

Dynatech[®]

Competition Exhaust Systems

INSTALLATION INSTRUCTIONS

LIT-993, REV 2



DODGE RAM - 2WD ONLY

STAINLESS STEEL EXHAUST SYSTEM

Note: We do our best to ensure 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 or application listed above, please feel free to contact us at 800-848-5850 or sales@dynatechheaders.com for an updated instruction manual. We assure you the parts in the box are correct. The instructions may have added notes for a specific model year update.

'03 - '05

5.7 LITER HEMI ENGINES

PART NUMBERS

2003

724-84310, 724-84320

2004-2005

724-84310, 724-84520

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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.

Congratulations on your purchase of the Dynatech system for the '03-'04 Dodge Ram with the 5.7 liter Hemi engine. 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.

Installation Instructions

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.

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.

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Please read the following important information before installing the headers.

Miscellaneous hand tools are required for proper installation of these headers. We have listed a few of the required 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
- Your Dodge factory supplied lug nut wrench (stock wheels)
- Floor jack and safety stands or a hydraulic lift
- Safety glasses or goggles
- Small bottle of Anti-seize



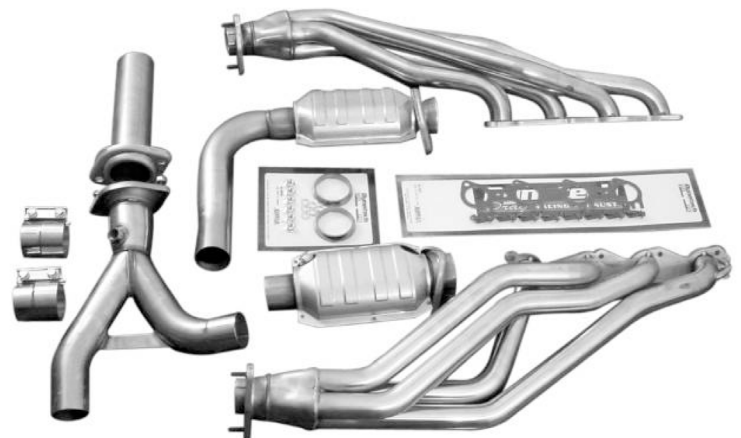
Your exhaust system should contain all of the following parts. Please inventory each part prior to proceeding with the installation.*

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Parts Inventory List: *

- 1 ea. Left Header
- 1 ea. Right Header
- 1 ea. Catalytic Converter w/ Cross-over Tube Assembly (no O2 Bungs) *
- 1 ea. Catalytic Converter (O2 Bungs – front one is open, rear one is plugged)
- 1 ea. "Y"-Pipe Assembly *
- 1 ea. Extension Tube
- 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 ea. Anti-Crush Spacers
- 3 ea. X-mas Tree Tie Wraps
- 1 ea. Fuel Line Insulation Wrap *

The **SuperMAXX** Hemi header exhaust kit is a complete system, engineered for a hassle-free, bolt on installation.



* The '04 kit differs slightly from the '03 version in the following ways:

- The left side Catalytic converter w/Cross-over tube Assembly has O2 sensor bungs installed.
- There is an O2 extension cable supplied with the '04 version for use on the left side (driver side).
- There is no Fuel Line Insulation Wrap supplied with the '04 version.
- The Y-Pipe Assembly has a slightly different configuration than shown in the picture.

Safety Notes:

- Before starting the removal / installation of your new header kit, please allow the engine to cool for a minimum of 90 minutes.
- The use of safety glasses or goggles is strongly recommended, as debris may be dislodged from your vehicle while removing and installing parts.
- Although the use of cotton gloves not considered a “must do”, their use is recommended to keep the oils and grease off the stainless surface to prevent permanent staining of the headers and also to protect your hands from sharp objects under your vehicle during the removal of the old system and installation of your new kit.

Old System Removal:

1. Remove the negative battery terminal.



2. Remove the front wheel hub caps and loosen the lug nuts. ***Do not remove the front wheels at this time.***
3. Raise the vehicle using a floor jack. (You should always use jack stands to support the vehicle while working under any vehicle). A hydraulic car lift may be used in lieu of a floor jack and jack stands, if available.
4. Once the vehicle is raised and is secure, remove both front wheels.



5. Remove all of the screws and fasteners holding the front plastic inner fender panels from both sides of the vehicle.



These screws need to be removed prior to removing both the LH and RH inner panels. This gives you lots of room to install your new headers. **Is that a Hemi behind those panels?**

6. Remove the LH and RH inner fender panels.



Set the panels aside out of the way. They will be one of the last things installed during reassembly.

7. While under the vehicle, locate the front O2 sensor. Follow the wiring up to the connection at the wiring harness and carefully disconnect the sensor leads from the harness. **Always use extreme care when handling O2 sensors – they are very delicate.**

8. Likewise, disconnect the rear O2 sensor leads.



Removal of the actual sensors from the old exhaust system is best performed after the exhaust system has been completely removed.

If you are cutting the “Y”-Pipe out of your vehicle you can disregard removing the cross member. If you are taking the whole system out in one piece you must swing the cross member down and out of the way for clearance during the removal process.

9. Remove the nuts from the bolts holding the transmission to the cross member. Next remove the nuts from the 4 bolts holding the cross member to the main frame. **Do not remove the bolts at this time.**
10. Spray the four bolts holding the “down tubes” to the cast manifolds with penetrating oil. Also spray the bolt on the clamp holding muffler to the “Y”-pipe assembly. It’s a good idea at the same time to apply some sort of lubricant on the muffler hanger brackets so that the rubber hangers will move freely back and forth.



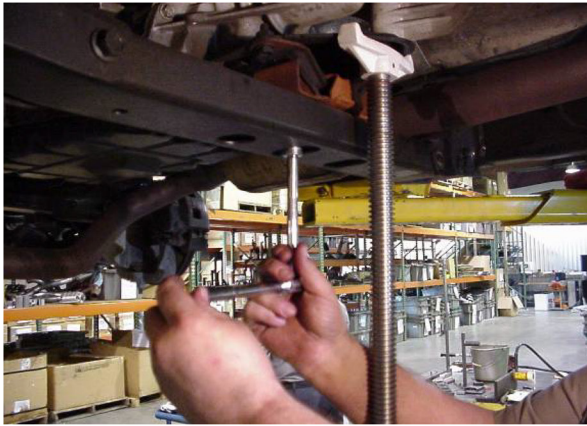
11. Loosen the muffler/“Y”-pipe clamp and separate the muffler from the “Y”-pipe. You may need a dead blow hammer or a rubber mallet to accomplish this. Completely removing the muffler and tailpipe is not required but may help to eliminate interference while removing and installing your new header system.



12. Loosen the nuts holding the “down tubes” to the cast manifolds .



13. **Before removing any cross member bolts, you must add a support to the transmission rear tail housing.** Once supported, remove the 4 cross member bolts from the main frame brackets



This shows the rear transmission housing support and removal of the transmission mounting bolt nuts.

14. Make **sure** the rear transmission housing is supported and remove the cross member down and out of the way.



Pry the passenger side of the cross member down to aid in its removal.

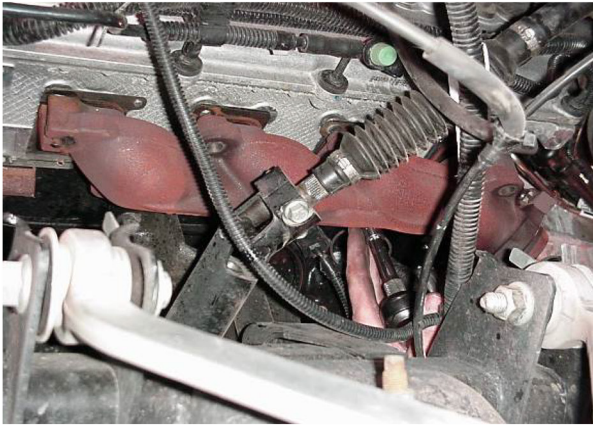
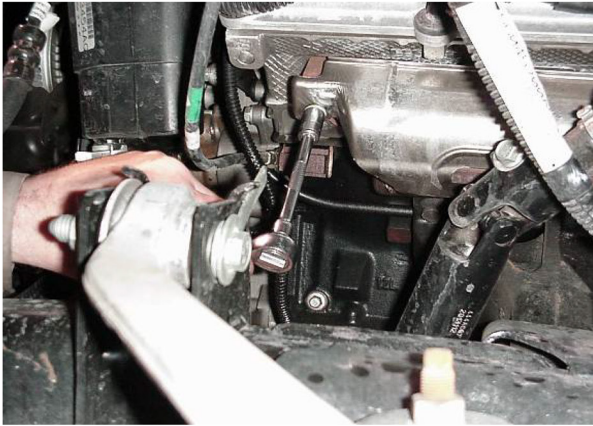
15. Remove the nuts from the "down pipes" at the manifolds and remove the "Y"-pipe and catalytic converter assembly from the truck. Be careful not to damage the O2 sensors – they will be removed from the old system and re-installed in the new system.
16. After removing the "Y"-pipe and setting it aside, carefully remove the O2 sensors and store them in a safe place for re-installation during a later step.

Do not touch the sensor end with your hands.



17. Replace the cross member back into position and re-install the bolts and nuts. Now is the time to tighten the nuts holding the cross member and re-install the transmission mounting bolts, tightening them as you go.
18. While the vehicle is up in the air with all obstructions out of the way, now is the time to relocate the O2 sensor tie-wraps. Follow the O2 sensor harness up along the right side of the transmission. Pull the "x-mas tree" tie-wraps out of the holes in the transmission and relocate them to the rear holes along the transmission's side. More tie-wraps are provided in the kit should you break one.
19. Remove the transmission rear housing support and lower the vehicle enough to be able to get to the cast manifolds and remove them.
20. Begin removing the manifolds by loosening the bolts that hold the over-manifold heat shields in place. The heat shields are held in place with a special nut and stud combination that also holds the cast manifolds to the

engine. Removing the shields exposes the studs and bolts enabling them to be removed. Once the bolts and studs are moved the cast manifolds can be lifted out of the vehicle.



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

21. Once the “Y”-pipe, the heat shields, and manifolds have been removed, clean up the head surfaces if needed and clean-up around the area in preparation for installation of the new system.

This completes the system removal phase of your project. – Proceed to “Installing your New System.”

Installing your new SuperMAXX Header System

1. The best time to install the fuel line insulation wrap is before the headers are installed or at least before the catalytic converter is installed on the left side. Select the thermal wrap from the header kit and wrap it around the fuel/electric lines located on the driver’s side beneath the driver’s seat floor pan. *



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 *

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



2. Install the gaskets by inserting the four bottom hole bolts through the gasket holes and screwing them in to the lower holes on the head on both sides of the engine. **Be aware that there is a different driver and passenger side gasket. The passenger side gasket has 9 bolt holes and an opening for the EGR tube.** With the bottom bolts in place, slide the headers up from beneath the vehicle and hang them from the four bolts that you previously installed via the slots the header flanges. Install headers to both

sides of the engine in a like manner. Install the balance of the bolts on both sides. These should all be hand tight (to prevent damage to your aluminum heads) before snugging them down with an end wrench and final tightening with a torque wrench to approximately **18-20 ft/lbs torque**.

3. 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.

4. 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 “Y”-pipe.

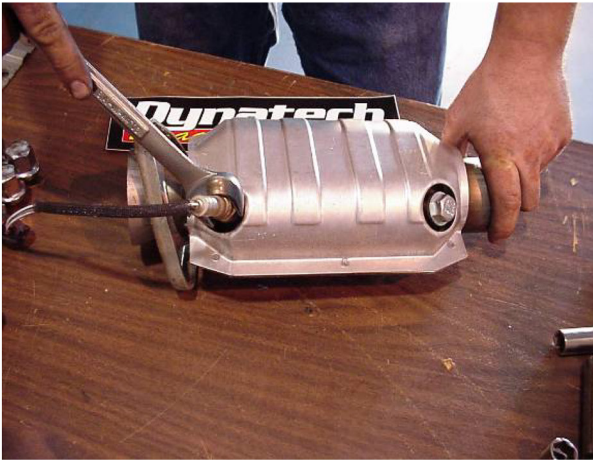


Install one spacer per stud. This prevents the gasket from being crushed beyond its intended yield point as the catalytic converters and “Y”-pipe are being tightened into position. (Do this on both headers)

5. Install the flange extension onto the end of the muffler. Do not tighten the clamp at this time. It will be tightened later in the installation process.



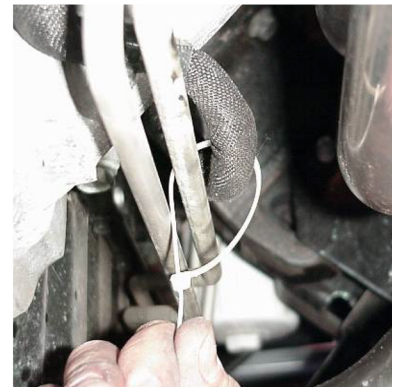
6. Carefully install the O2 sensors in the passenger side catalytic converter and the “Y”-pipe outlet as shown below. A small amount of anti-seize is recommended but **do not** get it on the sensor itself.



7. **Start the catalytic converter and “Y”-pipe installation with passenger side.** Attach the catalytic converter loosely with 3 of the metric serrated flanged nuts. Then make sure that one of the two band clamps supplied in the kit is slid over the converter outlet and slip the straightest leg of the “Y”-pipe into the end of the passenger side catalytic converter. The orientation of the clamp bolts is not critical but care should be taken to properly align the clamp off-set with the converter to “Y”-pipe joint and the bolts should be where they can be tightened in a position where they do not pose a ground clearance problem.
8. The driver’s side catalytic converter and cross-over pipe can now be loosely attached to the driver’s side header collector with 3 more of the supplied flanged nuts. Make sure that the other band clamp is slid over the cross-over pipe in the proper orientation for both the offset and the bolt position and slip the cross-over tube inside the expanded leg of the “Y”-pipe.



9. At this point, snug the nuts up at the collector/converter joint just enough to semi-hold parts in position, you need to be able to have some movement between components until all parts are installed. **(do not fully tighten at this time)**
10. Slide the muffler forward so that the studs in the “Y”-pipe outlet slip through the corresponding holes in the flanged extension. Install the remaining serrated nuts hand tight.
11. After determining that all the parts are connected correctly and that there are no clearance issues, begin tightening all the bolts and clamps to properly secure the exhaust system. Start at the passenger side collector/converter joint and tighten the 3 nuts down tight against the stamped flange and the anti-crush spacers. Move back along the system tightening and orienting each part as you go until all parts are tightened securely.
12. Connect the appropriate O2 sensor connections making sure they are routed away from the exhaust pipes where they could be damaged by the heat generated during vehicle operation.



13. Take this time to re-check all the routing, connections, and tightness of the joints, then lower the vehicle.
14. 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.



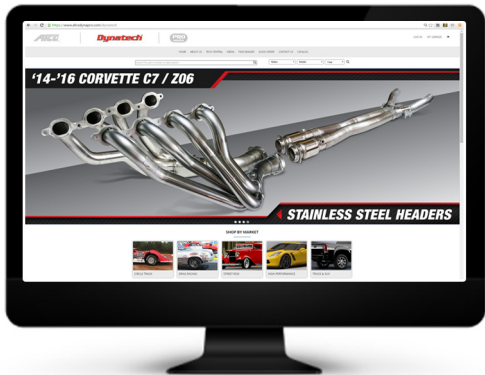
15. Reinstall the inner fender panels with the clips and screws that were removed during disassembly.



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

16. Install both front wheels and tighten all the lugs nuts to factory specifications.
17. 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.)
18. Lower the vehicle.
19. 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.
20. 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.



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