



**EXHAUST SYSTEM # MV00036
SHARP CURVE RADIUS (2-2)**

Feel the Power of Freedom

Congratulations, you have acquired the finest aftermarket performance exhaust system available for your motorcycle. Your FREEDOM PERFORMANCE exhaust system was designed to perform fit and give the optimum sound and style at a very affordable price

Please read and follow the installation instructions and certainly do not hesitate to call us for any technical questions at (310) 324-0415 or visit us at: www.freedomperform.com

PACKAGING LIST: MV00036-HW

V175-F1	FRONT HEADER	1	MGS110-F5	FRONT MUFFLER	1
V176-F1	REAR HEADER	1	MGS111-F5	REAR MUFFLER	1
V175-F2	FRONT SHIELD	1	HWC0002	WORM CLAMP # 24	3
V176-F2	REAR SHIELD	1	HWC0003	WORM CLAMP # 28	4
MBK-V110-F4	MOUNTING BRACKET	1	HWC0010	BARREL CLAMP # 62	2
MBK-M115-F7	BACK PLATE BRACKET	2	HWB0007	5-16"-18X5/8" ZINC PLATED SERRATED FLANGE BOLT	4
A115-O2-F7	18MM O2 PLUGS	2	MV00036-INS	INSTRUCTIONS MANUAL	1

WARNING: When installing your new exhaust system always refer to owner's manual for torque specifications and follow safety precautions, make sure motorcycle is properly secure to prevent it from falling and that is not hot to prevent burning.



STOCK EXHAUST SYSTEM REMOVAL

1. When removing or installing accessories there is always a chance to scratch motorcycle components, use painters tape on areas prone to scratches during the installation such frame, chrome or painted parts.
2. It is recommended to use some type of penetrating lubricant to all nuts and bolts to be removed for an easier removal.
3. Loosen all heat shield clips with a nut driver or flat screw driver.
4. Loosen and remove the acorn nuts (4) holding the headers to the engine port using a 13mm socket or wrench and save for re-use with the new exhaust system.
5. Loosen the two bolts holding the right side riders peg assembly with an 8mm allen wrench and remove them, this step is only to have more space to remove stock and install your new exhaust system. See (fig 1.1) **NOTE: be careful not to bend or damage the brake line, hold it to the frame with a plastic tie until the new system has been installed.**
6. Loosen band clamp holding the front header to the rest of the system as it will be removed last apply penetrating oil to ease the removal.
7. If equipped, remove O2 sensor using a 22mm or 7/8" wrench. it may be easier to locate harness and disengage to remove sensors when the headers are fully apart from the motorcycle. mark which sensor is rear and front.
8. Using a 14mm socket, loosen and remove bolts holding the canister to the mounting bracket. **Fig 1.2**
9. Remove rear section from motorcycle by disengaging from the front header section and place it aside, some assistance may be required.
10. Remove the front header system and set it aside.
11. Remove stock mounting bracket, using a 14mm and 17mm socket or wrench remove the two bolts holding mounting bracket to frame member and the large lock nut. Save bolts for re-use.
12. Replace lock nut back in place and tighten.
13. Remove bolt holding oil cooler and move cooler just enough to have access for the removal and installation of your new system (DO NOT DISCONNECT OIL COOLER HOSES)



Fig 1.1 remove peg assembly

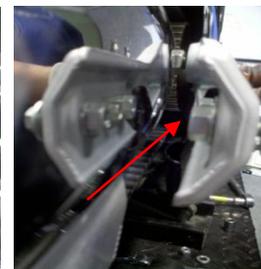


Fig 1.2



Fig 1.3 remove bracket

Note: use good and safe practices when removing and installing your new exhaust system to prevent injuries that includes but is not limited to such safety glasses and gloves. When installing make sure gloves are not abrasive or damage may occur like scratching parts. Always secure motorcycle before any work is done.

FREEDOM PERFORMANCE EXHAUST SYSTEM INSTALLATION

1. Remove exhaust system from protective packaging it has been pre-assembled for easy installation. Place them in a non-abrasive surface such as a blanket or carpet. By doing this you can avoid scratching the parts in the in installation process. We recommend using painters tape to cover parts and accessories on areas where damage can occur during installation.
2. Attach mounting bracket **MBK-V110-F4** using a socket or wrench to motorcycle frame using 8mm bolts from stock. **NOTE.** (see fig. 1.4)
3. Slide 1 Barrel clamp (# 62) in front of the slotted end of the muffler with the bolt facing down and towards transmission, engage front header (**V175-F1**) to front muffler (**MGS100-F5**)
4. Install front header assembly pipe first into exhaust port by first and carefully aligning the bracket welded on the inner muffler to the mounting bracket using two 5/16-18 flange serrated bolts, and a MBK-M115-F7 back plate bracket. Note: It may be necessary to rotate the inner muffler to align it to the holes on the mounting bracket, insert the back plate bracket inside the bracket welded to the muffler making sure the nuts face towards the muffler. Install acorn port flange nuts all the way but, **DO NOT TIGHTEN AT THIS TIME YET.**
5. **NOTE: the muffler in this system is engaged to the header, loosen the band clamp to allow adjustment forward, backwards and rotation until the nuts welded on the back plate bracket align with the slots in the mounting bracket and make sure the front of the welded bracket to the muffler is flush to the front of the mounting bracket.**
6. Models equipped with oxygen sensors Install oxygen sensor (from stock) apply a small amount of anti-seize compound to the threads of the O2 sensors and install it into the new muffler pre-wind wire so it will unwind when it gets threaded into the muffler. **NOTE:** Be careful not to get anti-seize on sensor tip, it may affect sensor functionality. models without O2 sensor plug bongs with supplied plugs.
7. Repeat step 3 with the rear header assembly. **Note:** we recommend for you to cover the heat shield on top, right below where the rear pipe system is to be installed with a non-abrasive rag or painters tape to prevent scratches during installation of rear pipe. (see fig 1.5)
8. Align both pipes, make sure the space between front and rear curved sections have an even gap and tighten to the mounting bracket bolts first using a 1/2" wrench then tighten barrel band clamps. (These are the clamps that hold the inner muffler to the headers) now tighten the exhaust port flanges. (see fig 1.6)
9. Align heat shields and tighten clamps using a 5/16" nut driver.
10. Place floorboard back in place and tighten.
11. Check for adequate clearance between all exhaust system components and motorcycle accessories prone to heat damage.
12. 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.

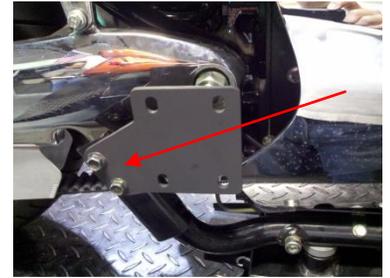


Fig 1.4 install bracket



Fig 1.5 cover front shield

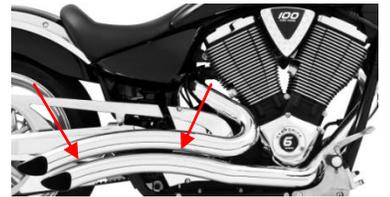


Fig 1.6 align

Note: Be sure to tighten all hardware before starting your engine. Retighten after the first 100 miles.

Re-mapping is strongly recommended by FREEDOM PERFORMANCE

There are accessories available for this exhaust system such as quiet baffles, contact us for more details.

Every attempt has been made to provide improved cornering Clearance. However, due to design and space boundaries on some motorcycle models, ground and cornering clearance may not be improved and in some cases may even be reduced.

WARNING!

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

Note: use good and safe practices when removing and installing your new exhaust system to prevent injuries that includes but is not limited to such safety glasses and gloves. When installing make sure gloves are not abrasive or damage may occur like scratching parts. Always secure motorcycle before any work is done.