RETROFIT OFFROAD

INSTALLING THE RETROFIT OFFROAD HALF DOOR HARD SHELL KIT

NOTE! THESE ARE PRELIMINARY INSTRUCTIONS INTENDED TO FACILITATE DISCUSSION ABOUT THE FEASIBILITY OF THIS KIT. THESE INSTRUCTIONS ARE A DRAFT FOR DISCUSSION PURPOSES

KIT CONTENTS

* Two slider windows (or four for the 4-door kit)
* Two (or four) fiberglass hard shells
* Weatherstrip to seal the windows to the hard shells
* Screws to attach the clamp ring to the slider window frame
* Adhesive to attach the hard shell to the factory half door upper frame

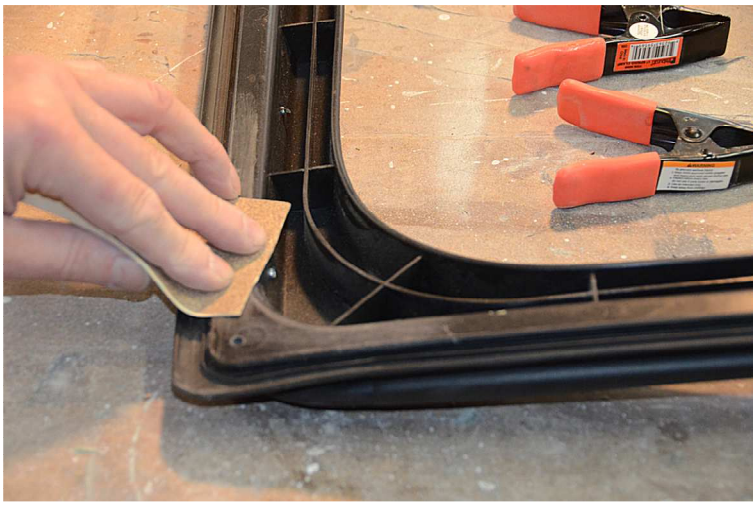
ADDITIONAL TOOLS REQUIRED

* Clamps to secure hard shell while the adhesive cures
* A piece of 80-100 grit sandpaper
* Lacquer thinner or equivalent solvent to clean parts before bonding
* A caulk gun
* A small ruler to check that the shell is centered before clamping
* Nut driver for screwing window clamp ring to window
* Masking tape (optional)

Step 1: Lay out the materials on a suitable work surface. Shown here:
- a factory half door upper frame with the canvas removed
- the new fiberglass shell
- clamps
- sandpaper
- solvent and a paper towel to clean the parts before bonding

(the final instructions will explain how to remove the canvas from the factory uppers)

Step 2: Rough up the back surface of the factory half door upper frame with 80-100 grit sandpaper. This is to provide extra “tooth” for the adhesive to grip.



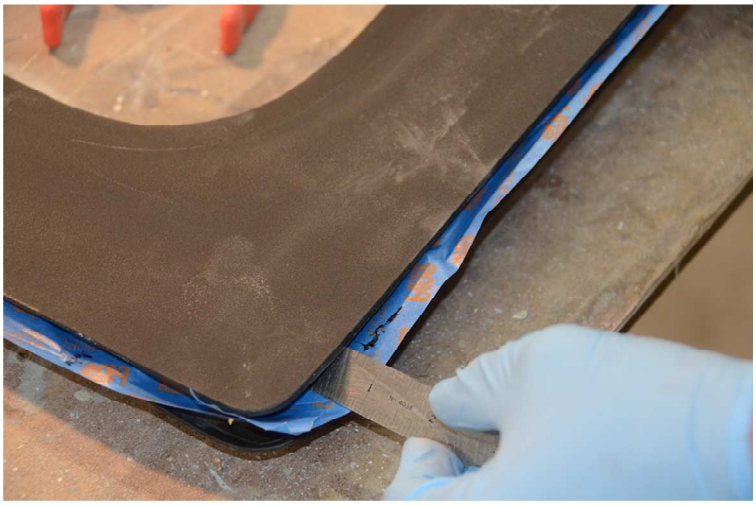
Step 3: Clean the surface you just sanded with lacquer thinner or equivalent solvent to remove any contaminants or traces of oil from your skin. Wipe the inside of the fiberglass hard shell as well.

Step 4: (optional) Protect the weatherstrip with masking tape in case any adhesive oozes out of the joint when the fiberglass shell is applied.

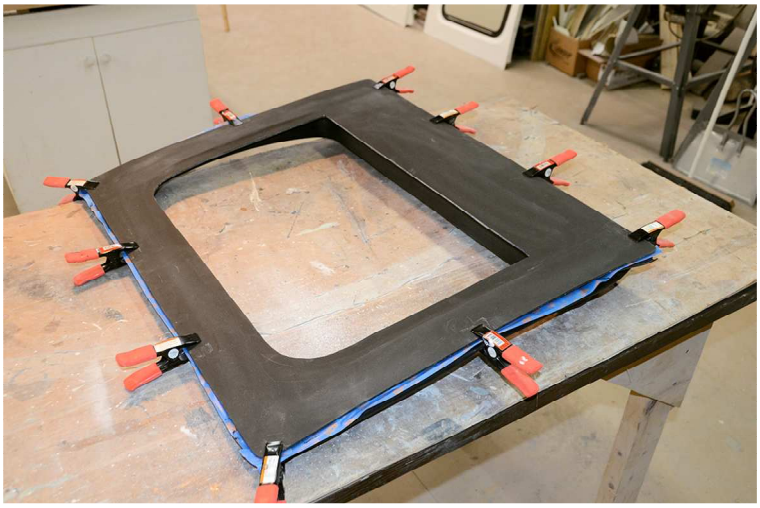
Step 5: Apply a bead of adhesive around the entire edge of the factory frame. It's a good idea to apply an extra bead in the corners as shown here.

Step 6: Carefully set the fiberglass shell on top of the factory upper frame, trying to center it as best as you can. Push the shell into the adhesive, and slide the shell around slightly (1/4" movement left and right, up and down) to spread the adhesive in the joint.

Step 7: Using a small ruler, measure the distance from the edge of the factory frame to the edge of the fiberglass shell to check that the shell is centered. The dimension should be the same on each side and on the top. Measure at the the top and bottom of each side, and on both sides of the top edge to ensure all dimensions are the same (should be about 3/8") and the fiberglass shell is on straight.



Step 8: Once you are certain the shell is centered and straight, clamp it in place. The clamps in this photo are Harbor Freight #39569 clamps, which are often on sale for less than a dollar each. Ten clamps have been used to provide good contact between the shell and the frame.



STEP 7: THE ADHESIVE CURES TO FUNCTIONAL STRENGTH IN 24 HOURS AND TO FULL STRENGTH IN 7 DAYS, SO THE CLAMPS SHOULD REMAIN IN PLACE FOR 24 HOURS. AFTER 24 HOURS THE CLAMPS CAN BE REMOVED AND THE REMAINING STEPS CAN BE PERFORMED.

Step 8: Stick weatherstrip along the inner face of the window frame. Weatherstrip should be positioned just inside the edge of the frame and should not stick out from the frame.

Tip: Peel the backing off as you go so the weatherstrip doesn't stick to things you don't want it to stick to.

Note: these photos show a front window while the rest of these preliminary instructions show a read window. The steps are the same.

Weatherstrip should look like this when installation is complete.

Step 9: Lay the window face down on the work surface and place the upper door over the window, centering the window in the opening. Place the clamp ring over the window and screw the clamp ring to the window using the supplied screws. The screws will go through the holes in the clamp ring and will self-drill into the v-groove on the outside of the window frame. A nut driver (shown) is the best tool for this because there's no risk of a screwdriver slipping out of the slot and damaging the window.

INSTALLATION COMPLETE!

THE ADHESIVE WILL CONTINUE TO CURE FOR THE NEXT 6 DAYS, SO CARE SHOULD BE TAKEN NOT TO SUBJECT THE COMPLETED UPPERS TO EXTREME STRESSES FOR AT LEAST 6 DAYS.