

Rhinohide Armor™ Panel Installation Procedure

(Approx. time - 10 mins)

Step 4 Rhinohide Armor™ panel installation

Having secured all Armor-lock™ bases to your vehicle and waited the minimum 24hrs (see Steps 1-4) for the base adhesive to achieve full strength you are now ready to install the Rhinohide@ panels.

Offer each Rhinohide panel up to the corresponding panel on your vehicle. Line up the Armor-lock™ fasteners on the Rhinohide panel with the corresponding base on your vehicle. Engage the security key into the head of the first fastener and turn the fastener in a clockwise direction until the fastener positively engages with the base (1/4 turn only is required). When installed correctly the fastener will engage with a positive "click" feel and the fastener will sit flush in the top washer. **Take your time and do not over torque or force the fastener to engage with the base plate pin.** Do not force the fastener into place, allow it to naturally engage with the pin and then quarter turn. It may sometimes be easier to turn the fastener in a counter-clockwise direction until you feel the fastener "drop" onto the base pin before making the clockwise direction turn to engage it. Forcing the fasteners to engage with the bases may result in damage to the bases from the fastener itself.

Engage each Armor-lock™ fastener with all bases on a panel and repeat the process above for each panel. The armor Lock fastener may sit flush with the top washer and look like it is engaged, but you MUST quarter turn the fastener clockwise until you feel it «click» into the final position to correctly engage it.

DO NOT DRIVE your vehicle unless **ALL** Rhinohide Armor™ panels are correctly engaged with their respective Armor-lock™ bases.

Rhinohide Armor™ Post trip/ Weekly Checks & Cleaning

(Approx. time - 5 mins)

Whilst Rhinohide Armor™ panels can be used as a permanent fixture on your vehicle, they still require routine inspections and checks.

After a long off-road adventure (or at least on a weekly basis) you should disengage the Armor-lock™ fasteners and remove the Rhinohide Armor™ panels and clean any dust or debris between the vehicle surface and the panels and around the Armor-lock™ bases.

Rhinohide Armor™ panels will get dirty on off-road trips and from use in general. It is easiest to wash the panels while still on the vehicle as the Armor-lock™ components are made from strong, resilient and waterproof materials.

Please note the polycarbonate materials may react with citrus cleaners. Citrus cleaning solvents are therefore to be avoided on the Rhinohide Armor™ system.

Armor-lock™ base Options

Please note that after the first installation the Armor-lock™ bases are designed to remain on the vehicle, even when the Rhinohide panels have been removed.

If you require additional bases or components, please email sales@rhinohide.com.au or have a look for the part you require on our website www.rhinohide.com.au

Removing Armor-lock™ bases

(Approx. time - 45 mins)

If required, Armor-lock™ bases can be easily removed by cutting through the 3M foam tape using a short piece of strong fishing line as shown in the base removal video on the Rhinohide website.



With the Rhinohide panels removed, take the fishing line firmly between both hands and place the line between the vehicle surface and the Armor-lock™ base at the top of the base. Pull down firmly sliding the fishing line from side to cut through the 3M foam.

Once you have cut through the foam on each base you can now remove the base from the vehicle surface. The remaining residue of the 3M foam and adhesive on the vehicle surface can be easily removed from the vehicle using your thumb to roll up the residue. Any small remaining foam fragments can be removed using a conventional car surface cleaner.

Please note that the Armor-lock™ bases are not designed to be re-used once they have been taken off the vehicle. To ensure correct fitment and secure bonding of the bases we recommend you do not use any other adhesives or alternative adhesive foams. Please use Rhinohide original components which have the correct materials and surface primers.

A new set of Armor-lock™ bases can be purchased from the Rhinohide website as required.

The Rhinohide system is covered under warranty for a period of 12 months from the original purchase date. Terms and conditions apply. Rhino Hide Pty Ltd ABN 46 164 727 253 is the manufacturer of the Rhinohide Protective Plate System. Australian and International patents pending. Rhinohide is a strong advocate for the conservation and preservation of the environment. Please always respect the landscape that you are exploring and avoid any unnecessary contact with trees and bushes.



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Rhinohide Armor™ Installation & Usage Instructions

⚠ IMPORTANT

The Rhinohide Armor™ panels and Armor-lock™ attachment system utilises highly advanced 3M™ VHB™ adhesive foam to secure the Armor-lock™ bases to the surface of your vehicle. Rhinohide has developed the proprietary Armor-lock™ attachment system in collaboration with 3M to take advantage of the strength of these VHB foams which enables the Armor-lock™ bases to be securely attached to your vehicle without the need for mechanical fasteners. This also means that the Rhinohide Armor™ panels can remain on your vehicle for both highway and off-road use (see limitations below), but can also be attached and detached to your vehicle via the Armor-lock™ system at any time.

All Armor-lock™ bases must be attached to all panels and all Armor-lock™ fasteners must be engaged with the bases. Failure to apply all bases to the vehicle using the recommended installation process will void the warranty and may also cause damage to your vehicle, other vehicles and property.

To ensure the 3M™ VHB™ adhesive foam achieves the design bond strength, the Armor-lock™ bases must be applied to a clean dry vehicle paint surface with ambient temperature between 15oC and 35oC during initial installation. **Once the bases are attached for the first time, they must remain in place, without the panels attached to the bases in a dry environment, for a minimum of 24hrs** before re-attaching the Rhinohide Armor™ panels.

Please note, this Armor-lock™ base installation process is only required for the **initial installation of the Armor-lock™ bases on the vehicle panel surface.**

⚠ Rhinohide Armor™ usage restrictions

Once installed the Rhinohide Armor™ system can be used On-road (not exceeding 120km/hr) and Off-road. Please note Rhinohide Armor™ panels are NOT suitable for On-road use in ambient temperatures above 40°C. If you are encountering vehicle speeds higher than **120 km/hr** or ambient temperatures above **40°C**, please remove the Rhinohide panels.

Initial Armor-lock™ Base Installation Procedure

(Approx. time – 1.5 hours)

Additional parts required (not supplied): Isopropyl alcohol
 We recommend that you view the video of the installation process before attempting this installation which is found on the Rhinohide website.
<https://www.youtube.com/watch?v=CK65XBvlh4c>

If you are unsure of your ability to complete this installation procedure please contact Rhinohide at sales@rhinohide.com.au who may be able to arrange an installation for an additional charge, depending on where you are located (not available outside major Metro in Australia).

Step 1 Vehicle Preparation

Ensure your vehicle is clean and dry before attempting to install the Rhinohide Armor™ system for the first time. Installation is best done in an undercover area and in ambient temperatures between 15°C and 35°C.
Once you have cleaned the vehicle panels you must use the Isopropyl alcohol spray for the final surface clean of your vehicle panels to ensure the panel surface is completely clear of all grease, contaminants, and condensed moisture.

Step 2 Set-up

Ensure your vehicle is clean and dry before attempting to install the Rhinohide Armor™ system for the first time. Installation is best done in an undercover area and in ambient temperatures between 15°C and 35°C.
Once you have cleaned the vehicle panels you must use the Isopropyl alcohol spray for the final surface clean of your vehicle panels to ensure the panel surface is completely clear of all grease, contaminants, and condensed moisture.

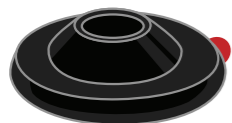
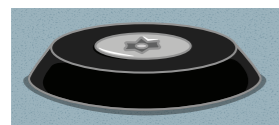


Armor-lock™ base



Armor-lock™ security key

Please note that for ease of installation the Rhinohide Armor™ system is shipped with the Armor-lock™ bases already attached to the Rhinohide panels.



Step 3 Bonding of Armor-lock™ bases/ Panel Installation

Do not peel back the 3M protective backing on the bottom of the base until an initial panel dry run fit is complete. This dry run fit process will allow you to step back and ensure you are happy with the final location of each Rhinohide panel before removing the 3M protective backing and bonding the bases to your vehicle.

Line up each panel (one at a time) with the corresponding panel on your vehicle. We recommend you start with the door panels as these are an easier shape to get familiar with for initial fitment. To assist with holding the panel in place during this dry run fitting process we recommend you use some strips of duct tape/electrical tape along the top edge of the panel to hold the panel in place.

Line up the panel with the door and ensure you leave clearance from the Rhinohide panel leading edge to the **front edge** of each vehicle door. This will generally mean the rear vertical edge of the Rhinohide panel will align or slightly overlap with the **rear edge** of the vehicle door.

Refer to the **Door Clearance Table** (below) for the specific clearance distance required for your vehicle make and model.

DOOR CLEARANCE TABLE		
Vehicle Make/Model	Rhinohide® SKU	Leading edge clearance
Ford Ranger Dual Cab 2015+	AL-FDRGR15	10mm
Toyota Hilux Dual Cab 2015+	AL-TYHLX15	10mm
Toyota Landcruiser 200 series 2008-2015 & 2015+	AL-TYLCR15	10mm
Toyota LC79 Dual Cab	AL-TYLC79DC	9mm
Jeep JL Wrangler 4 door 2019+	AL-JRJLU4D	N/A – external hinge
Isuzu D-Max Dual Cab 2021 +	AL-IZDMX21 & AL-IZDMX21-XT	10mm

NB: If the leading edge of the Rhinohide Armor™ door panel is installed with less clearance than specified above, it may pinch and jam in the door potentially causing damage to the product and the vehicle. Failure to adhere to the clearances above may void your warranty.

Once you are happy with the position of the panel it is time to bond the bases to the vehicle surface.

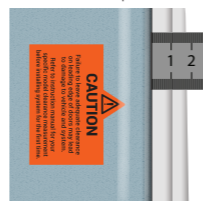
Carefully use the knife provided in the kit (knife/torch/bottle opener tool) to peel the red backing from the Armor-lock™ bases located at the bottom corners of the Rhinohide panel only. It is **important to do a small number of bases in the corner of each panel before removing the protective backing from all bases** as the 3M VHB tape adhesive will bond quickly to the surface and cannot be adjusted when bonded.

Keeping the panel lined up correctly using the supporting duct tape, apply strong pressure (using the heel of your hand as shown in the photo) to the top of these

Underside of bases – **do not peel off protective red film** just yet.



Door leading edge clearance requirements



Armor-lock™ attachments for a **minimum of 30 seconds**. This process of strong pressure is required to activate the pressure sensitive 3M adhesive and ensure a strong bond of the Armor-lock™ base to the vehicle. If the panel is moving, please use additional external tape or ask the help of a friend to support the panel in place during this base bonding step.

It is highly recommended that you watch our product installation videos before installation. These are found easily on our website and YouTube. One point to make very clear is to make sure that you don't "smooth" the panel against the vehicle. Once you have attached the top edge fasteners, it is important to let the panel fall to its natural position, this maintains the critical air gap between the panel and the paintwork. If you "smooth" out the panel against the surface, you may introduce a touch point between the panel and the paintwork which can cause chaffing of the paint. **See "RAP" installation below.**

Now, with the Armor-lock™ bases at the bottom corners bonded to the vehicle surface, with the help of the small knife provided, peel the backing from the Armor-lock™ bases at the top corners of the Rhinohide Armor™ panel. Keeping the panel lined up correctly, apply strong pressure (using the heel of your hand) to the top of these Armor-lock™ attachments for a **minimum of 30 seconds**.

Now the corners of the panel are fully attached you should disengage the Rhinohide fasteners from the bases on the bottom corners of the of the panel. This will allow you to reach behind the Rhinohide panel to enable you remove the 3M backing from bases along the middle of the Rhinohide panel. Keeping the panel lined up correctly, apply strong pressure (using the heel of your hand) to the top of these Armor-lock™ attachments for a **minimum of 30 seconds**.

Now you can re-engage the Rhinohide panel along the bottom edge by engaging the **Armor-lock™ fasteners onto the bases** using the security key to turn the fastener in a clockwise direction until the fastener positively engages with the base (1/4 turn only is required).

With the Rhinohide panel fully engaged along the bottom and middle you can now dis-engage the fasteners from the top row corner bases to allow you to reach behind the top of the panel to remove the protective backing from the remaining Armor-lock™ bases. As with previous bases apply pressure to each of the remaining bases one at a time along the top row of bases (and any other remaining bases) to ensure a strong bond for all Armor-lock™ bases.

Before moving onto the next panel install, it is important to first remove the Rhinohide Armor™ panel from the bases by disengaging each fastener and put each panel to the side to allow the adhesive on the bases to achieve full bond strength which will take 24 hours. Failure to take the Rhinohide panel off immediately after installing the bases may result in product adhesion failure and will void the warranty.

To remove the Rhinohide Armor™ panel from the bases, engage the Armor-lock™ security key with the fastener and turn a quarter turn in a counter-clockwise direction. Once all fasteners are disengaged, you can remove the panel from the vehicle.

For best results, **take your time to ensure the panels are aligned before pressing the base against the vehicle and only attempt to secure one base at a time.**

NB: After panels are installed, it is CRITICAL that you push along all parts of the panel to ensure that the air gap between the panel itself and the paintwork has been maintained. The best way to do this is to push using your index finger on the ABS plastic panel and make sure there is some flex and give for the panel to move before it touches the paintwork. If you find you have a spot where the panel has been "smoothed" out or "stretched" during installation and there is no

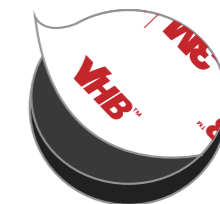
give in the panel, you can either:

1. Reinstall the panels again with new base plates; or
2. Place a Rhinohide Armor Pad (RAP) directly to the vehicle surface at the point where the panel is touching the paintwork, this will ensure that there is a shock absorbing pad between the panel and the paintwork, so that the panel will not chaff the paint. **Please note that the RAP is to be adhered to the VEHICLE itself not the Rhinohide panel. See procedure for RAP assembly on Rhinohide website.**

The RAPs can also be used for high impact areas such as the centre of doors, you can add additional shock absorption to these areas by applying the RAPs to the vehicle in these areas if you wish. To install the RAP, first peel off the blue 3M backing from the foam circle.



Next, peel off one side of the red VHB 3M grey tape and stick to the Foam pad (where you just removed the Blue 3M from).



When you have chosen your location, peel the final side of the red VHB 3M grey tape and stick to the vehicle paintwork. Please note that the grey VHB 3M tape provided must be used as it is automotive rated. **These two components must be put together to form the RAP.**

