

2002 Ford Ranger

2002 BODY & ACCESSORIES Body System - General Information - Ranger

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SPECIFICATIONS

GENERAL SPECIFICATIONS

| Item | Specification |
|---------------------------------------|---------------|
| Adhesives | |
| Trim and Weatherstrip Adhesive TA-14 | - |
| Lubricants | |
| Silicone Spray Lubricant XL-6 | ESR-M13P4-A |
| Sealants | |
| 3M Strip Caulk-Black 051135-08578 | WSB-M4G32-C |
| Clear Silicone Rubber TA-32 | ESB-M4G92-A |
| Urethane Adhesive Betaseal (R)Express | - |
| Foam Core Butyl | WSB-M3G143-B |

DESCRIPTION AND OPERATION

BODY

The body is constructed of a lightweight, all-steel welded material. The body is bolted to a full frame.

INSULATION

Insulation is installed:

- Under the roof.
- Above and below the instrument panel.
- At the cowl side panels.
- Over the transmission tunnel.
- Over the floor pans.

BODY SEALER TYPES AND APPLICATIONS

Clear Silicone Rubber

Clear Silicone Rubber TA-32 meeting ford specification ESB-M4G92-A:

- is used for sealing water leaks, noise concerns, remounting trim and repairing torn weather-stripping.

3M Strip Caulk Black 051135-0857B

3M Strip Caulk:

- has a plastic base with a filler.
- is heavy-bodied.
- is used on spot-weld holes, around mounting clips, and between surfaces not sealed by a gasket.
- meets Ford Specification WSB-M4G32-C.

Trim And Weatherstrip Adhesive

Trim and Weatherstrip Adhesive TA-14 or equivalent is designed to hold weather-stripping to the body.

Silicone Spray Lubricant

Silicone Spray Lubricant XL-6 meeting Ford specification ESR-M13P4-A :

- is used on the door and window weatherstrips.
- should be applied at regular lubrication intervals.
- makes doors easier to close.
- reduces weatherstrip squeaks.
- reduces weatherstrip wear.
- helps retain door-window alignment by reducing friction between the glass and the rubber weatherstrips.

Foam Core Butyl

Foam Core Butyl meeting Ford specification WSB-M3G143-B is used to seal the rear window glass frame to the body.

DIAGNOSIS AND TESTING

BODY SYSTEM

Inspection And Verification

Leaks

NOTE: Trim will reveal the location of most leaks.

1. Remove any trim or carpet in the general area of the leak.
2. Road test or water test the vehicle.

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3. Inspect for a dust pattern around the area in question.
4. Inspect for water paths near and above the area in question.
5. Some leaks can be located by placing bright light under the vehicle, removing any necessary trim or carpet, and inspecting the interior of the body at joints and weld lines.

Noise

Wind noise, rattles, and their sources are detected by driving the vehicle at highway speeds. The vehicle should be driven in four different directions, with all the windows closed, the radio off, the blower motor off, and all the ventilation ducts open.

Most wind noise leaks will occur at the door and window seals or at the sheet metal joints in the door or the door opening.

Symptom Chart

SYMPTOM CHART

| Condition | Possible Sources | Action |
|--|---|---|
| <ul style="list-style-type: none">• Dust/water leaks | <ul style="list-style-type: none">• Body sealer• Weldings or body joints• Body components | <ul style="list-style-type: none">• REMOVE trim. CHECK for leaks and SEAL with appropriate sealer. ROAD TEST or WATER TEST for leaks. RECHECK trim for leaks; USE light under vehicle with trim removed. CHECK interior of body at joints and weld lines. |
| <ul style="list-style-type: none">• Dust/water leaks at floor pan and grommets | <ul style="list-style-type: none">• Plugs and/or grommets | <ul style="list-style-type: none">• CHECK plugs for proper installation. INSTALL new plugs if needed. |
| Dust/water leaks at rear window glass | <ul style="list-style-type: none">• Gaps in the sealant bead• High-mounted stoplamp | <ul style="list-style-type: none">• REMOVE and REINSTALL rear window glass. REFER to <u>GLASS, FRAMES AND MECHANISMS</u> .• CHECK high mounted stoplamp seal. |

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| | | |
|--|---|--|
| | | REPAIR or INSTALL as necessary. |
| <ul style="list-style-type: none"> Dust/water leaks at rear quarter window | <ul style="list-style-type: none"> Gaps in the sealant | <ul style="list-style-type: none"> REMOVE and REINSTALL rear quarter window. REFER to GLASS, FRAMES AND MECHANISMS . |
| <ul style="list-style-type: none"> Door collecting water | <ul style="list-style-type: none"> Door drain holes | <ul style="list-style-type: none"> CHECK drain holes regularly. CLEAN drain holes of dirt and foreign material with a punch or screwdriver. |
| <ul style="list-style-type: none"> Water leaks around perimeter of windshield | <ul style="list-style-type: none"> Gaps in the sealant bead. Windshield misaligned or not installed correctly. Opening in weld or body joint. | <ul style="list-style-type: none"> APPLY Urethane Adhesive bead around inside of windshield. REINSTALL the windshield. REFER to GLASS, FRAMES AND MECHANISMS . SEAL leaks with Silicone Gasket and Sealant. |
| <ul style="list-style-type: none"> Wind noise | <ul style="list-style-type: none"> Leaks at door and window seals or sheet metal joints in doors or door openings. Loose/misaligned weatherstrip. Poor door fit. | <ul style="list-style-type: none"> SEAL leaks with Silicone Gasket and Sealant. REATTACH weatherstrip. REPLACE any damaged pin-type retainer, if damaged. Use Trim and Weatherstrip Adhesive as necessary. Adjust the striker or hinges as necessary. CHECK for acceptable door efforts after repair. |

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- Rattles

- Door wells deadener
- Pillars deadener
- Quarter panels deadener
- Nuts
- Bolts
- Screws
- Alignment

- Weatherstripping and anti-squeak material.

- CHECK doors by carefully STRIKING underside of door with a rubber mallet. LISTEN for loose objects in door. REPAIR. TIGHTEN body bolts and screws.
- Adjust the striker or hinges as necessary.
- APPLY additional sealer; INSTALL in proper location to eliminate rattle.