



## EXHAUST SYSTEM # HD00238 DRESSER DUALS

**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 follow the installation instructions and please do not hesitate to call us for any technical questions at (310) 324-0415

### PARTS LIST



PART NUMBER	DESCRIPTION	QTY	PART NUMBER	DESCRIPTION	QTY
FL210-F1	FRONT HEAD PIPE*	1	HWB0008	3/8"-16 X 3/4" CARRIAGE BOLT ZINC PLATED	3
FL210-F2	FRONT HEAT SHIELD*	1	HWB0056	5/16"-18 X 2.000" SOCKET CAP HEAD SCREW ZINC PLATED	2
FL211-F1	REAR HEAD PIPE*	1	HWB0061	3/8"-16 X 3-1/2" SOCKET CAP HEAD SCREW ZINC PLATED	1
FL211-F2	REAR HEAT SHIELD*	1	HWB0062	3/8"-16 X 2-1/4" SOCKET CAP HEAD SCREW ZINC PLATED	1
FL212-F1	CROSSOVER HEAD PIPE*	1	HWN0004	3/8"-16 TRI-LOCK FLANGE LOCK NUT	3
FL212-F2	CROSSOVER HEAT SHIELD*	1	HWW0006	5/16" SPLIT WASHER ZINC PLATED	2
MBK-FL112-F4	TRANSMISSION MOUNTING BRACKET	1	HWW0007	3/8" FLAT WASHER SMALL DUAMETER ZINC PLATED	2
MBK-FL113-F4	OIL CASE MOUNTING BRACKET	1	A124SP	0.625" X 0.153" X 0.500" ALUMINUM SPACER	2
HWC0002	HOSE CLAMP # 24 STAINLESS STEEL	9	A114SP	0.750" X 0.156" X 1.000" ALUMINUM SPACER	2
HWC0006	T-BOLT CLAMP # 60 STAINLESS STEEL	1	HD00238-HW	HARDWARE BOX	1
A115-02-F15	M18 X 1.50 OXIGEN SENSOR BUNG PLUG	2	HD00238-INS	INSTRUCTION MANUAL	1
A110-02-F15	M12 X 1.25 OXIGEN SENSOR BUNG PLUG	2	HWM0002	PLSTIC TIE DOWN 7" LONG BLACK	1

### REMOVING THE STOCK EXHAUST SYSTEM

1. Place motorcycle on side stand. Remove both left and right saddlebags.
2. Remove the two 5/16" bolts securing each muffler from the saddlebag support using a 1/2" socket and save the bolts for reuse. Using a 9/16" deep socket, locate and loosen the two muffle clamps in front of each muffler. Set the mufflers aside. NOTE: it may be necessary to use penetrating lubricant oil on slip joints between muffler and head pipe to help the removal. Locate oxygen sensor wires, unplug from harness and remove the cable tie holding the front sensor to the frame. Make sure to remember the route of each sensor wire so that they stay the same way when re-installing your new system.
3. Remove right hand floor board using a 5/16" hex key wrench.
4. Remove the right side passenger floor board; this is to allow more space needed when installing your new system.
5. Remove the section of the left side header that goes underneath the motorcycle as well as the bracket that holds it; use a 5/8" deep socket to loosen the clamp that holds the left pipe. (save for re-use on your new system and pay attention to its position as will be installed the same way) Using a 3/16" hex key wrench, remove the 2 bolts 1/4" allen that hold the bracket behind the oil pan and pull the left portion of the header out. Save bolts for re-use.
6. Loosen the carriage bolt nut from under the right side of the header stock system underneath the transmission (this is the bolt that holds the stock system to the transmission bracket)
7. Loosen both front and rear heat shield clamps.
8. Remove flange nuts that secure each head pipe to cylinder head using a 1/2" socket. Carefully remove the head pipes. Some assistance may be necessary as improper handling may scratch parts on your motorcycle.
9. Remove flanges and retaining rings from the stock exhaust system using snap ring pliers. If retaining rings are bent or damaged, replace them. Remove the Oxygen sensor from stock system. Save sensors for re-use with your new exhaust system. Be very careful when removing retaining rings from headers, wear some type of safety glasses as the retaining rings may spring back and cause injuries.
10. Using a 1/4" hex key wrench remove the bracket located on the transmission housing as this will be replaced with a supplied mounting bracket. Save bolts as they will be re-used.
11. It is recommended to use some type of painter's tape before installation on areas prompt to scratches during installation.

## FREEDOM PERFORMANCE EXHAUST SYSTEM INSTALLATION

1. Take out all products from packaging. Note: when placing chrome parts on a surface make sure the surface is non-abrasive to avoid scratching.
2. Remove headers and heat shields from box and carefully insert worm clamps. Do not tighten at this time. (it may be easier to mark the edge of the heat shield with a felt tip pen before mounting heats shields over the pipes to easy find the exact location of the clips when inserting the worm clamps)
3. Install oxygen sensors. Apply a small amount of anti-seize compound to the threads of the sensor and install them into the new set of pipes. This system is equipped with two different bung sizes for different Oxygen sensors use plugs provided in the kit to plug the bungs not been used. To tighten sensors, use a 14mm wrench for the smaller sensors and a 7/8" or 22mm for the larger sensors. Be sure **not** to apply anti-seize compound on the sensor tip as may affect the sensors functionality.
4. Install retaining rings and flanges from stock. Using snap-ring pliers carefully insert flange and retaining rings onto your new set of pipes. Be very careful when inserting retaining rings onto headers, wear some type of safety glasses as the retaining rings may spring back and cause injuries.
5. Install transmission mounting bracket marked as **(MBK-FL112-F4)**. Reuse stock bolts. **(See figure 2.1) NOTE: for Road King models use the spacers provided in the kit, insert the two bolts 5/16"-18 x 2" and 5/16" flat washers into the bracket holes and the two 1/2" spacers as they will be sandwiched between the transmission and the mounting bracket. (See figure 2.2) Consult your owner's manual for proper torque.**
6. Install mounting bracket marked as **(MBK-FL113-F4)** using a 3/16" hex key wrench and stock 1/4" screws install bracket behind oil pan (same location were stock bracket was located underneath the motorcycle)
7. Install head pipes. Make sure exhaust gaskets are in good conditions before installation can proceed, if gaskets are damaged replace them. Using a 1/2" socket or nut driver and stock flange nuts install both headers onto motorcycle do not tighten at this time. (It may be a good idea to place a cotton cloth between both head pipes to avoid scratching one another) some assistance may be required.
8. Install headers to transmission bracket. Using supplied 3/8"-16 carriage bolts and flange nuts install both headers to transmission mounting bracket. Do not tighten at this time.
9. Install left section of header system. Using stock clamp (the bigger clamp previously removed from stock) insert clamp onto expanded end with the nut facing down and on the same direction as it was in the stock system. Using the remaining 3/8"-16 carriage bolt and flange nut attach the pipe to oil pan bracket do not tighten at this time.
10. Install clamp over the nose of each muffler (the front end) and slip each muffler into position and mount mufflers to their respective side using 5/16" bolts under the saddle bags and tighten. Make sure alignment is properly set and adjust if necessary.
11. Tighten oil pan bracket. Using the 3/16" hex key wrench now tighten bracket to oil case using stock hex key bolts previously removed from stock system. See owner's manual for proper torque.
12. Tighten mufflers. Once mufflers are aligned tighten clamps on both mufflers.
13. Tighten cross header (underneath the motorcycle) and headers to transmission bracket. **This is very important make sure that cross header pipe is at least 5/8" away from the belt before tightening.** Make corrections as needed before proceeding.
14. Once step 13 has been cleared proceed to tighten all carriage bolts using a 9/16" wrench and flange nuts to the engine port.
15. Plug Oxygen sensors back to wire harness Make sure the cables are not touching the headers or serious damages may occur to them.
16. Re-install right hand floorboard back in place. Using spacers, screws and washers included in the kit, use longer screw for the front with stock lock nut and smaller screw for the rear to clear heat shield from floorboard. Use a 7/16" hex key to tighten.
17. Line up heat shields they should run parallel to each other. Tighten all worm clamps and hardware. Adjust left side heat shield as needed making sure is **not** rubbing against muffler and that it has an even gap all around the nose of the muffler.
18. Re-install saddle bags back in place



Figure 2.1 without spacers

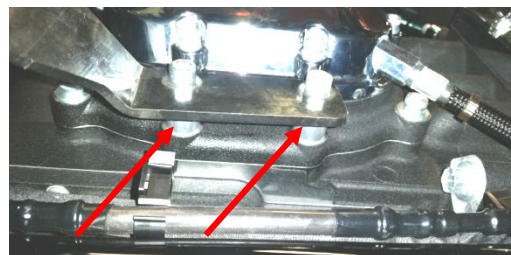


Figure 2.2 with spacers and new screws for Road King models

**Note: Be sure to tighten all hardware before starting your engine. Retighten after the first 100 miles. Clean your new exhaust system before starting the motorcycle.**

### Re-mapping is 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.

For accessories for your new exhaust system please visit [www.freedomperform.com](http://www.freedomperform.com)

And choose from a variety of slip-ons to complement the new look of your bike.

### WARNING!

**FREEDOM PERFORMANCE DOES NOT WARRANTY ANY CHROME OR PAINTED PRODUCTS AGAINST DISCOLORATION.**