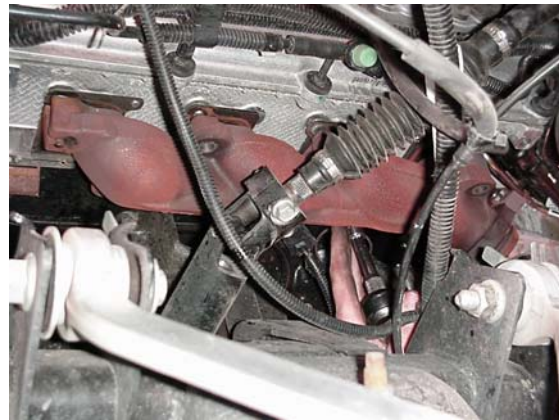
**Note: O2 sensors are delicate electronic components and should be handled very carefully. Take extra care in not contaminating the sensing end with shop towel lint, finger prints, oil, etc.**

- 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 the four (4) sensors from the system. Mark each sensor with a magic marker with either an “LF or RF” for front or an “LR or RR” for rear. Set these sensors aside for re-installation later in the assembly process.
- Spray the rearward most OEM band clamp of the extension tube coming from front resonator to the front end of the main muffler with some penetrating fluid. Let it soak for a few minutes and then loosen the band clamp nut.





- Loosen, but do not remove the 2 bolts on either side holding the down tubes to both the driver side and passenger side manifolds.
- Loosen and remove the four (4) 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.
- Finish removing the two (2) bolts holding the clamps to the cast OEM manifold on both sides of the engine.
- With assistance from a helper, lower the converter/exhaust tube slightly and pull the assembly (catalytic converters, y-pipe, and resonator/extension tube) out of the front of the main muffler and remove it from beneath the vehicle. Store this component in case you ever decide convert your truck back to the stock condition.
- While under the vehicle, temporarily reinstall the cross member with a couple of bolts.
- Temporarily lower the transmission support and remove it from beneath the vehicle.
- Begin removing the driver side manifold by removing the bolts holding the aluminum heat shield in position. Remove the heat shield.



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

This completes the stock system removal process – Please proceed to **“Installing the New Header System”**

### **Installing the New Header System**

#### **Note:**

This system was designed to attach to the front side of the OEM main muffler by use of an extension tube that fastens to the rear of the Y-Pipe and extending back to the OEM muffler. This extension tube is supplied in the longest configuration as determined by the OEM wheelbase for the Quad-Cab vehicle. The length of this tube will need to be adjusted accordingly depending on the particular configuration of your vehicle. Procedures for doing this will be spelled out later in this manual. **If you intend to install an aftermarket cat-back system on your vehicle, additional fabrication may be required and the owner would assume all responsibility for any fitment issues encountered.**

- 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.
- Locate the left side gasket. Slip two (2) of the prepared bolts through the outside bottom holes in the gasket and start them into the corresponding holes in the head. Likewise insert the other two (2) bolts in the remaining bottom holes. Make sure that these bolts are run in by hand to prevent cross-threading. Screw all four (4) bolts in the head so that there is approximately ½" space between the underside of the bolt head and the gasket when it is held against the head.

- Slip the header up into position from beneath the vehicle. Align the header by hanging the header over the bolts installed in the previous step. 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.
- Locate the right side gasket. Slip two (2) of the prepared bolts through the outside bottom holes in the gasket and start them into the corresponding holes in the head. Likewise insert the other two (2) bolts in the remaining bottom holes. Make sure that these bolts are run in by hand to prevent cross-threading. Screw all four (4) bolts in the head so that there is approximately  $\frac{1}{2}$ " space between the underside of the bolt head and the gasket when it is held against the head.
- Slip the header up into position from beneath the vehicle. Align the header by hanging the header over the bolts installed in the previous step. 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 '06 system 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. 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.
  2. 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.



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.**

- 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 bolts installed through the flange on 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 over and along side of the transmission 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 bolts.
- 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 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.
- With the “Y-Pipe” and the cross-over tube aligned in approximately correct position, measure the distance between the end of the y-pipe and the front of the OEM muffler. Add four (4) inches to this measurement. Transfer this measurement to the extension tube beginning at the expanded end. Cut the tube at this point if necessary with a hacksaw, tubing cutter, etc., then debur the cut end inside and outside.
- Slip the supplied 2.75” single bolt clamp over the expanded end of the end of the extension tube so that the nut faces the centerline of the vehicle.
- Slip the non-expanded end of the extension tube inside the inlet of the OEM muffler far enough that the expanded end clears the rear end of the y-pipe expansion. With the tube aligned, twist the tube back and forth moving it forward onto the rear expansion of the y-pipe to fully engage the joint.

**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.

- Start the aligning process on the right (passenger) side. Snug up the three bolts and nuts of the right side catalytic converter, enough so that there is some slight movement. Next, twist the y-pipe to align with the cross-over pipe. Snug up the bolts on the left side catalytic converter similar to the right side.
- Next fully tighten the OEM clamp on the front of the main muffler and move forward to the rear of the y-pipe and fully tighten that clamp.



- Proceed to the two wide (two (2) bolt) band clamps and fully tighten them. These clamps work by stretching the clamp material around the tube so the clamps must be tightened down as much as possible.
- Finally, fully tighten the bolts and nuts on each of the two (2) catalytic converters. They should be tightened securely down against the anti-crush washers.
- Reinstall the vehicle cross-member by inserting the remaining bolts and nuts. Securely tighten.
- Reinstall the transmission mount nuts and securely tighten.
- With all the joints securely 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.**
- Attach the O2 extension wires to the sensor and reconnect to the wiring harness. Use the christmas tree tie wraps to secure the wires to the hold the wires off of the hot headers as needed.
- 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 both front wheels and tighten all the lugs nuts to factory specifications.
- Lower the vehicle.

## Finishing up the installation:

### Final Checks:

- **Check your work. No wiring, fluid lines, sensors, steering components, etc should come in contact with any part of the header or with any area that may cause heat damage or mechanical damage.**
- Start the engine. Observe the "Check Engine Light". It **should not** come on.
- Listen for any exhaust leak "ticking" sounds. Check around each clamp and gasketed joint for leaks. If any are found, check to see that the gasket is properly installed and the joint or clamp is tightened properly.

All bolts and connections should be retightened as necessary after the system has gone through several thermal cycles and as needed thereafter.

**Congratulations! Now you have the highest quality, best performing exhaust system available installed on your vehicle.**



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We make every effort to build our products to the highest standards of workmanship and materials possible. This also applies to our documentation. We have tried to make the removal of the stock system and the installation of the new system as clear and concise as possible. If, however, you find points in our instruction manual that you feel need to be clarified or changed, please e-mail us your constructive comments. We will use them to correct and enhance our documentation to the benefit of all customers.