

**MORE POWER : LESS NOISE**

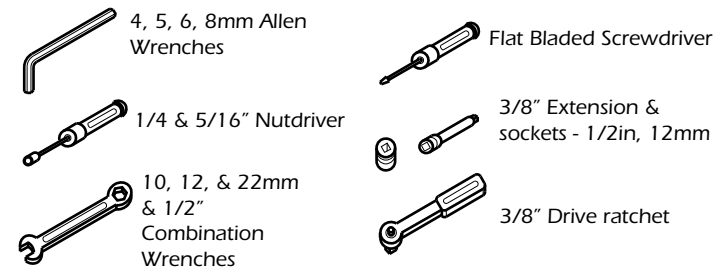


Model may vary from picture

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. Please follow the installation instructions below and if you have any questions, please call our technical support line at (562) 926-5291.

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.

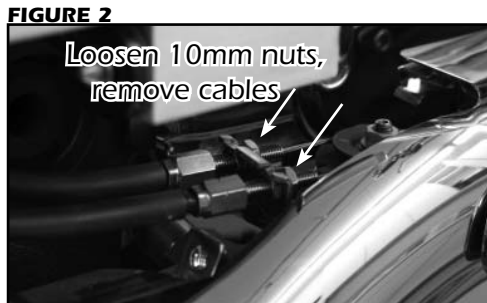
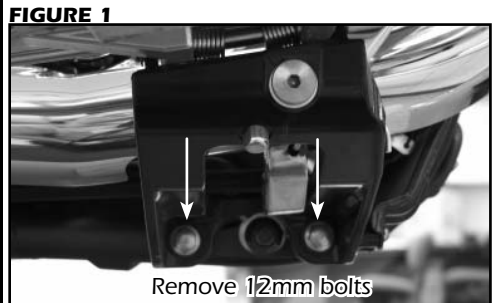
**TOOLS  
REQUIRED**



**READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION**

**STOCK EXHAUST  
SYSTEM REMOVAL**

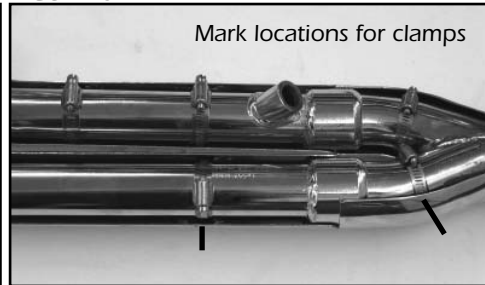
1. Remove right side saddlebag. Cover the right frame tube in front of the exhaust with duct tape or any suitable material to protect frame during exhaust removal.
2. Remove the three capscrews holding the muffler assembly to the support bar, loosen the muffler clamp and carefully remove the muffler from the motorcycle.
3. Remove and save the two 12mm bolts from the right side floorboard assembly (Figure 1) and carefully lower the floorboard out of the way. NOTE: Support the floorboard with a block of wood or other appropriate material, do not let it "hang" by the brake switch wire. Remove right side passenger floorboard, if equipped.
4. Remove the chrome cover over the power valve pulley. Using a 10mm wrench, remove both cables attached to the power valve pulley (Figure 2).
5. Remove and save the 5mm capscrew on the rear side cover to gain access to the O2 sensor harness plug and unplug O2 sensor from harness (Figure 3).
6. Remove the 4 nuts holding the exhaust system and carefully remove the exhaust system from the motorcycle (may require assistance). NOTE: It may be necessary to loosen the heatshield clamps to access the nuts on the front cylinder.
7. Trace the power valve cables to the drive motor (just under the rear fender on the right side). Remove the power valve cables and mounting clips from the motorcycle.
8. Using a 22mm wrench, carefully remove the O2 sensor from stock exhaust system and save for reuse with the new system.
9. Remove the plastic cover over the clutch banjo bolt (Figure 4).
10. Check the stock exhaust gaskets to be sure they are in good shape. If you have any doubts as to their condition, replace them.



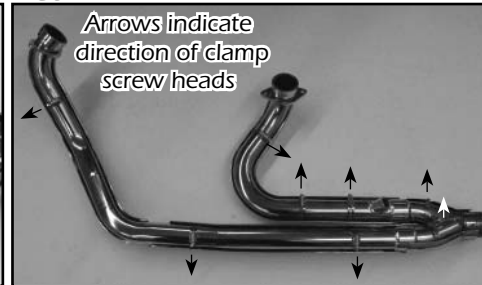
**FIGURE 5**



**FIGURE 6**



**FIGURE 7**



**FIGURE 8**



**VANCE & HINES EXHAUST SYSTEM INSTALLATION**

1. Install the bracket (Stamped 414-P, supplied) to the stock muffler support arm using 5/16" x 1.0" hex head bolts, washers and lock nuts (supplied) (Figure 5).
2. Remove exhaust system and heat shields from protective packaging and place them on a non-abrasive surface such as a blanket or carpet. Using a non-permanent marker or tape, mark outside edge of each heat shield to show location of mounting clips that the hose clamps will loop through (Figure 6).
3. Apply a small amount of anti-seize compound to the threads of the stock O2 sensor and install it into the header assembly. NOTE: Be careful not to overtighten or get anti-seize compound on the sensor tip as this could damage or affect the sensor function.
4. Carefully lay header assembly into the heat shields and loosely install the hose clamps (#20,#24 supplied) by feeding the tail end of the clamp into the heat shield clips. Take note of screw head direction (Figure 7), for adjustment purposes they must be accessible when system is installed. NOTE: For clearance purposes the lower clamp (#24) of heat shield (stamped A110HC) is installed with the screw head facing up (white arrow). Do not tighten the clamps at this time.
5. Using stock nuts (12mm hex nuts on front and 8mm allen on rear) carefully install system into exhaust ports. (Assistance may be required). NOTE: Before installing the rear cylinder nuts, reinstall the small heat shield from the stock system onto the rear exhaust studs. Install but do not tighten the exhaust nuts at this time.
6. Remove the muffler heat shield and baffle assembly from their protective packaging. Place them on a non-abrasive surface such as a blanket or carpet.
7. Insert the large hose clamp (#56, supplied) into the clip on the muffler heat shield.
8. Carefully slide the baffle assembly (without damaging the fiberglass packing) into the muffler heat shield and align the holes in the heatshield with those in the baffle. Secure the baffle with the 1/4-20 x 1/2" button head screws (supplied) and tighten the hose clamp.
9. Install the 5/16 x 1 1/4" hex head bolt, washers and locknut (supplied) in the muffler clamp (supplied) and slip the clamp over the end of the baffle tube.
10. Slide nut plate (supplied) inside the bracket welded to backside of baffle (Figure 8).
11. Install the muffler assembly onto the collector, making sure it slides forward enough to align the edge of the bracket welded to the baffle with the edge of the mounting bracket.
12. Attach the muffler assembly to the mounting bracket using the 5/16" x 5/8" flange head bolts (supplied).
13. Tighten exhaust port nuts evenly on both cylinders.
14. Tighten the muffler clamp and the 5/16" flange head bolts, securing the muffler assembly.
15. Insert the O2 sensor plug back into harness and tuck harness back into its original position. Secure with the 5mm capscrew.
16. Check alignment of heat shields making sure the ends meet squarely to the collector heat shield. Tighten the hose clamps on all the heat shields when properly aligned.
17. Reinstall right side passenger and rider floorboards and tighten the 12mm bolts.
18. Check for adequate clearance between all exhaust system components and motorcycle accessories prone to heat damage.
19. All hardware must be properly tightened and the exhaust pipes thoroughly clean before starting motorcycle.

**EXHAUST CARE - HELPFUL HINTS TO AVOID DISCOLORATION OF EXHAUST SYSTEM**

1. When installing a new set of chrome pipes, make sure your hands are clean and free of oil. After installation, thoroughly clean pipes with a soft cloth and cleaning solvent that will leave no residue (chrome wax / polish, glass cleaner, alcohol, ammonia, etc...) before starting the motorcycle.
2. Avoid long periods of idling as this can cause discoloration.
3. Intake leaks can cause the engine to run lean and overheat, this could lead to discoloration.
4. 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:**

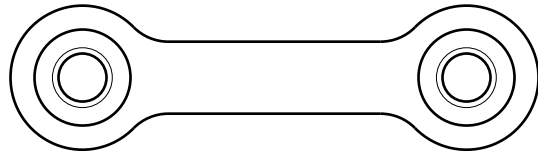
Take the guess work out of fuel injection with Fuelpak Fuel Management. Contact your local dealer or call (562) 921-0071 to order. Visit [fuelpakfi.com](http://fuelpakfi.com) for more information. Fuelpak is intended for racing or off-highway use only, and is not legal for sale or use in California on pollution-controlled vehicles.

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.

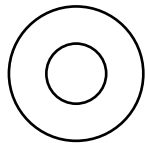
**PACKING LIST**

**MORE POWER : LESS NOISE**

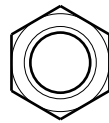
ALL PARTS SHOWN ARE ACTUAL SIZE



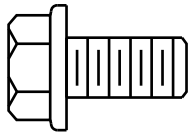
Muffler Nut Plate x 1



5/16" Flat Washer x 4



5/16" Lock Nut x 3



5/16" x 5/8" Flange head Bolts x 2



SS 1/4 - 20 x 1/2" Button Head Screw x 2



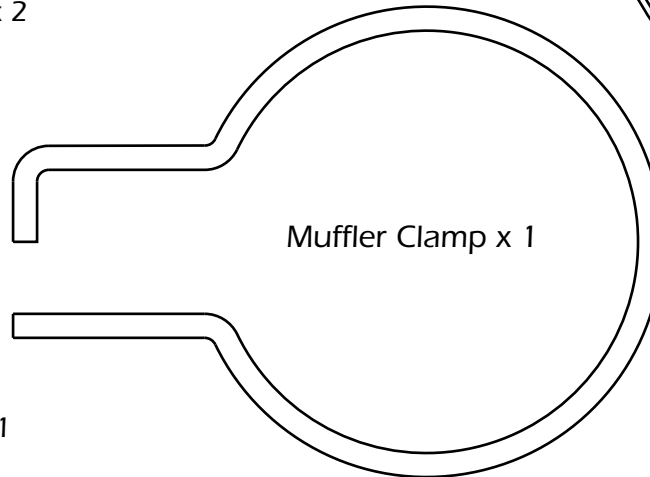
5/16" x 1.0" hex Head Bolt x 2



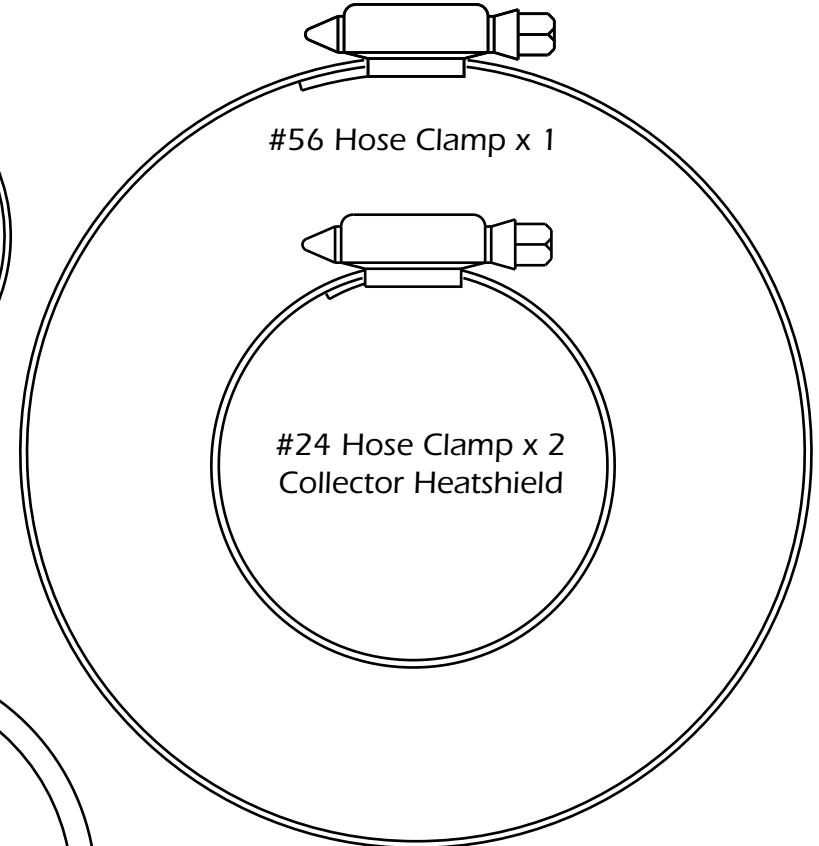
5/16" x 1 1/4" Hex Head Bolt x 1



#20 Hose Clamps x 6



Muffler Clamp x 1



#56 Hose Clamp x 1

#24 Hose Clamp x 2  
Collector Heatshield

**PARTS NOT SHOWN:**

414-P	Bracket	x 1
A435R	Baffle Assembly	x 1
Y285FC	Header Assembly	x 1
Y285HC	Front Heat shield	x 1
Y286HC	Rear Heat shield	x 1
Y287HC	Muffler Heat shield	x 1
A110HC	Collector Heat shield	x 1

**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. For more information visit the tuning center at [fuelpakfi.com](http://fuelpakfi.com)

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.



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**VANCEANDHINES.COM**