



2004-05 Ford F-150 Replacement Billet Grille Honeycomb & Bar Style Center

PART# 42101(Brushed) - 42102(Polished) - 42103(Black) Upper
PART# 42121(Brushed) - 42122(Polished) - 42123(Black) Lower

After



Photo shown W/optional bumper grille

NOTE: Please read all instructions first before proceeding with this installation.

- 12 - 1/4-20 x 3/4" Blk SHCS
- 12 - 1/4-20 Loc Nuts
- 4 - #6 x 1/2" Flat Phillips head screw
- 2 - 1/4" Flat Washers
- 6 - 1/8 x 7/16 x 3/4 Plastic Washers
- 4 - Z Brackets
- 2 - Flat Tabs
- 1 - Passenger hood Bracket "Slotted Y"
- 1 - Driver hood Bracket "Slotted Y"
- 4 - Bumper Tabs

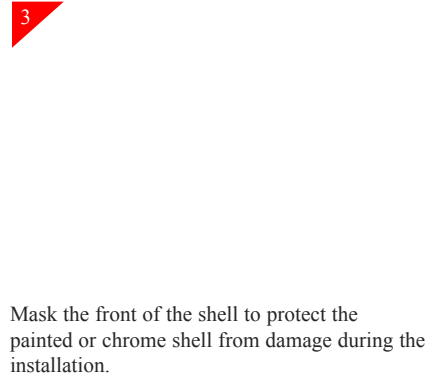
Hardware



Start by removing the four 10mm bolts (two per side) that attach the grille frame to the hood.



Remove the 6 (10mm) nuts holding the factory grille along the front edge of the hood shown above in red.



Mask the front of the shell to protect the painted or chrome shell from damage during the installation.



Remove the two rubber stops on the brackets and **SAVE** them. They will be reinstalled.



Remove the factory support brackets.



Now separate the outer shell from the honeycomb factory grille, but first you need to remove the fiber tape covering the clips.



Once the tape has been removed, You carefully pry out the tabs that attach the honeycomb grille to the outer shell. There are 14 tabs to be released.



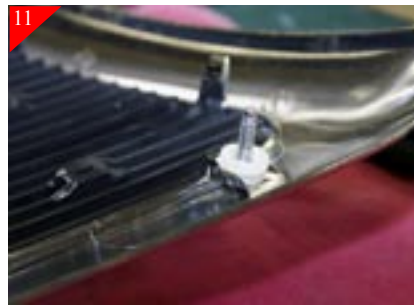
With the tabs released, the grille shell can now be removed from the honeycomb grille. Here is a picture of the frame without the honeycomb grille.



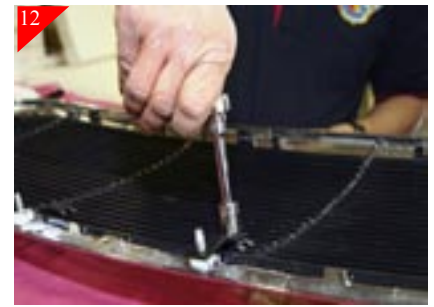
The Carriage Works grille installs from the back of the shell. Be careful when inserting the grille to avoid scratching the outer shell. Again, It is recommended to mask the front of the shell to prevent damage.



Carriage Works suggests applying some silicone on the plastic washer so it stays in place during installation



Now place the plastic washers on the studs located on the outer side of the grille. There are four total.



Install the "Z" brackets that hold the grille to the outer shell. Make sure to have the bend right so that the bracket will meet properly with the flange on the grille. Lightly torque the nuts to hold the grille in place for drilling the shell for the screws.



Now you need to make sure to center the grille in the opening with the front of the billet grille 1/8-inch from the front of the factory outer shell.



Mask the bottom of the outer shell so we can mark a spot to drill 4 holes. Drill a 1/8" hole for the bottom screws, which aid in securing and aligning the grille.



Once the holes are drilled, carefully screw in the (4) #6 x 1/2" screws. Screw by hand with a screwdriver so they will not strip the thread. If done correctly the heads will sit nice and flush. You may need to file any burrs off after tightening.



Place the flat "slotted" brackets between the supplied "slotted Y" hood brackets and hood and re-install the (4) factory hood bolts. **Finger tighten only.** The brackets have slotted holes for alignment adjustments later.

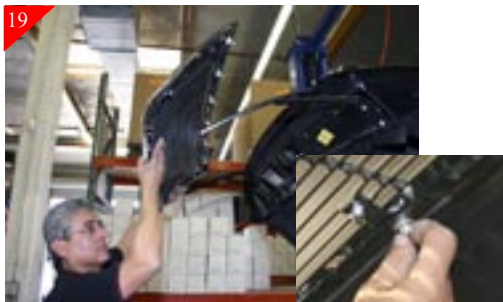


Next, attach the supplied "slotted Y" hood brackets with flat side of the bracket on the inside of the hood using the 1/4-20 x 3/4 socket screw, flat washer, and safety nut. **Again Finger Tighten Only.**

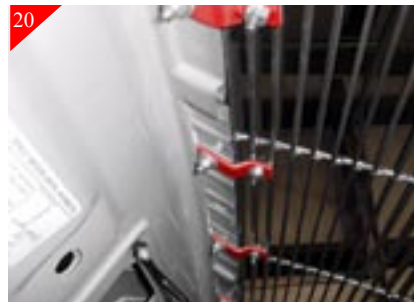
Note: Passenger side bracket shown above with Red.



The previously installed "Z" brackets must be removed, on the hood side, before placing the grille on the hood.



There are 6 studs on the shell. These 6 studs go through the hood. The "Z" brackets install on the 4 studs in the center of the shell. Now place the grille on the hood. Finger tighten nuts on the two outer studs to hold the grille in place. Now you are ready to install the 4 "Z" brackets to the Studs and finalize attachment of the grille to the hood. **Do not allow the hood to shut as possible damage could occur to painted bumper.**



Using a slight upward pressure on the bottom of the grille attach the four supplied "Z" brackets to the billet grille as shown using the factory nuts and the supplied 1/4-20 bolts and nuts as shown. These brackets will be tight as they are used to hold the grille and shell in the correct final position. Tighten all "Z" bracket nuts and bolts. Make sure that the grille shell forms to the face of the hood.



Next, using the remaining 1/4"-20 nuts and bolts, attach the grille to the vertical bars of the hood brackets. Then tighten all remaining "Slotted Y" brackets, bolts, nuts, and hood bolts.



The rubber bumpers previously removed from the grille brackets must now be re-installed. Failure to reinstall may cause damage to the Vehicle.



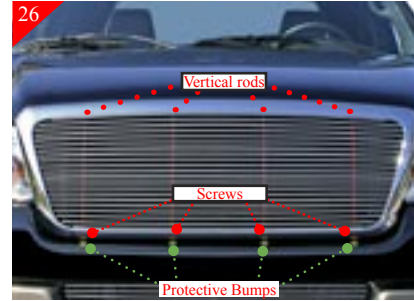
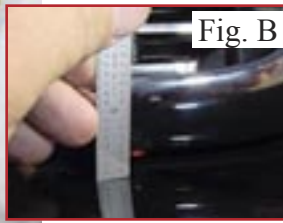
Carefully lower the hood and check the alignment of the grille with the headlights. Do not allow full weight of the hood or use force to close the hood as damage may occur to the bumper cover.



Adjust the bottom of the grille for proper alignment using the headlight lens as a guide for spacing by loosening the (2) - (10mm) bolts on the hood and the (6) Bolts holding the grille to the "Slotted Y" hood brackets. Once adjusted properly tighten all bolts and nuts.



(Fig. A) Then adjust the rubber bump stops at the bottom of the grille so that the grille barely touches when hood is closed. (Fig. B) There should be 1/4" between top of bumper cover and bottom of screw head.



Next place the clear self adhesive protective bump stops as shown above. Place them on the bumper mask directly below the screws on the vertical rods. Again check for alignment. Installation is complete.

Photo shown W/optional bumper grille



Completed Installation

For installation of billet grilles that require cutting of the stock shell, proper tools, knowledge and skill are needed. Carriage Works is not responsible for care & accuracy of the installation, only for Fit & Finish of its products. Use a qualified installer or contact original vendor for references to complete all instructions.

NOTE: Please adjust horizontal blades if irregular. This is the result of shipping and handling outside of Carriage Works control. Also Carriage Works recommends regularly applying a high quality automotive wax to maintain the original appearance.