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For a free PDF download of the windshield and glass roof removal and replacement instructions for the **2009 Ford Mustang**, visit [GlassMagazine.com](http://GlassMagazine.com).

## Raise the roof

How to tackle the 2009 Ford Mustang windshield and glass roof

### Vehicle information

**Vehicle type:** Two-door sports coupe

**OE part number:** Windshield glass assembly (includes windshield molding) DW01570; glass roof panel \*50054

**Helpful tools or supplies for windshield:** power cutout tool

**Helpful tools or supplies for glass roof:** power cutout tool with offset blade

**Watch for:** On vehicles equipped with a glass roof panel, there is a plastic appliqué between the glass roof and the top of the windshield. During windshield removal, use a power cutout tool and cut out the glass from the vehicle interior to avoid damaging the appliqué.

*\*The glass roof panel may be a dealer-only item. At press time, NAGS had not yet assigned a part number.*



The factory-installed, fixed-glass roof option on the 2009 Ford Mustang uses PPG Industries' Sungate infrared reflective glass technology.

### A. Windshield

#### Preparation

1. Cover the front seats, floorboards, dash and steering wheel with a clean drop cloth or disposable plastic covers.  
**Note:** Always wear eye and hand protection when working with glass. Make sure you have the right glass and the urethane systems are current. Windshield OEM part number is 6303100; it includes the windshield molding.

2. Tape up any vulnerable areas on the vehicle to protect against possible damage.  
 3. Remove the cowl vent screen.  
 4. Remove the rearview mirror.  
 5. Remove the windshield-wiper nut covers.

6. Remove the windshield-wiper nuts using a wrench or socket. Move the wiper arm in an up-and-down motion to break it loose from the post, or use a wiper puller. **Note:** Wipers can sometimes be hard to remove. Use a wiper puller to avoid stressing the post.

7. If working on the 2009 Ford Mustang coupe, follow these steps: Remove the A-pillar trim panels. Remove the overhead console. Remove the left-hand and right-hand sun visors. Lower the front portion of the headliner and block with a suitable material.

8. If working on a 2009 Ford Mustang convertible, remove the left-hand and right-hand A-pillar trim panels and the

header trim panel. **Note:** Before beginning windshield removal, verify the new windshield is the correct one and the urethanes and primers are current. Never use outdated products as this could jeopardize the structural integrity of the vehicle and the safety of its passengers.

#### Removal

9. Make sure cutting blades are sufficiently sharp.

10. Before cutting out the windshield, remove contaminants from the glass and pinchweld using a clean shop towel or oil-free compressed air. This will prevent contaminants from making contact with the urethane.

11. Lubricate the urethane adhesive with water. Spray the top, sides and bottom before beginning windshield cutout. **Caution:** Always wear eye protection when servicing a vehicle, in addition to protective gloves. Failure to do so could result in serious personal injury.

12. For vehicles equipped with a glass roof panel, cut the windshield urethane adhesive from the vehicle interior to avoid damaging the front glass roof appliqué.

13. Insert the blade into the power cutout removal tool so that the flat side is against the glass. This will leave the entire urethane adhesive bead on the pinchweld and allow you to dry fit the replacement windshield.

14. Insert the power cutout tool at

the upper center of the windshield and work toward the bottom corners. **Note:** Support the windshield as necessary to prevent the glass from dropping during cutout. **Caution:** To avoid rust formation, take extreme care not to scratch the paint or primer, or otherwise damage the pinchweld during glass removal.

15. After cutting the sides and top, place a Pumper in the top center of the windshield to open the cutting area on the bottom. **Caution:** Never use your head to push. This could result in back and neck injuries.

16. Spray the bottom of the windshield at least 4 to 5 inches above the urethane on the glass, so water flows down into the urethane while you make your final cut across the bottom of the windshield.

17. Insert the power cutout tool into the bottom of the urethane adhesive and cut from corner to corner.

18. Using a set of vacuum cups, take the windshield out of the opening. Lift the glass and place it on a windshield stand or suitable workstation.

### Installation

19. After cutting the windshield out, use a clean shop towel, brush or oil-free compressed air to remove contaminants such as dirt, moisture and other debris from the pinchweld. Clean the dashboard.

20. Dry fit the new glass to the opening. Mark your glass using a grease pencil or molding hold-down tape.

21. Place your vacuum cups on the windshield in the appropriate location for a one-person set.

22. Lift the windshield and set it onto the old urethane.

23. With the windshield resting in the opening, make sure it's in the right spot.

24. If windshield glass stop blocks are present, adjust them as necessary to assure the best fit.

25. Adjust both sides of the windshield to the correct setting, marking the passenger's side, then the driver's side. Lift the windshield from the opening and place it on a windshield stand or suitable workstation with the

interior side of the glass face up. OE replacement windshield comes with the molding attached.

26. Before installing the new windshield, repair any corrosion on the pinchweld. **Warning:** If left unrepaired, the corrosion could jeopardize the structural integrity of the vehicle and the safety of its passengers.

27. If re-installing the same windshield, remove the remaining urethane adhesive from the glass, leaving a thin

layer to bond with the new urethane adhesive bead.

28. Follow the urethane manufacturer's recommendations for installation. **Note:** Use the same brand and cure-rate products for the urethane adhesive and glass primer. Do not mix different brands of urethane adhesive and glass primer.

29. Clean the inside of the new windshield using a urethane manufacturer-recommended product; follow recommended steps. Make sure to thoroughly

**“During windshield removal, use a power cutout tool and cut out the glass from the vehicle interior to avoid damaging the plastic appliqué between the glass roof and the top of the windshield.”**

clean the surface of the black ceramic frit where the urethane adhesive will be applied. **Note:** Do not touch the bonding area of the windshield after cleaning, prepping or priming it.

30. Wear powder-free Nitrile gloves to keep off chemicals.

31. Apply the glass prep, then primer, to the new windshield, following the urethane manufacturer's recommendations. Allow the primer at least six minutes to dry.

32. Using a pinchweld-preparation tool, trim the original urethane adhesive bead, leaving 1-2 millimeters of existing urethane on the pinchweld. **Caution:** Avoid scratching the pinchweld.

**Note:** Make sure there are no contaminants, and do not touch the pinchweld after you have prepped the area.

33. Apply the pinchweld primer only to the areas where needed, following the urethane manufacturer's recommendations. **Note:** Allow preps and primers to dry as recommended by the urethane manufacturer. Use the same brand pinchweld primer, glass primer and urethane adhesive.

34. Using a high-ratio, electric or battery-operated caulk gun, apply a triangular bead of urethane to the same

path as the freshly cut urethane on the pinchweld, starting and ending at the bottom of the windshield near the center. Make sure there are no gaps in the bead. **Note:** Before cutting your V-notch, cut the tip off of your nozzle using a nozzle cutter. With the cut nozzle, measure to the top of the roofline and, at 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. The windshield must be positioned within 10 minutes of applying the urethane adhesive.

35. Before positioning the windshield, open the vehicle windows to prevent the air pressure created by closing the doors from affecting the urethane adhesive bond.

36. Using vacuum cups, lift the windshield from the windshield stand or workstation. Set the windshield on the urethane at the mark you made during dry fit. Lower the driver's side of the windshield onto the urethane and line it up with the dry-fit mark; it is now in place.

37. For vehicles equipped with a glass roof, carefully tuck the top of the windshield molding beneath the leading edge of the front glass roof appliqué using an installation stick.

38. The windshield is now ready to be decked. Press firmly to ensure a good seal.

39. Allow the urethane adhesive to cure for at least one hour before testing for leaks. Use a leak detector to go over the perimeter of the windshield. If you find a leak, apply pressure to the spot to ensure the glass makes contact with the wet urethane.

40. Re-install the removed parts in reverse order.

41. Allow the urethane to cure according to the urethane manufacturer's recommended cure time before returning the vehicle to the customer.

**Warning:** Disregarding the safe drive-away time that your urethane manufacturer recommends could jeopardize the structural integrity of the vehicle and the safety of its passengers.

42. You have completed the removal and replacement of the windshield.



Technicians can expect to see a fair number of 2009 Ford Mustangs with glass roofs, as Ford research indicates about 20 percent of Mustang shoppers are likely to order the option.

## B. Glass roof panel

### Removal

1. Cover the seats, floorboards, dash and steering wheel with a clean drop cloth or disposable plastic covers. **Note:** Always wear eye and hand protection when working with glass. Make sure you have the right glass and the urethane systems are current. OEM part number is 50054.

2. Tape up any vulnerable areas on the vehicle to protect against possible damage.

3. Before cutting out the glass roof panel, remove contaminants from the glass and pinchweld to prevent contact with the urethane.

4. Make sure cutting blades are sufficiently sharp.

5. Spray the glass roof panel and pinchweld with water, so it flows into the urethane while you make your cuts.

6. The roof glass shade assembly is attached to the roof glass panel. The roof glass panel and shade are removed as an assembly.

7. From the vehicle exterior, cut out the roof panel using a power cutout tool with offset blade, starting at the front corner and working your way around the perimeter.

8. Carefully remove the roof panel assembly using a set of vacuum cups. Lift the assembly and place it on a windshield stand or suitable workstation, with the interior surface facing up.

9. If installing a new glass roof panel, remove the eight screws and transfer the

existing roof-glass shade assembly to the new part.

### Installation

10. After cutting the roof panel out, use a soft brush or vacuum to remove contaminants such as dirt, moisture and other debris from the pinchweld.

11. Dry fit the new glass roof panel to the opening. Mark your glass using a grease pencil or molding-retention tape.

12. Place your vacuum cups on the roof panel in the appropriate location.

13. Lift the glass and set the roof panel onto the old urethane.

14. Align the panel in the opening for a uniform fit, and mark the glass. Lift the glass roof panel and place it on a windshield stand or suitable workstation.

15. Before installing the new glass roof panel, repair any corrosion on the pinchweld. **Warning:** If left unrepaired, the corrosion could jeopardize the structural integrity of the vehicle and the safety of its passengers.

16. If re-installing the original roof glass panel, remove the excess urethane adhesive on the glass.

17. Follow the urethane manufacturer's recommendations for installation. **Note:** Be sure to use the same brand and cure-rate products for the urethane adhesive and glass primer. Do not mix different brands of urethane adhesive and glass primer.

18. Clean the inside of the glass roof panel using a urethane manufacturer-recommended product; follow recom-

mended steps. **Note:** Do not touch the bonding area of the glass roof panel after cleaning, prepping or priming it.

19. Wear powder-free Nitrile gloves to keep off chemicals.

20. Apply the glass prep and primer to the new roof panel, following the urethane manufacturer's recommendations. Allow the primer at least six minutes to dry.

21. Using a pinchweld-preparation tool, trim the original urethane bead,

leaving 1-2 millimeters of existing urethane on the pinchweld. **Note:** Before removing the old urethane, make sure there are no contaminants, and do not touch the pinchweld after you have prepped the area. The roof glass panel must be installed within two hours of trimming the original urethane adhesive bead. **Caution:** Avoid scratching the pinchweld.

22. Apply the pinchweld primer only to the areas where needed, and follow

the urethane manufacturer's recommendations. Allow preps and primers to dry as recommended by the urethane manufacturer.

23. Using a high-ratio, electric or battery-operated caulk gun, apply a triangular bead of urethane to the same path as the freshly cut urethane on the pinchweld, starting and ending at the rear of the roof opening near the center. Make sure there are no gaps in the bead. **Note:** Before cutting your V-notch, cut the tip off of your nozzle with a nozzle cutter. With the cut nozzle, measure to the top of the roofline, and at 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. The glass roof panel must be positioned within 10 minutes of applying the urethane adhesive.

24. Lift the new glass roof panel from the windshield stand or workstation using vacuum cups. Lower it onto the urethane and line it up with the dry-fit mark; it is now in place.

25. The glass roof panel is now ready to be decked. Press firmly to ensure a good seal, using only vertical pressure.


26. Check for leaks. Use a leak detector to go over the perimeter of the roof panel. If you find a leak, apply pressure to the spot to ensure the glass makes contact with the wet urethane.

27. Re-install the removed parts in reverse order.

28. Allow the urethane to cure according to the urethane manufacturer's recommended cure time before returning the vehicle to the customer.

**Warning:** Disregarding the safe drive-away time that your urethane manufacturer recommends could jeopardize the structural integrity of the car and the safety of its passengers.

29. Using glass cleaner, clean the exterior and interior of the roof panel.

30. You have completed the removal and replacement of the glass roof panel. 

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