



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
- #3 Phillips Head
- 5/16" Nutdriver
- Snapping pliers
- 1/2", 9/16", 7/8"
14mm, 22mm
- Combination wrenches
- 5/16" Allen wrench
- T45 & T50 Torx wrenches
- 3/8" Ratchet, extensions
- 19mm, 1/2" Socket
- 3/4" & 9/16"
Deep Socket

READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

**STOCK EXHAUST
SYSTEM REMOVAL**

1. On FLSTC, FLSTF, and FLSTN, loosen the right hand floor board mounting bolts to gain clearance for exhaust removal and installation.
2. On FLSTF, FXS and FLSTN and FXSTD, you will need to remove the right side passenger footpeg and hanger, as this is attached to the exhaust mount bracket. Leave the footpeg and hanger off, additional reinstallation instructions to follow.
3. Unbolt the carriage bolt and clamp attached to the bracket located under the right side transmission cover.
4. Loosen crossover pipe clamp located between front and rear head pipes and.
5. Loosen the heat shield clamps on both front and rear exhaust pipes.
6. Remove the two mounting nuts from each head pipe.
7. Remove the nuts attaching the exhaust mounting bracket to the frame.
O2 SENSOR EQUIPPED MODELS (2007-PRESENT)
8. Rear O2 Sensor, Locate the O2 sensor connector, unplug the connector from the main harness and feed the wire through the frame to free it from the motorcycle. Pay attention to wire routing for re-installation. NOTE: For **2007 to 2011** Models the connector is located under the oil tank, on the right side. For **2012 & Later** Models the connector is located under the seat, remove both the seat and battery for access.
9. Front O2 sensor, Locate the O2 sensor connector at the front of the motorcycle, unplug connector from harness, and free the sensor lead from the motorcycle. NOTE: For 2007 to 2011 Models, Open

the plastic cover above the rectifier to gain access to the sensor plug, cut the cable ties holding the sensor wire to frame.

10. Remove the exhaust system and set it aside. Assistance may be required,.
11. Carefully remove the O2 sensors from the stock head pipes.
12. Remove the stock mounting bars, brackets and/or studs.
PRE 2000 Models: Remove the lower mounting bar. Remove the right side 1/4" bolt which holds the lower fender in place to allow removal of the right passenger foot peg. Place the motorcycle on its side stand and loosen the swing arm pivot bolt nut. Position a floor jack under the right hand frame tube just below the swing a pivot bolt. Using assistance, carefully raise the jack just enough to take the weight off the swing arm bolt and remove the swing arm pivot bolt and the stock upper mounting bar, Replace the swing arm pivot bolt and torque to 135 FT/LB. Re-install the right passenger foot peg using the 1/2"x3" capscrow with the 1 5/8" spacer and 1/4" bolt to secure fender.
13. **2000 & Later Models:** Using a T50 Torx driver, remove the three mounting bolts and mounting bar. Two of the T50 bolts are visible, the third also attaches the right hand passenger peg and is accessed by removing the foot peg. Re-install the foot peg using the 3/8"x2 1/2" capscrow with the 3/4" spacer.
14. Carefully remove exhaust port flanges and circlips from the stock exhaust system using snapping pliers. NOTE: Replace bent or damaged circlips.
15. Check condition of exhaust gaskets and replace if worn or damaged.

FIGURE 1



FIGURE 2

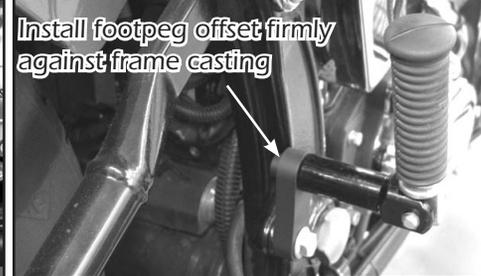


FIGURE 3

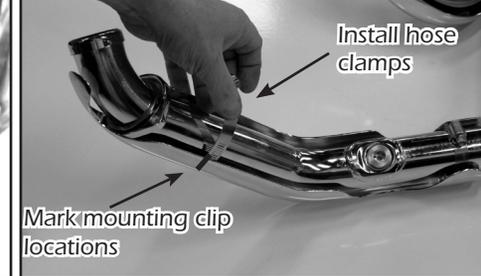


FIGURE 4

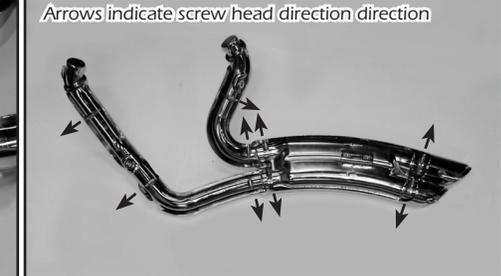


FIGURE 5

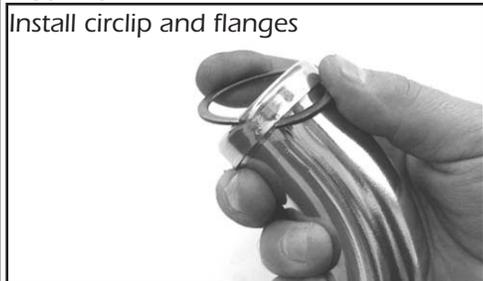


FIGURE 6



- For 2000 and later models replace the passenger footpeg and hanger using the supplied footpeg offset bracket, 3/8" x 1-1/4" flange head bolt and 3/8" x 2-1/2" Allen bolt (Figure 2). NOTE: The threaded insert on the footpeg offset bracket should rest firmly against the frame casting, be sure to tighten this bolt firmly and check from time to time. Repeat for left side. For 1999 and older models passenger footpegs can not be installed.
- Remove header assembly 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 3).
- Lay header assembly into heat shields and loosely install the #20 hose clamps (supplied) into mounting clips (Figure 3). NOTE: Screw heads should be accessible when the system is installed on motorcycle for adjustment purposes (Figure 4). Do not tighten at this time.
- Apply a small amount of anti-seize compound to the threads of the oxygen sensors and install them into the new head pipe. NOTE: **2007 to 2011 models** or models using 18mm wideband oxygen sensors install sensor directly into head pipe. **2012 to 2014 models** install supplied 18mm to 12mm oxygen sensor adapter then install 12mm oxygen sensors (Grey connector into front head pipe, Black connector into rear head pipe.) All models not using oxygen sensors install 18mm plug with copper crush washer.
- Install circlips and flanges from stock system onto both new head pipes (Figure 5).
- Install basket (734-P) onto header assembly using the nut plate and 5/16" x 5/8" flange bolts (supplied). Do not tighten at this time.
- Using stock flange nuts, carefully install head pipes onto motorcycle. Finger tight only to insure collar is seated in the exhaust gasket.
- Attach the bracket to the frame using the 3/8" x 3/4" bolts. (Figure 1)
- Beginning with 3/8" x 5/16" bolts on the bracket, tighten them to bring the bracket flush to the frame and chassis, then tighten the stock header flange nuts to fully seat the collars in the gaskets. Fully tighten all bolts and nuts.
- Install muffler heat shields on the header assembly (V&H stamped logo on top, no logo on bottom) using the #36 hose clamp in rear location and #28 hose clamp in the forward position. Adjust muffler heat shields for a 1/4" gap between the heat shield and exhaust tip (Figure 6) and tighten all hose clamps.
- Route O2 sensor wires away from hot areas of the motorcycle. Plug the O2 sensor wires back into the wiring harness: **For 2012 & Later**, feed wire for the rear O2 sensor (Black) around the frame and under the seat. Re-install battery, plug the sensor into the stock wiring connector. Feed connector for the front oxygen sensor (Gray) around the frame and into the holder on the frame behind rectifier. Plug the sensor into the stock wiring connector.
For 2007 to 2011 models, feed wire for the front oxygen sensor around 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 to hold the wires onto the frame in the original location. Feed connector for the rear oxygen sensor around the frame under the oil tank on the right hand side. Plug the sensor into the stock wiring connector.
- On floor board models, tighten the floor board mounting bolts.
- Be sure to tighten all hardware before starting your motorcycle.
- After installation and before starting the motorcycle, completely clean pipes and mufflers with soap and water and a clean soft cloth. 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

- When installing a new set of chrome 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 (chrome wax / polish, glass cleaner, alcohol, ammonia, etc...) before starting the motorcycle.
- 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.

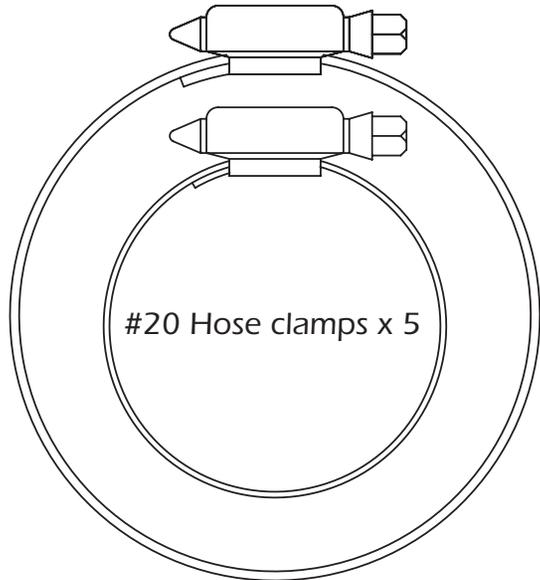
PLEASE NOTE: Every effort is made for Vance & Hines Exhaust Systems to provide improved cornering clearance. However, due to design and space limitations on some motorcycle models, ground and cornering clearance may not be improved and in some cases may be reduced. Be sure to follow proper installation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



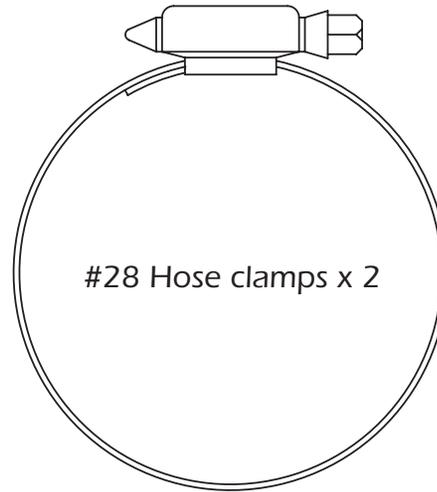
PACKING LIST

MORE POWER : LESS NOISE

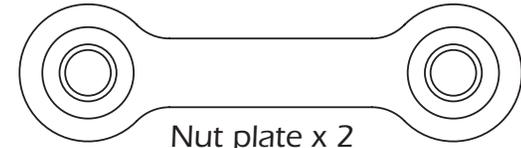
ALL PARTS SHOWN ARE ACTUAL SIZE



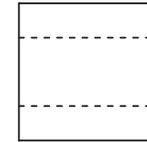
#20 Hose clamps x 5



#28 Hose clamps x 2

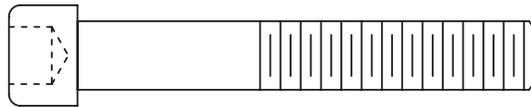


Nut plate x 2

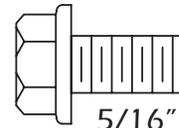


.75" x .75" Spacer

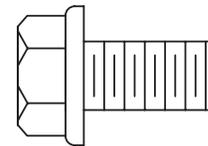
#36 Hose clamps x 2



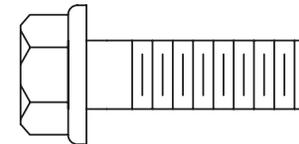
3/8" x 2-1/2" Allen bolt x 1



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



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



3/8" x 1 1/4" Flange bolts x 2

PARTS NOT SHOWN:

436-P	Footpeg bracket	x2
734-P	Bracket	x1
D642FC	Front head pipe	x1
D642HC	Front heat shield	x1
D643HC	Rear heat shield	x1
D644HC	Front muffler heat shield	x1
D645HC	Rear muffler heat shield	x1

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

THE NEXT GENERATION OF FUEL MANAGEMENT IS HERE

The Fuelpak FP3 will revolutionize fuel management for all new Harley-Davidson models now using the HDLAN (CAN Bus) system. Connecting wirelessly by Bluetooth to iPhone or Android Smartphones, Fuelpak FP3 uses Flash technology to recalibrate engine parameters and mapping for Vance & Hines exhaust systems downloaded from the expansive library of calibrations developed by Vance & Hines.

- Smartphone App User Interface (iOS and Android)
- Recalibrates ECM by Flash Tuning
- Autotune Feature for Added Tuning Precision
- Displays Live Sensor Data
- App Links Direct to Customer Service Site

FITMENT NOTES:

- FUELPAK FP3 IS COMPATIBLE WITH CAN BUS MODELS ONLY (TOURING, SOFTAIL, DYNA & SPORTSTER)
- FUELPAK FP3 IS NOT COMPATIBLE WITH V-ROD MODELS.
- MAPS ARE CURRENTLY AVAILABLE FOR: SPORTSTER, DYNA, SOFTAIL, TOURING AND TRIKE MODELS.
- MAPS FOR 110CI CVO MODELS COMING SOON.

EMISSIONS NOTICE:
FUELPAK IS INTENDED FOR RACING USE ONLY, AND IS NOT LEGAL FOR SALE OR USE IN CALIFORNIA ON POLLUTION-CONTROLLED VEHICLES.



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