



HARDWARE



BRACKETS

PACKER #: _____

**INDIAN CHALLENGER / PURSUIT
2-INTO-1 TURNOUT & SHORTY**

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.



PART# IN00269



REMOVING STOCK EXHAUST SYSTEM

1. Place motorcycle on a stand or a ramp, make sure it is secured to prevent injuries to yourself and damages to your motorcycle, always refer to owner's manual for proper torque specifications. If engine is hot, let it cool down, exhaust components get very HOT and may cause serious burns if touched.
2. Freedom Performance recommends using lubricant oil in all joints to ease the removal.
3. Remove both, left and right plastic side panels to access cable harnesses.
4. Disengage cable harness. (refer to owner's manual) **(See figure 1.2 and 1.3)**
5. Remove saddle bags, open lid and remove the two screws holding each bag to frame using an M6 hex key wrench, now place them aside. (be careful not to scratch your bags place them on a rug or stand. **(See figure 1.4 and 1.5)**)
6. Loosen both clamp holding mufflers in place using a 14mm socket or wrench. These clamps are located in front of the muffler nose. **(See figure 1.6)**
7. Remove the two flange screws on each muffler holding it to the fender bracket, use a 13mm deep socket and save screws to be re-used with your new system. Some assistance may be required. **(See figure 1.7)**
8. If equipped with antenna remove bracket with an 8mm wrench or socket (pay attention to the assembly as you will need to re-install it the same way, we recommend taking pictures on every step you make) **(See figure 1.8)**
9. Remove the two rubber caps on top of each muffler bracket.
10. Remove two hose clamps holding heat shields to muffler, one on each side using a 6.5mm screw driver or flat screw driver. These clamps are located right in front of each muffler. **(See figure 1.9)**
11. Remove both mufflers by pulling backwards. You may need some penetrating oil to ease removal. WD40 works fine. **(See figure 1.10 & 1.11)**
12. Remove the two screws holding the floorboard assembly. Using an 8mm hex key wrench and a ratchet, let the whole assembly hang but be careful not to bend or damage brake lines. You could use a soft rope to suspend the assembly in the air hanging it from the crash bars. **(See figure 1.12 & 1.13)**

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.

13. Remove left side shield using a flat screw driver, a 6.5mm nut driver or flat screw driver. (See figure 1.14)
14. Remove main heat shield (right side) using a 6.5mm nut driver or flat screw driver. (See figure 1.15)
15. Loosen join clamp using a 5mm hex key wrench, open, disengage bolt and pull clamp towards the front tire. Now pull collar and gasket as well. (See figure 1.16)
16. Remove silencer assembly. Remove two screws holding silencer to motorcycle frame using a 14mm socket or wrench start with the left side first. Now pull silencer assembly backwards just enough to disengage from header assembly and set down. Remove silencer and set side, some assistance may be required. (See figure 1.17, 1.18 & 1.19)
17. Remove front and rear heat shield using a 6.5mm nut driver or flat screw driver. (See figure 1.20)
18. Disengage O2 sensor harness from rear header. Refer to owners' manual for proper procedures disconnecting sensor harness.
19. Remove sensor from front pipe using a 14mm wrench, be careful not to twist the cables too much and cause damage.
20. Remove head port flange nuts holding headers to engine port. Using a 13 mm socket loosen and remove nuts, set them aside as they will be re-used with the new system (X4).
21. Remove header assembly carefully, it is recommended you place rags or a piece of cardboard next to the fins on the heat exchanger to prevent damages to it. Painter tape works well too. (See figure 1.21)
22. Remove Oxygen sensors from rear pipe using a 14mm wrench. Save sensors for re-use with your new system.
23. Remove screws holding mounting bracket from motorcycle frame using two wrenches 10mm and 13mm.
24. Remove this bracket by pulling inwards towards the motorcycle to disengage from panel.

FREEDOM PERFORMANCE EXHAUST SYSTEM INSTALLATION

1. Remove exhaust system from protective packaging, it has been pre-assembled for easy installation. Place parts in a non-abrasive surface such as a blanket or carpet. By doing this you can avoid scratching parts during the installation process. We recommend using painters' tape to cover parts and accessories on areas where damage can occur during installation. Always refer to owner's manual for proper torque specifications.
2. **NOTE:** Installing this exhaust requires drilling a hole on stock bracket, this bracket is the one holding right side panel however, it does have only one hole and the mounting bracket requires two. This stock bracket is needed to support right side plastic panel and will be installed beneath mounting bracket. Steps are as follow:
3. Remove mounting bracket **MBK-I154-F4** from bag. Place new bracket over stock bracket. Align stock bracket with new bracket in such a way the both holes are concentric to each other, make sure top of both brackets are parallel to each other. Clamp both bracket to prevent them from moving. Mark the center of the hole on the stock bracket with a marker or scribe. You can either use the new bracket as a guide to drill or you can unclamp it, is your choice. The hole diameter calls for a M8 screw any drill size close to it will work we recommend 9mm or 11/32" drill bit but you can do it bigger.
4. Saddle bags are sitting on top of mufflers, this system requires a set of brackets to support saddle bags since these mufflers will be removed.
5. Let us install right side brackets first. Insert stock drilled bracket to plastic side panel. Just the way it was prior to installation. Grab bracket **MBK-I150-4** and install it where the muffler was installed. hold bracket using provided screws and nuts M8 x 1.25 screw with lock nuts. Secure only the rear end of bracket. Now, grab system exhaust bracket marked as **MBK-I154-F4** and sandwich them together in this order stock bracket first, against frame. System bracket second, (in the middle). And last, saddle bag bracket (the big one) on top. Insert two provided M8x1.25x30 hex screws and tighten them using a 13mm socket or wrench. (See figure 2.2, 2.3, 2.4 & 2.5)
6. Install left side saddle bag bracket support. If equipped, remove plastic cover on left side where crash bars are installed using a 6mm hex key wrench. **NOTE: if crash bars are intended to be installed together with this system you will need to modify them in this case you may install crash bars over bracket and use spacers and longer screws to compensate for the offset.** Install left side bracket, secure bracket where the muffler was installed just like the right side, align front hole with welded spacer to frame and secure it using provided M8x1.25x40 head cap screw and flat washer. Tighten screw using a 6mm hex key wrench. Now tighten rear end of both brackets using a 13mm socket or wrench. (See figure 2.6 & 2.7)
7. If using stock Oxygen sensors, (M12X1.25) use adapters provided on hardware kit. If using aftermarket M18X1.5 do not use adapters.
8. Install rear Oxygen sensor. Apply a small amount of anti-seize compound to the threads of the O2 sensors and install it into the new header Assembly using a 14mm wrench. **NOTE:** Be careful not to get anti-seize on sensor tip, it may affect sensor functionality. (See figure 2.8)
9. Insert barrel band clamp as shown on picture over slotted end of collector with screw facing towards motorcycle and its head pointing down. (See figure 2.9)
10. Install front head pipe **I155-F1** Insert the front end of the pipe into the engine ports and secure it with stock flange nuts, bring nuts all the way finger tight only. Some assistance may be required. (See figure 2.10)
11. Install front Oxygen sensor using a 14mm wrench. Apply a small amount of anti-seize compound to the threads of the O2 sensors and install it into the new head pipes using a 14mm wrench. **NOTE:** Be careful not to get anti-seize on sensor tip, it may affect sensor functionality. Make sure not to damage cables when twisting. (See figure 2.11)
12. Install rear header/muffler assembly, insert header into engine port, align flanges to port studs and secure it with stock flange nuts bring nuts all the way and finger tight them only. Secure assembly to mounting bracket using two 5/16"-18 x 3/4" serrated flange screws and lock nuts. Align bracket welded on muffler to mounting bracket, both brackets must be flush to each other's front end. Tighten screws using a 1/2" socket or wrench. (See figure 2.12 & 2.13)
13. Align system and tighten head port flange nuts using a 13mm socket.
14. 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 to over the heat shield where the clips are located (these are the clips inside the heat shield) now, mark the center of the clip with a pen or marker, draw an arrow as shown in the pictures. The direction of the arrow indicates the direction of which the hose clamp will be inserted. (See figure 2.14)
15. Install front heat shield first, the front clamp must be inserted into welded clip before placing shield on top of pipe as there is not enough space to do it after placing shield over pipe, now place shield on top on header and secure it with hose clamps. Insert clamps in the direction on the arrow see pictures for details. Use a 5/16" nut driver or flat screw driver. Align and tighten. (See figure 2.15 2.16 & 2.17)
16. Repeat step with rear heat shield. Insert all clamps (follow arrow direction of insertion) Place heat shield over pipe then tighten all hose clamps after heat shields are aligned. Both heat shield's rear end must be flush to each other's prior to tightening. (See figure 2.18 & 2.19)

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.

17. Now install muffler heat shield use two hose clamps # 40 narrow end and #56 wide end. Insert clamps as shown, rear larger clamp will pass thru the welded bracket and must be tightened first. Leave a gap of about 1/16" between front and rear pipe shields and muffler shield **DO NOT** let them touch or scratching will occur. Tighten clamps using a 5/16" nut driver or flat screw driver. (See figure 2.20)
18. Tighten barrel clamp using a 10mm socket or wrench.
19. Install floorboard back in place if more clearance is needed on floorboard use some washer to space it out use an 8mm hex key wrench.
20. Install end cap using provided screws and a 5-32" hex key wrench. (See figure 2.21)
21. Check all connections make sure everything is tightened before turning engine on.
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.

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 CERAMIC BLACK PRODUCTS AGAINST DISCOLORATION.



Figure 1.1



Figure 1.2 disconnect cable harness



Figure 1.3 disconnect cable harness



Figure 1.4 remove bags



Figure 1.5 remove bags



Figure 1.6 loosen muffler clamps

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Figure 1.7 remove screws on mufflers



Figure 1.8 remove antenna



Figure 1.9 remove hose clamps



Figure 1.10 remove mufflers



Figure 1.11 remove mufflers



Figure 1.12 remove floorboard carefully



Figure 1.13 hold it from crash bars



Figure 1.14 remove left heat shield



Figure 1.15 remove main shield



Figure 1.16 remove clamp



Figure 1.17 remove screw



Figure 1.18 remove screw

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Figure 1.19 remove silencer

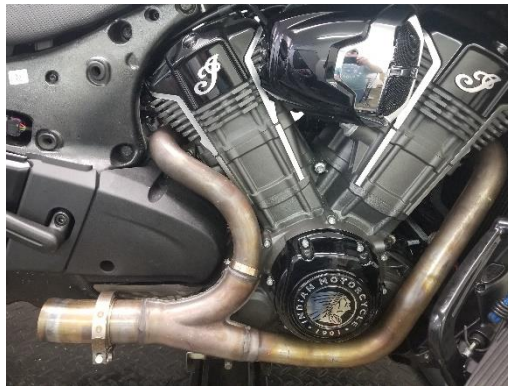


Figure 1.19 remove shields



Figure 1.19 remove entire system



Figure 2.1 hardware kit



Figure 2.2 place new bracket over stock



Figure 2.3 shown with hole drilled



Figure 2.4 install right side bracket rear end first



Figure 2.5 stock fist, system bracket second, saddle bag bracket last. Tighten brackets



Figure 2.6 remove plastic cover



Figure 2.7 install left side bracket



Figure 2.8 install rear sensor



Figure 2.9 insert hose clamp arrow shows screw head

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Figure 2.10 install front head pipe.



Figure 2.11 install sensor



Figure 2.12 install rear pipe/muffler assembly



Figure 2.13 secure with screws and back plate



Figure 2.14 mark center of clips and arrows as shown



Figure 2.15 insert the first 2 front clamps front heat shield



Figure 2.16 install left side muffler



Figure 2.17 tighten clamps

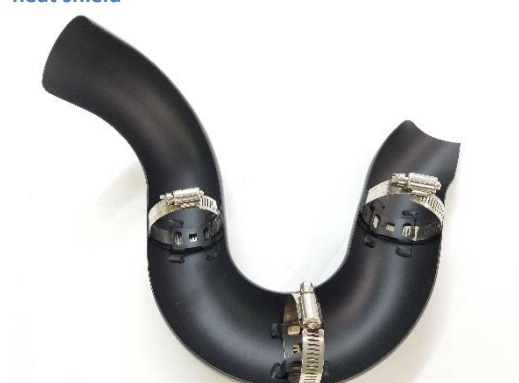


Figure 2.18 insert clamps as shown



Figure 2.19 install rear shield



Figure 2.20 install muffler shield



Figure 2.21 install end cap

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