



INSTRUCTION #	BM00005-INS
-----EXHAUST SYSTEM-----	
4.000" & 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 INTERFERE 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) There are different models of the R-18 heritage line, these instructions are intended for the following models. **(R-18 Classic, R-18 Bagger, R-18 Transcontinental)**
- 3) Steps to remove stock mufflers may vary slightly from some models always refer to owner's manual for stock removal.
- 4) It is not necessary to remove saddle bags to perform 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.
- 5) 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.
 - c. Apply penetrating oil to grommets holding muffler (x4) to mounting bracket, do not over use it.
- 6) Remove large side cover shields first. Use a T25 wrench, two screws per shield, one shield per side. **(See fig 1.3 and 1.4)**
- 7) Remove side catalytic converter shields, one on each side. Use a T25 wrench two screw per shield. **(See fig 1.5 and 1.6)**
- 8) Remove mufflers and set aside. **(See fig 1.7 and 1.8)**
 - a. Slightly pull muffler assembly backwards towards the back of the motorcycle.
 - b. The penetrating oil should ease the removal pull and slightly move side to side at the same time.
 - c. Carefully place mufflers aside.
- 9) Loosen head pipes from motor. This are the ones that secure head pipe to the motor. Use a T45 wrench. Do not remove just loosen. **(See fig 1.9)**
- 10) Loosen crossover bracket screws located underneath motorcycle using a T25 wrench **(See fig 1.10)**
- 11) Models with saddle bags remove support bracket using a T40 wrench two screws per bracket, one bracket per side, these brackets will be reused with new system. **(See fig 1.11)**
- 12) Remove right and left stock brackets from motorcycle frame, use a T50 wrench, locate screws (under bracket) and remove, two screws per bracket. Place them aside. **(See fig 1.12)**

Exhaust system installation.

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

- 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 packaging list for hardware needed and table of components.
- 4) Install mounting brackets. You will reuse stock screws for this step
 - a. When installing bracket use spacer provided, align spacer so that spacers are sandwiched in between bracket and frame (see fig 2.1 and 2.2)
 - b. Install right side bracket **MBK-BM110-F4** using a T50 wrench. (See fig 2.3)
 - c. Repeat step installing the left side bracket **MBK-BM111-F4**. (See fig 2.4)
 - d. Hand-tighten screws only, bring screws all the way but do not wrench tighten yet.
- 5) Models equipped with saddle back support bracket install them now. Use two provided stock screws. Place spacer in-between mounting bracket and support bracket, align with hole on mounting bracket and insert screws from stock, use a T45 wrench to tighten. (See fig 2.26 and 2.27)
- 6) Insert barrel band clamps over slotted section on each head pipe. (See fig 2.5)
 - a. Head of screw must be positioned in a way that can be accessed after installation to tighten it. (See fig 2.6)
 - b. Clamp must be positioned flush to the edge of header as shown.
- 7) Install head pipes. Pipes are the same just the position of the clamp matters.
 - a. Insert head pipe over right side stock header. (See fig 2.7)
 - b. Repeat step with left side. (See fig 2.8)
 - c. Insert pipes as far in as you can.
- 8) Insert band clamps over muffler slotted inlets.
 - a. Make sure screws are facing down. (See fig 2.9)
 - b. There are right and left mufflers make sure the correct one is allocated to its proper side.
 - c. Make sure clamps are flush to the edge on each muffler.
- 9) Install mufflers, insert mufflers over the head pipes as shown,
 - a. Install right and left mufflers as shown. (See fig 2.10 and 2.11)
 - b. Align brackets at the furthest back brackets must be flush to each other as shown. (See fig 2.12 and 2.13)
 - c. Secure mufflers with provided carriage bolts and lock nuts. bolts are inserted as shown. Bring screws all the way, but do not tighten yet. (See fig 2.14)
- 10) Install side stock shields using a T25 wrench, leave them just as they were prior to installation. (See fig 1.5 and 1.6)
- 11) Install support brackets (these brackets will support stock shields onto new pipes)
 - a. There are 3 different brackets on the kit.
 - b. The two small **MBK-BM115-F14** are identical just by flipping it, it can become right or left.
 - c. The 2 bigger brackets are marked as **MBK-BM116-F14** right and **MBK-BM117-F14** left.
 - d. Use #24 hose clamps to hold these brackets from pipes, and a 5/16" nut driver or flat screw driver.
 - e. Install **MBK-BM115-F14** support brackets, place as close as the one in the picture. This will be seating against muffler inlet as shown. The longer leg will be the one closer to the muffler, do this for both right and left. Do not tighten at this time yet just bring clamp all the way to hold it in place. (See fig 2.15)
 - f. Install **MBK-BM117-F14** left support bracket over left side pipe. This bracket shorter leg will be closer to the front of the motorcycle. (See fig 2.16)
 - g. Repeat step with right side support bracket **MBK-BM116-F14**.
 - h. Once support bracket are in place, place a non-scratching rag over the front section of each muffler (See fig 2.17)
 - i. Place left side stock shield over muffler, making sure the front section is under the stock catalytic side shield. A gap of about 1/8" should be ok from both shields as shown. (See fig 2.18)
 - j. Now, use stock screws and secure heat shield to support brackets. It will be necessary to adjust brackets, rotate, slide backwards or forwards as needed to align with threaded holes. make all necessary adjustments, remove rag before tightening with a T25 wrench.
 - k. Repeat step with right side shield. (See fig 2.19 2.20 and 2.21)

- 12) Install end caps. Depending on your system end caps will vary.
 - a. In some cases, end caps have been pre-installed at the factory, if not follow the next steps.
 - b. Insert end caps into muffler heat shields and align with holes
 - c. Secure end caps with two button head screws and split washer. Use a 5/32" hex key wrench. Two screws per end cap
 - d. Even if end caps were pre-installed, proceed to tighten screws with a 5/32" hex wrench.
- 13) **Align all components make any adjustments if necessary.**
- 14) Tighten mufflers to mounting bracket using a 9/16" socket or wrench. (See fig 2.14)
- 15) Tighten mounting brackets to motorcycle frame using a T50 wrench. (See fig 2.22 and 2.23)
- 16) 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 2.24 and 2.5)
- 17) Tighten support brackets (the ones holding stock shields) using a 5/16" nut driver or flat screw driver. (See fig 2.15 and 2.16)
- 18) On 4.500" systems, tighten hose clamps holding shields to mufflers use a 5/16" nut driver or flat screw driver.
- 19) Tighten headers to engine port using a T45 wrench. (See fig 1.9)
- 20) Tighten crossover bracket (under motorcycle) using a T25 wrench. (See fig 1.10)
- 21) Check all hardware once more and make sure it's all tighten properly.
- 22) 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.



Fig 1.1



Fig 1.2



Fig 1.3

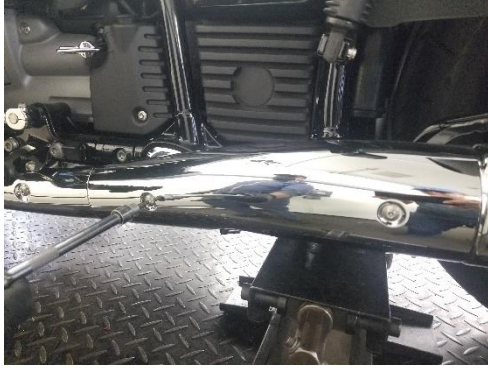


Fig 1.4



Fig 1.5



Fig 1.6



Fig 1.7



Fig 2.8



Fig 1.9



Fig1.10



Fig 1.11



Fig 1.12



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



Fig 2.13



Fig 2.14



Fig 2.15



Fig 2.16



Fig 2.17



Fig 2.18 about 1/8" gap or 3mm



Fig 2.19



Fig 2.20



Fig 2.21 about 1/8" gap or 3mm



Fig 2.22



Fig 2.23



Fig 2.24



Fig 2.25



Fig 2.26



Fig 2.27



PART # BM00244