



HARDWARE



BRACKETS

PACKER #: _____

**EXHAUST SYSTEM # HD00534
TURN-OUT COLLECTOR (2-1)**

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

PACKAGING HD00534-HW (*) =ASSEMBLED

PART NUMBER	DESCRIPTION	QTY	PART NUMBER	DESCRIPTION	QTY
D300-F1	HADER ASSEMBLY	1	HWC0005	HOSE CLAMP # 56 STAINLESS STEEL	1
D300-F2	FRONT HEAT SHIELD	1	MBK-M115-F14	BACK PLATE BRACKET	1
D301-F2	REAR HEAT SHIELD	1	HWB0007	5/16"-18 X 5/8" SERRATED FLANGE SCREW ZINC PLATED	2
HS135-F2	COLLECTOR SHIELD	1	HWB0005	5/16"-18 X 1-1/2" HEAD CAP SCREW ZINC PLATED	2
MBK-D160-F4	TRANSMISSION MOUNTING BRACKET	1	HWB0001	1/4"-20 X 3/8" BUTTON HEAD CAP SCREW ZINC PLATED	9
A340ECA-F9	SYSTEM END CAP	1	HWW0005	5/16" FLAT WASHER ZINC PLATED	2
SA114-F2	TURN OUT END CAP	1	HWW0003	1/4" SPLIT WASHER ZINC PLATED	9
HWC0002	HOSE CLAMP # 24 STAINLESS STEEL	5	HD00534-HW	HARDWARE BOX	1
HWC0004	HOSE CLAMP # 40 STAINLESS STEEL	1	HD00534-INS	INSTRUCTION MANUAL	1

1. Loosen all heat shield worm clamps on both the front and rear head pipes.
2. There are two bolts holding the rectifier in the front of the frame, remove them to gain access to the front oxygen sensor connection
3. Remove cylinder exhaust port flange nuts from each head pipe, positioned at the cylinder head and save for re-installation.
4. If equipped, remove front carriage bolt and clamp holding the front head pipe
5. Remove bolt that holds mufflers to the transmission mounting bracket.
6. Remove complete exhaust system. Note: some assistance may be required.
7. Now remove the stock mounting bar (bracket) and set aside.
8. If equipped remove the front bracket that was holding the clamp on the front head pipe.
9. Remove the two lower and left bolts from the transmission cover to allow the installation of the new mounting bracket.
(See fig 2.2)
10. Remove both retaining rings and flanges from stock exhaust system using snap-ring pliers. Inspect retaining rings prior to installation and if they are damaged, replace them. Inspect gaskets if damaged or worn replace them.
11. Models (07-12) use a 7/8" or 22mm wrench, carefully remove the O² sensors from the stock head pipes and save for re-use with the new Freedom Performance exhaust system, on models (13-up) use a 14mm wrench. It may be necessary to use penetrating oil to ease the removal.



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.

REMOVING THE STOCK EXHAUST SYSTEM

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 bracket **MBK-D160-F4** (*See figure 2.2 & 2.3*) using a 1/4" hex key wrench install mounting bracket to motorcycle frame using supplied 5/16"-18 x 1-1/2" head cap screws and flat washers (x2)
3. Install exhaust port flanges and retaining rings (from stock system) onto head pipes. (*See figure 2.4*) (FREEDOM PERFORMANCE recommends replacement of exhaust port gaskets if damaged or worn out.
4. Install header assembly, **D300-F1** bring stock flange nuts all the way finger tight only do not tighten at this time yet. (*See figure 2.5*) Secure muffler section to mounting bracket using a back-plate bracket provided. Insert this back-plate into the welded bracket on the muffler as shown. (*See figure 2.6*) Secure from mounting bracket using two 5/16"-18 x 5/8" serrated flange screw. (*See figure 2.7*)
5. Align header and tighten to mounting bracket using a 1/2" open wrench (2 screws) now tighten exhaust port flange nuts using a 1/2" socket. **Do not**
6. 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**) (*See figure 2.8*) 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 picture. (*See figure 2.9*)
7. Place front shield (**D300-F2**) over the front pipe. (*See figure 2.10*) and carefully align it. Now insert the hose clamps # 24 in the direction of the arrow. (*See figure 2.11*)
8. Repeat step with the rear heat shield (**D301-F2**) Note: we recommend for you to cover front 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 shield. (*See figure 2.12*)
9. Align heat shields and tighten clamps using a 5/16 nut driver. NOTE: front and rear heat shields must be flush as shown. (*See figure 2.13*)
10. Install muffler shield, use two hose clamps #40 for the front and 56 for the rear. NOTE: the tip (center) of muffler shield is centered between the two screws as shown in the picture. (*See figure 2.14 & 2.15*)
11. Install end caps, use 1/4"-20 x1/2" button head screws and split washer as well as locking glue of your choice to tighten end caps use a 5/32" hex key wrench. Note that end caps have multiple threaded holes you can position end caps in any direction you want.
12. Re-check all hardware and make sure it's all tightened.
17. Check for adequate clearance between all exhaust system components and motorcycle accessories prone to heat damage.
18. 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.

**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**

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.



Figure 2.1 System hardware.



Fig. 2.2 Remove 2 screws as shown.



Fig. 2.3 Install mounting bracket.



Fig. 2.4 Install flanges and retaining rings.



Fig.2.5 Install header assembly, use stock flange nuts.



Fig.2.6 insert back-plate as shown.

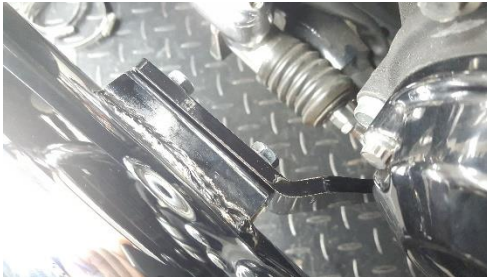


Fig.2.7 secure muffler to mounting bracket.



Fig. 2.8 clip welded inside heat shield.



Fig. 2.9 mark arrows as shown on every clip.



Fig. 2.10 install front heat shield.



Fig. 2.11 arrow indicates the direction of hose clamp insertion.



Fig. 2.12 Install rear heat shield.

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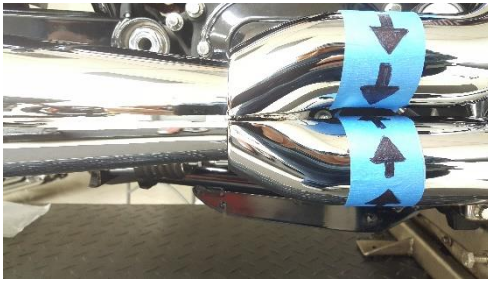


Fig. 2.13 both shields are flush to each other.



Fig. 2.14 Install muffler shield



Fig. 2.15 tip of heat shield must be located between the two screws as shown



Fig. 2.16 Note: you can rotate both the turn-out (elbow) any direction you want by removing the 3 screws holding it to the muffler



Fig. 2.17 Install system end cap. This end cap can also be rotated every 30°



Fig. 2.18 Turn-out system

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