ANGEL ARMOR®

AVAIL®

BALLISTIC DOOR PANELS

NIJ LEVEL IIIA

INSTALLATION GUIDE

As shown on

FORD® EXPEDITION SSV FOR FRONT DOORS

(2007 – 2017 MODELS)

MADE IN USA

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INTRODUCTION

Congratulations on your purchase of the Angel Armor® Avail® Ballistic Door Panel (Level IIIA) for the Ford® Expedition SSV! 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.

Figure 1. Angel Armor Avail Ballistic Door Panel (Level IIIA) for the Ford Expedition SSV

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 Expedition SSV 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.

Installation Overview

Angel Armor Avail Ballistic Door Panels (Level IIIA) for the Ford Expedition SSV require no additional brackets or fasteners and eliminate the need to remove the interior door panel or window glass. The Ballistic Door Panel is inserted into the door, adjacent to the window glass. Plastic door pry tools are the only tools required.

Installation into Ford Expedition SSV takes as little as 90 seconds for experienced installers. The average user installation takes only five to 10 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 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.
- 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 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.

- Plastic door pry tools

Figure 2. Plastic door pry tools

Installation Kit Contents

This section lists the Ballistic Door Panel type and all parts included with it.

- Die-cut, heavy duty double-sided adhesive strip (use only if necessary)

Figure 3. Double-sided adhesive strip

- Angel Armor Avail Ballistic Door Panel (Level IIIA) for Ford Expedition SSV (2007 - 2017 models)

Figure 4. Angel Armor Avail Ballistic Door Panel (Level IIIA) for the Ford Expedition SSV

- Angel Armor brand label

Figure 5. Angel Armor brand label

- Isopropyl alcohol wipe

Figure 6. Isopropyl alcohol wipe

INSTALLATION

This section provides instructions for installing Angel Armor Avail Ballistic Door Panels (Level IIIA) into the Ford Expedition SSV.

Overview

Installation of Angel Armor Avail Ballistic Door Panels (Level IIIA) into the Ford Expedition SSV is accomplished in three easy steps. See Procedure on page 7 for detailed instructions.

General Installation Procedure

1. Remove outer window weatherstrip.
2. Insert and secure ballistic panel.
3. Replace outer window weatherstrip.

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 panel faces the interior of the vehicle for both the driver-side and passenger-side Ballistic Door Panels.
- Note the location of screws 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 Ballistic Door 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.

PROCEDURE

Complete the following steps to properly install Angel Armor Avail Ballistic Door Panels (Level IIIA) for Ford Expedition SSV.

Preparing for Installation

1. Lower the window glass completely.
2. Turn off the vehicle ignition switch, and remove the key.
3. **Disconnect the vehicle battery to avoid accidental airbag deployment.**

Removing the Outer Window Weatherstrip

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

1. Using the door pry tools, carefully release the inner snap on the rear end of the outer window weatherstrip. If the inner snap is damaged during removal, set the weatherstrip aside and look for instruction in *Replacing the Outer Window Weatherstrip* on page 10.

Figure 7. Releasing inner snap on outer window weatherstrip

2. Carefully pull back on the rear end of the outer window weatherstrip to remove it from the window frame. As you work forward along the window frame, twist the weatherstrip toward your body and pull up to remove it completely. Once removed, secure the weatherstrip to the side-view mirror so it is out of the working space — we recommend using a strong tape that won't leave behind permanent residue.

Figure 8. Removing the outer window weatherstrip

Inserting the Ballistic Door Panel

1. Bend the bottom of the 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 Ford Expedition SSV door and eases installation.

   Do not bend the Ballistic Door Panel tighter than a 6″ radius (12″ diameter).

Figure 9. Bending the bottom of the Ballistic Door Panel

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

Inserting the Ballistic Door Panel
CONTINUED

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

NOTE: Hold 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.

Figure 10. Holding Ballistic Door Panel against window glass while leaning back

4 Slide the Ballistic Door Panel down into the door, following the edge of the window frame.

Figure 11. Sliding Ballistic Door Panel into the door

5 Grip the nylon fold at the top of the Ballistic Door Panel when the panel is inserted the majority of the way into the door.

6 Slide the Ballistic Door 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 the front, top edge of the panel toward the vehicle exterior, while sliding it forward, to move the Ballistic Door Panel past the window track.

Figure 12. Gripping and sliding the Ballistic Door Panel forward into place

NOTES:

- Work the Ballistic Door Panel forward firmly to clear any obstructions, but never use excessive force. Excessive force may damage internal door components or puncture the Ballistic Door Panel's weatherproof cover. It may be useful to shimmy the Ballistic Door Panel side to side while pushing forward to move it into position.

Inserting the Ballistic Door Panel
CONTINUED

7 Push the Ballistic Door Panel down into its final location until the nylon fold at the top of the 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 13. Proper alignment of nylon fold with edge of window frame

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

- The Ballistic Door Panel is seated all the way forward.
- The clip retaining cutouts are centered in between the gaps in the nylon fold, allowing for exposure to both clip retaining bumps. See Figure 13.
- The Ballistic Door Panel is all the way down, and the nylon fold sits flush where the weatherstrip is installed.

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 8 of this section. Avoid tearing the Ballistic Door Panel's weatherproof cover on the 'teeth' inside of door by pushing the panel toward the interior of the vehicle before lifting it out of the door.

Replacing the Outer Window Weatherstrip and Completing Installation

If the inner snap on the weatherstrip is damaged during the procedure described in *Removing the Outer Window Weatherstrip*, begin with step 1 of this section. If the snap is undamaged, immediately move to step 3 of this section.

1 Remove any remaining pieces of the damaged snap, ensuring a flat surface.

2 Adhere the die-cut, heavy duty double-sided adhesive strip included in the installation kit over the flat surface of the damaged snap on the exterior window frame.

Figure 14. Adhering the adhesive strip to the damaged snap

3 Verify that no nylon is exposed below or around the outer window weatherstrip, and peel the backing from the double-sided adhesive strip.

4 Tuck the front edge of the weatherstrip on the window frame, and slide it forward into position, carefully seating it under the side mirror.

Figure 15. Positioning the weatherstrip onto the window frame and under side mirror

5 Press down on the front end of the weatherstrip and move backward, pressing the entire length of the weatherstrip into the window frame.

Figure 16. Pressing the weatherstrip into the window frame

6 If you didn't damage the inner snap, ensure proper snap engagement along the weatherstrip. If you did damage the inner snap, apply adequate pressure to the end of the weatherstrip to ensure proper adhesion.

7 Re-connect the vehicle battery.

8 Verify that all trim and window components are properly re-installed and that the window functions as intended.

Completing Installation

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

A Clean the attachment location with isopropyl alcohol on the flat surface shown in Figure 17.

B Allow the door surface to dry completely.

C Remove the backing from the brand label.

D Apply the brand label.

INSTALLATION COMPLETE:

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

▲ Figure 17. Applying Angel Armor brand label

REMOVAL OR DECOMMISSION

This section describes the process for removing the 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 7.

4. Grip the nylon folds at the top edge of the Ballistic Door Panel.

5. Slide the Ballistic Door Panel toward the back of the vehicle, and then up to remove it from the door. Be sure to align the Ballistic Door Panel with the vertical window frame for easier removal.

   ⚠ Avoid tearing the Ballistic Door Panel's weatherproof cover on the 'teeth' inside of door by pushing the 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 10.

7. If removing the Ballistic Door Panel for transfer to another vehicle, inspect the panel after removal. Contact Angel Armor with any concerns about wear or damage.