



# **INSTALLATION INSTRUCTIONS**

**LIT-991, REV 3**



## **CORVETTE C-5** **STAINLESS STEEL HEADERS**

**'97 - '04**  
**6.2 LITER ENGINE**

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 or 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 may have added notes for a specific model year update.

### **PART NUMBERS**

**715-73610, 715-73710,  
715-73720, 715-73730,  
715-74710, 715-74720,  
715-74730**

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Congratulations on your purchase of the Dynatech C-5 Corvette header system. 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.

## **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.

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 at [dynatechcs@dynatechheaders.com](mailto:dynatechcs@dynatechheaders.com).

**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 kit?

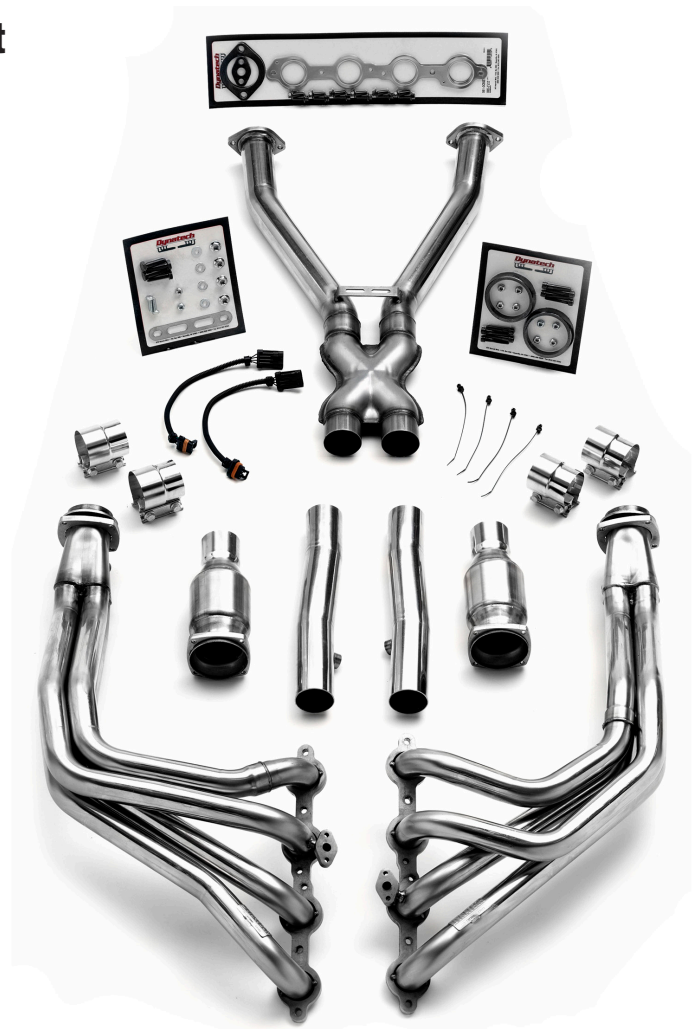
Your exhaust system should contain all of the following parts.  
Please inventory each part prior to proceeding with the installation.

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

- 1 ea. Left Side (driver side ) Header
- 1 ea. Right Side (passenger side) Header
- 1 ea. Accessory Kit
- 1 ea. Instruction Manual
- 2 ea. O2 Extension Cables
- 1 ea. Header Gasket / Header Bolts Skin Card
  - o 2 ea. OEM Style Stainless Steel Header Gaskets
  - o 16 ea. 8mm Header Bolts

### **Intermediate Section Parts Inventory List**

- 1 ea. Left (driver side) Tail Pipe Section
- 1 ea. Right (passenger side) X - Pipe Section
- 3 ea. 2 ½" Stainless Steel Band Clamps
- 2 ea. O2 Extension Cables
- 4 ea. Cable Ties
- 2 ea. PowerCATs - Hi-Flow Catalytic Converters
- 1 ea. Donut Gasket Skin Card
  - o 2 ea. 3" Graphite Donut Gaskets
  - o 8 ea. 5/16" x 18 x 1 ¾" Allen Head Cap Screws
  - o 8 ea. 5/16" x 18 Top Lock Hex Nuts
- 1 ea. Instruction Manual



## **Safety Notes:**

While this installation can be done on the floor with the use of jack stands we strongly recommend that this job be completed utilizing a hydraulic lift or have the system installed by a professional mechanic. You will need 24 to 30 inches of ground clearance to slip the header into position from the bottom of the vehicle.

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

## **Required and Optional Tools:**

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.

- 7/8" open end wrench or O2 Sensor Socket.
- Assorted metric sockets and wrenches (5mm – 16mm)
- Ratchet and extensions
- Torque wrench
- Rubber Mallet or Dead Blow Hammer
- Floor jack and safety stands or a hydraulic lift
- Safety glasses or goggles
- Small bottle of Anti-seize
- Penetrating Fluid (optional)
- Cotton Gloves (optional)

## **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

### **Under the Hood:**

- Place the vehicle up on jack stands or a hydraulic lift to provide access to the bottom of the vehicle. You will need 3 ft. plus ground clearance if you install the driver side header from the bottom.
- For safety and to protect you car's electrical system, remove the ground cable from the negative battery terminal.
- Carefully remove the fuel rail covers, from both the top left and right sides of the engine. To remove the right side cover – remove the oil filler cap first. Reinstall the cap after the cover is removed

Start on the right side (passenger side) of the engine first.

- On the right side of the engine (passenger side) remove the bolt holding the oil dipstick tube to the exhaust manifold. On 2001 and newer C-5's, remove the dipstick tube hold down bolt out of the head itself as opposed to the exhaust manifold.
- Pull the dipstick tube and dipstick out of the hole in the engine block and set aside for re-installation during a later step.
- Remove the spark plug wires from both the coil packs and spark plugs.
- Remove the spark plugs from the right side engine bank (passenger side).
- Remove the bolts from the air tube flange and remove the air tube flange gasket.
- Disconnect the plug connecting the coil packs to the main wiring harness and two (2) press-on hoses. Loosen and remove the bolts holding the valve cover to the head. Lift the valve cover with the coil packs still attached off the right side engine bank (passenger side) and cover the exposed valve springs with several shop towels to prevent contamination.

**On 2001 and newer C-5's, the entire coil pack must be removed as a unit to get to the valve cover hold down bolts.**

### Now switch to left side (driver side) of the engine.

- Remove the bolts from the air tube flange and remove the air tube flange gasket from the air tube on the left side engine bank (driver side).
- Remove the clamp holding the air tube/gulp valve assembly to the hose, remove the assembly and set it aside for reinstallation during a later step.
- Remove the spark plug wires from both the coil packs and spark plugs on plugs #1 & #3. Remove the spark plug wires from the coil packs on #5 and #7.
- Remove the two (2) rear coil packs from the valve cover and lay on top of the valley cover.
  - \* On 2001 and newer C-5's, the entire coil pack unit should be removed to give more hand and maneuvering clearance. Disconnect the spark plug wires on all left (driver side) bank cylinders from both the coil packs and the spark plugs.
- Remove the spark plug wires from the balance of the spark plugs.
- Remove the spark plugs from the left side engine bank (driver side).
- Loosen the alternator drive belt at the belt tensioner and slip the belt off the alternator pulley.
- Remove the alternator mounting bolts and lay the alternator on the front of the engine. (This is necessary to provide clearance while removing the stock manifold.)

### Under the Vehicle:

- Disconnect the two (2) forward O2 sensors at the plug.
- Remove the forward O2 sensors carefully. They are fragile – handle with care.
- Remove the rear O2 sensors carefully. Take care not to twist the wires too much. They are fragile and are expensive to replace.
- Remove the six (6) nuts holding the down tubes from the manifolds.
- Remove the two (2) bolts holding the stock mufflers to the exhaust tubes on both the left and right side.
- Hold the rear of the stock exhaust tubes up in position as the rear spring mounted bolts are removed.
- Remove the two (2) bolts from the back side of the bell housing and lower the stock system to the ground. Remove stock parts from beneath the car.
- Remove the two (2) bolts holding the starter. The starter should sit in position without dangling from the starter wires but still be loose.



## Back Under the Hood:

- Remove the right side (passenger side) manifold bolts and lift the manifold out of the vehicle.
- Remove the left side (driver side) manifold bolts and lift the manifold out of the vehicle.

This Completes the removal of the stock system.

## Installing your new Dynatech Header & Exhaust System:

Note: The majority of the C-5 Corvette models we have encountered have 4 pin, in-line connectors for the front O2 sensors. We have included in all of our C-5 header kits extension cables with in-line connectors installed. If your application requires a different connector configuration, please contact us to purchase the cable compatible with your application.

- It is best to install the O2 sensor extensions at this time while there is nothing in the way.
- Begin installation by lowering the right side (passenger side) header into the engine bay from the top side. The header has to twist and wind down through the opening to miss the A/C lines etc. The tab on the lower part of the header must be passed by the starter. The starter will have to be moved, in order for the tab to slip by. Once the header is past the starter, re-install the starter bolts and securely tighten before installing the bolts in the header. It can be done afterward but is much more difficult.
- Prepare the six (6) header bolts with a small amount of anti-seize for the right side header.
- Pull the header back up into position, install the gasket (see the picture below to avoid gasket and spark plug interference problems), and start the header bolts by hand to prevent cross-threading. The bolts should be fully installed but not tightened at this time.
- The left side header installs from the underneath the vehicle. Carefully slip the header up between the head surface and the steering shaft. Be extremely careful of the wires in the harness for the oil filter, bonding strap, and O2 sensor. The ground strap may have to be removed or repositioned to allow the header to pass by it.
- Prepare the six (6) header bolts with a small amount of anti-seize for the left side header.
- Pull the header into position, install the gasket (see the picture above to avoid gasket and spark plug interference problems), and start the header bolts by hand to prevent cross-threading. The bolts should be fully installed but not tightened at this time.

- With the headers installed and the bolts fully installed but not yet tightened, loosely install the cross-brace to the bell housing bracket and install the bolts through the tabs on the headers to the cross-brace.

**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. We suggest this is a good time to change to a new sensor. Factory replacement AC Delco pieces can be purchased at your local GM dealer, or most parts stores offer Bosch 15703 for the 97-2002 models.**

- Re-install the forward O2 sensors at this time. Use the supplied wire tie-wraps to secure the O2 sensor leads up out of the way and off the headers where heat may be a problem. Be sure to install the sensors in the correct side. They will install either way. Install them left side to left side and right side to right side.
- 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. Use a ¼" allen wrench and a ½" 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 the band clamp on each of the two (2) interim tubes and slide them into the outlet ends of the catalytic converters. Orient the interim tubes so that the O2 sensor bungs point toward the center of the car at approximately 45°. The band clamps can be snugged up but do not fully tighten at this time.
- Slip the remaining two (2) band clamps over the outlet ends of the interim tubes and install the x-pipe assembly by slipping the x-pipe inlets over the outlet ends of the interim tubes. Install the tail pipe gaskets between the tail pipe and muffler flanges with the bolts and nuts provided.
- Align the spring hangers on the x-pipe cross brace and start the bolts. Run them all the way in but do not fully tighten them. All bolts will be tightened during the alignment steps.
- The entire system should now be loosely installed with all bolts in place but not tightened. Carefully inspect all areas of the system with regard to frame and wiring clearance, bolts and clamps in the proper location, etc.



## **Aligning and tightening your new exhaust system:**

- Begin the alignment and tightening process by tightening the header bolts on both the left side and right side to approximately 15 ft/lbs of torque. These bolts should be re-torqued after the system has gone through several thermal cycles and as necessary after that.
- With the header bolts torqued, tighten the bolts holding the cross brace bracket to the bell housing, then the cross brace, and finally the two (2) header tab bolts to the cross brace.
- At this point, the collectors should be approximately level in the tunnel as well as centered in the tunnel.
- Now the tightening procedure moves to the rear of the vehicle. With someone helping to hold the muffler tips level and centered in the body opening, begin tightening each flange and clamp as you move forward in the vehicle. Start with the muffler/x-pipe connection (left and right), next tighten the two (2) spring hangers at the x-pipe cross brace, then proceed to the rear interim tube clamps and then the front interim tube clamps. Finally, tighten the four (4) bolts on both of the donut gasket clamps. (Hint – Tighten the bottom bolts first, then rotate the tightened bolts to the top position and then tighten the remaining bolts.) This completes the tightening process. Check to make sure that the muffler tips remain level and centered in the body opening. If for some reason they are not as desired, loosen the system, reposition and retighten.
- To finish up under the vehicle, re-install the two (2) rear O2 sensors, and make one final check on clearances between the system and frame and wiring components.

## Putting it all back together:

- Re-install the alternator. Reposition the alternator in the mounts and install the mounting bolts.
- Follow the belt routing chart on the left fender and re-install the alternator drive belt.
- Install the spark plugs in the left engine bank. (Now is the time to check the gap and to install new plugs if needed.)
- Re-install the coil packs previously removed, taking care to place the studs in the proper position to accept the fuel rail cover that will be installed later.
- Re-install the spark plug wires on the coil packs and the spark plugs.
- Locate the air tube flange gasket and bolt the air tube/gulp valve assembly to the flange on the header. With the air tube assembly in place and tightened down, reconnect the rubber tube to the steel line and tighten the clamp. (Note: For some reason the air tube assembly on the driver side has a slightly different center to center bolt hole dimension than the passenger side assembly. It may be necessary to run a 3/8" drill bit through the holes the driver side air tube assembly prior to threading the bolts into the header. Slightly enlarging the holes seems to make the bolts line up a little easier.)
- Carefully re-install the fuel rail cover over the left engine bank.
- Move to the right side. Remove the towel covers off of the valve train and re-install the right side valve cover. Tighten the bolts on the valve cover. Reinstall the coil packs (on the 2001 and newer) and reconnect the coil pack connector to the wiring harness and the two (2) push-on hoses.
- Install the right side air tube gasket and install/tighten the bolts holding the air tube flanges together.
- Install the spark plugs in the right engine bank. Now is the time to check the gap and to install new plugs if needed.
- Slip the oil dipstick tube into the hole in the block and insert/tighten the bolt holding the tube bracket to the header bung. Reinstall the bolt into the head on vehicles 2001 and newer.
- Insert the oil dipstick. Now is a good time to check your oil level.
- Re-install the spark plug wires on the coil packs and the spark plugs.
- Carefully re-install the fuel rail cover over the right engine bank. Remove the oil filler cap to install the right side cover and then re-install the oil filler cap
- Survey the entire engine bay for oil leaks loose wires/hoses, stray rags or tools, etc.
- Reconnect the negative battery cable.

## **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”.

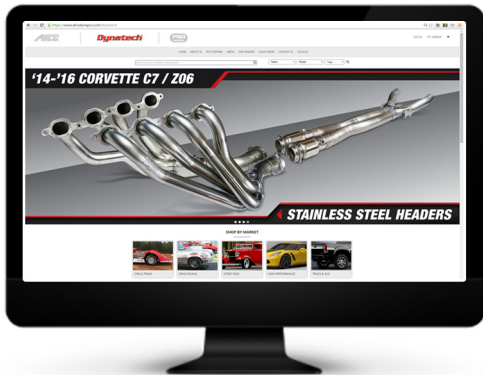
*Note: In some instances you may experience a check engine light after the installation of an aftermarket exhaust system. If this occurs please contact Dynatech at 1-800-848-5850 and ask for customer service or e-mail [dynatechcs@dynatechheaders.com](mailto:dynatechcs@dynatechheaders.com).*

- 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.

**This completes the installation of your system. Go back over all the connections to check tightness, tube clearances, and brackets before starting the vehicle. Once you are satisfied that the system is correctly aligned and tightened, start the engine and check for leaks. If any are found, retighten the fasteners around the clamp at issue. All fasteners should be rechecked after the system has gone through several thermal cycles.**

*We make every effort to build our products to the highest standards of workmanship and materials possible. This also applies to our documentation. If you find points in our instruction manual that you feel need to be clarified or changed, please e-mail us your comments at [dynatechcs@dynatechheaders.com](mailto:dynatechcs@dynatechheaders.com). We will use them to enhance our documentation.*



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