ANGEL ARMOR®

AVAIL®
BALLISTIC DOOR PANELS

NIJ LEVEL IIIA

INSTALLATION GUIDE

FORD® SUPERCREW® CAB TRUCKS FOR REAR DOORS

(2021 - Newer Models)

COMPATIBLE WITH:

- **F-150 — SuperCrew Cab** (2021 - Newer Models)
- **F-250 — SuperCrew Cab** (2023 - Newer Models)
- **F-350 — SuperCrew Cab** (2023 - Newer Models)
- **F-450 — SuperCrew Cab** (2023 - Newer Models)
- **F-550 — SuperCrew Cab** (2023 - Newer Models)

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INTRODUCTION

Congratulations on your purchase of the Angel Armor® Avail® Ballistic Door Panel (Level IIIA) for Ford SuperCrew Cab (2021 - Newer Models) trucks! It's our honor to provide advanced protection to those who put their lives on the line in the name of law and order.

In just a matter of minutes, your vehicle will be upfitted with the finest ballistic technology available. With innovative ballistic materials, advanced designs and the fastest installation in the industry, Angel Armor Avail Ballistic Door Panels elevate protective technology to a higher level.

Product Description

Angel Armor Avail Ballistic Door Panels (Level IIIA) are constructed of a proprietary technology that is not only remarkably strong, but also thin, lightweight and weatherproof. These properties, plus semi-rigid material characteristics, enable unprecedented ease of installation while providing protection independently tested in accordance with NIJ Standard 0108.01 protocol. Angel Armor Avail Ballistic Door Panels (Level IIIA) for the Ford SuperCrew Cab trucks exceed NIJ Standard 0108.01 protocol for multi-round protection and offer a five-year express limited warranty. Within this period, the panels may be removed and transferred to another vehicle of the same make and model without violating the warranty.

The Avail Ballistic Door Panel installation shown in this Installation Guide was performed on a Ford F-150 SuperCrew Cab rear door. The installation process is the same for rear doors on the F-250 SuperCrew Cab, F-350 SuperCrew Cab, F-450 SuperCrew Cab and F-550 SuperCrew Cab.

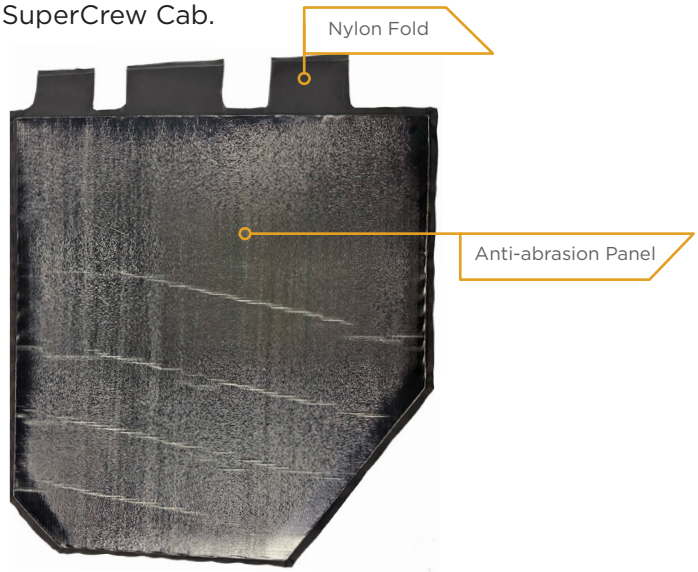


Figure 1. Angel Armor Avail Ballistic Door Panel (Level IIIA) for Ford SuperCrew Cab RearDdoors (2021 - Newer Models)

Installation Overview

Angel Armor Avail Ballistic Door Panels (Level IIIA) for the Ford SuperCrew Cab rear doors require no additional brackets or fasteners and eliminate the need to remove the window glass. Minimal door disassembly is required to provide additional clearance of the crash bar for the Ballistic Door Panel within the vehicle door. Once this is done, the panel is inserted into the door, adjacent to the window glass.

Installation into Ford SuperCrew Cab trucks takes as little as five minutes for experienced installers. The average user installation takes only 10 to 15 minutes.

Warnings and Cautions

Please adhere to the following guidelines to prevent personal injury, equipment damage and unnecessary difficulty during installation.

DISCONNECT THE VEHICLE BATTERY AFTER THE WINDOW IS ADJUSTED FOR INSTALLATION TO AVOID THE POSSIBILITY OF ACCIDENTAL AIRBAG DEPLOYMENT. ACCIDENTAL DEPLOYMENT OF THE AIRBAG MAY CAUSE SERIOUS PERSONAL INJURY.

- Read this guide in its entirety before beginning installation.
- Wear appropriate protective gear, including eye and foot protection.
- Avoid excessive force when inserting the Ballistic Door Panel into the car door. Excessive force may damage the Avail Ballistic Door Panel or internal door components.
- When weatherstrip is disassembled, do not drop screws or other assembly components inside the door, as they may be difficult to retrieve. If possible, use magnetic tools during installation.
- Use only plastic trim removal/prying tools on finished surfaces to help prevent scratching.
- Discard and replace any door components that are inadvertently damaged during the installation process. Proper installation according to the instructions in this guide should not cause damage to any vehicle or Avail Ballistic Door Panel parts or components.
- Use caution when removing parts that may have sharp edges, such as the outer window weatherstrip.

Legal Statements

See supplied Warranty and Terms and Conditions for important legal information. These instructions are provided for your convenience only, and Angel Armor expressly disclaims any liability for any damage to personal property or personal injury that occurs as a result of either installation or removal of panels.

TOOLS & PARTS LIST

This section lists the tools recommended for installation and the parts included in the installation kit.

Recommended Tools

This section lists tools to be supplied by the installer.

- 1/4” or 3/8” socket wrench, extension and 11 mm deep socket (see Figure 2)
- 7mm socket (see Figure 3)
- Plastic door pry tools (see Figure 4)
- T-15 screw driver

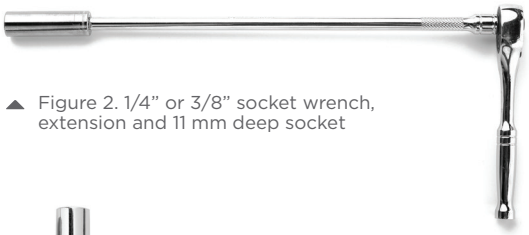


Figure 2. 1/4” or 3/8” socket wrench, extension and 11 mm deep socket

Figure 3. 7mm socket

Figure 4. Plastic door pry tools

Installation Kit Contents

This section lists the ballistic panel type and all parts included with it.

- Angel Armor Avail Ballistic Door Panel (Level IIIA) for Ford SuperCrew Cab rear doors (2021 - Newer Models) (see Figure 5)
- Angel Armor brand label (see Figure 7)
- Isopropyl alcohol wipe (see Figure 8)

Figure 5. Angel Armor Avail Ballistic Door Panel (Level IIIA) for Ford SuperCrew Cab rear doors (2021 - Newer Models)

Figure 6. Angel Armor brand label

Figure 7. Isopropyl alcohol wipe

INSTALLATION

This section provides instructions for installing Angel Armor Avail Ballistic Door Panels (Level IIIA) into Ford SuperCrew Cab rear doors.

Overview

Installation of the Angel Armor Avail Ballistic Door Panel (Level IIIA) into a Ford SuperCrew Cab rear doors is accomplished quickly and easily, with minimal door disassembly. See *Procedure* on page 7 for detailed instructions.

General Installation Procedure

1. Detach the vehicle's interior door trim panel.
2. Remove the outer window strip.
3. Insert and secure the Avail Ballistic Door Panel.
4. Replace the outer window weatherstrip.
5. Re-assemble the interior door trim panel.

Important Notes

- The directions, photographs and illustrations in this guide depict an installation performed on the driver's side rear door. The same installation procedure applies to the passenger rear door. NOTE: The anti-abrasion panel faces the interior of the vehicle for both the driver-side and passenger-side Avail Ballistic Door Panels.
- Note the location of screws, fasteners, wires and door components before disassembling to aid proper re-assembly after panel installation.
- Place all removed hardware and components in a safe place during installation.
- Angel Armor Avail Ballistic Door Panels are semi-rigid, which allows them to be bent slightly for easy installation. To help prevent damage to the panels, do not bend them tighter than a 6" radius (12" diameter).
- Firm pressure may be needed to clear minor obstructions during insertion of the Avail Ballistic Door Panels, but never use excessive force. Excessive force may damage internal door components.

PROCEDURE

Complete the following steps to properly install Angel Armor Avail Ballistic Door Panels (Level IIIA) for Ford SuperCrew Cab rear doors.

Preparing for Installation

1. Lower the window glass completely.
2. Turn off the vehicle ignition switch, and remove the key.

Removing the Vehicle Interior Door Panel Mounting Bolts

1. Remove the two door compartment 7mm bolts at the bottom of the interior vehicle door panel.

Figure 8. Removing door compartment screws

2. Using the door pry tools, remove the bolt cover under the interior door arm rest.

Figure 9. Removing bolt cover

3. Remove the two 7mm bolts from behind the interior door arm rest.

Figure 10. Removing 7mm bolts

Removing the Vehicle Interior Door Panel

1 Pull at the edges of the door panel to release clips from the door skin.

2 Pull the vehicle door panel up and away from the door. Then, hold the vehicle door panel at the base, and lift it over the door window edge.

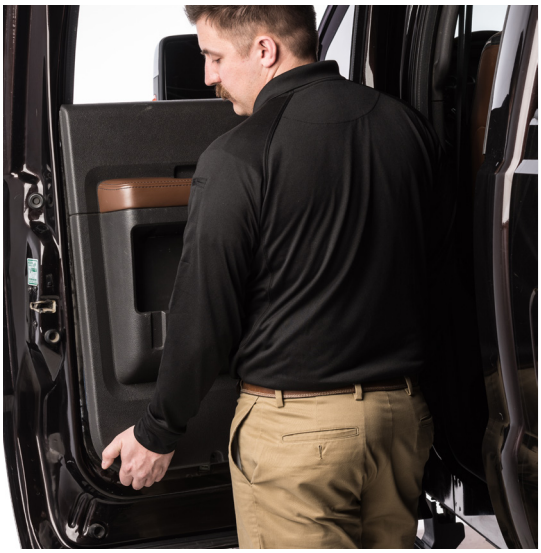


Figure 11. Pulling door panel away from door.

3 Let the detached panel hang out of the way.

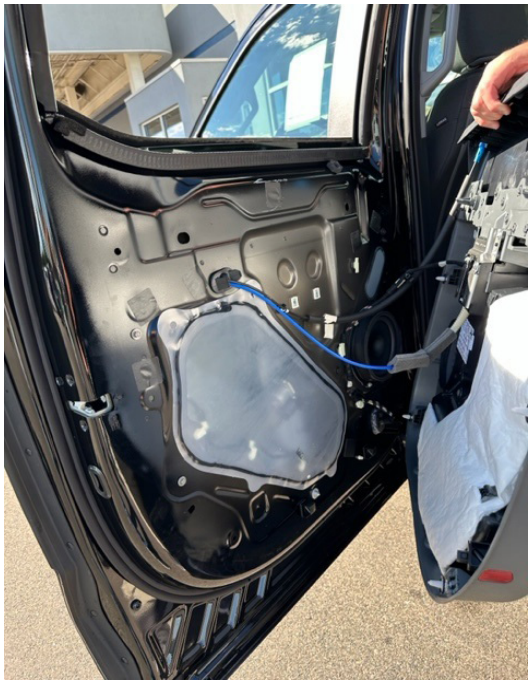


Figure 12. Detached panel

NOTE: Avoid damaging the moisture barrier. The adhesive on the back of the moisture barrier is used to reattach the moisture barrier after the Ballistic Door Panel clears the crash bar.

Removing the Outer Window Weatherstrip

Use caution when removing parts that may have sharp edges, such as the outer window weatherstrip.

1 Remove T-15 screw on the front edge of the door.

Figure 13. Removing T-15 screw

2 Carefully pull up on the front end of the outer window weatherstrip to remove it from the window frame. Work towards to the rear along the window frame, pulling up on the trim to remove it completely.

Figure 14. Removing the window weatherstrip

Inserting the Avail Ballistic Door Panel

1 **Disconnect the vehicle battery to avoid the possibility of accidental airbag deployment.**

2 Bend the bottom of the Avail Ballistic Door Panel away from you, pressing with your knee or hand. This creates a slight curve in the panel that matches the shape of the bottom of the door and eases installation. See Figure 25.

NOTE: Do not bend the Avail Ballistic Door Panel tighter than a 6” radius (12” diameter).

Figure 15. Bending the bottom of the panel away from you

3 Hold the Avail Ballistic Door Panel so that its anti-abrasion panel faces the interior of the vehicle.

Inserting the Avail Ballistic Door Panel CONTINUED

4 Leading with the bottom edge of the Avail Ballistic Door Panel, begin to insert the panel into the door adjacent to the outer surface of the window glass.

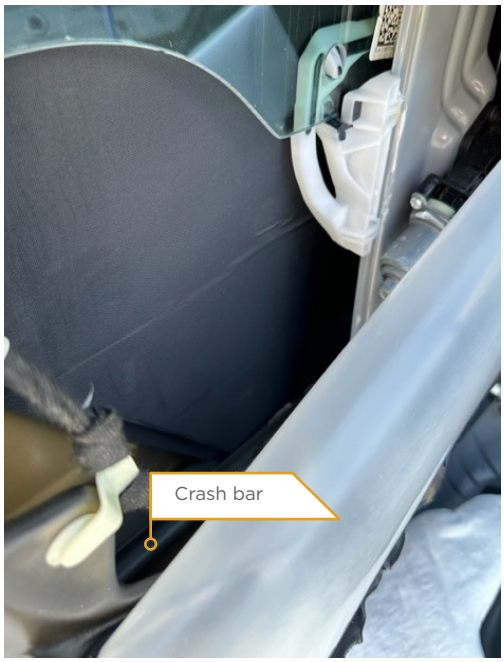
⚠ **NOTE:** Hold the Avail Ballistic Door Panel against the window glass as you insert to avoid obstructions inside the door. This can be achieved by lightly leaning back/pulling the panel out toward the exterior of the door.

▲ Figure 16. Inserting the Ballistic Door Panel into the door

5 Slide the Ballistic Panel Down into the door, following the edge of the window frame.

6 Grip the nylon fold at the top of the Avail Ballistic Door Panel when it is inserted the majority of the way into the door.

7 To help the ballistic door panel clear the crash bar, roll the window halfway up. Peel back the moisture barrier to reveal the access hole on the interior side of the door skin. Use your hand to pull the Ballistic Door Panel inward until it clears the crash bar.



▲ Figure 17. Ballistic Door Panel clearing the crash bar

8 Push the Avail Ballistic Door Panel down into its final location until the nylon fold at the top of the ballistic panel folds over the horizontal metal edge of the window frame. This is the same edge that the outer window weatherstrip sits on when installed.

▲ Figure 18. Positioning the nylon folds over the window frame

Inserting the Avail Ballistic Door Panel CONTINUED

9 Verify that the Avail Ballistic Door Panel is properly positioned by confirming the following:

- The nylon edge of the ballistic panel is lined up with the curve of the horizontal metal edge of the window frame.
- The Avail Ballistic Door Panel is all the way down, and the nylon fold sits flush where the weatherstrip is installed.
- Ensure the gaps in the nylon fold allows for exposure to all weatherstrip snaps.

  ⚠ **NOTE:** If excessive nylon is exposed above the door and the crease does not align with the top edge of the window frame, repeat steps 1 through 7 of this section. Avoid tearing the ballistic panel's weatherproof cover on the 'teeth' inside of door by pushing the ballistic panel toward the interior of the vehicle before lifting it out of the door.

Re-attaching the Vehicle Interior Door Panel

1 Replace the moisture barrier by pressing its adhesive onto the door.

2 Snap the upper edge of the door panel on the interior portion of the door near the window.

▲ Figure 19. Aligning and snapping the upper edge of the door panel on the interior portion of the door.

3 Align the interior door retainers with the appropriate retaining holes in the door.

4 Push firmly on each retainer area until the retainers engage, including the top edge.

5 Replace the two 7 mm bolts behind the interior door arm rest.

6 Replace the bolt cover under the interior door arm rest.

7 Replace the two 7 mm door compartment bolts at the bottom of the interior vehicle door panel.

Replacing the Outer Window Weatherstrip and Completing Installation

1 Press the rear edge of the outer window weatherstrip on the metal edge of the window frame, and engage the existing trim.

2 Verify that no nylon is exposed below or around the outer window weatherstrip.

3 Working from back to the front, press down to seat the entire length of the outer window weatherstrip onto the metal edge of the window frame.

Figure 20. Pressing down the window weatherstrip

4 Verify that all trim is installed and reinstall the T-15 screw.

5 Connect the vehicle battery.

6 Attach the Angel Armor brand label to the interior door panel by completing the following procedure:

A Clean the attachment area on the door with the supplied isopropyl alcohol wipe.

B Allow the door surface to dry completely.

C Remove the backing from the brand label.

D Apply the brand label to the door, pressing for at least 30 seconds to ensure proper adhesion.

Figure 21. Applying Angel Armor brand label

INSTALLATION COMPLETE:

Your vehicle is now equipped with advanced ballistic protection from Angel Armor.

REMOVAL OR DECOMMISSION

This section describes the process for removing the Avail Ballistic Door Panel for decommission or transfer to another vehicle.

1. Lower the window glass completely.
2. **Disconnect the vehicle battery to avoid accidental airbag deployment.**
3. Follow the procedure described in *Removing the Outer Window Weatherstrip* on page 11.
4. Grip the nylon fold at the top edge of the Avail Ballistic Door Panel.
5. Slide the Avail Ballistic Door Panel up to remove it from the door. Be sure to align the panel with the vertical window frame for easier removal.

   NOTE: Avoid tearing the Avail Ballistic Door Panel's weatherproof cover on the 'teeth' inside of door by pushing the Avail Ballistic Door Panel toward the interior of the vehicle before lifting it out of the door.
6. Follow the procedure described in *Replacing the Outer Window Weatherstrip* on page 14.
7. If removing the panel for transfer to another vehicle, inspect panel after removal. Contact Angel Armor with any concerns about wear or damage.