



AVAIL™

BALLISTIC DOOR PANELS

NIJ LEVEL IIIA



INSTALLATION GUIDE

As shown on

**CHEVY® TAHOE PPV
FOR FRONT DOORS
(2015 & NEWER MODELS)**



ALSO COMPATIBLE WITH:

- **Chevy® Suburban** (2015 & Newer Models)
- **GMC® Yukon and Yukon XL** (2015 & Newer Models)
- **Cadillac® Escalade** (2015 & Newer Models)



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INTRODUCTION

Congratulations on your purchase of the Angel Armor™ Avail™ Ballistic Door Panel (Level IIIA) for the Chevy® Tahoe PPV! 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 Chevy® Tahoe PPV

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 Chevy Tahoe PPV exceed NIJ Standard 0108.01 protocol 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 Avail Ballistic Door Panels (Level IIIA) for the Chevy Tahoe PPV 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. One Torx screwdriver is the only tool required.

Installation into Chevy Tahoe PPV vehicles takes as little as 90 seconds for experienced installers. The average user installation takes only 5 to 10 minutes.



Watch an installation in action at [angelarmor.com](https://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.
-  When weather strip 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 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.

- Torx T15 screwdriver



▲ Figure 2. Torx T15 screwdriver

- Flathead screwdriver (Required for decommission only)



▲ Figure 3. Flathead screwdriver

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 Chevy Tahoe PPV (2015 and newer models)



▲ Figure 4. Angel Armor Avail Ballistic Door Panel (Level IIIA) for the Chevy® Tahoe PPV

- Angel Armor brand label



▲ Figure 5. Angel Armor brand label

- Isopropyl alcohol wipe



▲ Figure 6. Isopropyl alcohol wipe

Installation Kit Contents

CONTINUED

- Two Door Panel Grips



▲ Figure 7. Door Panel Grips

INSTALLATION

This section provides instructions for installing Angel Armor Avail Ballistic Door Panels (Level IIIA) into the Chevy Tahoe PPV.

Overview

Installation of Angel Armor Avail Ballistic Door Panels (Level IIIA) into the Chevy Tahoe PPV 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 with the included Door Panel Grips.
- 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 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 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.

PROCEDURE

Complete the following steps to properly install Angel Armor Avail Ballistic Door Panels (Level IIIA) for Chevy Tahoe PPV.

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 Remove the outer window weatherstrip Torx screw at the rear end of the window frame.



▲ Figure 8. Removing outer window weatherstrip screw

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



▲ Figure 9. Removing outer window weatherstrip

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 Chevy Tahoe PPV door and eases installation.

- ⚠️** Do not bend the ballistic door panel tighter than a 6" radius (12" diameter).

- 2 Hold the ballistic door panel so that its anti-abrasion panel faces the interior of the vehicle.



▲ Figure 10. Inserting ballistic panel into door with anti-abrasion panels facing vehicle interior

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 11. Holding ballistic door panel against window glass while leaning back

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

- 6 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 the front, top edge of the panel toward the vehicle exterior, while sliding the ballistic panel forward, to move the ballistic panel past the window track.



▲ Figure 12. Gripping and sliding the ballistic door panel forward into place.

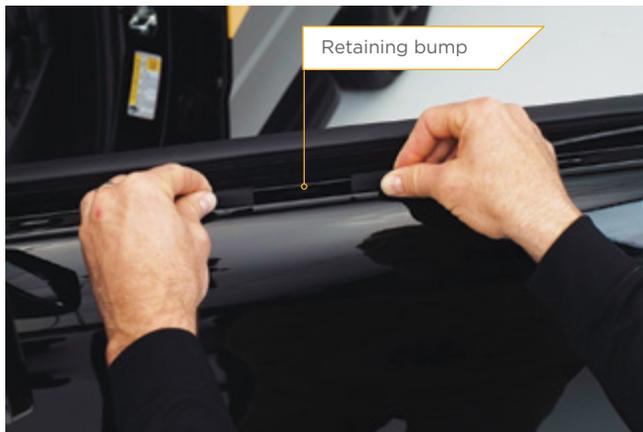
NOTES:

- Work the ballistic 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 panel side to side while pushing forward to move it into position.

Inserting the Ballistic Door Panel

CONTINUED

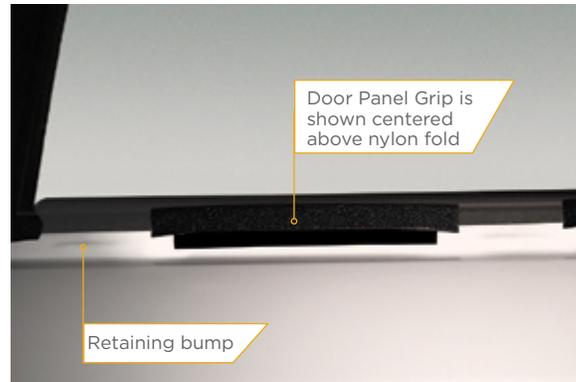
- 7 Push the ballistic panel down into its final location until the nylon fold at the top of the ballistic panel folds over the horizontal metal edge of the window frame. This is the same edge that the outer window weatherstrip sits on when installed.
- 8 Verify that the ballistic panel is properly positioned by confirming the following:
 - The ballistic panel is seated all the way forward.
 - One of the retaining bumps on the window frame is located in the center of the nylon cutout. See Figure 13.
 - The ballistic panel is all the way down, and the nylon fold sits flush where the weatherstrip is installed.



▲ Figure 13. Proper alignment of nylon fold with window frame.

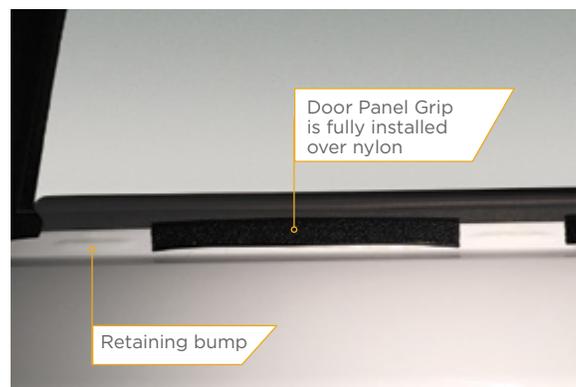
NOTE: If excessive nylon is exposed above the door and the crease does not align with the top edge of the window frame, repeat steps 1 through 8 of this section. Avoid tearing the ballistic panel's weatherproof cover on the 'teeth' inside of door by pushing the ballistic panel toward the interior of the vehicle before lifting it out of the door.

- 9 In order to keep the ballistic panel from shifting inside the door, secure the two nylon folds with the two included Door Panel Grips. Before fully installing the grips, ensure the width of the nylon is centered under the width of the Door Panel Grips. See Figure 14.



▲ Figure 14. Proper alignment of Door Panel Grips (presented on white door to show contrast).

- 10 Once you have confirmed that the Door Panel Grips are in their proper position, push down on the grips to ensure they are fully seated and secure. See Figure 15.



▲ Figure 15. Final placement of Door Panel Grips (presented on white door to show contrast).

Replacing the Outer Window Weatherstrip and Completing Installation

- 1** Press the front edge of the outer window weatherstrip on the metal edge of the window frame, and carefully slide the weatherstrip under the mirror to engage the existing trim.



▲ Figure 16. Reinstalling outer window weatherstrip

- 2** Verify that no nylon is exposed below or around the outer window weatherstrip.
- 3** Working from front to back, press down to seat the entire length of the outer window weatherstrip onto the metal edge of the window frame.
- 4** Replace the rear outer window weatherstrip Torx screw.



▲ Figure 17. Replacing outer window weatherstrip screw

- 5** Verify that all trim and window components are properly re-installed.
- 6** Re-connect the vehicle battery.
- 7** 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 18. 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 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** Remove the two Door Panel Grips from inside the weatherstripping. Use a flathead screwdriver to pry up on the grips and then your fingers to remove them from the weatherstripping completely.
- 5** Grip the nylon folds at the top edge of the ballistic door panel.
- 6** Slide the ballistic panel toward the back of the vehicle, and then up to remove it from the door. Be sure to align the ballistic panel with the vertical window frame for easier removal.

 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.
- 7** Follow the procedure described in *Replacing the Outer Window Weatherstrip* on page 10.
- 8** If removing the panel for transfer to another vehicle, inspect panel after removal. Contact Angel Armor with any concerns about wear or damage.