



AVAIL[®]

BALLISTIC DOOR PANELS

NIJ LEVEL IIIA



INSTALLATION GUIDE

As shown on

**CHEVY[®] TAHOE PPV
FOR REAR DOORS
(2021 & NEWER MODELS)**



ALSO COMPATIBLE WITH:

- **Chevy Suburban** (2021 & Newer Models)
- **GMC[®] Yukon and Yukon XL** (2021 & Newer Models)
- **Cadillac[®] Escalade and Escalade ESV** (2021 & Newer Models)



SM-00031

angelarmor.com

970 235 2961

sales@angelarmor.com

TABLE OF CONTENTS



INTRODUCTION	3
Product Description	3
Installation Overview	3
Warnings & Cautions	4
Legal Statements	4
TOOLS & PARTS LIST	5
Recommended Tools	5
Installation Kit Contents	5
INSTALLATION	6
Procedure	6
– Preparing for Installation	6
– Removing the Outer Window Weatherstrip	6
– Inserting the Ballistic Door Panel	7-8
– Replacing the Outer Window Weatherstrip and Completing Installation	9
REMOVAL OR DECOMMISSION	10

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INTRODUCTION

Congratulations on your purchase of the Angel Armor™ Avail™ Ballistic Door Panel (Level IIIA) for Chevy Tahoe PPV (2021 & Newer Models) for rear doors. 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 Chevy Tahoe PPV 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 Ballistic Door Panel installation shown in this Installation Guide was performed on the driver-side rear door of the 2016 Chevy Tahoe PPV.

The installation process is the same for 2015 & newer models of the Chevy Suburban, GM Yukon and Yukon XL and Cadillac Escalade and Escalade ESV.



▲ Figure 1. Angel Armor Avail Ballistic Door Panel (Level IIIA) for Chevy Tahoe PPV Rear Door

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

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 panel or internal door components.
-  When the 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 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

- Torx T-15 Screwdriver



▲ Figure 2. Torx T-15 Screwdriver

Installation Kit Contents

- Angel Armor Avail Ballistic Door Panel (Level IIIA) for Chevy Tahoe PPV Rear Door



▲ Figure 3. Angel Armor Avail Ballistic Door Panel (Level IIIA) for Chevy Tahoe PPV Rear Door

- Angel Armor Brand Label



▲ Figure 4. Angel Armor Brand Label

- Isopropyl Alcohol Wipe



▲ Figure 5. Isopropyl Alcohol Wipe

- Two Door Panel Grips



▲ Figure 6. Two Door Panel Grips

PROCEDURE

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

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

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



▲ Figure 7. Removing the rear Torx screw

- 2 Tuck back the weatherstrip on the front, vertical edge of the door frame to expose the Torx screw. (See Figure 8.)



▲ Figure 8. Exposing the front Torx screw

- 3 Remove the outer window weatherstrip Torx screw at the front end of the door frame.



▲ Figure 9. Exposing the front Torx screw

- 4 Carefully pull up on the outer window weatherstrip. While standing on the outside of the door, it helps to push the bottom of the weatherstrip away from you and pull the top of the weatherstrip toward you as you pull up. This helps to disengage the clip that holds the weatherstrip in place.



▲ Figure 10. Removing the 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 Tahoe rear door and eases installation.



▲ Figure 11. Bending the Ballistic Door Panel to create a slight curve

NOTE: 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.
- 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. **Push the panel all the way forward toward the front window frame as you begin to insert it into the door (see Figure 11).**



▲ Figure 12. Pushing panel forward while inserting panel

NOTE: Be sure to push the panel all the way forward while installing, as outlined in step 3 of this section. This step is critical to avoid snagging the panel on the metal window channel.

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.

- 4 Continue to slide the Ballistic Door Panel down into the door.



▲ Figure 13. Sliding panel down into the door

NOTE: Work the Ballistic Door Panel down 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.

Inserting the Ballistic Door Panel CONTINUED

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

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

- A.** One of the retaining bumps on the window frame is located in the center of the nylon folds.



▲ Figure 14. Proper location of nylon folds

- B.** The panel is all the way down, and the nylon folds sit flush where the weatherstrip is installed.

7 To keep the Ballistic Door Panel from shifting inside the door, secure the two nylon folds with the 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.

8 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.



▲ Figure 15. Proper placement of Door Panel Grips

Replacing the Outer Window Weatherstrip and Completing Installation

- 1** Starting at the rear of the door, line the opening in the weatherstrip up with the vertical edge window frame.



▲ Figure 16. Proper weatherstrip alignment

- 2** Press the back edge of the outer window weatherstrip onto the metal edge of the window frame, and begin to seat the weatherstrip along the window frame.
- 3** Verify that no nylon is exposed below or around the outer window weatherstrip.
- 4** Working from the middle, press down to seat the entire length of the outer window weatherstrip. You will hear an audible click confirming the weatherstrip is fully seated.



▲ Figure 17. Pressing down to fully seat the weatherstrip

- 5** Replace the outer window weatherstrip Torx screw at the rear end of the door frame.
- 6** Replace the outer window weatherstrip Torx screw at the front end of the door frame.
- 7** Re-connect the vehicle battery.
- 8** 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 6.
- 4 Remove the two Door Panel Grips from inside the weatherstrip. Slide them to one end of the weatherstrip to remove them completely. If needed use the Torx screwdriver, or other flat tool, to help slide the Door Panel Grips out (see Figure 19).



▲ Figure 19. Removing two Door Panel Grips from inside the weatherstrip

- 5 Grip the nylon folds at the top edge of the Ballistic Door Panel and pull the panel straight up to remove it from the door completely.

⚠️ NOTE: Avoid tearing the ballistic 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 9.
- 7 If removing the Ballistic Door Panel for transfer to another vehicle, inspect panel after removal. Contact Angel Armor with any concerns about wear or damage.