

1999 Ford Windstar Mini Van

Vital Info

Editor's Note: This windshield installation is a remove and re-install. If replacement is called for, interior moldings may not require removal.

Windshield

Removal

Put on safety glasses and gloves.

Using a 15 mm socket, remove the retaining nut for the passenger side windshield wiper, then lift the wiper off its mounting post.

Lift the hood to gain access to the wiper on the driver's side, then remove the 15 mm retaining nut, and lift the wiper off its mounting post.

Using a Phillips screwdriver, remove the four retainers for the cowl. Disconnect the windshield washer hose, and push it through the cowl.

Grab the cowl at the top, and pull up gently to release the clips that hold it in place. The clips will snap back in place with the retainers.

Close the hood and place a protective cover over it to protect the finish during the cutout procedure.

Using a Phillips screwdriver, remove the two retaining screws for the driver's side sun visor.

Lower the visor and disconnect the electrical connector for the vanity mirror. Remove the sun visor's center locking clip with a Phillips screwdriver.

Remove the passenger side sun visor in the same manner as above.

Lower the front compartment on the roof center console, then remove the Phillips screw from underneath.

Grab the console and pull on it gen-

tly to release it from the roof. Disconnect the three electrical connectors for the roof console, and put the console in a safe place.

Using a panel removal tool, pull off both "A" pillar trim panels. Use a panel removal tool to lift up the front of the dashboard. Disconnect the electrical connector from underneath the dash, and remove the dash panel to allow for clearance while cutting out the windshield.

Pull off the compass that is attached to the rear view mirror. With a Phillips screwdriver, release the electrical connector for the compass.

Pull off the break-away rear view mirror, and disconnect the electrical connector from the back.

Pull down on the front of the headliner, and place some spacers between the headliner and the roof. This will keep the headliner out of the way while you are cutting out the windshield.

Place a protective cover over the back portion of the dash—tape it down to hold it in place if necessary.

Spray some water on the pinchweld to lubricate it before cutting.

With a glass cutout knife and an 8-inch blade, start cutting in the center at the top of the windshield and cut toward the passenger side. Cut around the corner and down the "A" pillar to the bottom corner.

Use tape to mark the setting blocks before you cut along the bottom of the glass.

Spray water on the pinchweld.

Go back to the center at the top and cut across to the driver's side corner. Cut around the corner and down the "A" pillar to the bottom.

Using an inflatable bag, lift the top of the windshield to allow more clearance along the bottom. Spray the bottom with some water.

Using the knife, cut the urethane along the bottom of the windshield. Lift the windshield out of the pinchweld, and place it on a secure stand.

Installation

Put on a pair of nitrile gloves to protect your hands from the different chemicals that will be used.

Clean the glass with Essex GC-800 glass cleaner, concentrating on the outer edges of the glass where it will come in contact with the urethane adhesive.

Take a bottle of Essex U-401 glass prep and shake it before using—also be sure to check the expiration date on all products before using them. Apply a layer of U-401 glass prep around the perimeter of the glass where it will come in contact with the urethane. Then wipe the glass prep off immediately with a clean, lint-free cloth. Repeat this procedure for best results.

Apply a layer of Essex U-402 glass primer along the same area where you applied the glass prep.

Clean the pinchweld with a clean rag and water only. Then use a razor knife and cut away the old urethane from the pinchweld, leaving a small layer approximately 1 to 2 mm thick.

Prime any scratches on the pinchweld with Essex U-413 pinchweld primer.

Use Essex U-216 Betaseal urethane adhesive. Always refer to the manufacturer's written procedures for the best drying times and application procedures. Shoot out a small amount of urethane onto a piece of paper to make sure it is mixing properly.

Apply a bead of urethane around the entire pinchweld. The V-shaped appli-

cation nozzle allows you to lay a bead with a high profile. The high profile creates the best condition for maximum contact between the glass and the urethane. Use a plastic stick to smooth out any seams in the urethane bead.

Use the locator tape placed on the glass to align it in the pinchweld. Place the glass into the pinchweld, and press on it firmly to ensure a good seal.

Remove the protective cover from the dash and replace the front portion. Replace the "A" pillar trim panels.

Replace the roof center console, sun visors, rear view mirror cowl, and windshield wipers in the reverse order of their removal.

Remove the locator tape from the windshield, and clean the glass.

Front Door Glass

Removal

Remove the two Phillips screws from behind the door pull handle.

Use a panel removal tool to remove the door release handle trim cover.

Lift up the power window and door lock console, and disconnect the electrical connectors.

Remove the trim panel for the side mirror, then remove the Phillips screw from underneath.

Remove the Phillips screw in the bottom left corner of the door trim panel. Now lift the trim panel off of the door and disconnect the door light. Peel back the door weather barrier.

Reconnect the power window switch and lower the glass to align the mounting hardware with the access holes in the door. Pull off the interior belt molding.

Using an 11 mm socket, lower the rear glass run in the door channel. With a hammer and punch, knock out the center on the two rivets for the door glass. Then use a 1/4-inch drill bit and drill off the head of the rivet.

Lift the door glass out of the door channel to remove it. You will have to replace the mounting hardware onto the new glass.

Installation

Lower the door glass into the door channel and align the mounting hardware.

Replace the two 1/4-inch retaining rivets with a rivet gun.

Realign the back glass run, and replace the 13 mm retaining bolt.

Check the operation of the glass.

Replace the interior belt molding, door weather barrier, trim panel, and remaining parts in the reverse order of their removal.

Clean the glass.

Side Cargo Door Glass

Removal

Shut off the automatic cargo door open and close feature at the front of the roof center console.

Remove the back seat to allow plenty of room to work.

Using a small screwdriver, pop off the two small plastic trim caps on the front of the door pull handle. Use an 8 mm socket to remove the two retaining bolts for the door pull handle. Pull off the trim panel at the top of the glass, and then remove the door pull handle.

Remove the Phillips screw behind the door release handle, and remove the trim cover. Remove the Phillips screw at the bottom corner of the bottom trim panel. Pull the panel off the door.

Use a 9 mm socket to remove the 12 retaining nuts for the glass. Use a razor knife to release the butyl tape for the glass.

Now go outside of the vehicle and lift off the glass.

Installation

Apply a new M-seal butyl tape strip to the glass.

Align the mounting studs on the glass with the door and press it into place.

Replace the 12, 9 mm retaining nuts for the glass.

Replace the trim panels and the door pull handle.

Clean the glass.

Quarter Glass

Removal

Remove the 17 mm retaining nut for the seat belt.

Remove the trim panel from behind the seat belt retainer.

Disconnect the radio antenna wire.

Tape the glass to the body of the van for safety.

Remove the two 13 mm retaining bolts located at the front of the glass. Use an extension on your ratchet to reach the retaining bolt on the bottom.

Using a panel tool, release the glass from the release handle; it will pop loose if you pry gently, do not use too much force or you could break the release handle.

Now go outside the vehicle and remove the tape from the glass, and remove the glass.

Installation

Align the glass into position and tape it in place for safety.

Replace the two 13 mm retaining nuts at the front of the glass, and reattach the radio antenna wire.

Align the hardware on the glass with the window release handle, and squeeze it with a pair of pliers to snap it shut.

Replace the trim panel and the seat belt retainer. Clean the glass.

Installation courtesy of Carlite by Visteon. ■