

AVAIL

BALLISTIC DOOR PANELS

NIJ LEVEL IIIA



INSTALLATION GUIDE

As shown on

TOYOTA® HIGHLANDER FRONT DOORS
(2020 & newer models)





angelarmor.com 970 235 2961 sales@angelarmor.com





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INTRODUCTION

Congratulations on your purchase of the Angel Armor® Avail® Ballistic Door Panel (Level IIIA) for the Toyota® Highlander! It's our honor to provide advanced protection to those who put their life 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.

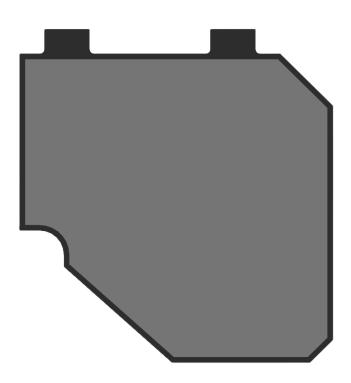


Figure 1. Angel Armor Avail Ballistic Door Panel (Level IIIA) for the Toyota Highlander

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 Toyota Highlander 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 Toyota Highlander require no additional brackets or fasteners. The Ballistic Door Panel is inserted into the door, adjacent to the window glass.

Installation into Toyota Highlander takes as little as 15 minutes for experienced installers. The average user installation takes only 25 to 30 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.

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.

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 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 help 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. 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.

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.

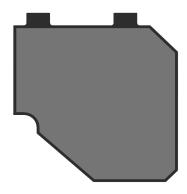
- #2 Phillips Screwdriver
- Trim tool



Installation Kit Contents

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

Angel Armor Avail Ballistic Door Panel (Level IIIA) for Toyota Highlander (2020 & newer models)



▶ Figure 3. Angel Armor Avail Ballistic Door Panel (Level IIIA) for the Toyota Highlander

2 adhesive pads





▲ Figure 4. Adhesive pads

Two door panel grips



▲ Figure 5. Door Panel Grips

2 zip ties



▲ Figure 6. Zip ties

Angel Armor brand label



▲ Figure 7. Angel Armor brand label

2 Isopropyl alcohol wipes



▲ Figure 8. Isopropyl alcohol wipe



INSTALLATION

This section provides instructions for installing Angel Armor Avail Ballistic Door Panels (Level IIIA) into the Toyota Highlander Vehicle (2020+ models).

Overview

Installation of Angel Armor Avail Ballistic Door Panels (Level IIIA) into the Toyota Highlander is accomplished quickly and easily. See Procedure on page 7 for detailed instructions.

General Installation Procedure

- 1 Detach vehicle interior door trim panel.
- 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 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.
- 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 8.

PROCEDURE

Complete the following steps to properly install Angel Armor Avail Ballistic Door Panels (Level IIIA) for Toyota Highlander.

Dissassembling the Door

1 Locate the retaining clips that secure the external window trim. There are two clips: one at the front and one at the rear.



▲ Figure 9. Retaining clip locations

- Release the clips by inserting a plastic trim tool from the top and sliding the tool towards the outward edge of the door to release and lift the window trim free.
- **3** Locate the three hidden fasteners on the interior door panel.
 - The upper fastener is located behind the trim panel, which is found behind the interior door panel. This panel can be removed by prying outward with a trim tool.
 - The two mid-level fasteners are located in the pocket (picture below) and below

- the window controls. The fastener in the pocket is accessed by removing the trim button, which hinges to one side.
- The window control panel is released by carefully prying upward with a plastic trim tool.



Figure 10. Interior door panel fastener locations

- 4 Remove the three fasteners with a #2 Phillips screwdriver.
- **5** Once the fasteners are removed, locate the pry point on the inner door panel and pull towards you to release the clips.



▲ Figure 11. Interior door panel pry point location

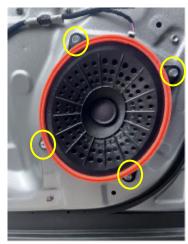


- 6 While removing the panel, be sure to unhook all electrical connections and control cables.
- Once the panel is removed, remove the moisture barrier and locate the rear wiring harness.



▲ Figure 12. Rear wiring harness

- **9** Remove the locating tab from the stabilizer; be careful not to catch this during the installation of the panel.
- 10 Locate the front main harness by removing the speaker (4 #2 Phillips fasteners).



▲ Figure 13. Fasteners holding speaker

- **11** Locate the main harness and release the locating tabs.
- **12** Resecure the main harness to the inner door sheet metal with the provided zip ties and adhesive pads.

Inserting the Ballistic Door Panel

- **1** Hold the ballistic door panel so that its anti-abrasion panel faces the interior of the vehicle.
- **2** 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.
- **3** Slide the ballistic panel down into the door. No forward or backward movement is required.
- 4 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.
- 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.
- 6 Verify that the ballistic panel is properly positioned by confirming the following:
 - ▲ The ballistic panel is seated 2.5 3" inches from the back of the window frame (see figure 14).
 - **B** The ballistic panel is all the way down and the nylon fold sits flush where the



weatherstrip is installed (see figure 14).



▲ Figure 14. Final nylon tab placement

- 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 that the width of the nylon is centered under the width of the door panel grips.
- Once you have confirmed that the door panel grips are in their proper position, push down on the grips to ensure that they are fully seated and secure.

NOTES:

- Never use excessive force, which may damage internal door components or puncture the ballistic door panel's weatherproof covering.
- Verify that the ballistic panel is properly positioned, ensuring the panel is 2.5 3" inches from the back 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.

If the ballistic door panel is not properly positioned, repeat the steps in this section.

Reassembling the Door

1 After confirming that the ballistic panel is secured and in its final placement, reassemble the interior door panel and trims in reverse order.

Completing Installation

- 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 isopropyl alcohol.
 - Allow the door surface to dry completely.
 - C Remove backing from the brand label.
 - D Apply the brand label to the door, pressing for at least 30 seconds to ensure proper adhesion.



Figure 15. 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.

- **1** Roll the door window up to 2" from the fully closed position.
- **2** A Disconnect the vehicle battery to avoid accidental airbag deployment.
- **3** Remove the exterior window trim (see page 7, steps 1 and 2).

- 4 Grip the nylon folds at the top edge of the Ballistic Door Panel. Remove rubber trim retaining clips.
- Slide the Ballistic Door Panel 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 by pushing the panel toward the interior of the vehicle before lifting it out of the door.

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.