

2003 Mitsubishi Lancer

Vehicle Type: Four-Door Sedan

NAGS® number: FW02275 GTN, FD021441/42 GTY, FD021443/44 GTY, FB021447 GTN*.

Installation time: Not specified by NAGS.

Technicians needed: One.

Helpful tools or supplies: Velcro mounted on the underside of the molding removal tool so that the tool will not scratch the roof.

Watch for: The clips that go across the roof, securing the moldings, are easily broken. Use extreme care, especially in cold weather.

*With permission from the National Auto Glass Specifications 2003 Edition Fall Catalog and 2003 Fall Benchmark Calculator. Contact NAGS at 800/551-4012 or visit www.nags.com.



There are five clips on the driver side and four on the passenger side.

- Cover the hood and fender area closest to the bottom of the windshield by using retention tape or a piece of rubber hose.

Windshield

- Make sure that you have the right parts and that the urethane system you are about to use is current. The windshield part number is FW02275 GTN and the molding part numbers are OEM MR20285 and Precision WFTF2275.
- If you use a cold knife or power tool while working on this car, remove the A pillar trim panels as the windshield fits very close to the pinchweld. Remove panels using an installation stick or a panel remover.
- Remove the mirror from the windshield now. A turn of the mirror's base in either a clockwise motion or a counter-clockwise motion will remove it from the spring-loaded bracket.
- Cover the front seats, the floorboards, the dash and the steering wheel with a clean drop cloth or disposable plastic covers.
- Cover the roof with a hood cover.
- Remove the windshield-wiper nut covers using an installation stick.
- Remove the windshield-wiper nuts, using a 14-millimeter wrench or socket. Wipers can sometimes be very hard to remove. To avoid stressing the post, use a wiper puller to help take the wiper off the post.
- Remove the left and right windshield moldings with an installation stick and a regular molding remover. The one-piece molding is attached from the bottom of the windshield to the bottom of the back glass in the rear. When removing it, be careful not to damage the paint on the roof. Stick Velcro or cloth to the bottom of the removal tool to avoid scratching the paint. If you decide not to take the molding completely off, you can detach up to the B pillar post. Tape the molding out of the way with retention tape that will not damage the paint.
- Take off the two-piece cowling by removing the nine revealed plastic push-in clips. These may be removed with a door upholstery-panel remover or a clip-removal tool.

Removal

- Always wear eye and hand protection when working with glass.
- Make sure the cutting blades are sufficiently sharp.
- Before cutting out the windshield, remove any contaminant from the glass and pinchweld. This step will prevent contaminants from making contact with the urethane.
- Remove the top molding using a molding removal cut-off blade on your utility knife. Using this type of blade will prevent you from scratching the pinchweld. If trying to save the windshield, do not remove the top molding as described. Use an Equalizer with an 8-inch blade, instead.
- Cut out the entire windshield using your cold knife with a 3/4-inch cold knife blade.
- Mark your stops at the bottom of the windshield so that they do not get damaged.
- When using an Equalizer or any power tool, use plain water to lubricate the cutting area. Spray the top and sides, then begin cutting.
- After cutting the sides and the top, place a Pumper in the top center of the windshield to open the cutting area of the bottom portion of the windshield. Never use your head as a pushing device as this can result in back and neck injuries.
- Spray water on the bottom of the windshield to at least 4-to-5 inches above the urethane on the glass so that the water will flow down into the urethane while you are making your final cut across the bottom.
- Take the windshield out of the opening using a set of vacuum cups, placing it on a windshield stand or a suitable workstation.

Installation

- After cutting the windshield out, remove contaminants such as dirt, moisture and other debris from the pinchweld. Clean the dashboard.

- Dry fit the new glass to the opening. Make your marks with retention tape or a grease pencil.
- Place the set of vacuum cups on the windshield in the appropriate location for a one-person set.
- For a driver-side setting of the windshield: Place the foam pad on the driver side of the hood. Lift the windshield from the windshield stand using the vacuum cups.
- Reaching over, place your elbow on the foam pad and set the windshield on the stop. Place an alignment mark on your side so that you can easily align the windshield when you install it permanently.
- With the windshield resting in the opening, go to the passenger side and make your dry-fit mark.
- After you have adjusted on the passenger side for the correct setting, walk back to the driver side, lift the glass and place it on a windshield stand or a suitable workstation.
- Reinstall the rearview mirror by sliding the mirror in an upward motion until the base locks in place.
- Follow the urethane manufacturer's recommendations for installation.
- Clean the inside of the windshield using the material your urethane manufacturer recommends, and follow its steps. Do not touch the windshield after cleaning.
- Wear powder-free Nitrile gloves to keep from coming in contact with chemicals.
- Apply the glass prep, following the urethane manufacturer's recommendations. Do not touch the windshield after priming it.
- Apply the glass primer following the urethane manufacturer's recommendations, again, not touching the windshield after priming it.
- Apply the molding to the windshield. Be careful not to touch the freshly primed area.
- Before removing the old urethane, make sure there are no contaminants, and do not touch the pinchweld after you have prepped the area. Using a pinchweld scraper, remove as much of the original urethane as the urethane manufacturer recommends.
- Apply the pinchweld primer only to areas where it is needed, and follow the urethane manufacturer's recommendations. Be sure to allow preps and primers to dry as recommended by the urethane manufacturer.
- Apply a triangular bead of urethane to the same path as the freshly cut urethane on the pinchweld. Before cutting a V notch with a Top Notch tool, cut the tip off the nozzle with a nozzle cutter. Using the cut nozzle, measure to the top of the roof line and add $\frac{1}{16}$ inch. Make a mark on the nozzle at that point with a pen or marker. Notch the nozzle up to the marked line and this will give you the appropriate triangular bead.
- With the aid of the vacuum cups, lift the windshield from the stand or workstation. Place your elbow on the foam pad on the hood and set the windshield on the stop where you have made your dry-fit mark. Lower the driver side of the windshield onto the urethane and line it up with the dry-fit mark.
- The windshield is now in place and ready to be decked. Press firmly to ensure a good seal.

To disregard the safe drive-away times that the urethane manufacturer recommends could jeopardize the structural integrity of the car and the safety of the passengers.

- Before reinstalling the parts, go over the perimeter of the windshield with a leak detector. If you find a leak, apply a little more pressure to the spot and ensure that the glass makes contact with the wet urethane.
- Reinstall the removed parts in reverse order.
- Install the cowl cover and wipers.
- Install the interior A pillar trim panels.
- After the urethane has cured, release the car to your customer.

Front Door Glass

- Make sure you have the right door glass. The part number is FD021441/42 GTY.
- With a small flat-tip screwdriver, uncap the two side screws that hold the trim panel at the front and rear of the panel. Use a No.1 Phillips screwdriver to remove the two screws.
- Uncover the plastic screw cover inside the door pull cavity, using a hook tool with a thin tip. Use a No.1 Phillips screwdriver to remove the screw.
- Uncover the plastic screw cover inside the door pull handle, using the small flat-tip screwdriver. Use a No.1 Phillips screwdriver to remove the screw. Release the door handle trim cover using the small flat-tip screwdriver.
- With a panel removal tool, release the door trim panel held by eight door panel clips. The clips start on the side, about 5 inches down from the Phillips screws—now removed—and go around the panel.
- Slightly lift the door panel in a clockwise motion to remove it.
- Press the electrical harness and slide in a downward motion. Set the door panel in a safe place.
- Peel back the plastic sound-and-weather barrier.
- Lower the glass to align the mounting hardware. Release the two 10-millimeter bolts and remove them.
- Take the glass out by lifting the backside of the glass first to disengage it from the carriage and the felt channel.
- To replace the door glass, slip the glass back into the door in the same manner as it was taken out. Make sure it is in the felt channel before reinstalling it on the regulator carriage.
- Align the carriage holes with the glass hardware and tighten the two 10-millimeter bolts.
- Check the operation of the glass before replacing the panel to assure that it operates smoothly and properly.
- Reinstall the plastic sound-and-weather barrier.
- Reconnect the electrical harness, sliding it in an upward motion.
- Reinstall the door panel in a counter-clockwise motion.
- Align the door-panel clips with the door clip holes, then press or push the clips back into place.
- Reinstall the door handle pull cavity, door handle trim cover, Phillips screws, and screw covers and caps.
- Check the operation of the glass by rolling it up and down several times.

Rear Door Glass and Vent Glass

- Make sure you have the right rear-door glass. The part number is FD021443/44 GTY.
- With a small flat-tip screwdriver, uncap the two side screws that hold the trim panel at the front and rear of the panel. Use a No.1 Phillips screwdriver to remove the two screws.
- Uncover the plastic screw cover inside the door pull handle, using a hook tool with a thin tip. Use a No.1 Phillips screwdriver to remove the screw.
- Uncover the plastic screw cover inside the door pull handle using the small flat-tip screwdriver. Use a No.1 Phillips screwdriver to remove the screw. Release the door handle trim cover using the small flat-tip screwdriver.
- With a panel-removal tool, release the door trim panel held by eight door-panel clips. The clips start on the side about 5 inches down from the Phillips screws—now removed—and go around the panel.
- Slightly lift the door panel in a clockwise motion and remove the panel.
- Press the electrical harness and slide in a downward motion. Set the door panel in a safe place.
- Peel back the plastic sound-and-weather barrier.
- Lower the glass to align the mounting hardware. Release the two 10-millimeter bolts and remove them.
- Remove the two 10-millimeter bolts that hold the rear vent division bar.
- Pull the exterior weatherstripping at the top of the post to expose the flat-head Phillips screw that holds the division bar in place.
- Before attempting to remove the division bar, tape the exterior and interior of the bar with a retention tape that will not pull the paint off. This keeps the division bar from getting scratched.
- Remove the door felt channel and slide the bar out.
- Lift the glass out by lifting the backside of the glass first to disengage it from the carriage.

Vent Glass

- Make sure that you have the right vent glass. The part number is FV021445/46 GTY.
- Pull the felt channel away at least 5-to-8 inches.
- In a rolling motion, pull the vent glass from the top of the vent and remove.
- Pull the gasket and transfer it to the new glass.
- Reinstall the vent glass by sliding it and the gasket into the opening and firmly pulling them into the door frame.
- Slide the division bar back in place and replace the Phillips screw at the top of the division bar. Replace the two 10-millimeter bolts.
- Reinstall the felt channel in the door frame.

Rear Door Glass

- To replace the door glass, slip the glass back into the door in the same way it was taken out. Make sure it is reinstalled onto the regulator carriage.
- Align the carriage holes with the glass hardware and tighten the two 10-millimeter bolts.

- Check the operation of the glass before replacing the panel to assure that it operates smoothly and properly.
- Reinstall the plastic sound-and-weather barrier.
- Reconnect the electrical harness, sliding it in an upward motion.
- Reinstall the door panel in a counterclockwise motion.
- Align the door-panel clips with the door clip holes, then press or push the clips back into place.
- Reinstall the door handle pull cavity, door handle trim cover, Phillips screws and screw covers, and caps.
- Check the operation of the glass by rolling it up and down several times.

Back Glass

- Make sure that you have the right parts and that the urethane system you are about to use is current. The back glass part number is FB021447 GTN. The replacement molding is a dealer item at this time.
- If you use a cold knife or power tool while working on this car, we recommend that you remove the C pillar trim panels because the back glass fits very close to the pinchweld and the heated wires need to be disconnected. Remove the panels using an installation stick or a panel remover.
- Cover the back seats, the floorboards and the package tray with a clean drop cloth or disposable plastic covers.
- Cover the roof with a hood cover.
- Remove the left and the right back glass moldings with an installation stick and a regular molding remover. The one-piece molding is attached from the bottom of the back glass forward to the bottom of the windshield. When removing, be careful not to damage the paint along the roof of the car. Stick Velcro or cloth on the bottom of the molding-removal tool to avoid scratching the paint. If you decide not to take the molding completely off, you can detach it up to the B pillar post. Tape the molding back with retention tape that will not damage the paint.
- Cover the trunk lid and fender area closest to the bottom of the back glass with retention tape or a piece of rubber hose.

Removal

- Be sure the cutting blades are sufficiently sharp.
- Before cutting out the back glass, remove any type of contaminant from the glass and pinchweld to prevent contaminants from making contact with the urethane.
- If using a cold knife, remove the top molding using a molding removal cut-off blade on your utility knife. Using this type of blade will prevent you from scratching the pinchweld. If trying to save the windshield, do not remove the molding as described. Use an Equalizer with an 8-inch blade. Leave the bottom molding on until three sides have been cut, then save the molding by using an Equalizer with an 8-inch blade.
- Cut out the back glass using a cold knife. We recommend using a $\frac{3}{4}$ -inch cold knife blade.
- When using an Equalizer or any power tool, use plain water to lubricate the cutting area. Spray the top and sides, then begin cutting.

