



HARDWARE



BRACKETS

PACKER #: _____

EXHAUST SYSTEM # MY00105 RACING TRUE DUALS (2-2)

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 follow the installation instructions and please do not hesitate to call us for any technical questions at (951) 898-4733

WARNING: When installing you 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.



PART NUMBER	DESCRIPTION (*)=PRE-ASSEMBLED	QTY	PART NUMBER	DESCRIPTION	QTY
Y190-F1	FRONT HEAD PIPE	1	A105-02-F15	10MM X 1.25MM BUNG PLUG	2
Y191-F1	CROSSOVER HEAD PIPE	1	HWB0044	M10X1.50X35 SOCKET HEAD CAP SCREW ZINC	2
Y192-F1	LEFT SIDE HEAD PIPE	1	HWW0003	¼" SPLIT WASHER ZINC PLATED	6
Y190-F3	FRONT HEAT SHIELD	1	HWB0051	¼"-20X1/2" BUTTON HEAD SCREW ZINC PLATED*	6
Y192-F3	LEFT SIDE HEAT SHIELD	1	HWB0045	M6X1.00X20 SOCKET CAP HEAD SCREW ZINC	1
Y156-F3	CROSSOVER HEAT SHIELD	1	HWB0008	3/8"16X3/4" CARRIAGE BOLT ZINC PLATED	4
MY180-F6	RIGHT SIDE MUFFLER ASSEMBLY*	1	HWN0004	3/8"-16 FLANGE TRI-LOCK NUT ZINC PLATED	4
MY181-F6	LEFT SIDE MUFFLER ASSEMBLY*	1	HWN0006	M10X1.50 LOCK NUT ZINC PLATED	2
MBK-Y145-F4	RIGHT SIDE MOUNTING BRACKET	1	HWN0015	M6X1.00 PLASTIC LOCK NUT ZINC PLATED	1
MBK-Y146-F4	LEFT SIDE MOUNTING BRACKET	1	HWC0002	HOSE CLAMP # 24 STAINLESS STEEL	9
A143-LCB-F8	RACING LOUVER CORE BAFFLE*	2	HWC0006	T-BOLT CLAMP # 60 STAINLESS STEEL	1
A140ECA-F10	RACING END CAP*	2	HWC0008	T-BOLT CLAMP # 64 STAINLESS STEEL	2
MY00105-HW	HARDWARE BOX*	1	MY00105-INS	INSTALATION MANUAL	1

STOCK EXHAUST SYSTEM REMOVAL

- 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.
- It is recommended to use penetrating oil on all nuts, bolts and slip joint to ease removal of stock exhaust system.
- Using a 8mm allen wrench locate and loosen two bolts holding the right side floorboard to gain access and make the removal and installation easier. **See figure 1.1**
- Models equipped with O2 sensors, follow step 5, 6, 7 and 8. Models without O2 sensors skip these steps.
- Remove plastic side covers (left first then right) using a 5mm Allen wrench remove Allen flange bolt and save for re-use, carefully pull cover out. **See figure 1.2**
- Remove bolt holding right side cover from frame using an 8mm socket or nut driver. (This bolt is visible once the left side cover has been removed. **See figure 1.3**
- Now using the 5mm Allen wrench remove right side cover and gently pull out. **See figure 1.4**
- Locate rear O2 sensor disengage from tab and remove from stock assembly using a 14mm wrench. The rear sensor harness is located behind right side cover. This rear sensor is too short to reach the new exhaust system it will have to be re-routed to reach O2 bong on the new system. **See figure 1.5, 1.6 and 1.7** Disconnect Oxygen sensors from harness and save for re-use.
- Using an 8mm Allen wrench locate and remove exhaust port Allen nuts and save them as they will be re-used with your new exhaust system. (**Note: Inspect exhaust port Allen nuts and replace if damaged or worn**)



Figure 1.1 Remove floorboard



Figure 1.2 Remove cover using a 5mm hex key wrench

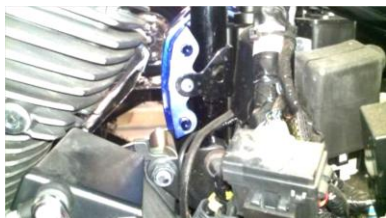


Figure 1.3 Remove screw holding panel



Figure 1.4 Remove right side panel using a 5mm hex key wrench



Figure 1.5 Disengage from harness and pull upwards.



Figure 1.6 Sensor will need to be re-routed to reach new system.

10. Remove Allen bolts holding the rear muffler to the mounting bracket. Note: same assistance may be required.
11. Remove complete exhaust system first lift muffler up to release it from the locating hole of the mounting bracket. Note: same assistance may be required to prevent scratches or damages.
12. Inspect conditions of exhaust gaskets and replace them if worn or damaged.



Figure 1.7 New route direction.



Figure 1.8 Use 6mm bolt and lock nut to hold brake clamp to bracket

13. Remove the two bolts that hold the stock mounting bracket in place to the frame using an 8mm allen wrench as this will be removed and replace with a new mounting bracket (supplied)
14. Remove the rear brake hose clamp from the exhaust mounting bracket.
15. **Note that the stock mounting bracket holds the rear brake hose with a looped wire welded to the mounting bracket. There are two ways to remove the stock bracket out. Step number (16) is easier and faster while steps (17, 18, 19 and 20) require that the brake system must be bled or the braking system will not work.**
16. With large wire cutters or wheel air grinder cut a section of the loop wire to slide the house out of the loop mounting bracket. If you decided to follow the long rout we recommend that the installer knows how to adjust the braking system or serious injuries or event death may occur. Refer to the manufacturer's user manual for proper bleeding of the braking system.
17. Remove the brake house banjo bolt from the rear caliper. (have some rags available as some brake fluid will spill out)
18. Slide the house out of the loop mounting bracket.
19. Inspect conditions of sealing washers on the banjo bolt and replace if damaged or worn.
20. Now reconnect brake house to caliper, use manufacturer recommended guidelines for torque and bled the system according to manufacturer specifications.

Warning: Remember that brake system must be bled in order to work properly and refill reservoir after bleeding.

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 installation process. We recommend using painters tape to cover parts and accessories on areas where damage can occur during installation.
2. Attach mounting brackets on motorcycle starting with the right side first leveled as **MBK-MY145-F4**, (the smaller bracket) First using the 6mm bolt (supplied), attach the brake hose clamp in the smaller hole of the mounting bracket. Use 2 10mm bolts and lock nuts (Supplied) to attach mounting bracket to the motorcycle frame. NOTE: bracket is placed inside of the frame.
3. Now install the left side mounting bracket leveled **MBK-MY146-F4**, (the bigger bracket) for this the Silverado bracket support must be removed. Use Allen wrenches to do this step and save the stock bolts as they will be re-used with the new bracket. Once the Silverado bracket has been removed proceed to install the new mounting bracket.
4. From the hardware box remove hose clamps (#24) place front pipe inside the front heat shield and install hose clamps in a way that the head of the clamp bolt is accessible to be tightened after the system is installed. We recommend to stick some type of painters tape on the shield at the center of each clip welded in the heat shield then mark the center with a marker or pen this is to easily visualize where the hose clamp needs to be inserted.
5. Models equipped with oxygen sensors first Install front oxygen sensor only (from stock) apply a small amount of anti-seize compound to the threads of the O2 sensors and install it into the new system. NOTE: Be careful not to get anti-seize on sensor tip, it may affect sensor functionality. Models without O2 sensors, plug both pipes with 10mm plug sensor bongs supplied.
6. Install front head pipe first into exhaust ports **NOTE: DO NOT TIGHTEN AT THIS TIME YET.** (Some assistance may be required)

7. Install right side muffler on to header by sliding one T-Bolt clamp over the nose of the muffler with the bolt facing down and carefully sliding the muffler over the pipe until the welded bracket on the muffler is flush with the mounting bracket at the back. Attach the muffler to the mounting bracket using two 3/8"-16 x 3/4" carriage bolts and lock nuts to hold the muffler on its place. NOTE: Do not tighten at this time yet some alignment will be needed after installing the left side section.
8. Install cross over pipe carefully to avoid scratching bring the head nuts all the way but do not tighten at this time. Models equipped with Oxygen sensor install sensor after the pipe had been installed, do this installation from the left side of the motorcycle. Note: the original equipment sensor is too short to reach the new location of the sensor bung; you will need to install a sensor cable extension for the rear sensor.
9. Repeat step # 4 with the left pipe and again make sure the bolts will be accessible to be tightened.
10. Install left side header by sliding a T-Bolt clamp over the slotted section of the pipe with the bolt facing forward towards the rear piston. NOTE: the shift lever rod may need to be adjusted to gain more clearance do it only if needed.
11. Slide left side header over the cross over pipe carefully. This section is the one with the 2 slots and you have already installed the T-Bolt clamp. Some assistance may be required.
- 1) Install the left side muffler the same way the right side was installed in step # 6.
12. Adjust as needed. The clearance in the cross over pipe and rear pipe is tight, make sure the rear shield is not touching the plastic cover or some damage will occur, also make sure that the pipe is not touching any other parts of the engine rotate header to adjust if necessary from the right side of the motorcycle.
13. This system has the end caps already installed but more tips are available such different color for a different look, if you decide to change your tips one day follow this instructions: Remove the two button head bolts on the tips and slide the tip inside the mufflers. Use some type of locking glue to prevent bolts from getting loose. Loctite is a good option.
14. Re-install right side floor board, in some models or aftermarket floor boards are too close to the heat shield, it can be space out using some washers do space out only if needed. Check for clearance around the installed components.
15. Align muffler. This step can be accomplished by looking the new exhaust system installed from the rear of the motorcycle (some assistance may be required) align as needed. NOTE: the right side bracket can also be aligned by pulling up or pushing down as needed before bolts are tightened.
16. Tighten mufflers mounting bolts first using a 9/16" socket or wrench then muffler connections (T-Bolts) using a 7/16 socket or wrench then T-Bolt attaching the rear pipe to the cross over pipe after this is done tighten exhaust port flange nuts. Tighten all heat shield hose clamps
17. Check for adequate clearance between all exhaust system components and motorcycle accessories prone to heat damage
18. It is vital when installing a new chrome exhaust system; please make sure that your hands are clean with no oil. Right after installation is done, in detail, clean your new exhaust system with a soft cloth (to prevent scratches) and you could use the following (chrome wax, glass cleaner, alcohol, or ammonia before starting the engine.

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

Re-jetting the carburetor or re-mapping is strongly recommended by FREEDOM PERFORMANCE

At freedom performance Inc. attempts have been made to provide enhanced concerning Clearances. However, due to some designs and space boundaries, 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
PAINED PRODUCTS AGAINST DISCOLORATION.**

Some accessories are available for your new FREEDOM PERFORMANCE exhaust system,
visit www.freedomperformexhaust.com for more information or call 951-898-4733