

2005 Jeep Wrangler

Vehicle information

Vehicle type: Two-door utility

NAGS® numbers*: DW1407, DW1408 solar, DD09069 front right, DD09070 front left, DQ09071 right solar, DQ09072 left solar, DQ09075 right, DQ09076 left, DQ10722 right solar 10-inch longer part, DQ10723 left solar 10-inch longer part, DB10325 heated and solar, DB 10326 heated, solar and privacy only

Installation time: 45 minutes

Technicians needed: One

*With permission from the National Auto Glass Specifications 2004 Edition Fall Catalog and 2004 Fall Benchmark Calculator. Contact NAGS at 800/551-4012 or visit www.nags.com.

For complete list of recommended tools, see Technicians' Toolbox, p. 26



Windshield

Preparation

- Always wear eye and hand protection when working with glass.
- Make sure you have the right glass and moldings, and the urethane systems are current.
- Remove rearview mirror by loosening the Phillips setscrew and sliding it off the pad.
- Cover the front seats, the floorboards, the dash and the steering wheel with a clean drop cloth or disposable plastic covers.
- Remove the windshield wiper by lifting up and pulling out the pin at the base. Relax wiper arm and remove from post.
- Remove the four screws at the rear of the cowl grill. Open hood and remove the three screws that attach the cowl grill and screen to the cowl.
- Remove the four-sided wraparound molding by cutting off the cap and separating the embedded leg from the urethane.

Removal

- Make sure the cutting blades are sufficiently sharp.
- Before cutting out the part, remove any type of contaminant from the glass and pinchweld. This step will prevent contaminants from making contact with the urethane.
- Remove the interior molding to keep from damage.
- Use the tools of choice for removal. Be careful not to hit or cut the gravity

stops; mark their locations with a marking pencil or retention tape.

- Take the part out of the opening with a set of vacuum cups.
- Lift the glass and place it on a windshield stand or a suitable workstation.

Installation

- After cutting the part out, remove contaminants such as dirt, moisture and debris from the pinchweld. This would be a good time to clean the dashboard.
- Make sure to dry fit the new glass to the opening. Mark your glass using a grease pencil or retention-molding tape.
- Place your vacuum cups on the part in the appropriate location. Adjust both sides to the correct settings, marking the passenger side, then the driver side.
- Lift the glass and place it on a windshield stand or a suitable workstation.
- Follow urethane manufacturer's recommendations for installation. Verify that the urethanes and primers are up to date. Never use outdated products as this could jeopardize the structural integrity of the vehicle and the safety of its passengers.
- Clean the inside of the part using what the urethane manufacturer recommends. Do not touch the bonding surface after cleaning it.
- Wear powder-free Nitrile gloves to keep off chemicals.
- Apply the glass primer or prep following the urethane manufacturer's recommendations. Do not touch the bonding area after prepping it.

- Attach the molding to the glass edge.
- Using the tool of choice, strip the existing urethane bead to 1-to-2 millimeters or $\frac{1}{16}$ inch. Eliminate any flaps that could cause a leak.

• Apply the pinchweld primer only to needed areas and follow the urethane manufacturer's recommendations. Make sure to allow preps and primers to dry as recommended by the urethane manufacturers.

- Re-install the interior molding.
- Apply a triangular bead of urethane to the same path as the freshly cut urethane on the pinchweld. Before cutting your V-notch, cut the tip off of your nozzle with a nozzle-cutter the width of the original bead. With the cut nozzle, measure to the top of the roofline and, adding $\frac{1}{16}$ inch higher than the roofline, make a mark on the nozzle with a pen or marker. Notch the nozzle up to the marked line; this will give you the appropriate triangular bead.

• Lift the glass part from the windshield stand or workstation with the vacuum cup. Set the glass so the markings line up.

- Press firmly to ensure a good seal.
- Before re-installing the parts, check for leaks. Use a leak detector as a leak preventer to go over the perimeter of the part. If there is a leak, apply more pressure to the spot and ensure that the glass makes contact with the wet urethane.
- Re-install the removed parts in reverse order.
- After the urethane has cured, release the car to your customer.

Front-door glass

- Make sure you have the right glass.
- Remove the window handle by releasing clip.
- Remove two screws that attach trim panel to door.
- With panel tool remove push-in fasteners that attach the panel to the door.
- Lift panel upward and separate from door.
- Set door panel in a safe place.
- Remove weather barrier.
- Remove the belt-line weatherstrip.
- Pull the run channel from the door sail. Roll glass fully downward.
- Remove the screws using a stick and remove the door-sail panel.

- Remove the screws that attach the regulator-arm guide to the glass.
- Install the glass into the door and re-attach glass to the regulator.

Quarter glass

Removal

- Make sure the cutting blades are sufficiently sharp.
 - Before cutting out the windshield, remove any type of contaminant from the glass and pinchweld. This step will prevent contaminants from making contact with the urethane.
 - Remove the interior molding to keep from damage.
 - Use the tools of choice for removal.
- Be careful not to hit or cut the gravity stops; mark their locations with a marking pencil or retention tape.
- Take the part out of the opening using a set of vacuum cups.
 - Lift the glass and place it on a windshield stand or a suitable workstation.

Installation

- After cutting the glass part out, remove contaminants such as dirt, moisture and debris from the pinchweld. This would be a good time to clean the dashboard.
- Make sure to dry fit the new glass to the opening. Mark your glass using a grease pencil or retention-molding tape.
- Place your vacuum cups on the part in the appropriate location.
- Adjust both sides to the correct settings, marking the passenger side, then the driver side.
- Lift the glass and place it on a windshield stand or a suitable workstation.
- Follow urethane manufacturer's recommendations for installation. Verify that the urethanes and primers are up to date. Never use outdated products, as this could jeopardize the structural integrity of the vehicle and the safety of its passengers.
- Clean the inside of the glass part using what the urethane manufacturer recommends. Do not touch the bonding surface after cleaning it.
- Wear powder-free Nitrile gloves to keep off chemicals.
- Apply the glass primer or prep following the urethane manufacturer's recommendations. Do not touch the glass part after prepping it.

- Attach the molding to the glass edge.
- Using the tool of choice, strip the existing urethane bead to 1-to-2 millimeters or $\frac{1}{16}$ inch. Eliminate any flaps that could cause a leak.
- Apply the pinchweld primer only to the needed areas and follow the urethane manufacturer's recommendations. Make sure to allow preps and primers to dry as recommended by the urethane manufacturers.
- Apply a triangular bead of urethane to the same path as the freshly cut urethane on the pinchweld. Before cutting your V-notch, cut the tip off of your nozzle with a nozzle-cutter the width of the original bead. With the cut nozzle, measure to the top of the roofline and, adding $\frac{1}{16}$ inch higher than the roofline, make a mark on the nozzle with a pen or marker. Notch the nozzle up to the marked line; this will give you the appropriate triangular bead.
- Lift the glass part from the windshield stand or workstation with the vacuum cup. Set the glass so the markings line up.
- Press firmly to ensure a good seal.
- Before re-installing the parts, check for leaks. Use a leak detector to go over the perimeter of the glass part. If there is a leak, apply more pressure to the spot and ensure that the glass makes contact with the wet urethane.
- Re-install the removed parts in reverse order.
- After the urethane has cured, release the car to your customer.

Back glass

- Make sure you have the right glass.
- Disconnect defroster leads from the glass.
- Remove wiper-motor cover and wiper blade. Disconnect wiper-motor harness.
- Remove the nut attaching the liftgate hinge to the glass.
- Do not remove liftgate support rods with the liftgate closed. The pistons are operated by high-pressure gas and it could cause personal injury or vehicle damage.
- Open liftgate and remove piston rods.
- Remove the glass from the vehicle.
- Once installed, connect defroster leads and check operation.
- Clean and detail. **AG**

Notes

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