



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.



3/16",1/4" & 5/16" Allen wrenches T45 Torx wrench Snapring pliers

> 3/8" Ratchet, extensions, 1/2" & 9/16" Sockets, 7/16" Deep socket

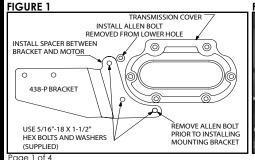
### READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

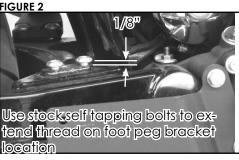
- Remove seat to gain access to rear oxygen sensor connector. Unplug sensor and feed end of wire through frame to free it from motorcycle. **NOTE**: Pay attention to wire routing for re-installation.
- For 2006 to 2011 models remove two bolts holding rectifier onto front of frame (near front tire). Open plastic cover to gain access to front oxygen sensor connector. Unplug sensor from harness and feed end of wire through to free it from motorcycle. For 2012 to 2014 models the connector is located under the rectifier at the front of the motorcycle.
- Loosen heat shield clamps on both the front and the rear head pipes.
- If equipped, remove front head pipe clamp carriage bolt.
- Remove the bolt that attaches mufflers to the frame mounting bar.
- Remove two cylinder exhaust port flange nuts from each head pipe, located at the cylinder head.

Remove the complete exhaust system and set aside (Assistance may be required).

wrenches

- Remove left bolt below the transmission cover. Position bracket 506-P over mounting location to determine which bolts to remove (Figure 1). Install removed bolt in the top hole left vacant by the new bracket.
- Carefully remove the flanges and circlips from the stock exhaust system using snapring pliers. **NOTE**: Replace bent or damaged circlips.
- 10. Remove stock oxygen sensors.
- 11. Remove stock exhaust gaskets and replace them with the supplied exhaust gaskets. NOTE: Replacement gaskets, HD Screaming Eagle #17048-98 or equivalent.



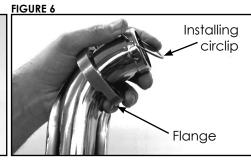






D946IN Rev. 1.3

# Arrows indicate screw head direction







- . Attach mounting bracket 438-P (supplied) to transmission using the 11/16" spacer and three 5/16 x 1-1/2" hex head bolts and 5/16" flat washers combinations (supplied) (Figure 1). NOTE: The 11/16" spacer and longer bolt are not required for 2006-2007 models.
- Remove right hand foot peg mount bracket. Screw stock self tapping bolts back in frame to
  extend existing thread until 1/8" gap is reached between head bolts and frame (Figure 2).
   Remove stock self tapping bolts before proceeding with next step.
- Install spacer 437-P placing foot peg mount bracket on top using two 3/8" x 1 3/4" button head bolts (supplied) (Figure 3). NOTE: The square edge should be facing outboard. Check clearance to right front edge of rear fender to footpeg/relocator before riding. NOTE: On some DYNA models, permanent removal of the passenger pegs is required (Wide Glide, Super Glide, CVO).
- 4. On mid control models, loosen and remove two bolts holding the right footpeg/rear brake lever assembly to the frame, and carefully lower the assembly to the floor or bench. Do NOT remove the brake linkage.
- 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 felt tip pen, mark outside edge of each heat shield to show location of hose clamp mounting clips (Figure 4).
- 6. Lay head pipes into their respective heat shields.
- Install #20 hose clamps (supplied) by feeding tail end of clamps into heat shield clips (Figure 4). Take note of clamp screw head direction (Figure 5). Screw head must be accessible when system is installed on motorcycle for adjustment purposes. NOTE: Do not tighten at this time.
- 8. Slide the muffler body heat shield onto muffler body, and using #56 hose clamps (supplied), follow same procedures on step #4.
- Apply a small amount of anti-seize compound to the threads of the oxygen sensors and install them into the new head pipe.

NOTE: **2006 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.

- 10. Install exhaust port flanges and circlips (from stock system) onto head pipes (Figure 6).
- 11. Using stock flange nuts, carefully install head pipes into exhaust ports, starting with the rear cylinder. Assistance may be required. NOTE: Do not tighten at this time. On models equipped with mid controls this will need to be loosened to install pipes.
- Slide the nut plate (supplied) into the bracket that is welded to the back side of the muffler. Loosely install two 5/16" flange head bolts (supplied) to attach muffler body to mounting bracket (Figure 7).
- 13. Tighten the exhaust port flange nuts and 5/16" flange head bolts.
- Tighten all hose clamps securing heat shields. NOTE: Align head pipe heat shields evenly with muffler heat shield (Figure 8).
- 15. Feed wire for front oxygen sensor through frame and into plastic holder on frame. Plug sensor into stock wiring connector. Snap plastic holder closed to hold connector in place.
- 16. Put toothed edge of wiring holder into slot in frame. Re-install rectifier so that it fits under tooth of wiring holder, keeping it in place in frame. Tighten both bolts.
- 17. Install a new nylon cable tie (supplied) to hold the wires onto frame in the original location.
- Feed connector for rear oxygen sensor through frame and into underseat compartment. Plug sensor into stock wiring connector.
- 19. Re-install seat.
- Check for adequate clearance between all exhaust system components and motorcycle accessories prone to heat damage.
- 21. Be sure to tighten all hardware before starting your motorcycle.
- 22. After installation and before starting motorcycle, completely clean pipes and mufflers with cleaning solvent and a clean, soft cloth that will not leave a 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**

- 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.
  - 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.

. Avoid long periods of idling as this can cause discoloration.

# **VANCE & HINES OPTIONAL ACCESSORIES**

FUELPAK



FUEL MANAGEMENT:

Take the guess work out of fuel injection with Fuelpak Fuel Management, P/N 61005. 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.

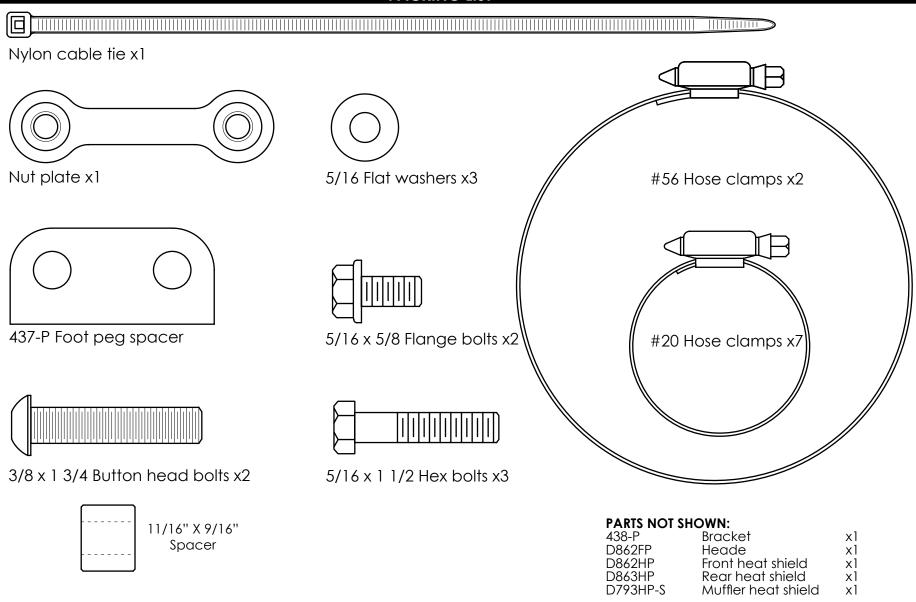
PLEASE NOTE: Every effort is made for Vance & Hines Exhaust Systems to provide improved cornering clearance. However, due to design and space limitations on some motorcycle models, ground and cornering clearance may not be improved and in some cases may be reduced. Be sure to follow proper installation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

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**ALL PARTS SHOWN ARE ACTUAL SIZE** 



### **PACKING LIST**



## 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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### 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.

