

**V O L V O**

Volvo Car U.S. LLC Statement on ADAS  
Advanced Driver Assistance Systems (ADAS)

Bumper cover, paint repair

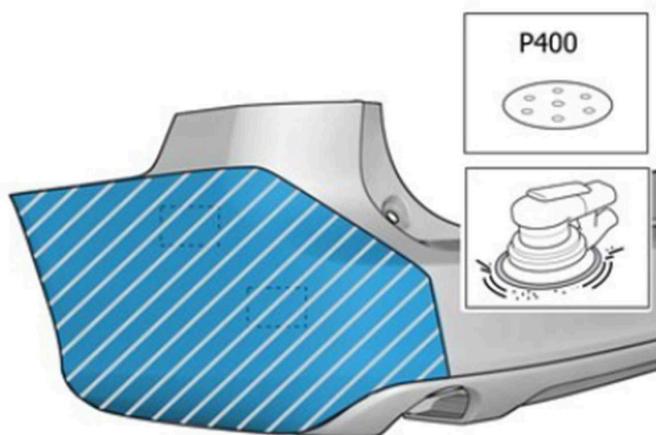
Vehicles with BLIS and metallic paint

*The paint products that are approved by Volvo to use have undergone Volvo's very stringent requirements and quality tests. To ensure the right quality level, it is imperative that all warranty repairs are performed using the paint products that are approved within the established collaboration PIA - Paint Information Aftersales. For the same quality reasons it is recommended, of course, that the approved products are used for all paint repairs.*

*Since metallic particles in car paint can deflect and/or distort radar beam energy transmitted through painted bumpers, it is important to minimize the total thickness of metallic paint by removing the old damaged coating before applying any new layers.*

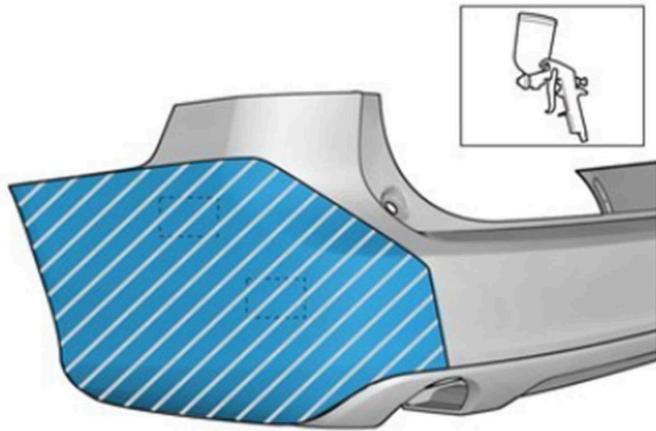
Vehicles with BLIS and metallic paint

Rear Bumper Cover



*Grind off all old metallic paint.*

Vehicles with BLIS and metallic paint rear bumper cover



*Note! Only one layer of metallic paint may be applied in the marked area.*

*Note! Always follow the relevant supplier's recommendations.*

*Note! Ensure that SODL and SODR are upgraded with the latest software.*

## Plastic repairs

### Information

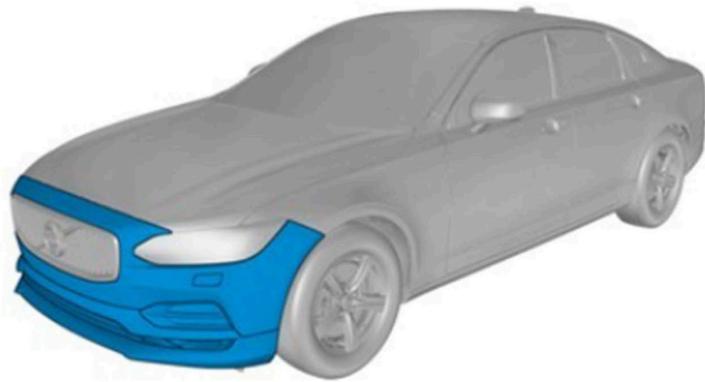
*Volvo's high standard of bumper systems and the regulatory requirements of bumper systems together with the increased occurrence of electronic systems in bumpers, sets a focus on the extent to which a bumper can be repaired.*

*In conjunction with certification of new bumper systems introduced at different times for different models, the bumpers must meet the legal requirements.*

*Internal studies show that a bumper repair can affect properties associated with regulatory requirements for pedestrian protection, and electronic systems connected to the bumper.*

*This means that Volvo has taken a strategic step regarding bumper repair to ensure that the above requirements are met.*

*Make sure to follow local law when assessing whether the component is to be repaired or replaced with new*

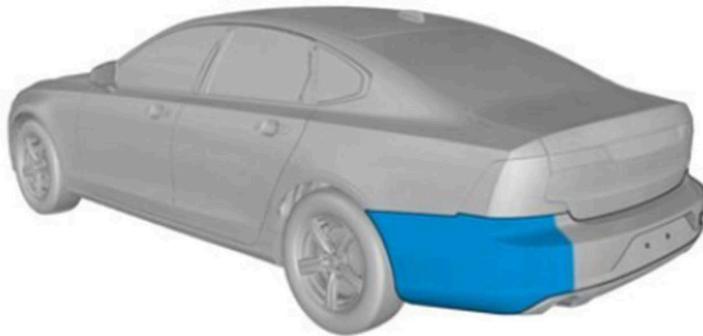


**Note!**

*In the event of damage in the form of holes or cracks within the marked areas, the component must be replaced. Do not repair the damage.*

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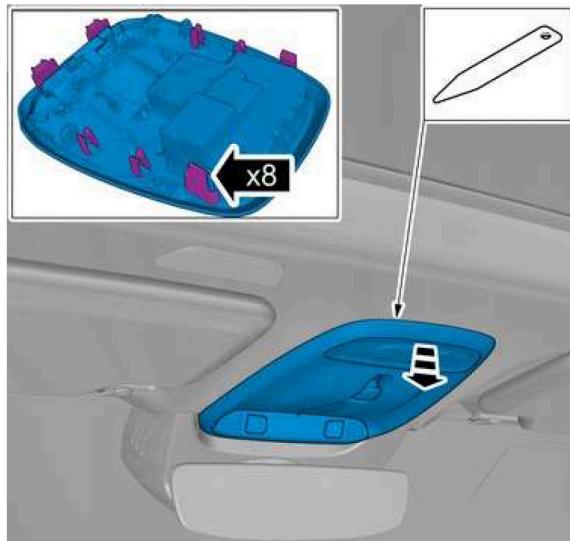
*In the event of damage in the form of holes or cracks within the marked areas, the component must be replaced. Do not repair the damage.*



## Windshields

*Due to many variants of aftermarket windshields available, it cannot be verified these windshields are being manufactured to exact Volvo specifications. When windshield replacement is required, Volvo requires using only Volvo Genuine Windshield and installation materials, so as not to compromise any structural integrity, nor any Volvo safety systems that are dependent on the windshield, such as optical, distance and radar based systems. Proper installation of a Volvo Genuine Windshield through a Volvo Facility ensures proper re-calibration, as well as, operations of the windshield dependent safety systems and provides the correct structural integrity in the event of a collision. In addition, using Volvo specified adhesives will ensure proper bonding of the windshield to the vehicle's body providing the same strength qualities as if assembled at the factory, providing a minimal safe drive-away time once installed.*

*The windshield is vital for the function of vehicles autonomous safety systems. Example: the ASDM (Active Safety Domain Master) is located inside the upper edge of the windshield, as such, the camera and radar in the ASDM are used in conjunction with other systems to enable the safety functions. These systems are sensitive to the optical and geometric tolerances, i.e. glass thickness and materials of the windshield. The vehicle safety systems require vehicle specific programming which are based on several variants, in which, demand extremely stringent optical tolerances to function as intended. Using aftermarket variants that don't meet Volvo Car's stringent specifications may compromise the function of said systems*



*Calibration of the camera and radar unit (ASDM) is required after windshield replacement. Volvo systems are required to ensure correct functionality. Aftermarket services may find it quite difficult to properly re-calibrate stated systems.*

**Warning!**

INHALED: Polyurethane (PU) adhesive can cause asthma like symptoms. Isocyanate vapor from primer or PU adhesive can cause allergies in the respiratory tract.

**Warning!**

INHALED: Persons having a respiratory allergy may have an allergic reaction when handling polyurethane (PU) adhesive.

**Warning!**

Cured polyurethane (PU) adhesive can degrade if subjected to high temperatures. Isocyanide compounds can be released when grinding or welding in close proximity to cured PU adhesive.

**Warning!**

All fixed windows are PUR bonded. PUR adhesive can cause asthma-like symptoms. Isocyanate vapours from non-cured primer or adhesive may give rise to allergies in the respiratory tract. Very low levels are required to cause an allergic reaction. Risk still remains until the material is fully cured.

**Warning!**

When heated, fully cured PUR adhesives can be broken down and isocyanates are formed, for example, when grinding and welding. Ensure good ventilation. Use a fresh air mask or carbon filter mask. Never touch the adhesive surface with your fingers. Wear gloves.

**Warning!**

The windshield is part of the vehicles collision protection. Always use genuine PUR adhesive kits! These are selected and tested by VOLVO and are the only ones for which VOLVO Car Company will take responsibility for the result.

Utilizing only genuine Volvo Car parts will ensure vehicle safety, performance and residual value.

Volvo Cars genuine parts are designed and manufactured to specifications. These design and manufacturing processes maximize safety, performance and reliability.

All Volvo Cars exterior paneling, glass, unibody components, drivetrain, electronics, suspension SRS and steering components are essential to safe control of the vehicle. These parts are designed to work with other vehicle components to keep occupants safe in an accident.

In the event of a collision, Volvo Car USA recommends that all repairs are performed by a Volvo Certified Technician through a Volvo Certified Collision Center using only genuine Volvo Car parts.

Always refer to Volvo Information and Diagnostics for Aftersales (VIDA) for the latest technical guidelines.