

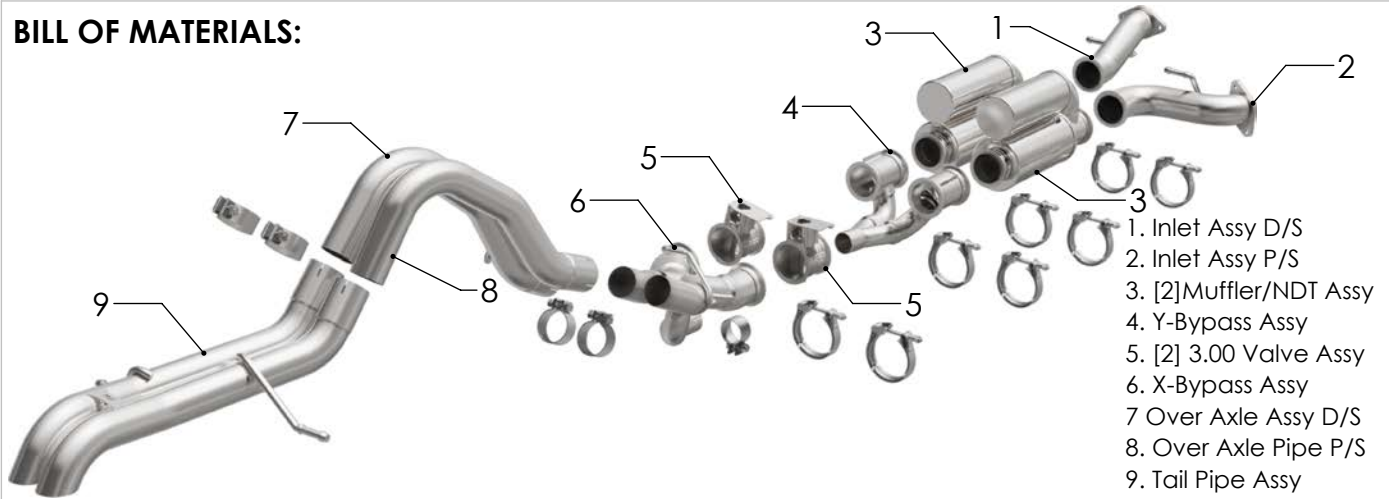


INSTALLATION INSTRUCTIONS



FORD BRONCO RAPTOR 3.0L | PART NO. 19619

BILL OF MATERIALS:



WEAR SAFETY GLASSES



READ INSTRUCTIONS THOROUGHLY BEFORE INSTALLING PRODUCT



SPRAY LUBRICANT

To ease removal of existing exhaust components (especially on older vehicles) spray penetrating lubricant on all fasteners and hangers/insulators that will be loosened or removed and let soak before disassembly.

HARDWARE KIT:

1. [1] 2.00 Torca clamp
2. [4] 2.50 Torca clamp
3. [8] 3.00 V-Band clamp
4. [2] Bolt M6-1.25x25mm
5. [2] Spacer M6
6. [2] Nut M6-1.25
7. [4] 3.00 Hose Clamp

MINIMUM REQUIRED TOOLS:



Saw (Or Other Cutting Tool)



13,15,16,18mm



Hanger Tool (Or Pry Bar)

MAGNAFLOW RECOMMENDS PROFESSIONAL INSTALLATION ON ALL THEIR PRODUCTS



WARNING: When working on, under, or around any vehicle exercise caution. Please allow the vehicle's exhaust system to cool before removal, as exhaust system temperatures may cause severe burns. If working without a lift always consult vehicle manual for correct lifting specifications. Always wear safety glasses and ensure a safe work area. Serious injury or death could occur if safety measures are not followed.

ATTENTION: Always install any supplied band or U-bolt clamps to the proper torque specifications of 40-45 ft-lb for band clamps and 30-35 ft-lb for U-bolt clamps. Over tightening will result in the clamps breaking and will NOT be warranted by MagnaFlow.

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INSTALLATION INSTRUCTIONS



Step 1: Begin removal of your OE system by first loosening the fasteners from the front 2 bolt flanges (2) and un-plugging the electrical connections to the valves. Disengage all welded hangers from the rubber insulators. Do not damage the fasteners, heatshields (on the over-axle pipes) and rubber insulators as they will be used to install your new system.



Step 2: Next loosen the clamps on both pipes that exit the X-Pipe. With the exhaust supported working front to back remove the OE exhaust system. You are now ready to install your new MAGNAFLOW exhaust system

Step 3: Once the OE exhaust is on the ground use the following process for installing the MagnaFlow valves. It is best to complete the process one side at time to avoid confusion, It may also help to take pictures of the valves on the OE exhausts to help when assembling the new MagnaFlow valves



Step 4: Begin by removing the valve motor assembly from the OE exhaust. At this point you will need to plug the motor assembly back into the wire loom on the vehicle to reset the motor location, this is done by opening/closing the driver side door. Remove the Motor assembly, it is now ready to be installed onto the MagnaFlow valve.

INSTALLATION INSTRUCTIONS



Step 5: The valves are supplied assembled, it is necessary to remove the top plate to perform the next step. Remove the Clocking Spring (heatsink) from the OE assembly and install it onto the MagnaFlow valve as shown.

INSTALLATION INSTRUCTIONS



Step 6: Once the Clocking Spring is installed reassemble the valve in the order it was disassembled. Take note that the machined spacers have two countersunk holes and they must correspond with the countersunk holes in the plate and the flat head machine screws.

INSTALLATION INSTRUCTIONS



Step 7: Locate the motor onto the valve by aligning the locking tabs and secure by rotating clockwise into place (the mounting hole will line up). At this point you can determine if the motor was reset correctly. With the motor installed and keyed into place the valve butterfly should be closed. If it is not completely closed, repeat the motor reset process. Complete the assembly by securing the motor with the supplied M6 bolt and spacer. After completing both valve motor swaps set the valves aside and resume installing the exhaust.

INSTALLATION INSTRUCTIONS



Step 8: Before beginning the exhaust installation the heatshields from the OE over axle pipes need to be removed and transferred to the MagnaFlow system. Cut the retaining straps securing the heatshield and move them over to the MagnaFlow Over Axle pipes (2) and secure using the supplied worm drive clamps.

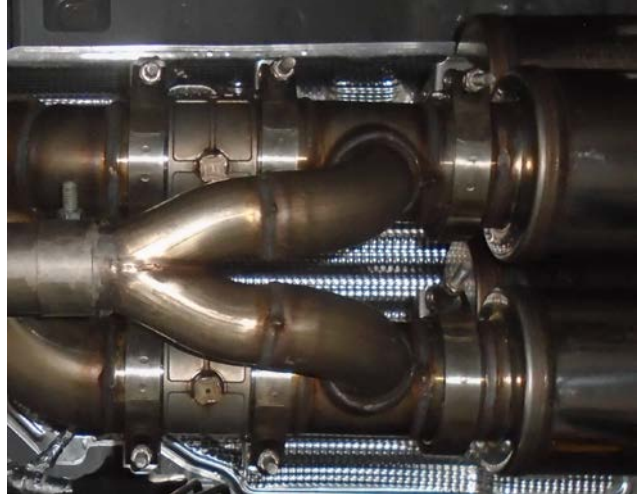
INSTALLATION INSTRUCTIONS



Step 9: Begin installation of the MagnaFlow system by attaching the inlet pipe assemblies using the OE fasteners and fitting the hangers into the rubber insulators.



Step 10: Loosely install the two Muffler/NDT Resonator Assemblies using the supplied clamps. Orientate as shown

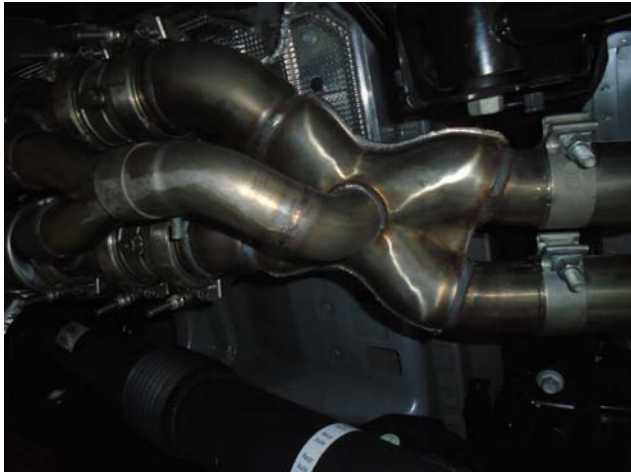


Step 11: Next install the Y-Bypass assembly using the supplied 3.00" V-Band clamps and fit the electrical plugs.



Step 12: Next install the valves using the supplied clamps and fit the electrical plugs.

INSTALLATION INSTRUCTIONS



Step 13: loosely Fit the X-Pipe Assembly using the supplied 3.00" clamps and fitting the bypass pipe to the Mid Pipe Bypass Pipes using the supplied 2.00" clamps.



Step 14: Attach the Driver and Passenger side over axle assemblies to the X-Pipe using the supplied 2.50" Torca clamps and fitting the hanger into rubber insulator.



Step 15: Attach the Tailpipe Assemblies to the Mid-Pipe Assemblies using the supplied clamps and fitting the hangers into rubber insulators.

INSTALLATION INSTRUCTIONS



Step 16: Once a final position has been chosen for the new exhaust system, evenly tighten all clamps and fasteners, from front to rear, using the torque specifications on page one of the instructions. Inspect all fasteners after 25-50 miles of operation and re-tighten if necessary.