YAMAHA V-STAR 650 49 STATE SHORTSOTS STAGGERED INSTALLATION INSTRUCTIONS PART# 18519

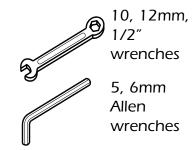




Congratulations, you have purchased the finest exhaust system for your motorcycle on the market. Your Vance & Hines exhaust system is designed and crafted for maximum performance, a perfect fit, a great sound and unbeatable style.

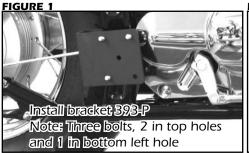
Attention installer (if other than owner), please forward this instruction sheet to the owner of this product. These instructions contain valuable information to the end user.

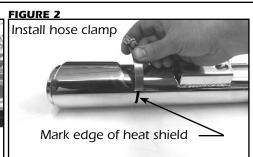
Flat blade screwdriver or 5/16" nutdriver

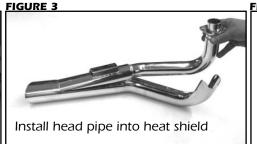


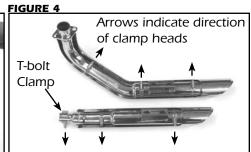
READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

- 1. This exhaust system is not designed for California models. Before continuing be sure it is the correct system for your application.
- 2. Loosen clamp that connects muffler to front head pipe.
- 3. Remove cylinder exhaust bolts from rear head pipe that connects rear head pipe to cylinder (save for re-use).
- 4. Remove bolts that connect mufflers to mounting bracket. Remove complete system. Note: Assistance may be required.
- 5. Remove stock mounting bar.



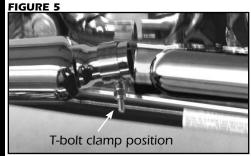


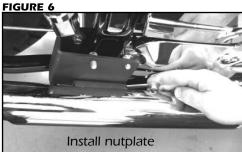


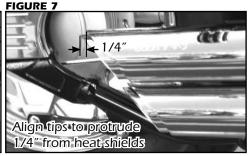


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SYSTEM







- 1. Check condition of stock exhaust gasket. Replace if damaged or worn.
- 2. Install mounting bracket (stamped 393-P) in the original bracket mounting position using two 8mm bolts (supplied)(Figure 1). Note: Install three 5/16" x 5/8" flange bolts (supplied)(Figure 1) into top holes and bottom left hole of bracket before installing bracket onto motorcycle.
- Mark outside surface of front and rear heat shields with location of mounting clips that are welded to the inside (Figure 2). Place each heat shield on a non abrasive surface such as a blanket or carpet. Lay each head pipe/muffler onto its respective heat shield (Figure 3).
- 4. Loosely install each hose clamp by feeding tail end of clamp into heat shield clip (Figure 2). #20 hose clamps are for head pipes and #28 hose clamps for muffler area. Take note of clamp screw head direction (Figure 4). Screw head should be accessible when system is installed on motorcycle for adjustment purposes. Note: Do not tighten yet.
- 5. Install T-bolt clamp onto front muffler (Figure 4&5). Slide muffler onto front head pipe (Figure 5). Slide nut plate (supplied) inside bracket welded to backside of front muffler (Figure 6). Attach muffler to mounting bracket 393-P using two 5/16" flange bolts (supplied) engaging nut plate. Leave head pipe/muffler assembly loose at this time.

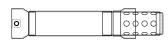
- 6. Using stock Allen bolts, carefully install rear head pipe/muffler assembly into exhaust port. (Assistance may be required). Note: Do not tighten yet.
- 7. Slide nut plate (supplied) inside bracket welded to backside of rear muffler (Figure 6).
- 8. Align mufflers so they are parallel when viewed from the right side of the motorcycle and muffler tips align at the same length. Tighten 5/16" flange bolts securing mufflers to bracket.
- Tighten cylinder exhaust port bolts securing head pipes to cylinder head.
- 10. Tighten T-bolt clamp securing front muffler to head pipe.
- 11. Adjust heat shields so that muffler tips protrude 1/4" from heat shields (Figure 7) and rotation of heat shield matches muffler tip. Tighten all hose clamps securing heat shields.
- 12. 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.
- 13. All hardware must be properly tightened before starting motorcycle.

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 a soft cloth and cleaning solvent that will leave no residue (chrome wax / polish, glass cleaner, alcohol, ammonia, etc...) before starting the motorcycle.
- 2. Follow owners manual instructions regarding use of the choke (starter enricher). If left on longer than recommended, discoloration may be accelerated.
- 3. Avoid long periods of idling as this can cause discoloraion.
- 4. Intake leaks can cause the engine to run lean and overheat, this could lead to discoloration.
- 5. 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





Ouiet baffle P/N 21301 is available for this system. The quiet baffle will lower the sound level by 2-3db on average. Contact your local dealer to order.

RE-JETTING FOR CARBURETED MODELS:

Re-jetting the carburetors will result in realizing the "full" potential of this performance exhaust system.

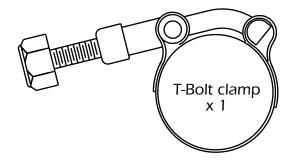
PLEASE NOTE:

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.

ALL PARTS SHOWN ARE ACTUAL SIZE

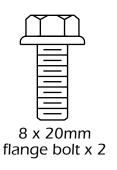


PACKING LIST











5/16" x 5/8" flange bolt x 4



Nut plate x 2

PARTS NOT SHOWN:

393-P Bracket x 1
Y280FC Front head pipe assembly x 1
Y281FC Rear head pipe assembly x 1
Y280HC Front heat shield x 1
Y281HC Rear 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.



Big Radius		Side	Sideshots Vertical		od	Sideshots Cubed	
SM	24024	SM	24029	SM	24034	SM	24039
MD	24025	MD	24030	MD	24035	MD	24040
LG	24026	LG	24031	LG	24036	LG	24041
XL	24027	XL	24032	XL	24037	XL	24042
XXL	24028	XXL	24033	XXL	24038	XXL	24043