#### Freedom Performance Exhaust Inc. 1255 Railroad St. Corona CA 92882 (951) 898-4733 http://www.freedomperform.com



INSTRUCTION #	BM00002-INS
HARDWARE #	BM00002-HW
EXHAUST SYSTEM	
4.500" SLIP ONS	

Congratulations, you have acquired the finest aftermarket performance exhaust system available for your motorcycle. Your Freedom Performance system was designed with the rider in mind. Performance, Style, quality and undistinguishable sound are the core values of our company.

WARNING: FREEDOM PERFORMANCE WORKS WITH FACTORY STOCK MOTORCYCLES, ANY ALTERATION OR OTHER AFTERMARKET ACCESSORIES OR REPLACEMENT PARTS MAY INTERFER WITH THIS EXHAUST SYSTEM AND IN ORDER TO PROPERLY FIT IN SOME CASES SUCH COMPONENTS MUST BE REMOVED.

Please follow installation instructions and do not hesitate to call us for any technical questions at (951) 898-4733 or customersupport@freedomperform.com if any components are missing do **NOT** proceed with installation until you contact us.

#### Stock exhaust system removal.

Please follow all necessary steps to safely perform your work, motorcycles are heavy and injuries can occur. Safety is first. We encourage you to read owner's manual.

Place motorcycle on secure jacks, on its own stand or ramp making sure is safe to proceed with removal and installation.

- 1) Familiarize yourself with all components to be removed and tools needed to perform all work.
- 2) It is not necessary to remove saddle bags to perform the installation if you wish to do so, please consult your owner's manual to remove saddle bags, it could make it easy to perform your work.
- Locate muffler clamps securing muffler to header assembly. (see fig 1.1 and 1.2)
  - a. Loose both clamps using a 13mm socket or wrench as shown, if necessary, use penetrating oil to ease removal.
  - b. Apply penetrating oil to pipe and muffler connection.
- Locate screws securing mufflers to saddle bag frame. (these are torx screws) (see fig 1.3 and 1.4)
  - a. Loose both screws using a #35 torx socket or wrench as shown, we recommend using a wobble socket extention (see fig 1.5)
  - b. Start with the right-side saddle bag
  - c. Remove screw. For this you must support muffler with one hand and remove screw with the other or better yet, have someone help you out. Once that screw is removed the muffler assembly will fall down.
  - d. Slightly pull muffler assembly backwards towards the back of the motorcycle.
  - e. The heat shield located over the header section will disengage from clip welded on muffler pipe section. (see fig 1.6)
  - f. The pipe on muffler assembly rubber grommet, will also disengage from pin on frame casing. (see fig 1.7)
  - g. Carefully place it aside. (see fig 1.8)
- 5) Repeat step 5 with the left side muffler assembly.
  - a. If motorcycle its secured on its own stand disregard this step. If placed on jacks or ramp follow the next steps.
  - b. Motorcycle stand rest against pipe on muffler assembly and you must hold it back to allow you to remove muffler assembly.
  - c. Have someone pull it down to remove muffler or hold it with rope or bungle cord. (see fig 1.9)
  - d. Once stand is out of the way remove muffler assembly. (see fig 1.10)
  - e. Nuts on frame casing where the screws holding muffler were located will be reused (see fig 1.11 & 1.12)

#### **Exhaust system installation.**

These instructions are intended for many different systems, however, the steps necessary to accomplish installation are relatively the same.

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- 1) Remove exhaust system from protective packaging it has been pre-assembled for you to see how its assembled, disassemble system and lay it down, place them in a non-abrasive surface such as a blanket or carpet. By doing this you can avoid scratching parts during the installation process.
- 2) Note: We recommend using painters' tape to cover parts and accessories on motorcycle areas where damage can occur during installation.
- 3) Refer to picture for hardware needed and table of components at the top of the instructional sheet. (see fig 2.1)
- 4) Insert barrel band clamps over slotted section on each head pipe.
  - a. Head of screw must be positioned in a way that can be accessed after installation to tighten it. (see fig 2.2)
  - b. Clamp must be positioned flash to the edge of header as shown. (see fig 2.2)
- Install right side head pipe first.
  - a. Insert head pipe over stock header slowly. (see fig 2.3)
  - b. Grommet inside pipe housing must engage into stock metal pin as shown. (see fig 2.4)
  - c. Heat shield clip tab on stock shield must also engage your new header welded clip as shown. (see fig 2.5)
  - d. Insert pipe as far in as you can. (see fig 2.6)
- 6) Repeat step with the left side header. (see fig 2.7)
- 7) Install heat shields. For these steps it is imperative to use caution, space is very tight and scratches may occur. We recommend to use painters' tape, cut a small piece and tape it over the heat shield where the clips are located (these are the clips welded inside the heat shield) now mark the center of the clip with a pen or marker also mark an arrow pointing the direction of hose clamp insertion as seen of the fig. (see fig 2.8)
  - a. Place heat shield on a surface as shown.
  - b. Mark arrows on shields as shown with marker or pen.
  - c. Insert hose clamps as shown. (see fig 2.9)
  - d. Place heat shields over their respective pipes. (see fig 2.10 and 2.11)
  - e. Align heat shield and tighten screws with a 5/16" nut driver or flat screw driver. (see fig 2.12 and 2.13)
- 8) Install mounting bracket to support mufflers.
  - Spacers inside grommets have been pre-installed, if for any reason they are not, insert these spacers into rubber grommet.
  - b. Insert screw into grommet in the following steps. 1) insert one washer onto screw, 2) insert screw into grommet and last insert another washer onto screw. (see fig 2.14, 2.15 and 2.16)
  - c. Install right and left mounting bracket as shown. Bring screw all the way but do not tighten yet. (see fig 2.17, 2.18 and 2.19)
- 9) Insert barrel band clamps over slotted muffler inlets as shown. (see fig 2.20)
  - a. Slide back plate bracket into welded bracket on muffler. (see fig 2.21 and 2.22)
  - b. Slide right side muffler onto head pipe, be careful not damage components as you insert muffler inlet onto head pipe. (see fig 2.23 & 2.24)
  - c. Secure muffler with two screws from mounting bracket as shown. Finger tighten only bring screws all the way but do not tighten yet. (see fig 2.25 and 2.26)
  - d. Align mufflers make sure they are parallel to saddle bag make any adjustments as necessary, use a ½" socket or wrench to tighten bracket screws.
  - e. Tighten mounting bracket to saddle bag frame using a 12mm small socket and wobble extention.
- 10) Repeat step with left side muffler. Make all necessary adjustments. (see fig 2.27 & 2.28)
- 11) Tighten all 4 barrel-band clamps using a 10mm socket. (the 2 holding pipes to stock pipes and the other 2 holding muffler to new head pipes) (see fig 2.29 and 2.30)
- 12) Your new system came with muffler shields that were pre-installed ant the factory plant. Make sure hose clamps are tighten, if necessary tighten clamps using a 5/16" nut driver or flat screw driver.
- 13) Check all hardware once more and make sure it's all tighten properly.
- 14) Clean exhaust system with some chrome cleaner and remove painters' tape (if used during installation) before turning on engine. Failure to follow this procedure may result in damages to the chrome finish as oils burn out leaving permanent marks.

**WARNING!** 

FREEDOM PERFORMANCE DOES NOT WARRANTY ANY CHROME OR BLACK FINISH PRODUCTS AGAINST DISCOLORATION.

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Fig 3.4



Fig 1.7



Fig1.10



Fig 1.2



Fig 1.5



Fig 2.8



Fig 1.11



Fig 1.3



Fig 1.6



Fig 1.9



Fig 1.12

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Fig 2.1 Fig 2.2 Fig 2.3







Fig 2.4 Fig 2.5 Fig 2.6







Fig 2.7 Fig 2.8 Fig 2.9







Fig 2.10 Fig 2.11 Fig 2.12

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Fig 2.16 Fig 2.17







Fig 2.21 Fig 2.19 Fig 2.20







Fig 2.22 Fig 2.23 Fig 2.24

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Fig 2.25 Fig 2.26 Fig 2.27







Fig 2.28 Fig 2.29 Fig 2.30



