



2005-06 Pontiac GTO LS-2 Header System (6.0 liter) Part # 715-73410, 715-73520 & 715-73530

LIT 891

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.

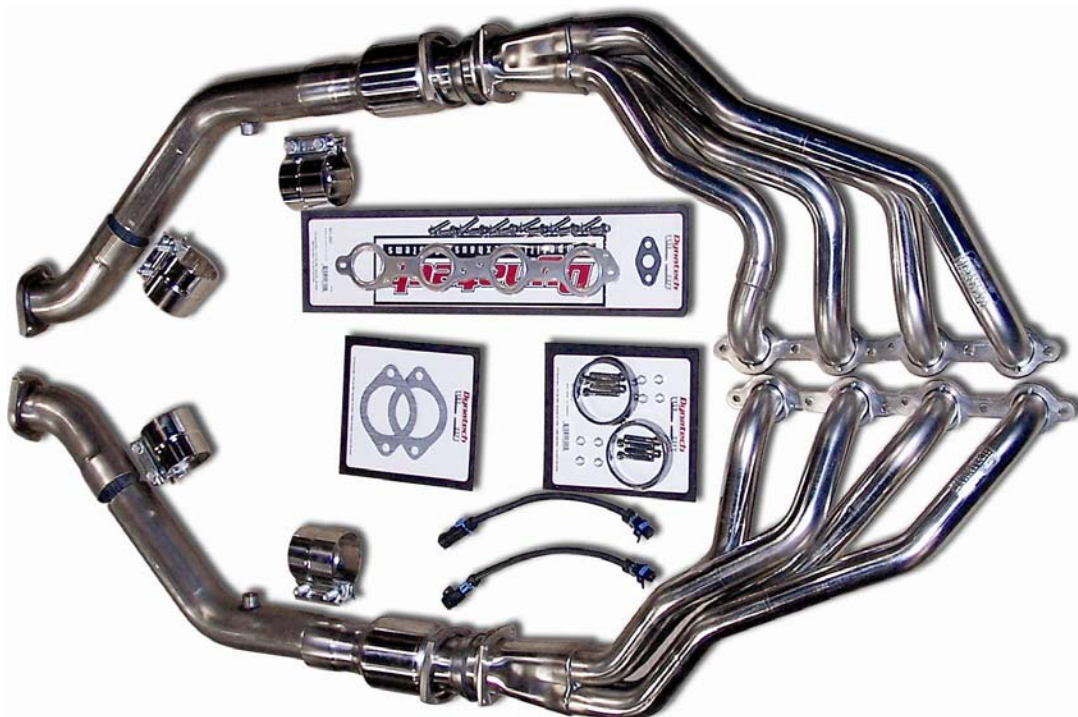
Installation Instructions

Congratulations on your purchase of the Dynatech / SuperMAXX GTO 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.

SUPERMAXX

- 1 ea. Left Side (driver side) Header
- 1 ea. Right Side (passenger side) Header
- 2 ea. **PowerCats** - Hi-Flow Catalytic Converters
- 1 ea. Donut Gasket Skin Card
 - 2 ea. 3" Graphite Donut Gaskets
 - 8 ea. 5/16" x 18 x 1 3/4" Allen Head Cap Screws
 - 8 ea. 5/16" x 18 Top Lock Hex Nuts
- 1 ea. Header Gasket / Header Bolts Skin Card
 - 2 ea. OEM Style Stainless Steel Header Gaskets
 - 12 ea. 8mm Header Bolts
 - 2 ea. Dynatech Decals
- 1 ea. Tail Pipe Gasket / Hardware Skin Card
 - 2 ea. GTO Tail Pipe Gaskets
- 1 ea. Left Side (driver side)Front Pipe Section
- 1 ea. Left Side (driver side) Rear Pipe Section
- 1 ea. Right Side (passenger side) Front Pipe Section
- 1 ea. Right Side (passenger side) Rear Pipe Section
- 4 ea. 2 3/4" Stainless Steel Band Clamps
- 2 ea O2 Extension Cables (Grey square connectors for the front O2 sensors)



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 your vehicle while removing and 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 of the header's stainless steel surface possibly preventing permanent stains on the headers themselves.

Required and Optional Tools

- 7/8" Open End Wrench (O2 Sensor Removal)
- Assorted Metric Sockets (10mm-17mm)
- 1/2" Socket
- 5/8" Sparkplug Socket
- 3/8" Ratchet and Extensions
- Assorted Metric Combination Wrenches (10mm – 17mm)
- 10mm Combination Ratchet Wrench (Highly Recommended but not Required)
- 1/2" Combination Wrench
- 1/4" Allen Wrench
- 3/8" drive Torque Wrench
- Assorted Screw Drivers
- Assorted Pliers and Diagonal Cutters
- Floor Jack and Stands or Hydraulic Lift
- Safety Glasses or Goggles
- Cotton Gloves (optional)
- Small Container of Anti-Seize (sensor safe)

Removal of the Stock Exhaust System:

Under the Vehicle

- Place the vehicle on jacks stands or preferably a hydraulic lift.
- Disconnect the negative battery cable.

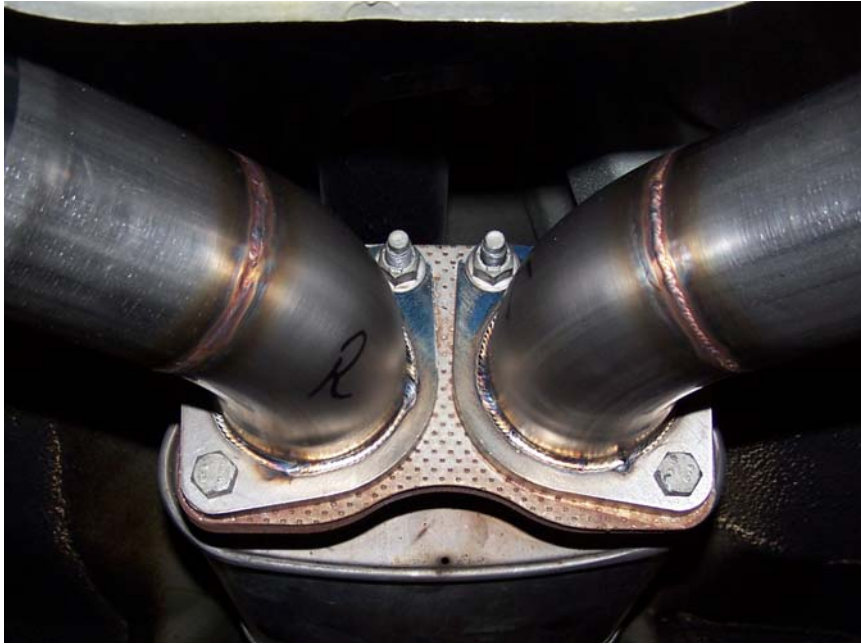


Note: Proper operation of the forward O2 sensors is crucial for peak performance and good air-fuel ratio. Please handle with care and keep hands free from contaminating the sensor surface. All sensors should be considered as delicate instruments and should be handled accordingly.

- Disconnect the O2 sensor connectors from both the front and rear sensors on both sides of the stock exhaust system. Remove O2 sensors themselves from the stock exhaust. Make sure that each sensor is marked as to its position so that it may be replaced later in the installation process in the correct position.



- Loosen the two nuts on the two tail-pipe flanges and remove the two bolts at the front of the muffler inlets. Use penetrating fluid where necessary to help with removal.



- Loosen and remove the down tube nuts holding the stock system to the cast manifolds. Use penetrating fluid where necessary to help with removal.



- At this point both the left and right converters and exhaust tubes should be able to be lowered out of the vehicle.
- This should complete the removal of the stock exhaust pipes and converters.
- From beneath the vehicle, loosen and remove the nuts on the studs holding the frame-to-firewall braces on left (driver side) side of the engine. Remove the brace. The left side brace will be permanently removed.)
- Replace the nuts on the studs on the firewall. They hold a bracket holding the clutch hydraulic line in the case of a manual transmission.

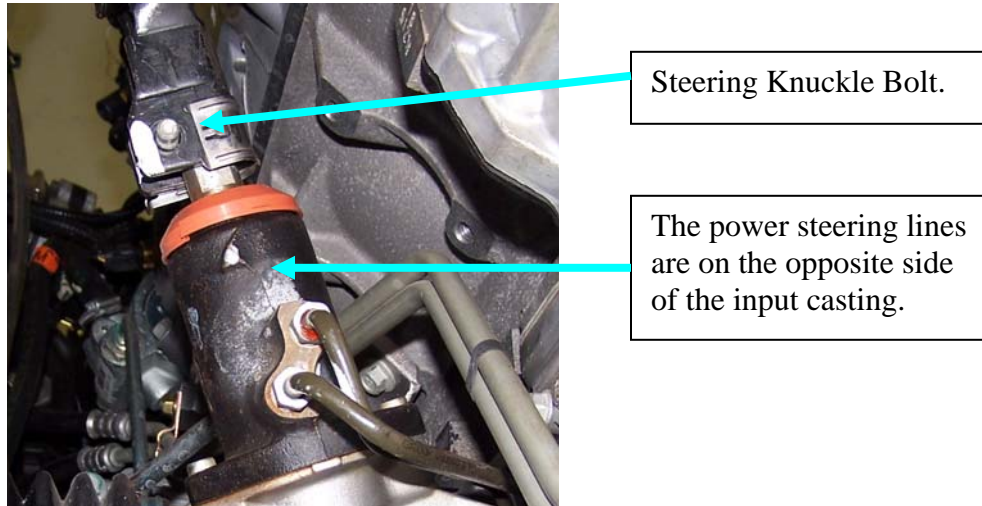
Under the Hood:

- Begin the removal of the cast stock manifolds by removing the fuel rail covers.
- Remove the spark plug wires from both the coil packs and the spark plugs.
- Carefully remove the spark plugs. Avoid cracking the insulators during removal.
- Continue by loosening and removing the bolt holding the oil dipstick tube support bracket to the head. With the bolt removed, pull the dipstick tube out of the block. Take care not to lose or damage the sealing o-ring on the end of the tube.



- With all of the preliminary steps out of the way, begin loosening the cast manifold bolts. With the bolts removed, the manifolds should be lifted out of the engine bay from the top side.

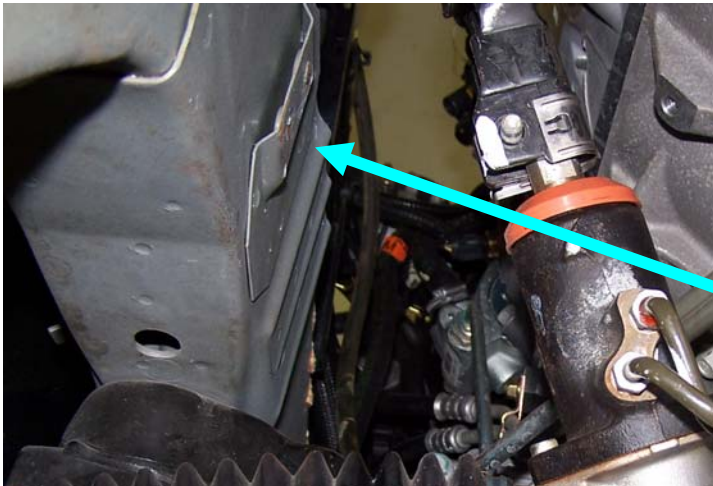
- To aid with the header installation the steering rack must be lowered to slip the left side (driver side) header into position. Begin removing the steering rack by removing the bolt that holds the steering shaft to the rack input shaft. Separate this connection.



- Next, loosen the steel power steering lines leading to the rack from the power steering pump. These lines are on the front side of the steering rack and require two different size wrenches. With the nuts removed, carefully cover the line ends with caps or a clean rag to prevent contamination. Be aware that there are small o-rings on the ends of these lines to provide seals when installed. **Do not lose these o-rings.**
- With the steering knuckle and the power steering lines disconnected, remove the two bolts that hold the rack assembly to the vehicle frame. Wiggle the assembly out of the frame brackets and let it hang beneath the vehicle. **Do not remove the tie-rod ends. (This could result in having to have the vehicle realigned.)**



- The final step in preparing your vehicle for the installation of your new SuperMaxx Header System is to modify the left frame rail. In the area where the firewall to frame brace bracket was removed in an earlier step, take a hack saw or die grinder and remove the two studs attached to the frame rail. They should be cut or ground flush with the side of the frame. Make sure that during the cutting and grinding process, any open lines or cylinder ports are covered to prevent contamination. After making these modifications it would be wise to spray some gray primer paint over the bolt ends to prevent rust.



Notice that the studs are ground flush with frame.

Congratulations, you have completed the removal of your old stock system and have prepared for the new system installation. Please proceed to “Installing Your New SuperMaxx Header System.”

Installing Your New SuperMaxx Header System.

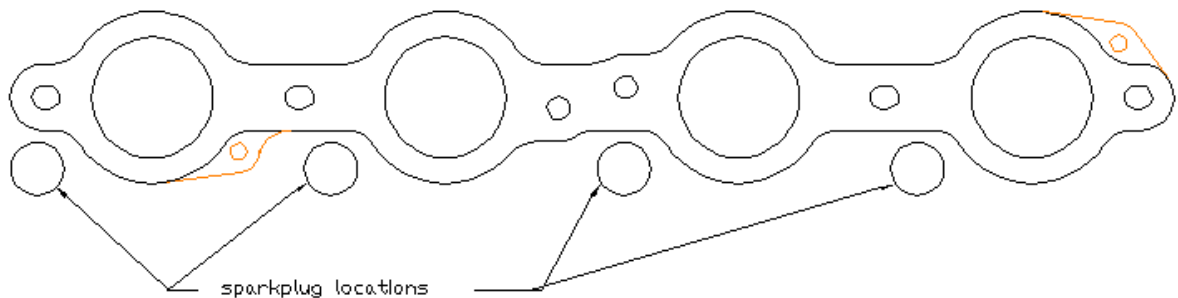
Under the Hood

Your headers will be installed from the top, they may be installed from beneath the vehicle but on the 2005 model it is probably best to be installed from above.

- Install the O2 extension cables for the front O2 sensors first, before there is anything in the way on both the left and right side.
- Install the right side (passenger side) header first. Lower the header into position and install the OEM style gasket as shown in the diagram below. Place a small amount of anti-seize on each of the supplied header bolts and start the bolt by hand to prevent cross threading. After all the bolts are started by hand and you are sure that they screwed in far enough to prevent cross-threading, snug the bolts up and tighten with a torque wrench to approximately 20 ft/lbs.

DYNATECH / SUPERMAXX LS-1 GASKET INSTRUCTION

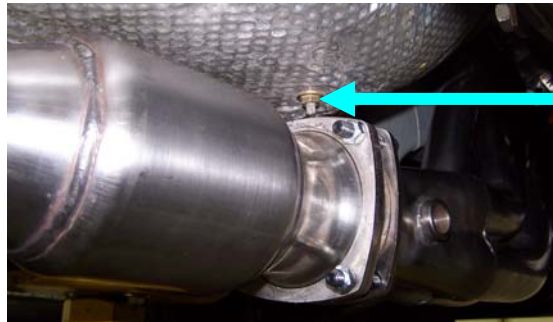
This diagram shows the rivet location for the LS1 Chevrolet gasket. The view is looking from the outside toward the actual head. The rivet locations are such to avoid clearance problems with the sparkplugs.



Be sure to orient the gasket as indicated above to avoid sparkplug boot clearance problems.

- Likewise, install the left side (driver side) header. Lower it down into position and install the OEM style gasket as shown in the diagram above. You will have to slip the collector end of the header passed the steering shaft and the input shaft of the steering rack. Place a small amount of anti-seize on each of the supplied header bolts and start the bolt by hand to prevent cross threading. After all the bolts are started by hand and you are sure that they screwed in far enough to prevent cross-threading, snug the bolts up and tighten with a torque wrench to approximately 20 ft/lbs.

- Prior to installing the PowerCATs, use a die grinder to cut the part of the bolts, holding the floor heat insulation, extending below the nut on both the left and right side to provide a bit more clearance between the floor pan and the catalytic converters. Paint these in the same manner as the frame rail studs to prevent rust.



Cut the off the excess screw length on both sides.

- Next install the donut gaskets on the ends of the collectors and install the two (2) *PowerCATs*. Pull the ring clamps together with the supplied allen head bolts and nuts. Apply a small amount of anti-seize to the bolts. Use a 1/4" allen wrench and a 1/2" combination wrench to snug up all eight (8) bolts and nuts. Leave the clamps loose enough to turn around the gasket by hand. They will be tightened fully at a later step.
- When the *PowerCATs* are snugged up enough to support their own weight, slip a band clamp over the end of the catalytic converter. Then slip the two (2) left (driver side) interim tubes together along with a band clamp correctly oriented over the center splice and slide them into the outlet end of the catalytic converter. The band clamps can be snugged up but do not fully tighten at this time.
- Next, slip a band clamp over the end of the right (passenger side) catalytic converter. Then slip the two (2) right (passenger side) interim tubes together along with a band clamp correctly oriented over the center splice and slide them into the outlet end of the catalytic converter. The band clamps can be snugged up but do not fully tighten at this time.
- Install the tail pipe gasket on each of the tail pipe flanges, rotate them up into position and re-insert the OEM bolts through the flanges. Apply a small amount of anti-seize to the bolts. Do not tighten the flange nuts at this time. They will be tightened later during the alignment phase of the installation.
- With the cats and the tail pipe parts loosely installed, start at the rear of the system and begin tightening the bolts and clamp up as you move forward.
 - Tighten the tail pipe flanges first.
 - Turn the 2 3/4" stainless band clamps to obtain maximum ground clearance and position them for ease of tightening. Notice that there is an offset in the profile of the clamp. Make sure it is oriented correctly before you tighten them. Tighten the clamp as tight as you can. The tightening action stretches the stainless steel band around the tube. If for any reason you must adjust the position of the band clamp, you should replace the

entire clamp because the stretch of the clamp is what provides the seal and once stretched the clamp is only marginally re-usable. This applies only if the clamps have been fully tightened.

- Next tighten the clamp rings down against the graphite donut gaskets. Tighten the bolts equally to cause the seal. Do not over tighten.



The system is now installed. Continue with the instruction steps to re-install all the parts that were removed previously to facilitate the header installation.

- From beneath the vehicle, reposition the steering rack and reinstall the two bolts holding the rack to the frame. **As these bolts are part of the steering system they should be torqued to 44 ft/lbs. plus another 1/8 turn.**
- Turning the wheels all the way one direction or the other may provide more room to reinstall the power steering lines back onto the rack assembly. Be careful with the o-rings on the ends of the two line nuts, do not nick them or misalign them during installation.
- Reinstall the bolt that holds the steering shaft and the rack input shaft together. Securely tighten.
- Next reinstall the before marked O2 sensors. Install the front left O2 sensor in the appropriate sensor bung and the balance of the sensors in the correct bung locations. A small amount of anti-seize will prevent thread galling. **Make sure no anti-seize or other contaminate gets on the sensor's sensing surface. Always use sensor safe anti-seize to keep from contaminating your expensive sensors.**
- Plug in all of the sensors. Make sure the clips are properly installed to prevent disconnection while the vehicle is in operation. Locate the wires away from moving parts and heat sources that may damage the sensors.
- Reinstall the oil dip stick tube. Clean the tube and dip stick prior to reinserting the tube into the block. A small mount of oil to lubricate the dip stick tube o-ring will help with the tube insertion.
- Reinstall the spark plugs.
- Reconnect the spark plug wires to the coil packs and the spark plugs.

- Install the fuel rail covers.
- Now is the time to replace any of the fluids that may have leaked out during the system installation. Primarily this would be the power steering fluid, but this is as good a chance as any to check the brake fluid and oil levels as well.
- Survey the entire engine bay for oil leaks loose wires/hoses, stray rags or tools, etc.
- Reconnect the negative battery cable.

Finishing up the installation:

Final Checks:

- **Check your work. No wiring, fluid lines, sensors, 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.

Note: In some instances although rare you may experience a check engine light. We have found some models to record a slow heat response or temperature error which in turn sets off the check engine light. This has no adverse effect on the performance or operation of the engine but can be annoying. Most tuner shops have software such as LS-1 edit that can by-pass this code for a nominal fee. We can refer you to a tuner if needed.

- 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! That wasn’t so bad, and now you have the highest quality, best performing exhaust system available installed on your vehicle.



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www.DynatechHeaders.com

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.

