



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", 7mm Nutdriver
-  1/2", 9/16" & 14mm 7/8" or 22mm Combination wrenches
-  3/16" & 5/16" Allen wrench
-  T45 & T50 Torx wrenches
-  Snapping pliers
-  FT/LB TORQUE WRENCH
-  3/8" Ratchet, extensions, 1/2", 9/16" Sockets, and 5/8", 3/4", 15mm deep sockets

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. Re-install the right side passenger peg using the 3/8"x2 1/2" capscrew without spacer.
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.
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 (2006-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, 2013 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. If equipped, using a 7/8" or 22mm wrench (for 18mm Sensors) or a 14mm wrench (for 12mm sensors), carefully remove the O2 sensors from the stock head pipes.
12. Remove the stock mounting bars, brackets and/or studs (Figure 1).
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 arm 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" capscrew with the 1 5/8" spacer and 1/4" bolt to secure fender.
13. **2000 and 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" capscrew 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. Replace the exhaust gaskets with the supplied gaskets.

FIGURE 1

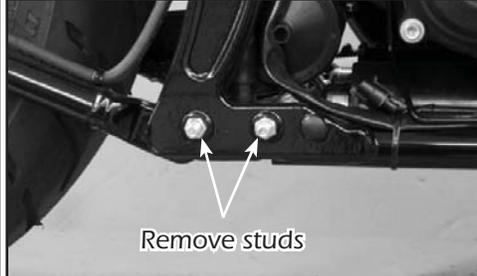


FIGURE 2



FIGURE 3

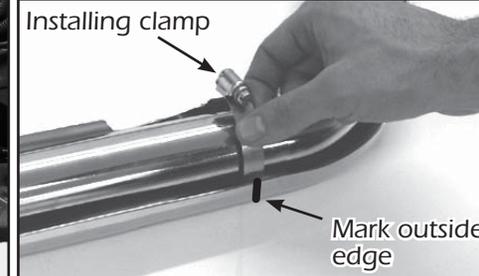


FIGURE 4

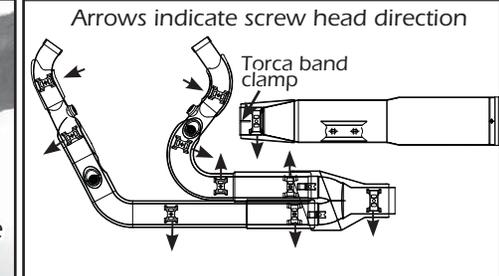


FIGURE 5

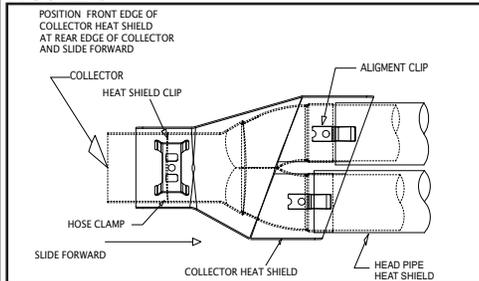


FIGURE 6

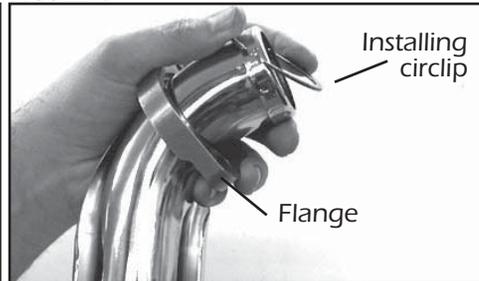


FIGURE 7

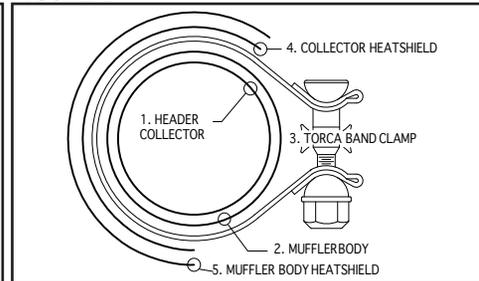


FIGURE 8



VANCE & HINES EXHAUST SYSTEM INSTALLATION

- Attach mounting bracket 768-P to frame using two 3/8" x 3/4" flange head bolts (Figure 2). If equipped, plastic plugs must be removed.
- Remove header and heat shields from protective packaging. Place each heat shield on a non-abrasive surface such as a 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 heat shields onto their respective head pipes. On the D685HB front 2-1/2" heat shield & D687HB Rear 2-1/2" heat shield, install the #24 hose clamps on the heat shield clips by feeding through the tail end of the clamp (Figure 3). Take note of clamp screw direction (Figure 4). On the D684HB front 2-1/8" heat shield & D686HB rear 2-1/8" heat shield, install #20 hose clamp into each heat shield clip. Screw heads must be accessible when the system is installed on the motorcycle for adjustment purposes. NOTE: Do not tighten the hose clamps at this time.
- Apply a small amount of anti-seize compound to the threads of the O2 sensors removed from the stock head pipes and install them into the new head pipes. On 2012 / 2013 models, install O2 sensor with gray connector (short) in the front head pipe and the O2 sensor with the black connector (long) into the rear head pipe. Be careful not to get anti-seize on sensor tip, it may affect sensor function. NOTE: Make sure O2 sensors are tight
- Install exhaust port flanges and circlips (from stock system) onto head pipes (Figure 6).
- Using stock flange nuts, carefully install header into exhaust ports, starting with the rear cylinder. Assistance may be required. NOTE: Do not tighten at this time.
- Install Torca band clamp (Supplied) onto the end of the muffler body with the nut facing down (Figure 4 and 7).
- Install the muffler body with Torca clamp onto the collector of the header assembly (D684FC). Slip the nut plate into the bracket welded to the muffler body and attach the muffler body to the bracket using two (2) 5/16" x 3/4" flange head bolts.
- Install the collector heat shield (D674HB) onto the header by sliding it on from the rear (Figure 5). While engaging the alignment clips of the collector heat shield with the 2-1/2" heat shields. Secure with #36 Hose clamp (supplied). NOTE: Leave hose clamp loose at this time. Do not force heat shield on from the side as this may result in damage to the collector.
- Slip the muffler cone heat shield (D675HB) from front to back onto the muffler body (D309RB) and secure with #36 hose clamp. NOTE: Use a low tack painters tape or equivalent to protect the transition between the 4.0" back section and 4.5" front section of muffler body.
- Tighten the exhaust system nut, bolts and clamps in the following sequence: (**1**) Head flange nuts (x4), (**2**) Muffler body 5/16" flange head bolts, (**3**) Torca band clamp, (**4**) Front and rear 2-1/8 heat shield hose clamps, (**5**) Front and rear 2-1/2" heat shield hose clamps, (**6**) Set location and tighten the collector heat shield hose clamp .
- Tighten muffler cone heat shield and leave about 1/16" even gap between heat shield and muffler body (Figure 8). NOTE: Make sure the top edge of the heat shield is aligned with the centerline of muffler body to maintain acceptable clearance..
- For 2012 /2013 models**, 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. NOTE: If the sensors leads are short or you have to stretch them to connect them to the harness then order the extensions required for your installation.
- On floor board models**, remove the stock bolts from the floor board and replace them with the 3/8"-16 x 1-1/4" button head capscrews with the 1/2" thick powder coated spacers between the floor board mount and the frame. Tighten the floor board mounting bolts.
- Be sure to tighten all hardware before starting your motorcycle.
- After installation and before starting motorcycle, remove protective tape and completely clean pipes and mufflers with cleaning solvent and a clean soft cloth that will not leave a residue. **NOTE: Any residue or fingerprints will stain the pipes when the metal heats up.**

EXHAUST CARE - HELPFUL HINTS TO AVOID DISCOLORATION OF EXHAUST SYSTEM

- When installing a new set of stainless 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 (acetone, glass cleaner, alcohol, etc...) before starting the motorcycle.
- It is considered normal for Stainless Steel exhaust systems to discolor due to heat.
- High performance engine tuning utilizing a dyno will likely result in severe discoloration.
- 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. Contact your local dealer or call (562) 921-0071 to order. Visit 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.

O2 Lead Extension

O2 Lead Extensions P/N 71001 are available for this system. These lead extensions allow the user to lengthen the existing leads of the stock 18mm O2 sensors to ease the installation of O2 sensors. Contact your local dealer to order.

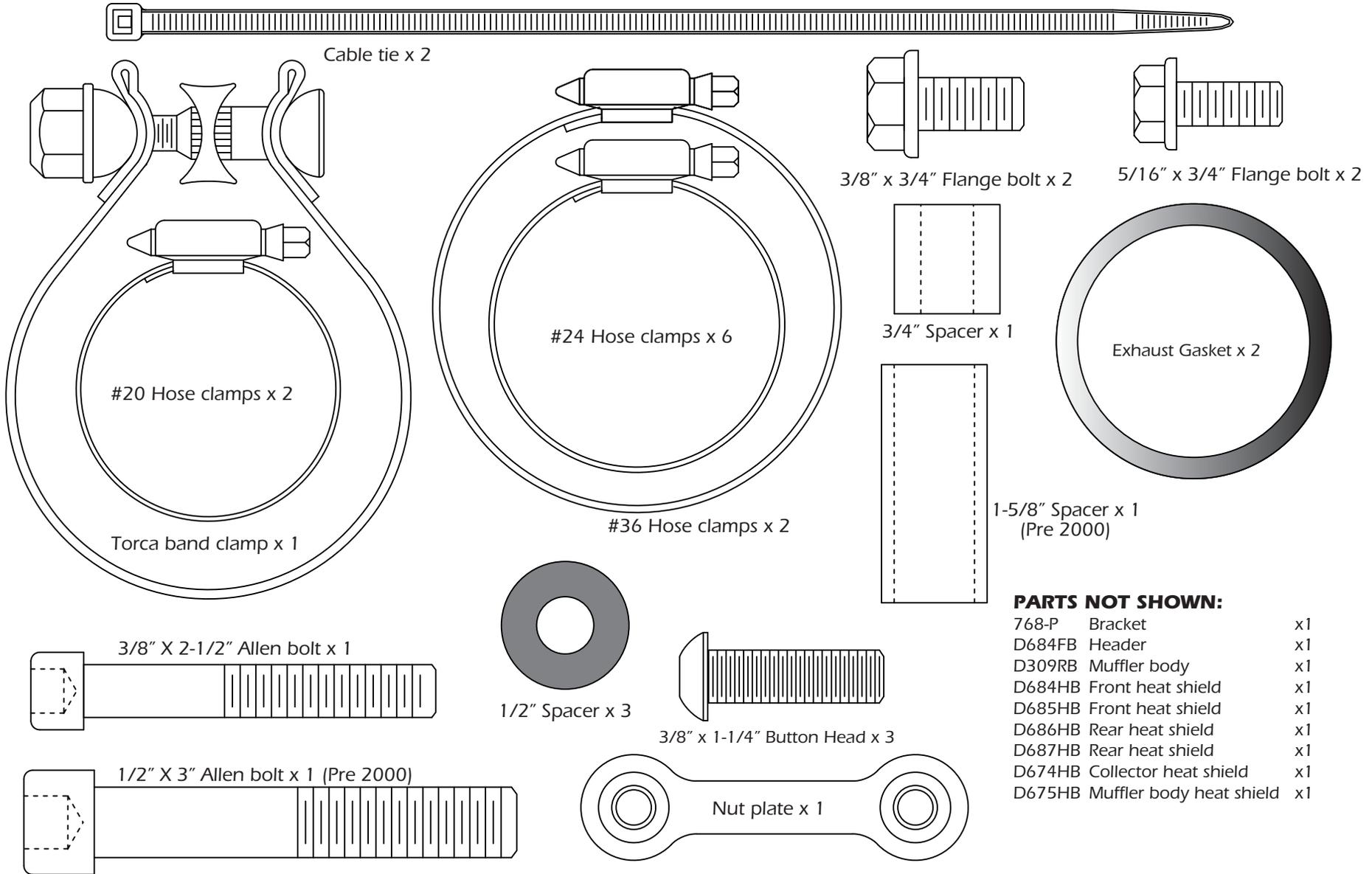
PLEASE NOTE: Every effort is made for Vance & Hines Exhaust Systems to provide improved cornering clearance. However, due to design and space limitations on some motorcycle models, ground and cornering clearance may not be improved and in some cases may be reduced. Be sure to follow proper installation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



PACKING LIST

MORE POWER : LESS NOISE

ALL PARTS SHOWN ARE ACTUAL SIZE



PARTS NOT SHOWN:

- | | | |
|--------|--------------------------|----|
| 768-P | Bracket | x1 |
| D684FB | Header | x1 |
| D309RB | Muffler body | x1 |
| D684HB | Front heat shield | x1 |
| D685HB | Front heat shield | x1 |
| D686HB | Rear heat shield | x1 |
| D687HB | Rear heat shield | x1 |
| D674HB | Collector heat shield | x1 |
| D675HB | Muffler body 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

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

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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