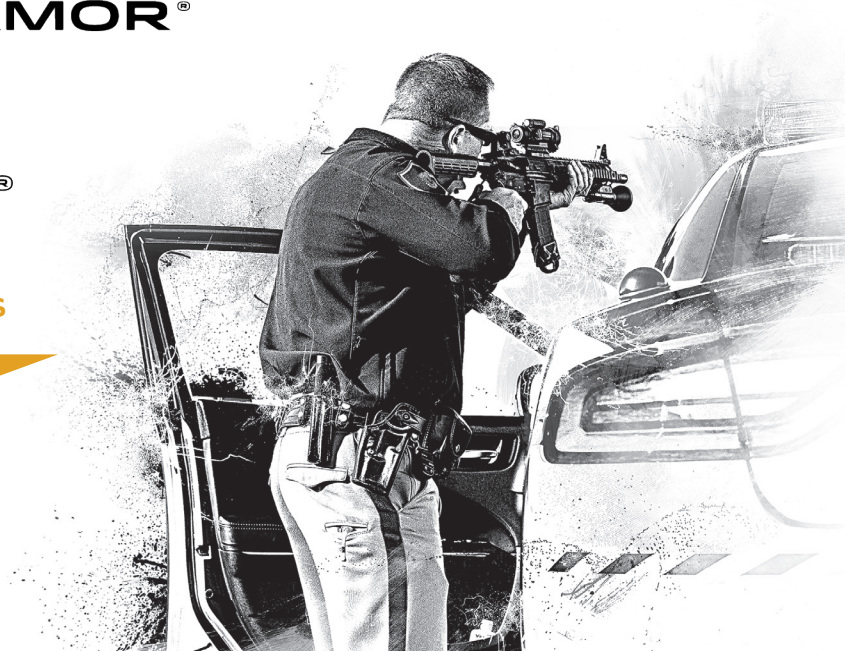




AVAIL[®]

BALLISTIC DOOR PANELS

LEVEL III + M855/M193/MSR



INSTALLATION GUIDE

for front driver and
passenger-side doors

As shown on

CHEVY TAHOE PPV

(2015-2020)



Also compatible with

CHEVY TAHOE SSV

(2015 - 2020)

CHEVY TAHOE

(2015 - 2020)

CHEVY SUBURBAN

(2015 - 2020)



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INTRODUCTION

Congratulations on your purchase of the Angel Armor® Avail Ballistic Door Panel (Level III+) for Chevy Tahoe PPV (2015 - 2020)! It's our honor to provide advanced protection to those who put their lives on the line in the name of law and order.

Your vehicle will soon be upfitted with the finest ballistic technology available. With optimized coverage area, a seamless design and powerful protection from NIJ Level III rifle threats, Avail elevates vehicle protection to a higher level.



▲ Figure 1. Angel Armor Avail Ballistic Door Panel (Level III+) for Chevy Tahoe PPV (2015 and Newer Models)

Product Description

The Avail Level III+ armor panel is made of a premium steel plate packed with superior protective capabilities. This high-strength solution features discreet, seamless coverage in a single-piece design and a weatherproof

coating to help resist environmental wear and corrosion. The alloy steel crash bar brackets and door mounting bracket secure the armor in place to help prevent rattling and shifting within the door and a nylon check strap is included to preserve door functionality and hinder over-extension.

When fully installed, the complete Avail Level III ballistic armor package gives officers the ability to use their door as a tactical shield against rifle-round threats without compromising the integrity/functionality of the vehicle door.

Avail exceeds NIJ Level III Standard 0108.01 protocol for multi-round protection and offers a five-year express limited warranty.

Installation Overview

The ballistic door panel installation shown in this guide was performed on the front driver-side door of the Chevy Tahoe (2016 - 2020). The installation process is the same for front passenger-side doors of the Chevy Tahoe (2015 & Newer Models).

Avail Level III+ armor features a simple installation starting with applying the door hinge check strap. Door disassembly is required to install the crash bar brackets and door mounting bracket. Once this is completed, the armor is secured in place and the vehicle door panel is reassembled. Installation takes approximately 2-3 hours per vehicle door.









**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 REMOVAL/ 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, hand and foot protection.
-  Use extreme caution when transporting the ballistic door panel. The armor panel is very heavy and impact may result in serious injury.
-  To avoid muscle strain or back injury, use lifting aids and proper lifting techniques when transporting the ballistic door panel.
-  Avoid excessive force when inserting the armor into the car door. Excessive force may damage the weather stripping or scratch finished surfaces.
-  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.



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 window armor parts or components.



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

Legal Statements

See Warranty and Terms and Conditions for important legal information on angelarmor.com. 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.



PARTS & TOOLS LIST

This section lists the parts included in the installation kit and the tools recommended for installation. Installation kit contents are for one door panel.

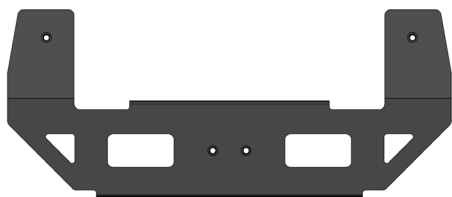
Installation Kit Contents

- One Avail Ballistic Door Panel (Level III+) for Chevy Tahoe PPV (2015 - 2020)



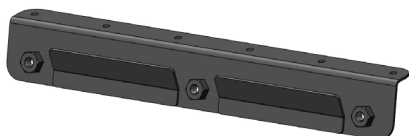
▲ Figure 2. Avail Ballistic Door Panel for Chevy Tahoe PPV

- One Avail Crash Bar Bracket



▲ Figure 3. Crash Bar Bracket

- One Avail Upper Mounting Bracket



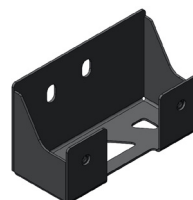
▲ Figure 4. Upper Door Mounting Bracket

- One Avail Upper Support Bracket



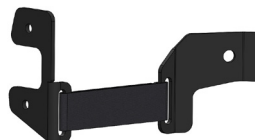
▲ Figure 5. Upper support bracket

- One Avail Lower Mounting Bracket



▲ Figure 6. Lower mounting bracket

- One Avail Check Strap



▲ Figure 7. Check Strap

- Two Avail Nylon Installation Straps



▲ Figure 8. Installation Straps

- 2 Lower Crash Bar Bracket Mounting Bolts and 2 Washers



▲ Figure 9. Crash Bar Bracket Mounting Bolts and Washers

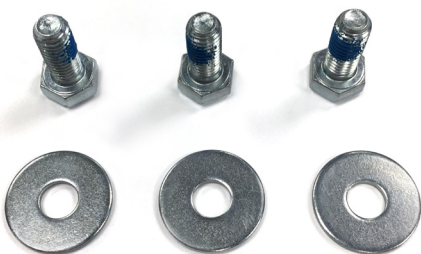


- 2 Upper Crash Bar Bracket Mounting Bolts and 2 Washers



▲ Figure 10. Upper crash bar bracket mounting bolts and washers

- 3 Upper Mounting Bracket Bolts and 3 Washers



▲ Figure 11. Upper Mounting Bracket bolts and washers

- 6 Upper Mounting Bracket Sheet Metal Screws



▲ Figure 12. Upper mounting bracket sheet metal screws

- 2 Lower Mounting Bracket Bolts and 2 Washers



▲ Figure 13. Lower mounting bracket bolts and washers.

- Replacement Window Regulator Bolt: 10mm Head - M6 X 10 mm Bolt

- 1 Front Spacer Bolt, 2 Nuts, 2 Washers, and 1 Spacer Nut



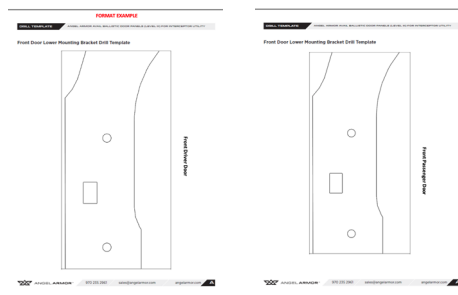
▲ Figure 14. Spacer Hardware

- Panel Bond Container (1 Nozzle Included)



▲ Figure 15. Panel Bond Container and nozzle

- One Drill Template Appendix A (appended to the end of the guide)



▲ Figure 16. Drill Template

- One Isopropyl Alcohol Wipe



▲ Figure 17. Isopropyl Alcohol Wipe

- One Brand Label



▲ Figure 18. Angel Armor Brand Label

Personal Protective Equipment

- Protective Gloves
- Protective Eye wear
- Steel-Toe Boots

Required Tools

- Plastic Door Pry Tools
- Small Pick
- Flat Blade Screwdriver
- Impact Driver
- Electric Drill Screwdriver
- Needle Nose Pliers
- Socket Wrench
- 3/8" Universal Socket Joint
- 6" Socket Extension
- 7, 8, 10 and 13mm Sockets, and 1/2" Sockets and/or Ratchet Wrenches
- T15 Torx Driver
- 7mm Drill Bit
- Torque Wrench
- Marker
- Magnetic Parts Tray
- Panel Bond Gun (3M Plus 11 Epoxy Applicator H-7878 or equivalent)

Recommended Tools

- De-burring Tool
- Touch-up Paint
- Magnetic Retrieval Tool
- Headlamp or Flashlight



▲ Figure 19. Panel Bond Gun

INSTALLATION

This section provides instructions for installing Angel Armor Avail Ballistic Door Panels (Level III+) into the Chevy Tahoe PPV (2015 & Newer Models.)

Overview

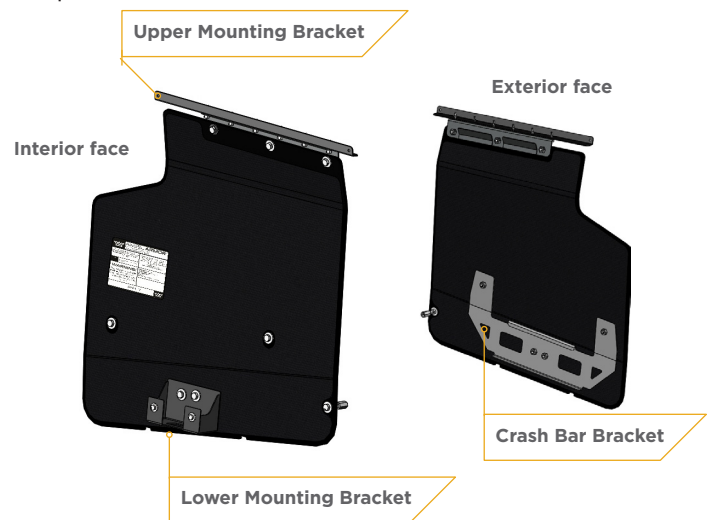
Installation of the Angel Armor Avail Ballistic Door Panel (Level III+) into a Chevy Tahoe PPV is simple and starts with applying the door hinge check strap. Door disassembly is required to install the crash bar brackets and armor mounting bracket. Once this is completed, the armor is secured in place and the vehicle door panel is quickly reassembled. See page 9 for detailed instructions.

General Installation Procedure

- 1** Install the check strap.
- 2** Remove the weatherstrip, vehicle door panel, speaker and window.
- 3** Install Crash Bar Bracket.
- 4** Insert the Avail Ballistic Panel.
- 5** Secure the Avail Ballistic Panel by installing Door Upper and Lower Mounting Brackets.
- 6** Re-assemble the 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 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 or magnetic tray during installation.
- The Avail Level III+ armor panel is made of a premium steel plate. This protective material is heavy and extra caution should be taken when transporting, handling and installing the armor.
- 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.



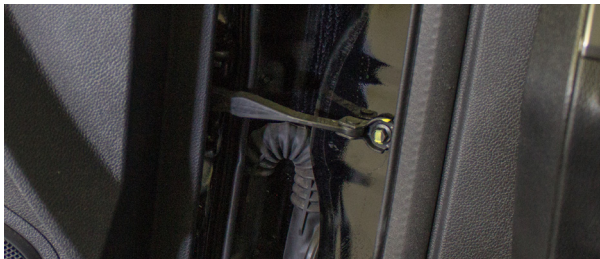
▲ Figure 20. Rendering of assembled ballistic panel and mounting brackets (driver's side shown).

PROCEDURE

Complete the following steps to properly install Angel Armor Avail Ballistic Door Panels (Level III+) for Chevy Tahoe PPV (2015 - 2020).

Installing Check Strap

- 1 Open the vehicle door to its fully opened position.
- 2 Locate the OEM (Original Equipment Manufacturer) check strap that connects the front, middle of the door to the A-pillar of the vehicle cabin.



▲ Figure 21. OEM check strap.

- 3 Using a 10mm socket, remove the bolt from the check strap on the cab side of the vehicle. It may help to have an extension to access the bolt head.
- 4 Next, remove the two nuts securing the OEM check strap assembly to the door frame.
- 5 Pre-bend the nylon webbing check strap so that when the door closes, the

nylon bends outward. Pre-bending the check strap gives the nylon material a “memory” to ensure it does not affect door closure.

- 6 Install the nylon check strap / bracket assembly by placing the bracket with two mounting holes over the threaded studs that mount the OEM check strap to the door frame. Use the OEM nuts to secure the bracket in place.
- 7 Next, insert the other bracket on the opposite end of the nylon webbing under the OEM check strap mount at the A-pillar of the vehicle. Use the original bolt to securely fasten the two check strap mounts to the A-pillar.

⚠ NOTE: The installed strap helps prevent over-extension of the vehicle door. Adjustments to the door hinge will be made after armor is installed for proper alignment due to the added weight of the armor. Nut torquing will occur after final adjustment.



▲ Figure 22. Proper placement of the secured check strap.

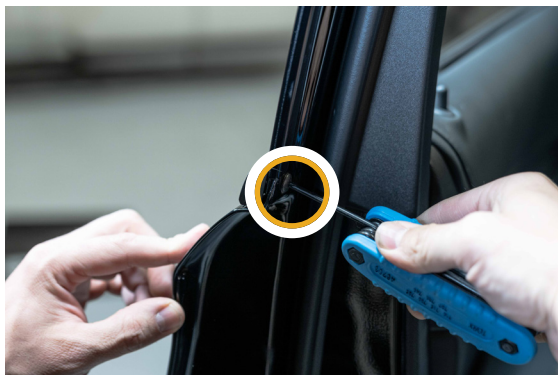


Preparing for Ballistic Door Panel Installation

- 1** Open the front driver-side door and lower the window glass completely.
- 2** Turn off the vehicle ignition switch and remove the key.

Removing the Window Weatherstrip

- 1** Using a T15 driver, remove the window weatherstrip screw at the back of the door.



▲ Figure 23. Removing the back window weatherstrip screw.

- 2** Lift up on the outer window weatherstrip to remove it from the door.



▲ Figure 24. Removing the outer window weatherstrip.

Removing the Vehicle Door Panel and Speaker

- 1** Raise the window all the way to the top.
- 2** Using a trim pry tool or pick, remove the plastic trim cover behind the interior door handle.
- 3** Remove the 7mm hex bolt from behind the interior door handle.
- 4** Using a trim pry tool, remove the plastic trim cover in the armrest pocket.



▲ Figure 25. Removing the armrest pocket trim cover.

- 5** Remove the two 7mm hex bolts from the armrest pocket.



▲ Figure 26. Removing the armrest pocket bolts.

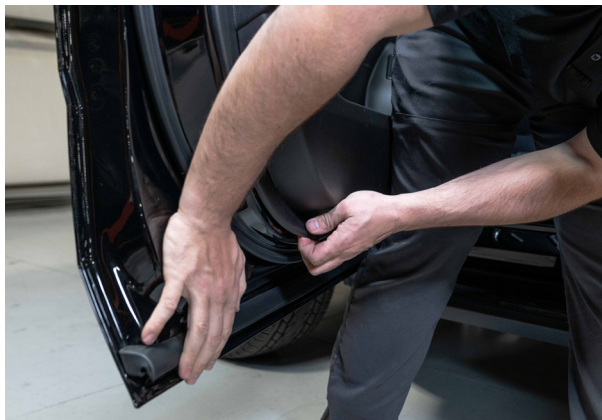
Removing the Vehicle Door Panel and Speaker CONTINUED

- 6** Locate the two 7mm hex bolts from below the map pocket and remove.



▲ Figure 27. Removing the door panel bolts.

- 7** Starting at the lower back corner, pry the interior vehicle door panel away from the door to disengage the plastic snaps. Work your way along the bottom edge and both sides of the door panel to disengage all the snaps.



▲ Figure 28. Prying the door panel away from the door skin.

- 8** Once all snaps have been released, hold the vehicle door panel at the base and lift it over the door lock pin.

- 9** Tilt the top edge of the door panel toward yourself while supporting the bottom with your legs.



▲ Figure 29. Tilting the door panel away from the door skin.

- 10** Disconnect the wiring harness mount by pulling back the lock and unlatching the harness from the door panel.
- 11** Disconnect the door handle cable by squeezing the two prongs on the black plastic collar.
- 12** Pull the black plastic collar out of the bracket and swing the door handle cable away from yourself.
- 13** Lift the metal ball out of its socket (located at the end of the door handle cable).



▲ Figure 30. Removing the door latch cable.

- 14 Set the door panel aside.
- 15 Use a 7mm driver to remove the 7mm hex screw that mounts the speaker.
- 16 Pull the speaker out of the door frame, and press the release tab to disconnect the power plug. Set aside.



▲ Figure 31. Disconnecting the speaker harness.

- 17 Remove the door handle mounting bracket by removing the two 7mm hex screws.

⚠ NOTE: Carefully remove the metal clips hooked on the door frame.



▲ Figure 32. Removing the door handle bracket.

- 18 Remove the internal plastic weather seal, be careful not to tear it.



▲ Figure 33. Removing the weather seal.



Removing the Interior Weather Strip and Upper Window Trim

- 1 Using a trim pry tool to remove the upper window trim by removing the front and rear clips.



▲ Figure 34. Removing the rear clip of the window trim.

- 2 Pull the whole plastic piece around the top of the window opening.



▲ Figure 35. Removing the window trim.

Removing the Vehicle Window

- 1 Remove the plastic cover over the rear regulator bolt.



▲ Figure 36. Removing the rear regulator bolt cover.

- 2 Use a 10mm socket to loosen the two window mounting bolts at the bottom of the window to release it from the regulator clamps..



▲ Figure 37. Window regulator bolt head pictured through the inner door skin.

Removing the Vehicle Window CONTINUED

- 3 Reconnect the vehicle battery.

Run the window regulator almost to the bottom of the regulator track.



▲ Figure 38. Moving the window down.

- 4 Carefully slide the window glass up and out of the door window channel to remove it and set aside.



▲ Figure 39. Removing the window glass.

NOTE: Unhook and remove window “clamps” for safe keeping.

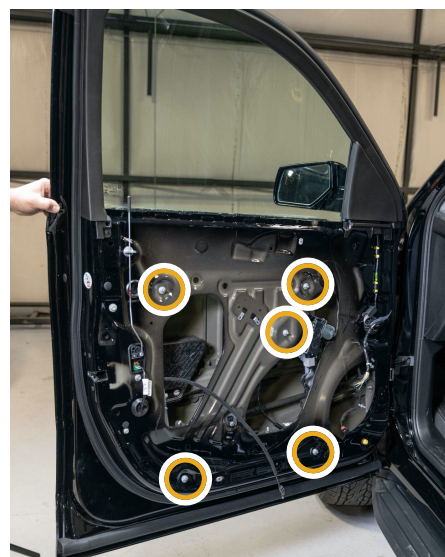
Removing the Front Door Window Regulator

- 1 Disconnect the wiring harness from the window regulator.



▲ Figure 40. Disconnecting the window regulator wiring harness.

- 2 Locate the 5 10mm hex nuts.



▲ Figure 41. Location of the 5 window regulator fasteners.



Removing the Front Door Window Regulator **CONTINUED**

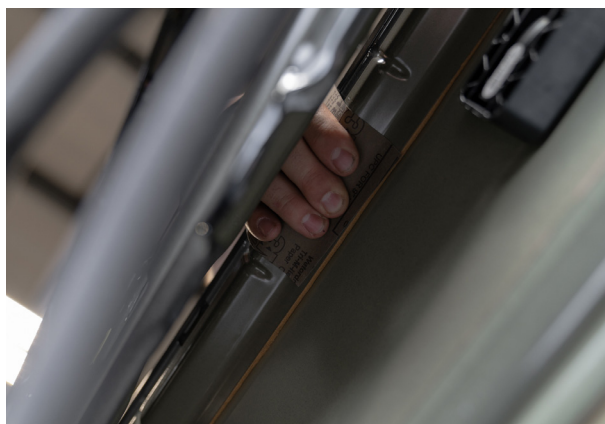
- 3** Remove the fasteners and pull the window regulator bracket from the door cavity and set aside.



▲ Figure 42. Removing the window regulator.

Preparing the Upper Brackets

- 1** Remove all rust, primer and paint from the top of door frame using a 50 grit sand pad.



▲ Figure 43. Sanding the door frame for panel bond.

- 2** Wipe all the remaining material away with isopropyl alcohol.

- 3** Locate the front window track and measure back.

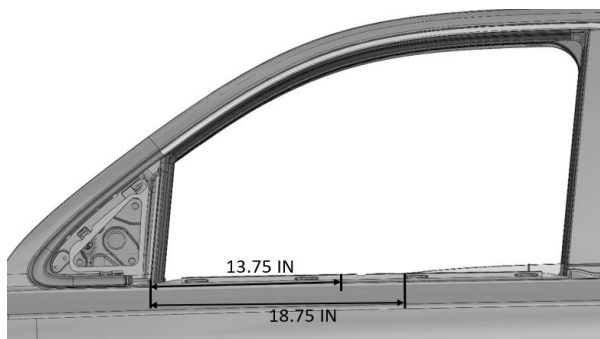


▲ Figure 44. Measuring start location.

- 4** Measure 13.75 inches for the upper bracket and measure 18.75 inches for the support bracket.



▲ Figure 45. Marking Bracket locations.



▲ Figure 46. Upper Mounting Locations.



Removing the OEM Door Foam Block

- 1 Locate the forward two white clips mounted at the bottom of the block and insert the door popping tool between the foam block and crash bar. Rock the tool until the clips are free of the crash bar.



▲ Figure 47. Location of the two foam mounting clips.

- 2 Rotate the foam out and carefully peel away from the double-sided tape attached to the exterior sheet metal.

⚠ NOTE: Use caution when removing this part. It is attached to the exterior vehicle sheet metal which may cause warping or denting.



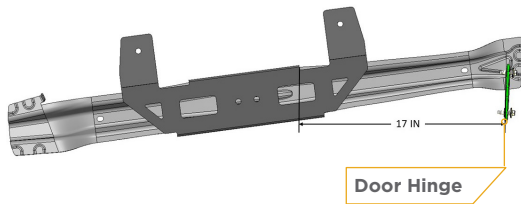
▲ Figure 48. Prying out the foam block.

- 3 This part is not reinstalled after the armoring. You can dispose of it or keep it to be reinstalled if the vehicle is decommissioned.



Inserting the Door Crash Bar Mounting Bracket

- 1 Locate the lower hinge plate where the lower crash bar terminates. Measure horizontally to the edge of the crash bar and mark ~17 inches toward the rear of the door. This will mark the location of the forward edge of the Crash Bar Mounting Bracket shown below once installed.



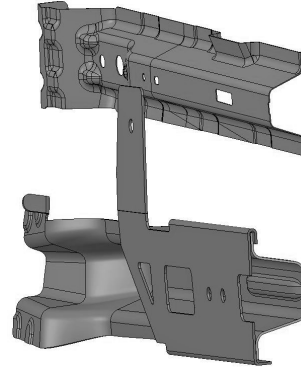
▲ Figure 49. Rendering of the Crash Bar Mounting bracket showing location on crash bar.

- 2 Insert the Crash Bar Mounting Bracket into the door cavity via the large access hole and position the bracket such that the bent tab of the bracket hooks onto the top of the crash bar.



▲ Figure 50. Inserting the Crash Bar Mounting Bracket through the door opening.

! NOTE: Make sure the Crash Bar Mounting Bracket sits on the upper and lower rails of the crash bar. Pushing firmly on the bracket should allow it to sit flush.



▲ Figure 51. Cross section of the Crash Bar Mounting Bracket placed on the crash bar.

- 3 Slide the bracket fore/aft the crash bar to align the hooked edge with the mark made earlier.



▲ Figure 52. Crash Bar Mounting Bracket placed on crash bar.

Inserting and Securing the Ballistic Door Panel

- 1 Locate the two nylon installation straps. These adjustable straps are included to help support the weight of the steel armor while installing it into the door.
- 2 Loop the installation straps around the door with the adjustment feature of the straps easily accessible to the inner side of the door. The straps should create a cradle in the center in the window channel of the door, between the inner and outer skin. Direct the male side of the clip facing down for ease of adjustment. See Figures below.



▲ Figure 53. Looping the installation straps around the door.



▲ Figure 54. Strap path through buckle and buckle direction.

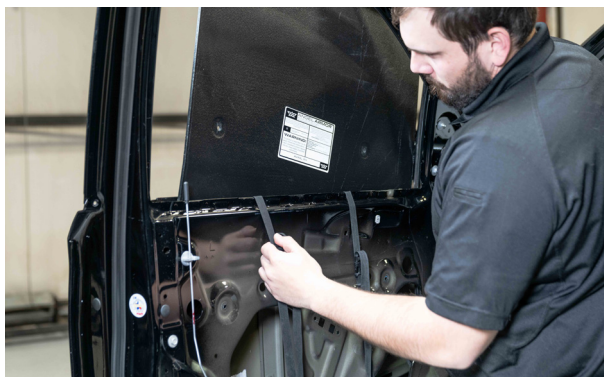
- 3 Hold the ballistic door panel so the product label faces the interior of the vehicle.
- ⚠ **Use extreme caution when transporting the ballistic door panel. The armor panel is very heavy and impact may result in serious injury.**
 - ⚠ **To avoid muscle strain or back injury, use lifting aids and proper lifting techniques when transporting the ballistic door panel.**
 - ⚠ **Wear appropriate protective gear, including eye, hand and foot protection. Protective gloves are highly recommended when handling the steel armor.**



Inserting and Securing the Ballistic Door Panel

CONTINUED

- 4** Carefully insert the armor through the window opening and into the cradle created by the installation straps. Ensure the straps align with the slots on the bottom of the armor panel to prevent the panel from slipping while lowering into the door.



▲ Figure 55. Placing the armor into the door.

- 5** Slowly adjust the left and right installation straps to begin to lower the armor into the door. Stop when the lower bolt holes align with the holes in the crash bar bracket.



▲ Figure 56. Using the cradle created by the installation straps to lower the armor into the door.

- 6** With the armor aligned with the crash bar, loosely install the front crash bar M8x30mm bolts with washers through the holes at the center portion of the armor. Then place the two M8x20mm bolts and washers into the remaining two mounting holes of the crash bar bracket and loosely thread into the crash bar bracket, leaving approximately 1/4" (6mm) of threads showing. These bolts will be tightened later in this installation.



▲ Figure 57. The front, top of the crash bar bracket loosely installed .

- 7** With the front and rear crash bar bolts loosely in place, lower the installation straps so that the full weight of the armor panel rests on the bolts. Remove the two installation straps and discard them. (The clips on the straps will need to be removed so the straps can be pulled out of the door skin.)

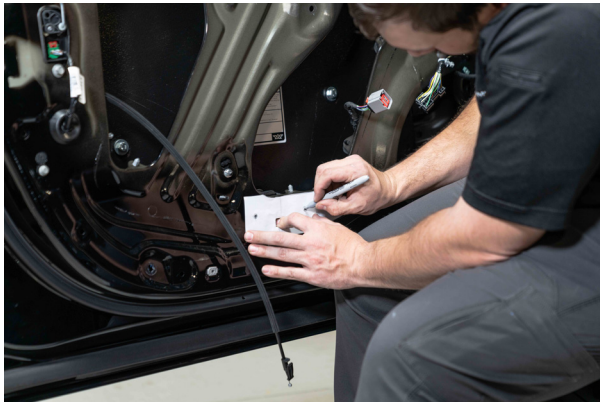


▲ Figure 58. The front, top crash bar bracket loosely installed.



Inserting and Securing the Ballistic Door Panel CONTINUED

- 8** Locate the lower mounting bracket drilling template that came with the kit (Appendix A appended to the end of this guide). Cut out the template and holes within for the corresponding door (driver or passenger side). Position the template over the hole in the lower center of the inner door skin as shown and use the profile to align the position of the one square hole to be drilled and use a marker to mark the holes.

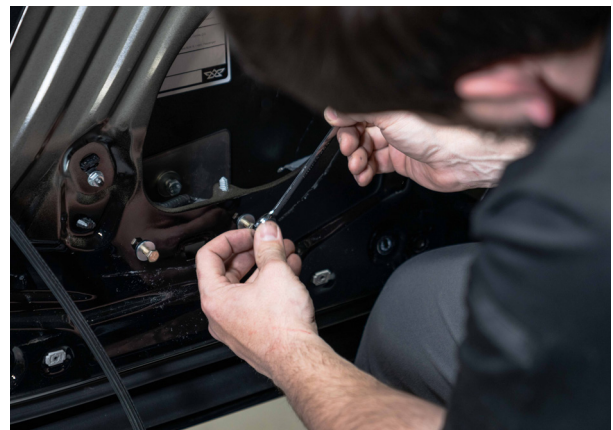


▲ Figure 59. Marking the hole locations using the template provided (appended to the end of this guide).

- 9** Center punch the hole locations. Using a 7mm drill bit, drill the two holes and use a deburring tool to deburr the edges. Apply a thin coat of black touch-up paint to each hole to prevent corrosion.

- 10** Insert the lower mounting bracket into the door cavity through the speaker hole. Slide it from the bottom in line with the newly drilled holes. Manipulate the bracket so the slots in the bracket align with the holes in the armor panel and the two bolt holes in the inner sheet metal align with the M6 weld nuts. Slide the panel left and right until all of the holes line up and then hand start the M8 and M6 bolts.

⚠ NOTE: Later in the installation, this part needs temporary removal to make clearance for the window regulator reinstallation.



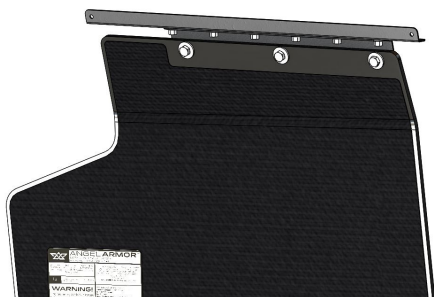
▲ Figure 60. Lower Mounting Bracket loosely installed.

Inserting and Securing the Ballistic Door Panel CONTINUED

- 11** At the top of the armor, use a 13mm ratcheting end wrench to loosely attach the top mounting bracket to the armor as shown using the three 8mm x 20mm bolts. Ensure the bracket presses up against the top of the door frame.



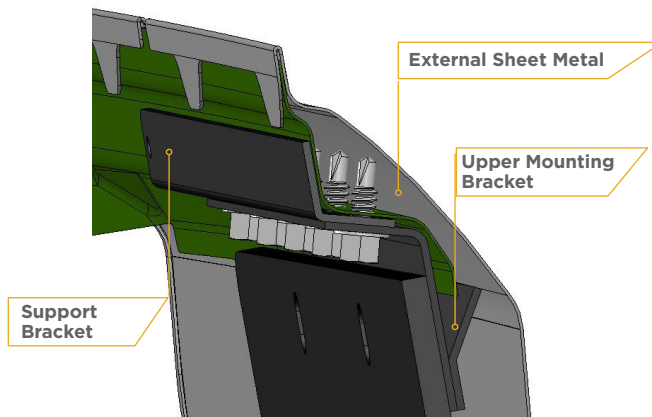
▲ Figure 61. Loosely installed upper mounting bracket..



▲ Figure 62. Rendering of the armor and Upper Mounting Bracket showing relative location and placement.

! NOTE: Foam adhesive might need to be removed to allow the top bracket to slide into place.

- 12** Ensure that the top bracket slides up and down freely to hook onto the metal lip in the door.



▲ Figure 63. Rendering of cross section of upper mounting assembly.

- 13** Sand the inside of the support bracket to give the adhesive some “tooth” to attach. Then clean with isopropyl alcohol to remove residue and dust.

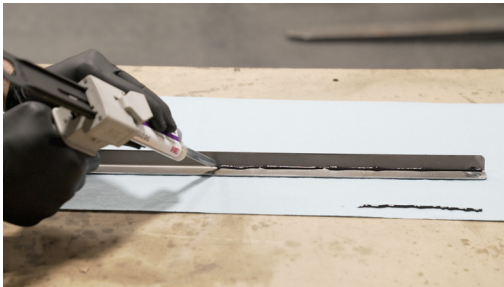
- 14** Dry fit the Support Bracket to the inside of the door frame and line it up to the previously marked ~18.75 IN mark.

! NOTE: When working with this adhesive it is recommended that you wear gloves and mask the outside of the door to prevent accidental adhesive contact with the outside door paint.

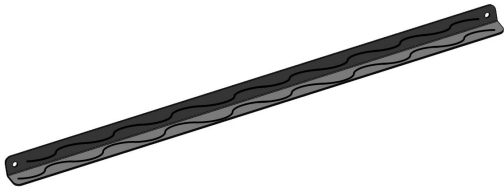


Inserting and Securing the Ballistic Door Panel CONTINUED

- 15** Remove the bracket and prepare to use the 3M panel bond. Be sure to apply a practice bead on something disposable. Apply a single 1/4" bead down the inside bend of the support bracket. Move to the two flat surfaces and apply a "S" type bead making sure to not go all the way to the edge of the part. Once both sides are covered you can place the part and hold it until it sets up.



▲ Figure 64. Applying panel bond to support bracket.



▲ Figure 65. Panel Bond application pattern.

- 16** It is critical the adhered top bracket is tight at the top of the door frame to prevent interference with the window.



▲ Figure 66. Support Bracket aligned and installed.

- 17** Using a 3/8" socket and impact driver, insert six sheet metal screws through the six holes at the top of the upper door-mounting bracket to attach it through the support bracket and then into the door frame. Again make sure that this screwed in part is tight to the outside of the vehicle to prevent interference with the window.

! NOTE: The sheet metal screws will drill six cavities into the metal portion of the door frame and will not show through the outside of the door skin. Ensure the screws are drilled into flat areas of sheet metal by shifting the loosened armor panel left or right as necessary. **DO NOT OVER-TIGHTEN** these screws as it could strip out the sheet metal.



Inserting and Securing the Ballistic Door Panel CONTINUED

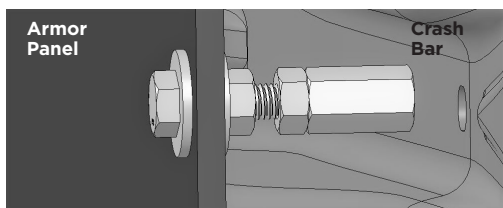
18 Locate the front mounting hole of the armor panel and insert the M8 X 50 with a washer at the head of the bolt.

19 Add a washer, two M8 Nuts and the M8 Spacer Nut on the end of the bolt on the bold of the panel.



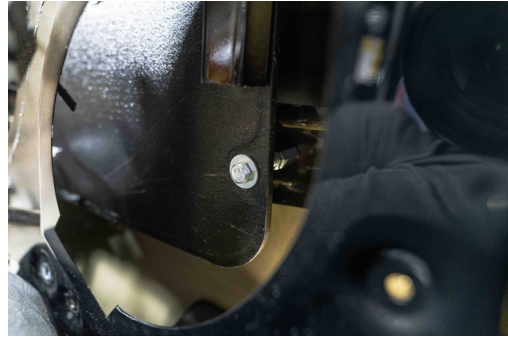
▲ Figure 67. M8 X 50 bolt.

20 Tighten the first nut to the back of the panel. This will allow the spacer nut to press against the inside the crash bar.



▲ Figure 68. Rendering of spacer assembly

21 Once the spacer nut is pressed against the crash bar, without adding tension against the front window track, run the second jam nut against it to set them into place.



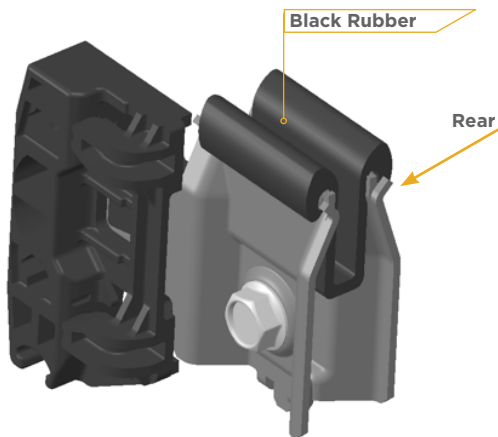
▲ Figure 69. Spacer Assembly Installed.

22 Confirm the armor is in its final position by checking the following:

- The armor sits flush to the crash bar.
- The bottom mounting bracket sits flush with the armor panel and mounts tightly to the inner side of the door frame.
- The door handle wiring harness connector sits freely and is not pinched by the upper edge of the armor panel.
- Firmly grip the armor panel and attempt to shake - there should be no movement of the armor panel.
- Check that the front edge of the panel is parallel with the front window track.
- Torque all M8 bolts to 18ft/lbs.
- Check that all bolts are torqued appropriately.

Replacing the Front Door Window Regulator

- 1** Remove the Lower Mounting Bracket by removing the two M8 x 30 bolts and two M6 X 20 bolts. Lower the bracket and bring through the speaker hole.
- 2** Reconnect the window regulator to the door switch and run the window clamps to the top location. Remove the black rubber part and the rear part of the clamps to reduce the thickness.



▲ Figure 70. Rendering of window regulator clip

- 3** Insert the rear section of the window regulator to the front opening starting with the top and then rotate the bottom in. Slide it to the rear section of the door.



▲ Figure 71. Inserting the rear section of the window regulator.

- 4** Repeat this with the front section of the window regulator and start from the top and rotate the bottom in.
- 5** Align the five mounting holes for the regulator assembly. Replace and secure the two 10mm hex nuts on the rear section. Then start and install the other three on the front section.



▲ Figure 72. Tightening the regulator mounting bolt.

- 6** Reach into the door cavity and reinstall the rear part of the clamp and the black rubber clamps on both regulator tracks. On the front regulator, replace the regulator bolt with the shorter (M6 X 10) bolt provided. Just start the bolts on both regulators to allow for the window to slide back in.
- 7** Reconnect the window regulator to the door switch panel and run the window clamps to lowest location.

Reinstalling the Lower Mounting Bracket

- 1 Insert the lower mounting bracket into the door cavity through the speaker hole. Slide it from the bottom in line with the previously drilled holes. Manipulate the bracket so the slots in the bracket align with the armor panel and the two bolt holes in the inner sheet metal align with the M6 weld nuts. Install the M8 and M6 bolts into the bracket.



▲ Figure 73. Installing the lower mounting bracket.

NOTE: Torque M8 bolts to 18ft/lbs.
Torque M6 bolts to 9ft/lbs.

Replacing the Front Door Window

- 1 Locate the two mounts for the rear window track.



▲ Figure 74. Mounting locations for the rear window track.

- 2 Remove the upper bolt making sure to not push the backer nut off the window track.



▲ Figure 75. Remove the upper window track bolt.

Replacing the Front Door Window



CONTINUED

- 3 Loosen the bottom nut to allow the window track to rotate away.



▲ Figure 76. Loosening the rear window track.

- 4 Carefully insert the window glass from outside the door into the window channel and lower into the door cavity. Start by settling the front corner into the front window track and get the rear started into the track. Work down and rotate the glass until it is in the tracks.



▲ Figure 77. Inserting the window glass into the window tracks.

⚠ NOTE: Do not force the glass into place. Firm and even pressure is sufficient.

- 3 Guide the glass into the clamps.
- 4 Reconnect the regulator and run the window to the highest location.
- 5 Retighten the regulator bolts and clamps with a 10mm socket.
- 6 Reach in and rotate the rear window track back into place. Reinstall the upper mounting bolt and tighten both bolts.

Replacing the Speaker and Vehicle Door Panel

- 1 Remove the five (5) metal clips from the interior door panel and reattach to the interior skin. Then place the interior weather strip over the top of the clips.



▲ Figure 78. Removing the metal clip from the interior panel.



▲ Figure 79. Metal clip reinstalled to the door with the weatherstrip over the top.

Replacing the Speaker and Vehicle Door Panel **CONTINUED**

- 2** Reinstall the interior weatherstrip and upper window trim with the two retaining clips.
- 3** Re-attach the internal plastic weather seal around the rear access hole.
- 4** Place the speaker in the door frame and mount to the door using the hex screw and connect the power plug.
- 5** Reinstall the door handle mounting bracket.
- 6** Hold the door panel near the door frame and title the top toward yourself while supporting the bottom edge with your legs.
- 7** Connect all wiring harness clips.
- 8** Replace the metal cylinder ball in its socket in the interior door handle.
- 9** Pull the black plastic collar away from the bracket and place the metal cable into the bracket.
- 10** Slide the black plastic collar into the bracket until the two plastic prongs snap securely in place.
- 11** Align the door lock post with the hole at the upper rear corner of the door panel.
- 12** Lower the door panel onto the lip at the top of the metal door frame and press firmly until seated.
- 13** Line up the white plastic snaps and the black plastic peg on the back of the door panel with their corresponding holes in the metal door frame.

- 14** Firmly tap on the snaps along the bottom edge of both sides of the door panel.
- 15** Use a 7mm socket to replace the bolts behind the interior door handle and armrest pocket.
- 16** Snap the black plastic trim covers back into their locations behind the door handle and inside the armrest pocket.
- 17** Install the two 7mm bolts below the map pocket of the door panel.
- 18** Connect the window control panel wiring harness.
- 19** Replace the window control panel.
- 20** Reconnect the vehicle battery.
- 21** Roll the window all the way down.

Replacing the Window Weatherstrip

- 1** Press down on the front end of the weather strip and move backward. Pressing the entire length of the weatherstripping into the window frame to ensure proper snap engagement.
- 2** Using a T15 driver, replace the weatherstripping screw at the back of the door.



Completing Installation

- 1** Verify that all trim and window components are properly re-installed and that the window, door locks and mirrors function as intended.
- 2** Once armored, the vehicle door may require additional adjustment at the hinges for proper closing and matching of body lines. Conduct final door adjustment by completing the following steps:
 - A** Gently close door to check alignment.
 - B** Loosen the door side hinge nuts.
 - C** With the help of an assistant or door lift, apply gentle upward pressure on bottom of door and move in/out at top and bottom of door as required.
 - D** Re-torque bolts, gently close the door and inspect closure/alignment.
 - E** Repeat as necessary.
- 3** Attach the Angel Armor brand label toward the top of 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.



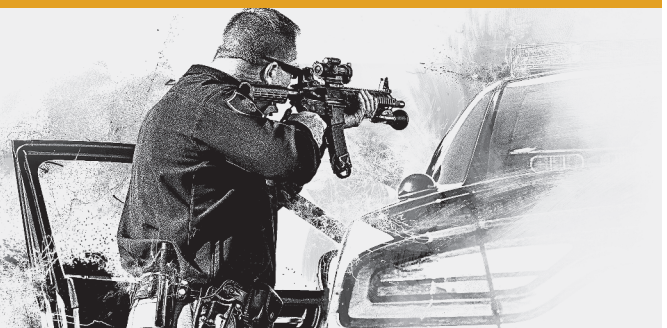
▲ Figure 80. Applying the Angel Armor brand label.

REMOVAL OR DECOMMISSION

If removing the armor for decommission or transfer to another vehicle, contact Angel Armor for additional support as needed.

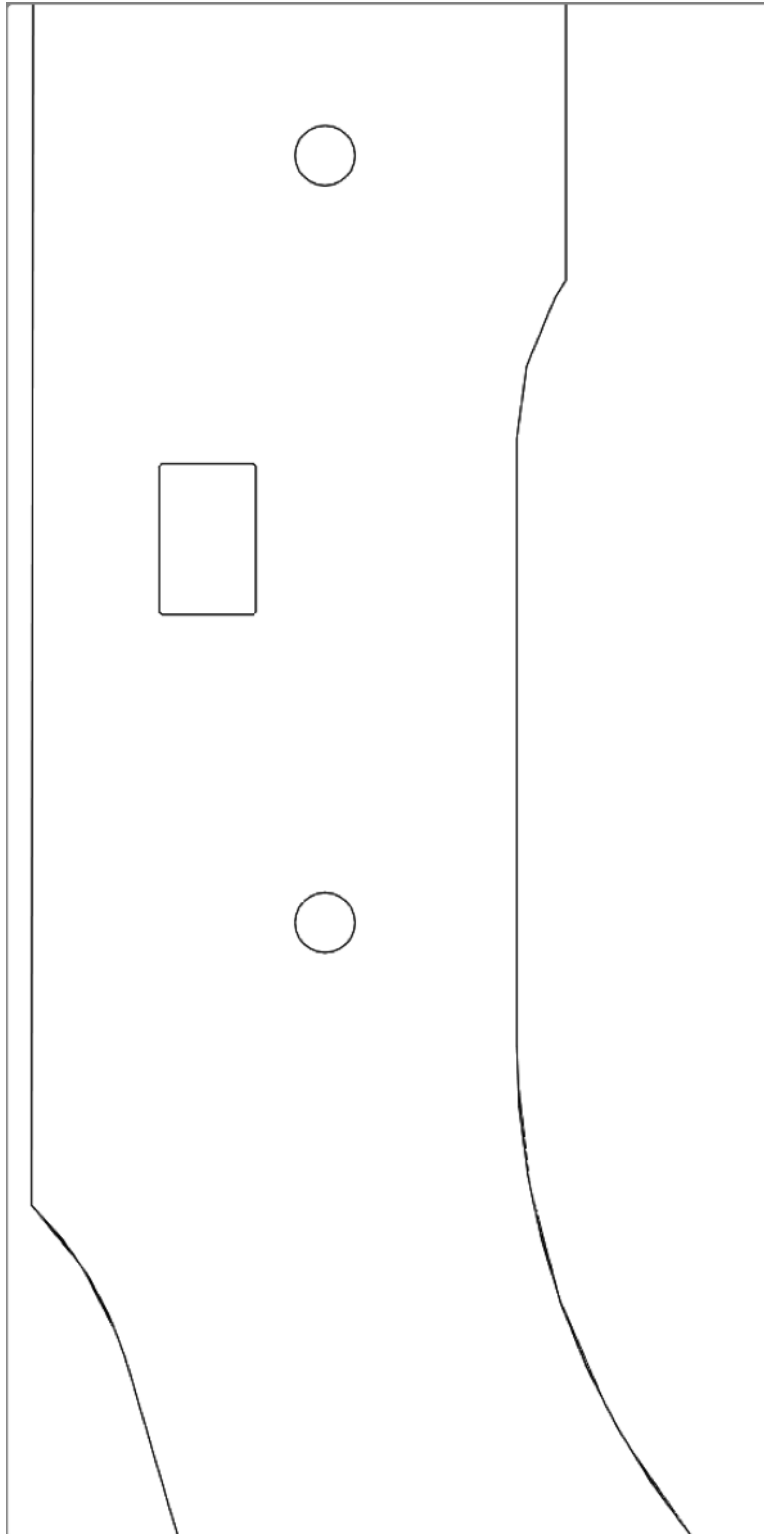
INSTALLATION COMPLETE:

Your vehicle is now equipped with Avail Level III+ — advanced ballistic protection from Angel Armor.



Front Door Lower Mounting Bracket Drill Template

Front Driver Door



Front Door Lower Mounting Bracket Drill Template

Front Passenger Door

