

2004-2008 F-150 "**Shaker**" CDC #410000 Models with 5.4L motor

Component Check List:

CDC Inspected Installer Check

Quantity – **Descriptions**

1- Hood Trim Ring	Part #410101
1- Aluminum Shaker Scoop	Part #183020
1- Lower Air Box	Part #410100
1- Upper Air Box w/nameplate	Part #183018
1- Ball Stud Socket Plate/Deflector	Part #410110
1- Ball Stud Bracket – Pass. Side	Part #410115
1- Ball Stud Bracket – Driver. Side	Part #410116
2- Ball Stud Bracket Outer Plate	Part #410114
1- Air Box Bracket	Part #410111
1- Intake Bracket Driver Side	Part #410113
1- Intake Bracket Pass. Side	Part #410112
4- M6-1.0 Ball Studs	Part #183001
4- M6-1.0 Ball Stud Socket	Part #183000
4- M6-1.0 x 22mm Hex Head Screw	Part #410109
4- M6-1.0 X 14mm Hex Head Screw	Part #410107
8- M6-1.0 X 25mm Hex Head Screw	Part #410108
6- 6mm nut	Part #183034
2- 3/8" Drain Tubes (18" length)	Part #183027
1- 3/8" Drain Tubes Clip	Part #410106
1- Weather Seal, 60" long	Part #183014
1- Roll 1/4"x76" 3m Tape	Part #950015
2- Alcohol Pack	Part #950006
1- Adhesion Promoter	Part #950007
1- Hood Cutout Template	
Instructions	

CDC inspected by	Date
- -	

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F-150 "Shaker" System Instructions

5.4L Model

Note: Read installation instructions before starting and test fit component before painting. To ensure the quality of the vehicle and product, have your Shaker Hood Trim Ring painted by a qualified professional automotive painting facility. Trim Ring is Injection Molded, Urethane Plastic. We recommend the bake temperature not exceed 130° F.

Tool List For Trim Ring:

- Template
- Masking Tape
- Center Punch
- Fork Tool
- □ 1/8" Drill Bit for Pilot Hole
- 1" Hole Saw
- Saber Saw w/Metal Cutting Blade
- Drill Motor
- Eye Protection
- □ 80 120 grit sand paper

Tool List For Shaker & Shaker Brackets:

- 8mm Socket
- □ 10mm Socket
- 11mm Socket
- □ 13mm Socket
- □ 1/4" or 3/8" Drive Ratchet
- Side Cut Pliers
- Removable Loctite

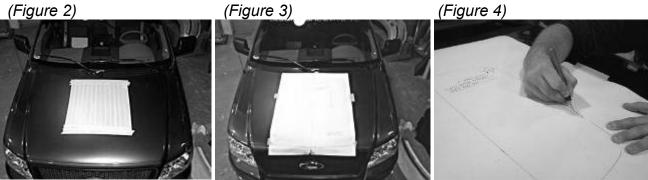
Installing Hood Trim Ring:

A)Raise Hood. Remove under hood blanket using fork tool. Save retainers for reassembly.

(Figure 1)

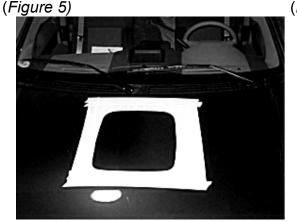


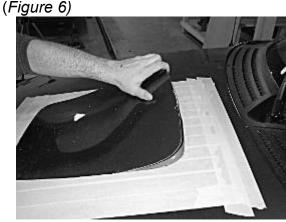
B) Close hood – Tape Shaker cut out area. (Figure 2) Mark Center Line on hood. Align template with Center Line and hood feature lines as noted on template. Tape template securely to hood. (Figure 3) Using a center punch, mark the center of the saw-starting hole. With a sharp razor blade, cut through template, under lying tape and paint to mark opening in hood. (Figure 4)



Note: Cutting through the paint with razor blade reduces the risk of the paint chipping during the cutting process.

C) Remove template from hood and peel tape from cutout area only. Drill the center-punched mark for saw start hole with a 1/8" drill bit, follow with a 1" Hole saw. Cut Shaker opening in the hood, following the razor cut in the tape and paint.

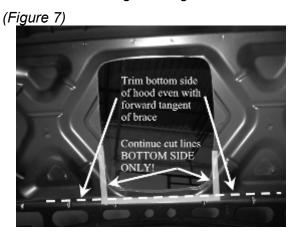




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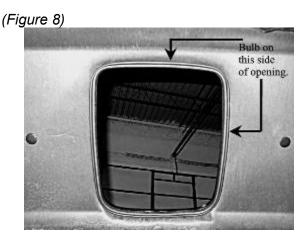
Note: The tape on the hood protects the paint from damage during the cutting process.

D) To allow room for hood blanket reinstallation, more clearance is needed on the bottom side of hood. Open hood and trim the bottom layer of hood sheet metal **ONLY**. Extending the side cuts to the forward tangent of the rear channel and along the tangent of the rear channel.



Note: Do not cut through the topside sheet metal during step "D".

- E) Apply 3m Acrylic Bonding tape (part #950011) to bottom side of Upper Trim Ring. Sand area with 80-120 grit sand paper, clean with supplied Alcohol pack and allow time to dry, apply supplied Adhesion Promoter and allow time to dry, apply 3m tape. Press on tape with fingertips to set tape.
- F) Clean the area around hood opening with rubbing alcohol to remove any dirt or wax. On the bottom side of the Trim Ring, peel the red backing from the bonding tape about three inches and place the Trim Ring on the hood. When you achieve the best fitment, pull the red backing from bonding tape, working your way around the Ring. Press the topside of Ring to the hood to assure the Ring is securely attached.
- G) Put hood blanket back in place and trace opening. Cut hood blanket to fit Hood Trim Ring opening. Reinstall hood blanket using factory fasteners. Install weather strip to Trim Ring Return Flange and trim to length.



<u>Note:</u> Weather strip sandwiches the Trim Ring, hood outer and blanket together. Install seal with bulb on the outside of opening.

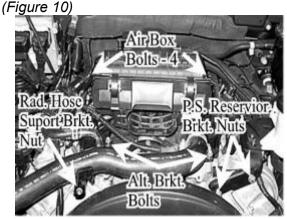
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Installing the Shaker Brackets:

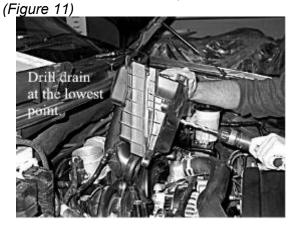
A) Raise hood. Remove the 10mm head bolt (1) securing the factory air intake tube/silencer to the motor. Lift the air intake tube /silencer, dislodge from the air box and inner fender panel and remove from the vehicle.



B) Remove the two 13mm head nuts securing the Power Steering Reservoir Bracket and Air Intake Tube/Silencer support bracket to the motor. Save the nuts for reinstallation and set aside the support bracket. Remove the one 13mm head nut securing the Upper Radiator Hose support bracket to the motor, save for reinstallation. Remove the two 10mm head bolts securing the upper alternator bracket to the motor (1 at each end of bracket, the outer most hole) save for reinstallation.



C) Remove the four - 10mm head bolts securing Air Box to the Throttle Body, save for reinstallation. Lift factory Air Box to access the bottom side. Drill a 3/8" hole, for drainage, at the lowest point of the Air Box. Reinstall Air Box and secure with the four factory bolts.



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D) Mount Shaker bracket #410111 onto the two Power Steering Reservoir bracket studs and the Upper Radiator Support bracket stud. Secure with the factory nuts.

Note: Leave all nuts and bolts loose until all Brackets are in place.

- E) Mount Shaker bracket #410113 to the driver side of the Alternator bracket with factory bolt removed in step "G", mount Shaker bracket #410112 to the passenger side of the Alternator bracket with factory bolt, removed in step "G", secure other end of brackets 410113 and 410112 to the 410111 bracket with Bolt #410107 and Nut #183034 respectively.
- F) Attach Shaker Lower Air Box #410100 to Bracket #410111 with 4-Bolts # 410109.

Note: Use a removable Thread Locker on all Shaker kit bolts and nuts.

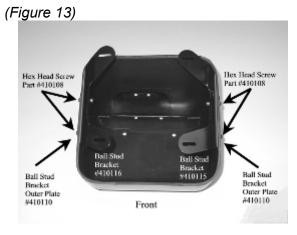
Assemble Shaker Air Box:

G) Place Aluminum Shaker Scoop #183020 upside down on a protected surface (to prevent damaging the scoop's finish). Place the Upper Air Box #183018 onto the Scoop. Place Ball Stud Socket Plate/Deflector #410110 inside of the Upper Air Box with the Deflector tab upward, as it sits on the bench. Using bolt #410107 in the two front holes and bolt #410108 in the side and rear holes, secure the three components together.

(Figure 12)



H) From the outside of the Lower Air Box #410100, place bolt #410108 through Outer Plate #410114 then through the slots in the Air Box. Attach Ball Stud Bracket #410115 and Ball Stud Bracket #410116 to the inside of Lower Air Box #410100 on their respective sides. Hand tighten at this time so that adjustments can be made. Attach one Ball Stud #183001 to each of the Ball Stud Brackets slots, 4 total, and secure with Nut #183034. Hand tighten at this time so that adjustments can be made.



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Installing Shaker Assembly:

- A) Snap assembled Lower Air Box into the factory air box inlet and set onto installed Shaker Bracket #410111. Secure Shaker Lower Air Box to Bracket with bolt #410109. Place Aluminum Scoop assembly onto Ball Stud Brackets and snap into place.
- B) Close hood gently and align shaker scoop in center of hood opening side-to-side, fore-and-aft and up-and -down.
- C) Once up-and-down and fore and aft adjustments are achieved, open hood and tighten the #410108 bolts securing the Ball Stud Brackets to the Lower Air Box.
- D) Close hood gently, verify Aluminum Scoop elevation and adjust Aluminum Scoop side-to-side in the opening if necessary.
- E) With Aluminum Scoop elevation set and side-to-side adjustment made, open hood and carefully remove the Aluminum Scoop/Upper Air Box assembly. Tighten the four Ball Studs.

Note: Torque ball studs to 40-inch lbs, over tightening will damage ball stud.

F) Attach drain tubes to Shaker Air Box assembly.



<u>Note:</u> When routing drain tubes, be sure to <u>avoid all hot and moving parts</u>. Secure drain tubes to hose fittings with tie straps.



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