



# AVAIL<sup>®</sup>

## BALLISTIC DOOR PANELS

NIJ LEVEL IIIA



## INSTALLATION GUIDE

As shown on

**RAM<sup>®</sup> 1500 CREW CAB  
FOR FRONT DOORS  
(2019 & NEWER MODELS)**



### ALSO COMPATIBLE WITH:

- **RAM 1500 Quad Cab** (2019 & Newer Models)



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## INTRODUCTION

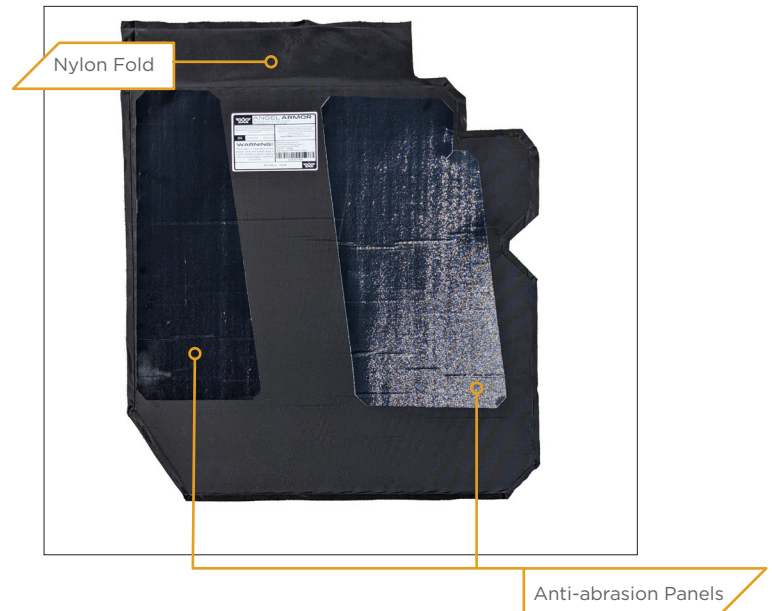
Congratulations on your purchase of the Angel Armor® Avail® Ballistic Door Panel (Level IIIA) for RAM 1500 (2019 & Newer Models) for Front Doors. It's our honor to provide advanced protection to those who put their lives on the line in the name of law and order.

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 RAM 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 Ballistic Door Panel installation shown in this Installation Guide was performed on the driver-side front door of the 2020 RAM 1500 Crew Cab.



▲ Figure 1. Angel Armor Avail Ballistic Door Panel (Level IIIA) for RAM Truck Front Doors

## Installation Overview

Installation of the Angel Armor Ballistic Door Panel (Level IIIA) into the RAM 1500 is accomplished quickly and easily with minimal door assembly.

Installation into RAM 1500 takes as little as 5 - 15 minutes for experienced installers. The average user installation takes only 15 to 20 minutes.





Watch an installation in action at [angelarmor.com](https://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 T15 Screwdriver



▲ Figure 2. Torx T15 Screwdriver

- Plastic Door Pry Tool and Pick Tools



▲ Figure 3. Plastic Door Pry Tool

- 10mm socket



▲ Figure 4. 10mm socket

### Installation Kit Contents

- Angel Armor Avail Ballistic Door Panel (Level IIIA) for RAM 1500 (2019 and Newer Models) Front Doors



▲ Figure 5. Angel Armor Avail Ballistic Door Panel (Level IIIA) for RAM 1500 Front Doors

- Replacement window regulator bolts 10mm head and 8mm metric thread



▲ Figure 6. 10mm head and 8mm metric thread

- Isopropyl Alcohol Wipe



▲ Figure 7. Isopropyl Alcohol Wipe

- Angel Armor Brand Label



▲ Figure 8. Angel Armor Brand Label

## INSTALLATION

Complete the following steps to properly install Angel Armor Avail Ballistic Door Panels (Level IIIA) for RAM 1500 (2019 and Newer Models) Front 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 Window Weatherstrip

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

- 1 Remove the outer window weatherstrip torx 15 at the back end of the window frame.



▲ Figure 9. Removing outer window weatherstrip screw

- 2 Carefully pull up on the rear portion of the outer window weatherstrip. Slightly lift the back of the weatherstrip up, and simultaneously slide it toward the back of the door to remove it completely.



▲ Figure 10. Sliding back the outer window weatherstrip

- 3 Move the window to 2 inch exposed glass.



## Removing the Panel Mounting Bolts

- 1** Remove the trim cover behind the interior door handle.



▲ Figure 11. Trim cover and bolt locations

- 2** Remove the 10 mm bolt from behind the interior door handle.



▲ Figure 12. Removing bolt from interior door handle

- 3** Remove the trim cover in the arm rest.
- 4** Remove the 2 10 mm bolts from the arm rest.



▲ Figure 13. Removing bolts from arm rest

## Removing the Vehicle Interior Door Trim Panel

- 1 Pry the interior vehicle door trim panel away from the door.



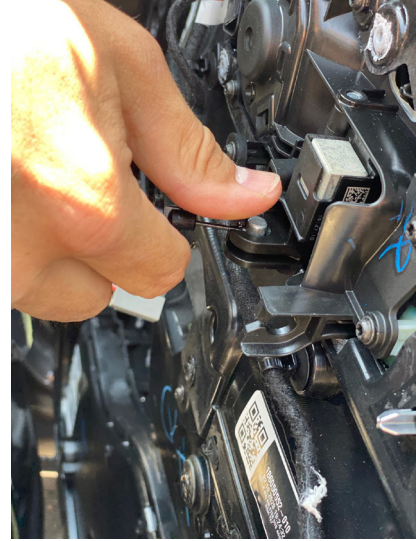
▲ Figure 14. Prying open the vehicle interior door trim panel

- 2 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.



▲ Figure 15. Pulling the vehicle door panel away from door

- 3 Disconnect the door latch cable, compressing the connector retainers before unhooking the cable from the door handle.



▲ Figure 16. Disconnecting the door latch cable

- 4 Disconnect the wiring harnesses between the door trim panel and door.
- 5 Remove the window control panel from the door trim panel.



▲ Figure 17. Door with window control panel removed



## Replacing the Window Regulator Bolts

**NOTE:** Only 1 window regulator bolt may be removed at a time to prevent the need to remove and re-align the window glass. Complete the entire removal and replacement of the first bolt before removing the second bolt.

- 1 Peel back the bolt covers to expose the window regulator bolt. (See Figures below.)



▲ Figure 18. Peeling back the moisture barrier to expose the window regulator bolt



▲ Figure 19. Peeling back the moisture barrier to expose the window regulator bolt

- 2 Remove the factory-installed window regulator bolt located behind the moisture barrier.

**NOTE:** Use magnetic tools to avoid dropping the bolt inside the door.

- 3 Replace the factory-installed bolt with a replacement bolt included in the installation kit. Install the replacement bolt in compliance with the vehicle's factory-recommended torque specification.



▲ Figure 20. Replacing the factory-installed window regulator bolt located behind the moisture barrier with the supplied replacement bolt

## Replacing the Window Regulator Bolts

### CONTINUED

If the window regulator bolt is not visible through the bolt access hole, temporarily re-connect the window control panel and vehicle battery. Adjust window height so the bolt is visible, and then disconnect the window controls and vehicle battery before replacing the bolt.

- 4 Remove the factory-installed window regulator bolt inside the window regulator bolt access hole.
- 5 Replace the factory-installed bolt with a replacement bolt included in the installation kit. Install the replacement bolt in compliance with the vehicle's factory-recommended torque specification.



▲ Figure 21. Replacing the front window regulator bolt through the window regulator bolt access hole

## 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 door and eases installation.



▲ Figure 22. Bending the Ballistic Door Panel



**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.

## 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. Be sure that the panel is located in between the window glass and the outer door skin.



▲ Figure 23. Inserting panel between window glass and outer door skin

**! NOTE:** Hold the Ballistic Door Panel against the window glass as you insert to ensure you clear the framework inside the door. This can be achieved by lightly leaning back/pulling the panel out toward the exterior of the door. Plastic door pry tools can also be used to help push the panel toward the door skin.

- 4** Following the vertical edge of window frame, slide the Ballistic Door Panel straight down into the door.



▲ Figure 24. Inserting panel between window glass and outer door skin

**! 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.

- 5** With the Ballistic Door Panel as far down as possible, slide it toward the front of the door. It may be useful to shimmy the panel side to side while pushing forward to move it into position. A plastic door pry tool may be helpful to push the panel toward the outside of the door, allowing it to clear the window track while sliding it forward.



▲ Figure 25. Sliding panel towards front of door frame



## Inserting the Ballistic Door Panel CONTINUED

- 6** Verify that the Ballistic Door Panel is properly positioned by confirming that the front of the folded nylon is located on the door seam where it begins to curve downward. See Figure 14 for proper positioning.



▲ Figure 26. Nylon fold is properly positioned on downward curve of the door seam

- 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. Plastic door pry tools can be used to help seat the Ballistic Panel into its final position.



▲ Figure 27. Proper location of nylon fold

## Replacing the Outer Window Weatherstrip

- 1** Feed the front end of the weatherstrip under the gap near the side-view mirror, and push forward.
- 2** Press the front edge of the outer window weatherstrip on the metal edge of the window frame, and begin to seat the remaining weatherstrip along the window frame.



▲ Figure 28. Seating weatherstrip along window frame

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



▲ Figure 29. Properly seated window weatherstrip

- 5** Replace the outer window weatherstrip screw at the back end of the window frame.



## Reattaching the Interior Door Trim Panel

- 1** Re-connect the door latch cable.
- 2** Re-install the window controls into the interior door trim panel.
- 3** Re-connect the wiring harness to the various connection on the door panel.
- 4** Align the door lock and hook the upper edge of the door trim panel on the interior portion of the door near the window.
- 5** Align the interior door trim retainers with the appropriate holes in the door.
- 6** Push firmly on each retainer area until the retainers re-engage.
- 7** Replace the one (1) 10mm panel mounting bolt behind the door handle.
- 8** Replace the door handle trim cover.
- 9** Replace the two (2) 10mm panel mounting bolts in the arm rest.
- 10** Replace the arm rest trim over.

## Attaching the Brand Label

- 1** 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 the supplied isopropyl alcohol wipe.



▲ Figure 30. Cleaning location with alcohol wipes

- 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 31. Attaching 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 de-commission 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** Grip the nylon fold at the top edge of the Ballistic Door Panel, and pull the panel toward the back of the vehicle then straight up to remove it from the door completely.  
  
 **NOTE:** 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.

- 5** Follow the procedure described in *Replacing the Outer Window Weatherstrip* on pages 8-9.
- 6** 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.