



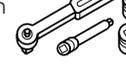
**MORE POWER : LESS NOISE**



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. 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**

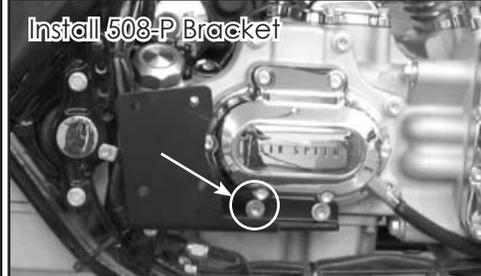
-  Flat blade screwdriver
-  5/16" Nutdriver
-  1/2", 9/16" & 14 mm Combination wrenches
-  3/16", 5/16" & 3/8" Allen wrench
-  Snapping pliers
-  Ft./Lb. Torque wrench
-  3/8" Ratchet & Extensions, 1/2" Socket, 1/2" & 9/16", 5/16" deep sockets, 1/4" & 3/8" Allen sockets

**READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION**

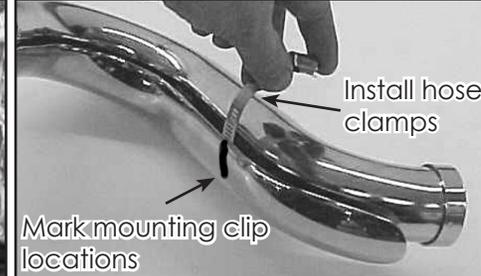
**STOCK EXHAUST  
SYSTEM REMOVAL**

1. Remove both left and right saddlebags and set them aside. Remove right side cover.
2. Loosen the pinch clamp bolt on the front end of muffler(s).
3. Remove the two 5/16" bolts and washers that mount the muffler(s) to the saddlebag supports.
4. Remove the stock mufflers with sliding hangers and set them aside. NOTE: It may be necessary to use a penetrating lubricant to loosen the muffler from the head pipe.
5. Locate and unplug the O2 sensor wires from the wiring harness and remove cable ties holding wires to frame. Feed the end of the wires through the frame so they are free from the motorcycle. NOTE: Pay attention to wire routing for re-installation.
6. Remove the right hand passenger and rider floor boards.
7. Loosen head pipe clamp connecting the left side muffler to the header and the mount bracket on the backside of the oil pan. Remove the crossover section of head pipe and head pipe clamp.
8. Loosen the heat shield clamps on both front and rear exhaust pipes.
9. Remove the nut and carriage bolt holding the front head pipe to the bracket on the transmission housing.
10. Remove the two mounting nuts from each head pipe, located at the cylinder head. Carefully remove the head pipes and set them aside. This may be easier if the heat shields are loosened first.
11. Carefully remove the O2 sensors from the stock head pipes and save for re-use with the new system.
12. Replace the bracket on the transmission housing with new bracket (stamped 508-P)(supplied) and torque to 13-16 ft. lbs. Use ball end of Allen wrench to tighten indicated bolt (Figure 1).
13. Carefully remove the exhaust port flanges and circlips from the stock exhaust system using snapping pliers. NOTE: If circlips look bent or twisted, replace them.
14. Remove stock exhaust gaskets and replace them with included gaskets. V&H kit #22899 or HD#17048-99.

**FIGURE 1**



**FIGURE 2**



**FIGURE 3**



**FIGURE 4**



FIGURE 5



FIGURE 6

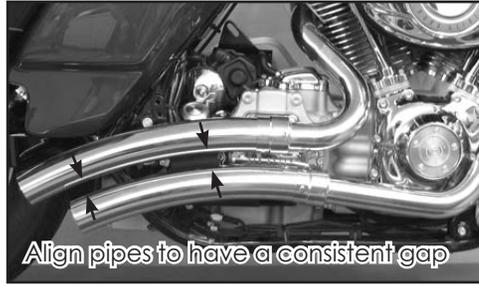


FIGURE 7

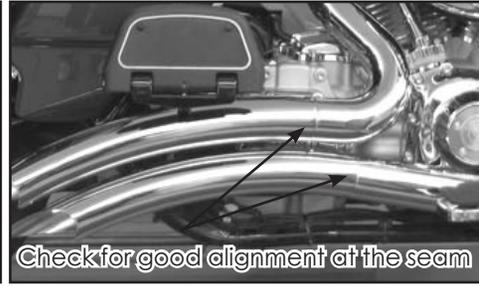


FIGURE 8



1. Remove head pipes and heat shields from protective packaging. Place each heat shield on a non-abrasive surface such as blanket or carpet. Using a felt tip pen, mark outside edge of each heat shield to show location of mounting clips that hose clamps will loop through (Figure 2).
2. Lay head pipes into heat shields and loosely install the #20 hose clamps (supplied) into mounting clips (Figure 3). NOTE: Muffler heat shields will be installed after pipes are on the motorcycle. Screw heads should be accessible when the system is installed on motorcycle for adjustment purposes (Figure 3). Do not tighten at this time.
3. Apply a small amount of anti-sieze compound to the threads of the oxygen sensors and install them into the new head pipe. NOTE: 2007-2009 models or models using 18mm wideband oxygen sensors install the sensor directly into the head pipe.
4. Install circlips and flanges from stock system onto both new head pipes (Figure 4).
5. Using stock flange nuts, carefully install head pipes onto motorcycle. Do not tighten at this time.
6. Use the nut plates and 5/16" x 5/8" flange bolts (supplied) to attach the pipes to the bracket (Figure 5). Do not tighten at this time.
7. Align pipes on motorcycle so the gap between the two muffler bodies is consistent from front to rear (Figure 6). Tighten the exhaust port flange nuts and the 5/16" x 5/8" flange head bolts
8. Using the #28 hose clamps (supplied) install the muffler heat shields beginning with the D308HC on the front head pipe followed by the D309HC on the rear head pipe. Screw heads should be accessible for adjustment purposes (Figure 4). Do not tighten at this time.
9. Adjust all heat shields for the best alignment at the seam where they meet (Figure 7) and tighten all the hose clamps.
10. 2007 - 2008 Models - Using two 1" x 3/16" large washers (supplied) on each of the two 1/2" x 1 1/4" allen bolts (supplied), re-install the right hand floor board.
11. 2009 Models- Install Spacer (593-P), on floor board support plate. Remove the left 3/8" capscrew only and place the spacer onto floor board support plate aligning the holes in the spacer with those on the support plate. Re-install the 3/8" capscrew into the original hole securing spacer. NOTE: You may use the 3/8"-16 x 1 1/2 bolt (supplied) to temporarily hold spacer alignment while tightening the 3/8" capscrew.
12. Install a 3/8" lock washer (supplied) on both of the 3/8"-16 bolts (supplied). Using these bolts re-install the floor board using a 3/8"-16 x 3" bolt with TWO spacing washers (supplied) on the forward (right) mount and the 3/8"-16 x 1 1/2" bolt with ONE spacing washer (supplied) on the rear (left) mount. NOTE: Spacing washers are located between the floor board supports and floor board mount plate. On CVO Models, a 3/8"-16 x 1-1/2" socket head cap screw (not supplied) should be used from the inside on the right mount rather than the 3/8"-16 x 3" provided bolt.
13. Re-install the right hand passenger floor board using the supplied relocater bracket (Stamped 579-P), low profile allen bolt and lock washer (supplied). NOTE: This bracket should only be mounted in the highest possible position on the bike frame, and the floorboard should be mounted in the upper two bracket holes (Figure 8).
14. Re-install left hand passenger floor board if removed.
15. Route O2 sensor wires away from hot areas of the motorcycle. Use the nylon cable ties (supplied) to secure the O2 sensor wires to the frame. Plug the O2 sensor wires back into the wiring harness. Re-install the right side panel.
16. Re-install saddlebags.
17. Be sure to tighten all hardware before starting your motorcycle.
18. After installation and before starting the motorcycle, completely clean pipes and mufflers with cleaning solvent and a clean soft cloth that will not leave residue. NOTE: Any residue, oil, or fingerprints will stain the chrome when the metal heats up.

### 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

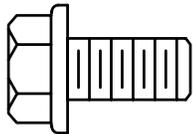
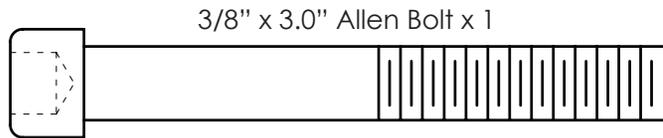
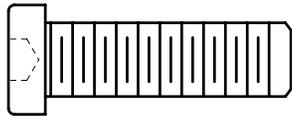
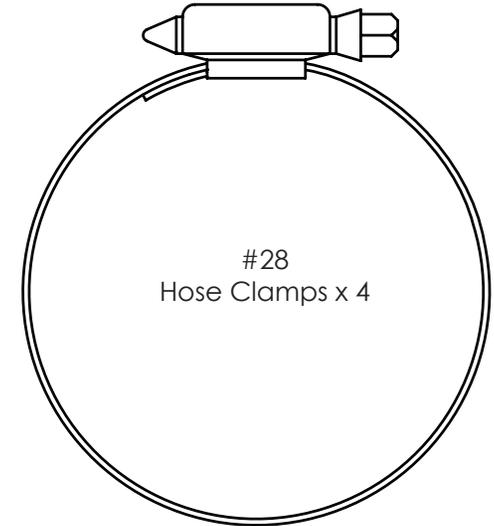
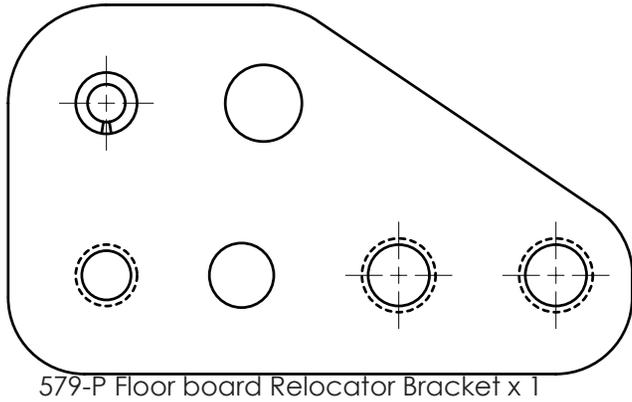
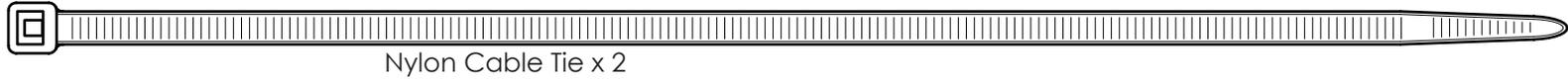
#### FUELPK

#23081 Quiet Baffle  
#66047 FP4

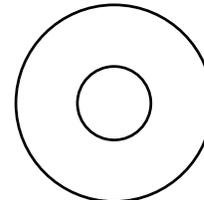
PLEASE NOTE: Every effort is made for Vance & Hines Exhaust Systems to provide improved cornering clearance. However, due to design and space limitations on some motorcycle models, ground and cornering clearance may not be improved and in some cases may be reduced. Be sure to follow proper installation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



PACKING LIST



1" x 3/16" Washers x 4



PARTS NOT SHOWN:

A287HW	1/2 -13 X 1-1/4 Hex SHCS	X2
D810FC	Front head pipe	X1
D811FC	Rear head pipe	X1
D810HC	Front heat shield	X1
D811HC	Rear heat shield	X1
D308HC	Front muffler heat shield	X1
D309HC	Rear muffler heat shield	X1
A167HW	Exhaust Gasket	X2

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.



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From the team that brought you The Fuelpak FP3, the best-selling ECU tuner in the world for Harley-Davidson motorcycles, the Vance & Hines FP4 is the most intuitive tuning tool on the market, giving you the power to control your motorcycle's tune and offers the best-in-industry support from our FP4 technicians, all from your smartphone.

- Download and Flash Maps
- Live Data Viewing
- Autotune Feature for Map Customization

Visit [vanceandhines.com](http://vanceandhines.com) to learn more about FP4.

**Qualified Manufacturer Declared 49-state Federal Emissions Compliant Part.**



Emissions Notice:

In California, in order to meet Air Resources Board emissions requirements, certain aftermarket part applications have been identified as replacements, and others have received ARB Executive Orders. All other emissions related aftermarket parts are for competition use only. A list of replacement parts and EO parts, and corresponding fitment is provided at [vanceandhines.com/California](http://vanceandhines.com/California).

Warranty:

All Vance & Hines products are warranted against defects in material and workmanship for a period of 90 days. This warranty does not cover discoloration or rust. This warranty shall be limited to the repair or replacement of the product, which may be proven defective under normal use. Vance & Hines will not warranty any system that has been abused, misused, improperly installed or modified.

Dealers or distributors are not authorized to make dispositions binding upon Vance & Hines. Vance & Hines will not be responsible for any labor charges incurred in removing or replacing any system under warranty. A return authorization number and a copy of the original purchase invoice must accompany all returns. Parts returned without a return authorization may be refused.

13861 ROSECRANS AVENUE / SANTA FE SPRINGS, CA 90670  
 SALES: (562) 921-5388 / TECHNICAL: (562) 926-5291 / FAX: (562) 802-0110  
 VANCEANDHINES.COM