





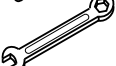



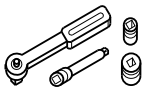
MORE POWER : LESS NOISE



Congratulations, you have purchased the finest exhaust system for your motorcycle on the market. Your Vance & Hines exhaust system is designed and crafted for maximum performance, a perfect fit, a great sound and unbeatable style.

Attention installer (if other than owner), please forward this instruction sheet to the owner of this product. These instructions contain valuable information to the end user.

**TOOLS
REQUIRED**

-  Flat blade screwdriver
-  5/16" Nutdriver
-  1/2", 9/16" & 7/8" or 22mm Combination wrenches
-  3/16" & 5/16" Allen wrench
-  T45 & T50 Torx wrenches
-  Snapping pliers
-  3/8" Ratchet, extensions
1/2" & 9/16" Sockets

READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

**STOCK EXHAUST
SYSTEM REMOVAL**

NOTE: These instructions are written for late model motorcycles equipped with O2 sensors. If you are installing these pipes on a bike which is not equipped with O2 sensors, ignore all instructions which reference them. Additionally you will need to purchase an O2 sensor block off kit P/N 16925. However this kit does contain all necessary hardware to install the right side passenger footpeg on '86-'06 model softails (see packing list).

1. Under the oil tank on the right hand side, locate the rear O2 sensor connector. Unplug sensor and feed the end of wire through the frame freeing it from motorcycle. NOTE: Pay attention to wire routing for re-installation.
2. Open the plastic cover above the rectifier on front of the frame to gain access to the front O2 sensor connector. Unplug sensor from harness. Remove cable tie holding wire to frame and feed the end of the wire through freeing it from motorcycle.
3. On FLSTC, FLSTF, FLSTN and FLSTSC models, loosen the right hand floor board mounting bolts to gain clearance for exhaust removal and installation.
4. Loosen the heat shield clamps on both front and rear exhaust pipes.

5. Remove the two mounting nuts from each head pipe, located at the cylinder head.
6. If equipped, unbolt the carriage bolt and clamp attached to the bracket under the right side transmission cover.
7. Remove the nuts attaching the exhaust mount bracket to the frame.
8. On FLSTD and FLSTF models, you will need to remove the right side passenger footpeg and hanger, as this is attached to the exhaust mount bracket. Replace the passenger foot peg assembly using the 3/8" x 2 1/2" Allen bolt (supplied).
9. Remove the entire exhaust system and set it aside.
10. If equipped, remove the bracket from under the right side transmission cover.
11. Using a 7/8" or 22mm wrench, carefully remove the O2 sensors from the stock head pipes and save for re-use with the new system.
12. Remove the two lower mounting studs from the frame (Figure 1).
13. Carefully remove exhaust port flanges and circlips from the stock exhaust system using snapping pliers. NOTE: Replace bent or damaged circlips. Check exhaust port gasket condition. Recommended replacement exhaust port gaskets, Harley part number: 17048-98 or 65324-83A.

FIGURE 1

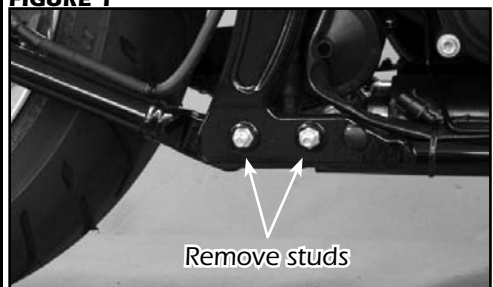


FIGURE 2

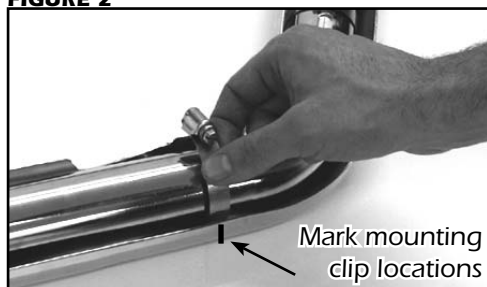


FIGURE 3

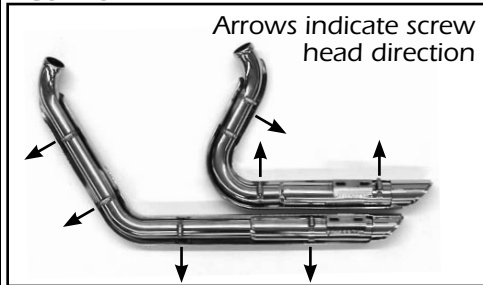


FIGURE 4



FIGURE 5



FIGURE 6



VANCE & HINES EXHAUST SYSTEM INSTALLATION

- Remove head pipes and heat shields from protective packaging. Place each heat shield on a non-abrasive surface such as a blanket or carpet. Using a pencil, lightly mark outside edge of each heat shield to show location of mounting clips that hose clamps will loop through (Figure 2). NOTE: Pencil marks can be erased if care is taken not to harm coating.
- Install each hose clamp by feeding tail end of clamps into heat shield clips. Take note of location of clamp screw head direction (Figure 2 & 3). Screw head must be accessible when system is installed on motorcycle for adjustment purposes. Use #20 hose clamps on head pipes and #28 hose clamps on mufflers (supplied).
- Apply a small amount of anti-seize compound to the threads of the O2 sensors and install them into the new head pipe. NOTE: Be careful not to get anti-seize on sensor tip, it may affect sensor function.
- Install exhaust port flanges and circlips (from stock system) onto head pipes (Figure 4).
- Attach mounting bracket 424-P using four 5/16"x5/8" flange bolts and two nut plates (supplied). Slide nut plates inside brackets that are welded to backside of each muffler (Figure 5). Leave them loose at this time. Use this procedure for mounting both upper and lower mufflers.
- Install complete assembly into exhaust ports (rear port first). Use stock flange nuts, do not tighten at this time. Install two 3/8"x3/4" flange bolts (supplied) attaching exhaust bracket to the right side lower frame rail of motorcycle.
- Tighten exhaust port flange nuts, bracket bolts and bolts mounting pipes to bracket while making sure pipes are parallel.
- Tighten all hose clamps while making sure end tips stick out of the heat shields evenly (Figure 6).
- Feed wire for the front O2 sensor through the frame and into the plastic holder on the frame. Plug the sensor into the stock wiring connector. Snap the plastic holder closed to hold the connector in place.
- Install a new nylon cable tie (supplied) to hold the wires onto the frame in the original location.
- Feed connector for the rear O2 sensor through the frame under the oil tank on the right hand side. Plug the sensor into the stock wiring connector.
- Tighten the floor board mounting bolts on models so equipped.
- Check for adequate clearance of all exhaust system components and motorcycle accessories prone to heat damage.
- After installation and before starting your motorcycle, completely clean pipes and mufflers with warm soapy water and a clean soft cloth. Dry with a clean towel. NOTE: any residue, oil, or fingerprints will stain the black coating. Do NOT use anything abrasive to clean the pipes as it may remove the finish.
- Be sure to tighten all hardware before starting your motorcycle.

EXHAUST CARE - HELPFUL HINTS TO AVOID DISCOLORATION OF EXHAUST SYSTEM

- When installing a new set of black pipes, make sure your hands are clean and free of oil. After installation, thoroughly clean pipes with warm soapy water and a soft cloth. Dry with clean towel to remove any residue before starting the motorcycle. Do NOT use anything abrasive to clean pipes.
- Avoid long periods of idling as this can cause discoloration.
- Intake leaks can cause the engine to run lean and overheat, this could lead to discoloration.
- Make sure there are no exhaust leaks at the junction of the exhaust pipes and cylinder head. We recommend replacing gaskets if they are worn.

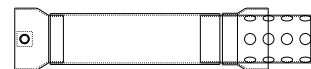
VANCE & HINES OPTIONAL ACCESSORIES

FUELPAK



FUEL MANAGEMENT:
Take the guess work out of fuel injection with Fuelpak Fuel Management, P/N 61001. Fuelpak is intended for racing or off-highway use only, and is not legal for sale or use in California on pollution-controlled vehicles.

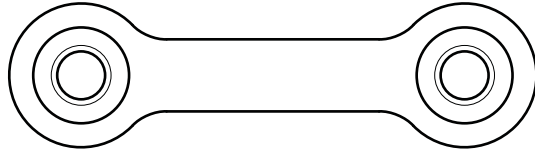
QUIET Baffle



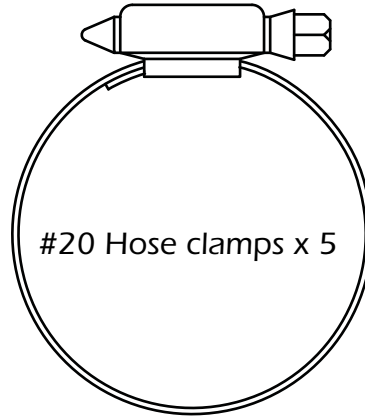
Quiet baffle P/N 21301 is available for this system. The quiet baffle will lower the sound level by 2-3db on average. Contact your local dealer to order.

PLEASE NOTE: Every effort is made for Vance & Hines Exhaust Systems to provide improved cornering clearance. However, due to design and space limitations on some motorcycle models, ground and cornering clearance may not be improved and in some cases may be reduced. Be sure to follow proper installation instructions.

PACKING LIST



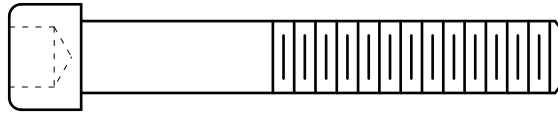
Nut plate x 2



#20 Hose clamps x 5



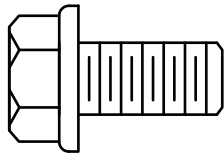
1/2" x 3" Allen bolt x 1 (for '86-'99 models only)



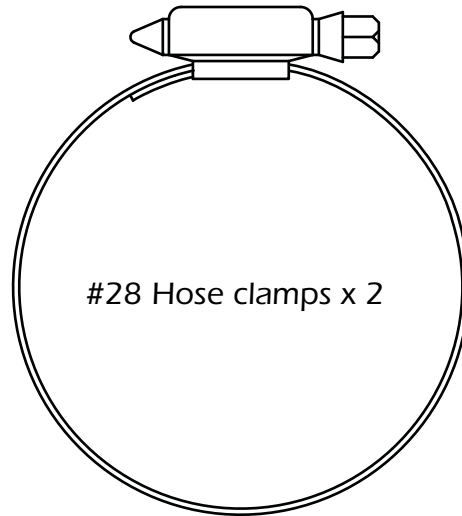
3/8" x 2-1/2" Allen bolt x 1



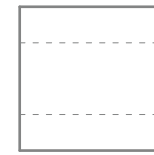
1/2" Spacer x 1 (for '86-'99 models only)



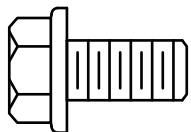
3/8" x 3/4" Flange bolts x 2



#28 Hose clamps x 2



3/8" Spacer x 1 (for '00-'06 models only)



5/16" x 5/8" Flange bolts x 4



Nylon cable tie x 1

PARTS NOT SHOWN:

- 424-P Bracket x1
- D475FC Front head pipe x1
- D476FC Rear head pipe x1
- D477HP Front heat shield x1
- D478HP Rear heat shield x1

MORE POWER : LESS NOISE

ALL PARTS SHOWN ARE ACTUAL SIZE

WARRANTY

Vance & Hines exhaust systems are warranted against defects in material and workmanship for a period of 90 days from the date of purchase from an authorized dealer. This warranty does not cover discoloration of chrome finishes. This warranty is limited to the repair or replacement of a product proven to be defective from normal use. Vance & Hines exhaust systems are designed to fit and operate on OEM motor and chassis. This warranty does not cover any product subject to abuse, misuse, improper installation or modification.

FUEL MANAGEMENT

GET THE MOST OUT OF YOUR RIDING EXPERIENCE...

AN AFTERMARKET EXHAUST SYSTEM IS ONLY YOUR FIRST STEP, NOW YOU NEED FUEL MANAGEMENT.

NOW YOU NEED FUELPAK.

Your fuel injected Harley-Davidson® is equipped with an ECU (electronic control unit) that's programmed to deliver fuel to the motor based on an air/fuel ratio for a stock air filter and stock exhaust system. When you install a performance exhaust system, your airflow changes, so you need a fuel management system that adjusts your air/fuel ratio to match the changes. That fuel management system is Fuelpak. Fuelpak adds and takes away fuel, allowing for a more precise range of refinement in your air/fuel ratio. Get the perfect fuel management combination with your Vance & Hines exhaust system, get Fuelpak.

NOTICE: Fuelpak is intended for racing or off-highway use only, and is not legal for sale or use in California on pollution-controlled vehicles.



MORE POWER : LESS NOISE

Vance & Hines puts everything within reach.