



# AVAIL<sup>®</sup>

## BALLISTIC DOOR PANELS

NIJ LEVEL IIIA



## INSTALLATION GUIDE

As shown on

**FORD<sup>®</sup> INTERCEPTOR UTILITY  
FOR REAR DOORS  
(2020 & NEWER MODELS)**



ALSO COMPATIBLE WITH:

- Ford<sup>®</sup> Explorer (2020 & Newer Models)



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## INTRODUCTION

Congratulations on your purchase of the Angel Armor® Avail® Ballistic Door Panel (Level IIIA) for the Ford® Interceptor Utility Vehicle! 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 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 Ballistic Door Panels elevate protective technology to a higher level.



▲ Figure 1. Angel Armor Ballistic Door Panel (Level IIIA) for the Ford® Interceptor Utility Vehicle

## Product Description

Angel Armor 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 protocols. Angel Armor Ballistic Door Panels (Level IIIA) for Ford Interceptor Utility Vehicles exceed NIJ Standard 0108.01 protocols for multi-round protection and offer a 5-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.

## Installation Overview

Angel Armor Ballistic Door Panels (Level IIIA) for Ford Interceptor Utility Vehicles require no additional brackets or fasteners, and eliminate the need to remove the window glass. The ballistic door panel is inserted into the door, adjacent to the window glass.

The average user installation takes only 5 to 15 minutes.



Watch an installation in action at [www.AngelArmor.com](http://www.AngelArmor.com).

## 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 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 ballistic door panel or internal door components.
- ⚠ Avoid puncturing speakers with screws, push-snaps, fasteners, or other sharp pieces during door disassembly, panel insertion, and door re-assembly.

- ⚠ 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 prevent scratching.
- ⚠ Avoid tearing the weatherproof cover on the “teeth” inside of the door when removing the ballistic panel by pushing the panel toward the interior of the door before lifting it out of the door.
- ⚠ Discard and replace any door components that are inadvertently damaged during the installation process, such as the moisture barrier. Proper installation according to the instructions in this guide should not cause damage to any vehicle or 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.



## PARTS & TOOLS LIST

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

### Installation Kit Contents

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

- Angel Armor Ballistic Door Panel (Level IIIA) for Ford Interceptor Utility
- Angel Armor brand label



▲ Figure 2. Angel Armor ballistic door panel (Level IIIA) for the Ford® Expedition SUV Vehicle

### Recommended Tools

This section lists tools to be supplied by the installer.

- Panel/trim removal tools of varying sizes
- Torx T20 screwdriver
- 7 mm socket
- 10 mm socket
- Small flat blade



▲ Figure 3. Panel/trim removal tools



▲ Figure 4. Torx T20 screwdriver



▲ Figure 5. 7 mm socket



▲ Figure 6. 10 mm socket



▲ Figure 7. Pick tool

## INSTALLATION

This section provides instructions for installing Angel Armor Avail Ballistic Door Panels (Level IIIA) into the Ford Interceptor Utility Vehicle (2020 to newer models).

### Overview

Installation of the Angel Armor Ballistic Door Panel (Level IIIA) into a Ford Interceptor Utility Vehicle is accomplished quickly and easily, with minimal door disassembly. See Procedure, on page 7, for detailed instructions.

### General Installation Procedure

- 1 Detach vehicle interior door trim panel.
- 2 Insert and secure Angel Armor Ballistic Door Panel.
- 3 Re-assemble door.

### Important Notes

- The directions, photographs, and illustrations in this guide depict an installation performed on the driver's side. The same installation procedure applies to the passenger door. NOTE: The anti-abrasion panels face the interior of the vehicle for both the driver-side and passenger-side ballistic 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 Ballistic Door Panels are semi-rigid, which allows them to be bent slightly for easy installation. To prevent damage to the ballistic 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 ballistic panels, but never use excessive force. Excessive force may damage internal door components.
- Bypass obstructions inside the door, such as crash bars or window attachment brackets, by angling the panel during insertion or by removing and re-inserting the ballistic panel, as described in Inserting the Ballistic Door Panel, on page 11.



## PROCEDURE

Complete the following steps to properly install the Angel Armor Ballistic Door Panel (Level IIIA) into a Ford Interceptor Utility Vehicle.

### Removing the Outer Window Weatherstrip

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

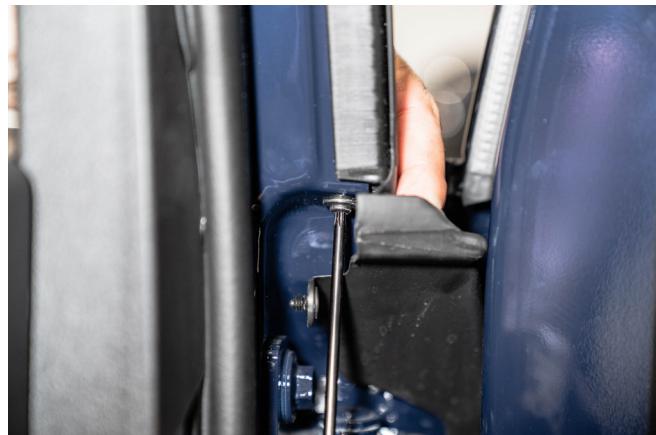
**1** Lower the window glass completely into the door.

**2** Pry the plastic trim retainer.



▲ Figure 8. Prying the plastic trim retainer.

**3** Remove the Torx screw at the front end of the outer window weatherstrip.



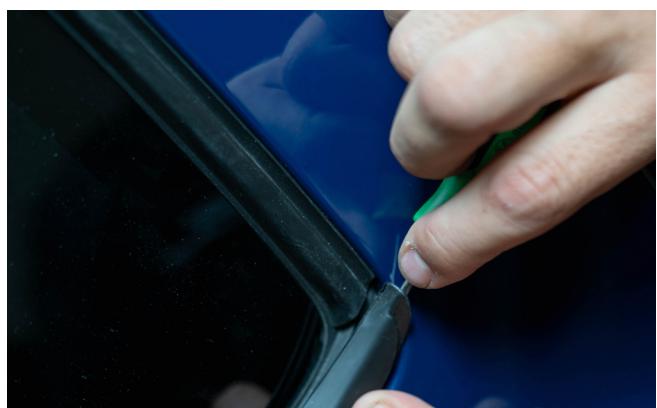
▲ Figure 9. Removing the Torx screw.

**4** Lift up the front end of the weatherstrip and slide it out.



▲ Figure 10. Removing the window trim

**5** Use a small flat blade to disconnect rear weatherstrip clips



▲ Figure 11. Disconnecting rear weatherstrip clips.

## Removing the Cover Plate

- 1** Remove the four T20 screws.
- 2** Remove the trim cover behind the interior door latch.
- 3** Remove the 7mm screw behind the latch.



▲ Figure 12. Removing the four T20 screws.



▲ Figure 13. Removing the trim cover.

## Removing the Panel Mounting Bolts

- 1 Remove the 2 7 mm screws at the bottom of the interior vehicle door panel.
- 2 Remove the trim cover behind the interior door handle.
- 3 Remove the 2 10 mm screws from behind the interior door handle.



▲ Figure 14. Removing the 2 7mm screws.



▲ Figure 15. Removing the trim cover.



▲ Figure 16. Removing the 2 10mm screws.

## Removing the Vehicle Interior Door Trim Panel

- 1** Visually locate the interior door trim retainers inside the vehicle door trim panel.
  
- 2** Roll the interior vehicle door panel off interior weather strip away from the door at the retainer locations shown in Figure 14, right top.
  
- 3** Hold the vehicle door panel at the base and lift it over the door lock pin. Then, pull the vehicle door panel away from the door.
  
- 4** Remove and detach the door lock cable, door lock and electrical connector.
  
- 5** Remove 3 7mm screws holding the speaker in.
  
- 6** Disconnect and remove the speaker.



▲ Figure 17. Prying open the vehicle interior door trim panel



▲ Figure 18. Removing screws that hold the speaker.

## Inserting the Ballistic Door Panel

- 1 Bend the bottom of the ballistic panel away from you, pressing with your knee or hand. This creates a slight curve in the ballistic panel that matches the shape of the bottom of the Ford Interceptor door and eases installation.

NOTE: Do not bend the ballistic door panel tighter than a 6" radius (12" diameter).

- 2 Hold the ballistic door panel so its anti-abrasion panels face the interior of the vehicle.
- 3 Leading with the bottom edge of the ballistic door panel, and lining up back edge of ballistic panel with back edge of window frame, begin to insert the panel into the door, adjacent to the outer surface of the window glass.

NOTE: Hold the leading edge of the 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.

- 4 Reach into the door panel and lead the bottom of the panel by the lower crash bar, wiring harness and window regulator.

**⚠ Do not force the panel past crash bar and wiring harness.**



▲ Figure 19. Inserting the panel into the door.



▲ Figure 20. Reaching into door to lead the bottom of the panel.



▲ Figure 21. Anti-abrasion panels facing the interior of the vehicle

## Inserting the Ballistic Door Panel

CONTINUED

- 5 Slide the ballistic panel down into the door, following the edge of the window frame.
- 6 Grip the nylon folds at the top of the ballistic panel when the ballistic panel is inserted the majority of the way down into the door.



▲ Figure 23. Leaning back/pulling ballistic door panel toward exterior of the door.

- 7 Slide the ballistic panel forward, toward the front of the vehicle. The leading edge of the anti-abrasion panel will likely catch on the vehicle window track. Push on the upper anti-abrasion panel, toward outside of door, while pushing the ballistic panel forward to move it past the window track.

## NOTES:

- Work the ballistic panel forward firmly to clear any obstructions, but never use excessive force, which may damage internal door components or puncture the ballistic door panel's weatherproof covering. It may be useful to shimmy the ballistic panel side to side while pushing forward to move it into position.
- If the ballistic panel does not clear the airbag sensor, move to the inside of the door to guide the panel forward of the sensor.
- If the ballistic panel will not seat fully forward, shift the panel backward and move the door wiring harness to manually position wires into the notch in the ballistic panel.

- 8 Verify that the ballistic panel is properly positioned ensuring the panel is approximately 2 inches from the front of the window frame, and the crease in nylon fold at the top of the ballistic door panel aligns with and folds over the top edge of the window frame.



▲ Figure 24. Verifying the panel is 2 inches from the front of the window frame

## NOTES:

- If the ballistic door panel is not properly positioned, repeat steps 1 through 11 of this section.

## Replacing the Outer Window Weatherstrip

- 1 Place the front end of the weatherstrip in position under the mirror. Press the remaining length down, working front to back, and aligning the screw holes on the weatherstrip and the door.
- 2 Replace the Torx screw at the rear end of the weatherstrip.
- 3 Verify that no nylon is exposed below or around the window trim.



▲ Figure 25. Exterior view of properly installed ballistic panel

## Re-attaching the Interior Door Trim Panel

- 1 Reinstall speaker 3 7mm screws, connect the speaker. Reconnect the door lock, door latch and all electrical connections.
- 2 Align the interior door trim retainers with the appropriate holes in the door.
- 3 Push firmly on each retainer area until the retainers re-engage.
- 4 Replace the 2 10 mm panel mounting bolt behind the door handle.
- 5 Replace the door handle trim cover.
- 6 Replace the 7 mm screw behind the door latch and cover.
- 7 Replace the 2 7 mm panel mounting screws at the base of the door.

## Completing Installation

- 1 Re-connect the vehicle battery.
- 2 Attach the Angel Armor brand label to the interior door panel by completing the following procedure:
  - A Clean the attachment location on the door with isopropyl alcohol.
  - 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 26. Attach 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 ballistic door panel for decommission or transfer to another vehicle.

**NOTE:** Removal is performed entirely through the window frame. There is no need for any interior door trim panel disassembly. If the ballistic door panel has been properly installed, the window regulator replacement bolts supplied by Angel Armor may remain in the vehicle with no effect on window performance.

- 1 Lower the window glass completely.
- 2 **⚠** **Disconnect the vehicle battery to prevent accidental airbag deployment.**
- 3 Follow the procedure described in Removing the Outer Window Weatherstrip, on page 7.
- 4 Grip the nylon folds at the top edge of the ballistic door panel.
- 5 Pull the ballistic panel toward the back of the vehicle, and then up, to remove it from the vehicle door.

**NOTE:** Avoid tearing the ballistic panel's weatherproof cover on the "teeth" inside of the door by pushing the ballistic 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 Re-connect the vehicle battery.
- 8 If removing the ballistic panel for transfer to another vehicle, inspect the panel after removal. Contact Angel Armor with any concerns about wear or damage.