

Installation Guide

Van Kit Lock Models



Protect your valuables, cargo, and livelihood.



We appreciate your trust in our company and look forward to significantly improving your van's security.

This booklet is only a guide to installing Thunderbolt® locks and is not a complete or comprehensive manual since every vehicle is different from year to make and model. We recommend consulting a professional installer or up-fitter if you are not comfortable with the installation process at any time.

You can follow this guide to walk you through the installation process; however, we encourage you to watch the "General Installation" video on our website. Keep in mind we continue to update our website with installation tips, photos, and videos.

Additionally, we are here to help; our goal is for your installation to go smoothly. If you need guidance, feel free to contact our team. If you have any questions regarding your order, please email us directly at info@thunderboltlocks.com or call us, and one of our customer service representatives will get back to you.

Please note: Thunderbolt® deadbolt locks are intended to protect contents and should NOT be engaged while the vehicle is occupied by persons as a safety precaution. The Thunderbolt® manual release knob should be installed in a location that is easily seen and easily accessible. Be sure to read the entire installation guide prior to installing the locks.

Best regards,
Team Thunderbolt®



Van Lock Kit Models



Van Lock Model 1 (M1)*
Factory Key-Fob Controlled



Van Lock Model 2 (M2)
Built-In Remote Control

*Available with Lock Inhibitor or without.

Kit Contents

Lock Housings
(1) Straight or
(1) Angle



Deadbolt

Lock Case



Marker



(2) Wire Connectors



Manual Release Knob



(2) Mounting Brackets



(1) Strike Plate

(1) Backer Plate (optional use)
These plates are identical.

Marking Gum



Wire Extensions
(colors will depend
on lock ordered)



3/32" Hex Key



(8) Self-Tapping Screws



Emblem Plate



(2) Small Rivets
(6) Large Rivets

Suggested Tools



Tape Measure



Step Drill Bit



Power Drill with Bits



Rivet Gun
(Recommended)



3/32" Hex Key
(Included)



Pliers



5/8" Wrench



Wire Crimper



Electrical Tape



Watch the General Installation Video before beginning your installation. You can scan the QR code with your phone or visit our website.



Scan Me
For Video



We suggest watching the general installation video on our website to get a feel for the process before starting your installation.

Every van application is a bit different, but the installations are similar overall. If you plan on installing multiple locks, we suggest starting with the rear swing doors.



Ford Transit

WHICH DOOR SHOULD THE LOCK GET INSTALLED INSIDE?

The lock should be installed inside the driver's side rear door. This is because a metal edge usually protrudes out on most vans that can obstruct the bolt.

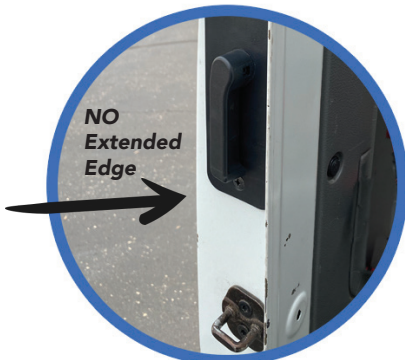


On the Ford Transit for example the lock housing gets installed in the driver's side rear door because of the extending edge. (See below)

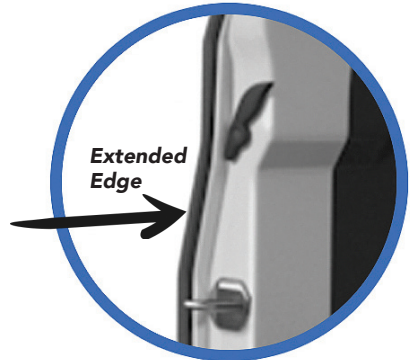
Some vans that do not have the extended edge on the driver's side rear door are the Chevy Express and the Nissan NV2500. These vans allow installing the lock in the passenger's side rear door. The advantage is that the wiring for the factory lock motor is already in that door. If you've purchased the Strike Plate Bracket accessory, it can allow for installations in the passenger's side rear door on almost any van.



Strike Plate Bracket (accessory)
this bracket can be installed on the driver's side rear door to allow for passenger door lock installations.



4. Example of **NO Extended Edge** on the driver's side rear door.



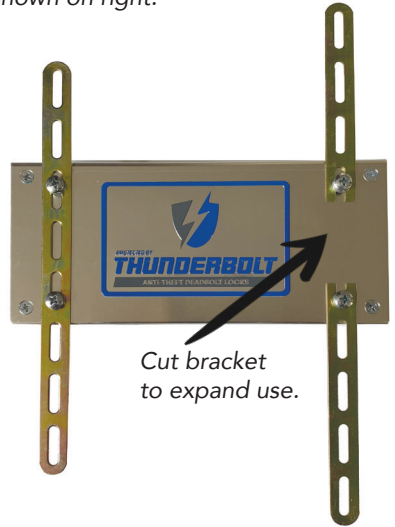
Example of the **Extended Edge** on the driver's side rear door.

REMOVE THE DOOR PANEL

Remove the panel cover from the door where the lock housing will be installed.



Brackets should be attached as shown on left or can be cut to span a large opening as shown on right.

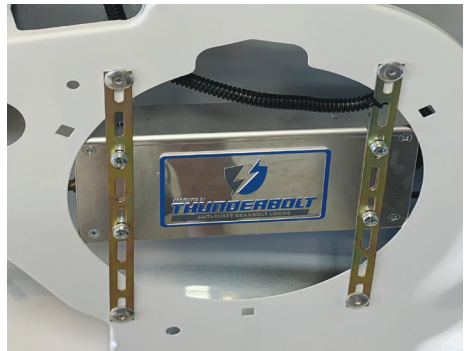
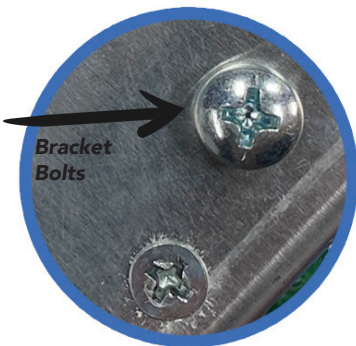


MOUNT THE CASE

Choose a spot that works best to mount the case using the brackets. The brackets can be cut or bent for a custom installation. Once the location is determined, attach the brackets to the Thunderbolt® case using the four rounded head bracket bolts provided on the front of the case. (See below)

Always remember the cables' location when picking a spot to mount the case. Additionally, ensure the location does not impede the window from rolling down the front doors.

Then mount the case with the brackets attached inside the door cavity using four supplied self-tapping screws. The case can get mounted anywhere in the door. We always suggest replacing the self-tapping screws with the rivets once the final location is determined. Keep your cables free-flowing; you do NOT want sharp-angled bends as they may bind the cable.



This photo shows where rivets have been used to replace the self-tapping screws.

The rounded head bolts are used to secure the brackets to the case.

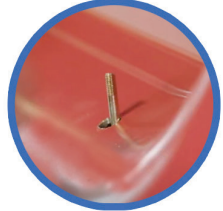
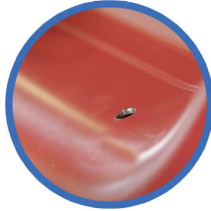
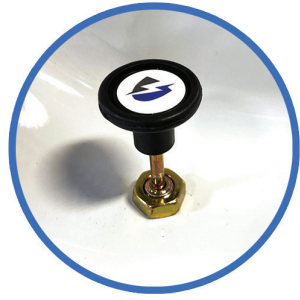


Always keep your cables free flowing with "J" bends.

MANUAL RELEASE LEVER

Select an ideal spot for the manual release lever and drill a 3/8" hole for its installation.

Unscrew the knob and nut from the manual release cable and guide it through the drilled opening. Now secure it with the nut and then screw on the knob. (See below)



The manual release lever can be mounted in almost any position or location on the door, as shown in the photos below, but be sure it is easily accessible.



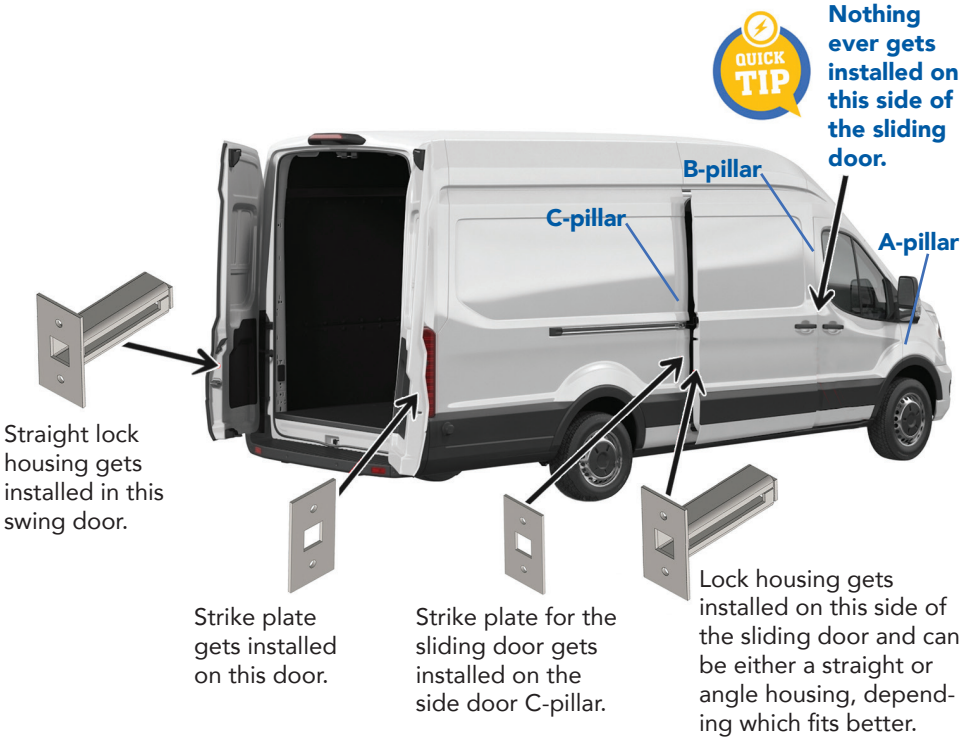
Position the manual release lever where it is accessible and visible by passengers. Place the provided manual release sticker above the knob for identification.



INSTALLING THE HOUSING

Determine if an angle or straight housing will better fit your application. All swing doors use a straight housing, as do many sliding doors. However, some sliding doors with a steep angle use an angle housing. Visit our website for info on your van make. Prepare to drill a hole for the housing by making sure there are no obstacles inside

the door, and that the mating door has nothing to impede the strike plate installation. This diagram shows the locations of housings and strike plates on a Ford Transit. Keep in mind that every van is different and Thunderbolt® locks are universal, allowing for various housing installation locations.



Mark the spot for the housing and drill a 7/8" hole. Then release the deadbolt by loosening the set screws.



Unscrew the housing from the cable and feed the cable through the hole and prepare to reconnect the housing.



The housing 7/8" hole on the side sliding door will be drilled in the edge of the door on the left side.



The strike plate 7/8" hole will be drilled on the side door C-pillar.



ATTACH THE HOUSING TO THE CABLE

With the cable extending through the hole in the door, re-attach the housing by screwing it back on the cable's end fitting, and then slide the deadbolt back on the cable. Next, it's time to adjust the bolt length inside the housing.

Note: A backer plate is provided in case your metal is thin. It can be used or discarded as it is your choice. If you feel your vehicle metal is thin, this plate will help reinforce the housing installed. It should be installed over the housing on the inside of the door. This is the time to keep it hanging on the cable or remove it. You will install it in just a few steps.



DETERMINE THE BOLT LENGTH

Decide how far the deadbolt should extend out of the housing while at rest. Since the throw of the deadbolt is about 5/8", extend the bolt out of the housing until it touches the other door, then back it away from the mating door about 1/4". Mark the length with the provided marker on the bolt.



Measure the gap between doors (minus a 1/4") and mark the bolt with the marker. This is where the deadbolt should extend outside the housing while at rest.



SET THE BOLT LENGTH

Once you have decided the required length of where the bolt should be sticking out of the housing, insert the deadbolt back onto the flex cable at the marked length and lightly tighten down the set screws. Ensure the manual release is entirely in the "unlock" or "up" position before tightening the set screws. This will ensure that the bolt will fully extend.



TIGHTEN THE SET SCREWS (DO NOT OVER-TIGHTEN!)

The set screws are designed with dog ear tips to hold the cable without the need to over-tighten. If you over-tighten the set screw, you could damage the cable and hinder the ability to make a second adjustment if needed. If this happens, you may need to order a replacement cable.



DO NOT OVER-TIGHTEN THE SET SCREWS! The set screws have a dog ear tip that secures the cable without the need for over-tightening.



INSERT THE HOUSING

Now that you have the deadbolt secured to the cable inside the housing, it is time to fit the housing into the 7/8" hole. Be sure the deadbolt has been appropriately adjusted to clear the door as it will stick out a bit from the housing while at rest, and we do not want the mating door to hit it when closing. Do not secure the backer plate at this time. You must make sure the bolt is hitting its target first.



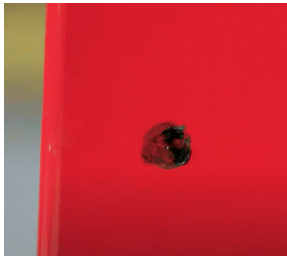
SECURE THE HOUSING IN THE DOOR

Using two of the self-tapping screws, secure the housing into the door. Be sure NOT to close the door on the deadbolt while it is in its extended position. Use the manual release to disengage the bolt and test closing the door slowly to see if it clears the mating door. If it doesn't, remove the housing and make the corrected adjustment on the deadbolt.



MARKING FOR THE STRIKE PLATE

Place a tiny bit of marking gum on the CENTER of the bolt's tip to mark where to drill the strike plate hole. Ensure the deadbolt is retracted by using the manual release to disengage the bolt. Wholly and slowly close the door and GENTLY engage the deadbolt using the manual release knob. Hold for a few seconds, and then release the knob. Do not press the knob with a lot of force to prevent the internal cable's kink. If you feel you may have kinked the cable open the case cover to inspect the cable. If needed, gently straighten the cable with long nose pliers as needed.



LOCATE THE MARK

Once the spot for the strike plate is marked with the marking gum, use the provided marker to enhance the marking and prepare for drilling.



Use a tiny amount of marking gum and "center" it on the end of the bolt for an accurate mark. Apply "very light pressure" for a few seconds when marking. Use the provided marker to enhance the gummed spot.



DRILL A HOLE FOR THE STRIKE PLATE

Drill a small pilot hole first, then use the step drill bit to achieve your 7/8" hole.



SECURE THE STRIKE PLATE

Before attaching the strike plate, slowly close the door and ensure the hole is in the correct spot so the deadbolt will accurately engage into it. Once you are certain that the deadbolt and strike hole will align, secure the strike plate using two self-tapping screws. Now is the time to secure the backer plate if you feel it will reinforce your application.



BACKER PLATE LOCATION

If you plan on using the backer plate, it gets installed in this location and must be secured with rivets. The rivets get inserted through the housing holes, the van's metal, wall, and the backer plate.

WIRING YOUR THUNDERBOLT® LOCKS

Thunderbolt® locks get connected in one of two ways, depending on which model you choose. Model 1 operates in conjunction with your current locks via your key fob. Model 2 operates independently from an included Thunderbolt® remote controller.

Van Lock Kit Model 1 (M1) Factory Key-Fob Controlled



Model 1 connects to the existing factory lock wires in each door, and your current key fob will operate your deadbolts. Each Thunderbolt® M1 kit lock includes a built-in lock inhibitor to prevent the deadbolts from engaging while the van's ignition is on as a safety precaution.

Each Model 1 lock has a green and blue wire that connects to your factory lock motor wires to control the locking operation. The white wire gets connected to a 12-volt ignition source wire, and the black gets connected to common ground, and these will prevent the lock from engaging while the vehicle's ignition is on for safety. Keep in mind, van models tend to use different color wiring, so be sure to consult your vehicle's repair manual or test the wires to know which ones are the factory lock wires.

Model 1 is also available without the lock inhibitor, whereas there will only be a blue and green wire. These models are for cargo doors where passengers are never riding, such as the rear doors of work vans.



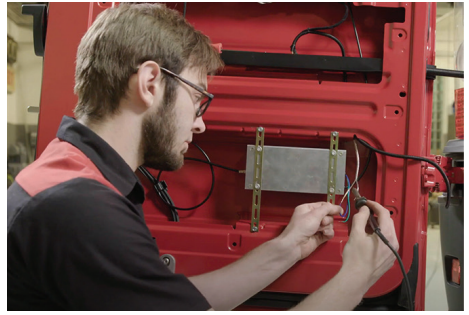
Most vans with power windows have a 12-volt ignition wire at the power window switch.



NOTE: Power contact switch will be needed to connect ignition relay wiring in side sliding doors if passengers will be present.

REAR SWING DOOR WIRING

Most Thunderbolt® Locks get installed in the driver's side rear door when installing in the rear swing doors. The first step is to connect the provided extension wire to the wires on the Thunderbolt® case. Next, run the wires through the factory boot, if there is one, and around the door frame to where the factory lock wires. You will then splice the wires into the existing factory lock motor wires. Once complete, the Thunderbolt® locks will operate with your factory key fob. If the locks operate in the opposite direction, you only need to reverse the connections.



If you are not familiar with wiring we suggest consulting a professional.

SIDE SLIDING DOOR WIRING

The factory lock wires will be inside the sliding door. Most side sliding doors only connect to the van's power when the door is closed. This is because there is a pin contact connection; others have wiring that rides along the door's track. With this being said, if you have a pin contact switch, the Thunderbolt® lock will only activate when the door is closed and powered.



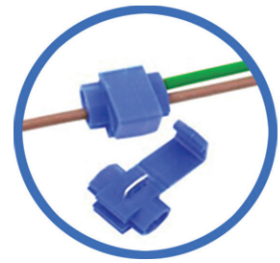
Factory boots are always recommended to protect wires traveling out of a door.

SIDE SWING DOOR WIRING

If you have swing doors on the SIDE of your van you can install the lock in the door closest to the passenger door. The factory lock motor wires will likely be in that same door.

CAB DOOR WIRING

If installing locks in the cab doors, the factory lock motor wires will be inside. Additionally, we require installing our lock inhibitor relay wires (white & black) when installing Thunderbolt® locks in cab doors. This will inhibit the locks from locking while driving as a safety precaution in case emergency personnel needs to access the front doors. Keep in mind when the ignition is off and you leave the vehicle, all the locks will lock.



Quick Wire Connectors



Quick wire connectors are provided to make connections easier, or you can traditionally connect the wires; "tap and wrap" which is a more secure method.

Van Lock Kit Model 2 (M2) Built-in Remote Control



Model 2 has a built-in remote control module and will operate the deadbolt locks from the provided Thunderbolt® remote controller. To install this Model 2, you connect the red and black wires to constant power and ground, such as the battery.

Lock inhibitors are NOT included in Model 2 kits because the locks are not tied into your existing factory locks. You will only engage the locks while the vehicle's ignition is off and the vehicle is not occupied.

Each Model 2 has a red and black wire that connects directly to the red power and black ground on the battery or any wires with constant 12-volt power leading to your battery.

Then with a click of the provided remote control, your deadbolts will operate. Remember that if you have a side sliding door, you will need to install a power contact switch or run the power wires into the door through the factory sliding door track—either way, you need to connect the wires from the M2 case to power and ground. If you have swing doors, you need to run the wires into the door where you mounted the Thunderbolt® case.



NOTE: A power contact switch will be needed for side sliding doors.

Distribution Block 12 Volt Power Terminals

Optional, but recommended.

To make the installation of multiple M2 locks easier, we offer a distribution block accessory that connects directly to your battery, and then each lock ties into the block. After you connect the primary red and black wires to your battery, run the remaining wire to the central location where you plan on installing the block. Then each M2 lock kit wires will tie into the terminals on the block. The blocks provide 6 fused terminals to power multiple locks and/or 12-volt accessories.

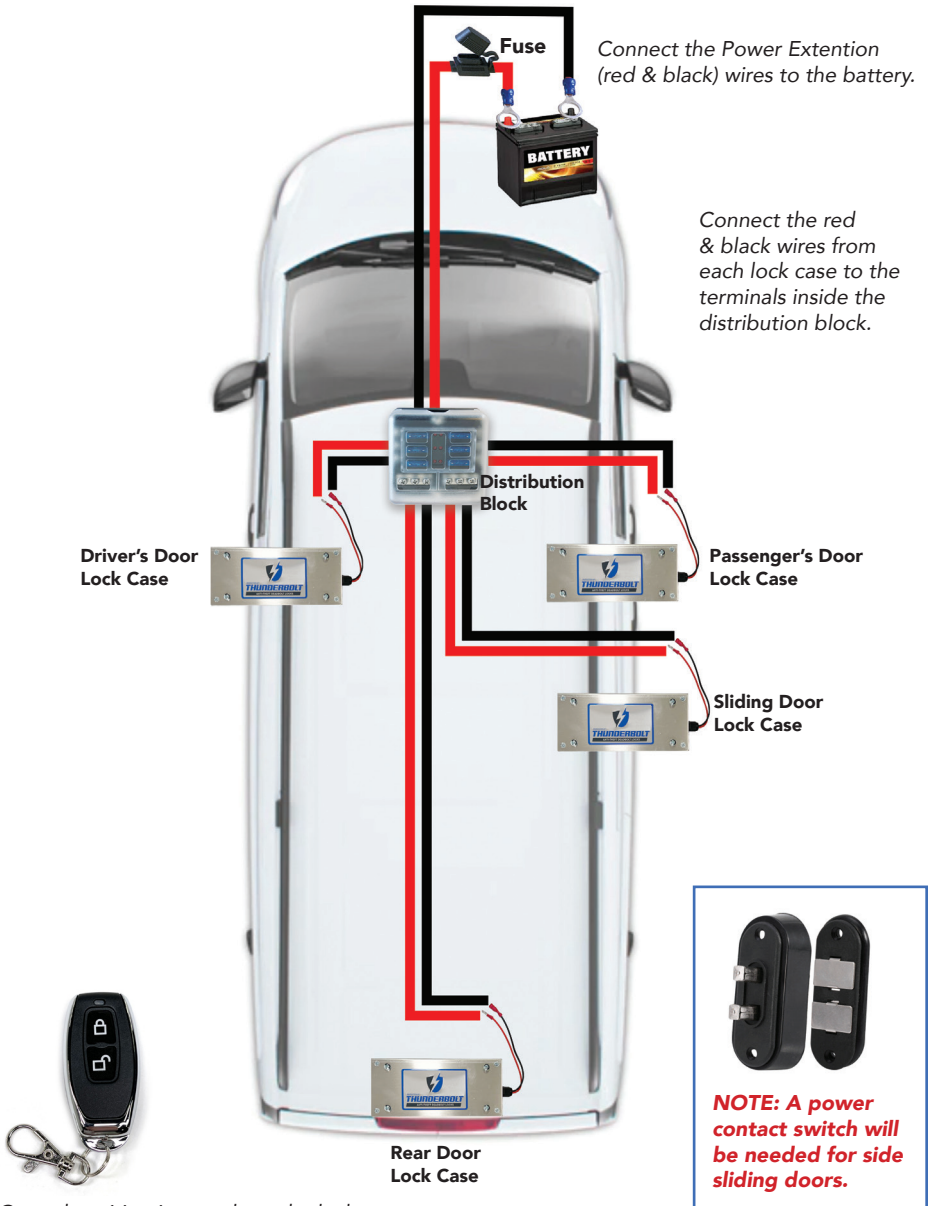
Power Extension Wiring with Fuse



Distribution Block

Distribution Block Installation Diagram

The "optional" distribution block can be located anywhere inside the van that makes sense in your application. Each M2 Lock connects to the distribution block with the provided wires. Additional 12-volt accessories such as a phone charger or LED light can also be wired into the



Once the wiring is complete, the locks will all operate from one of the provided Thunderbolt® remote controllers.

TEST YOUR THUNDERBOLT® LOCKS

Now it's time to test the locks to see if they are working correctly. Start by making sure the locks are disengaged using the manual release knobs, then slowly shut the doors to ensure the deadbolts will clear the mating doors. Press your remote to lock the doors and try to open them manually. The doors should now be locked with the Thunderbolt® locks.

Remember, if you keep the rear swing doors open, you can see the lock activate, but on the side sliding door, it may not activate in the open position if your van has a pin contact connection since it needs to be closed to power the lock.

When testing the locks, one vital thing to remember is to never slam the door with the Thunderbolt® sticking out of the housing, as this could damage the bolt by hitting the edge of the van. We always recommend shutting the doors slowly until the locks are correctly adjusted.

If a Thunderbolt® is engaged and the door is attempted to be opened, it will remain slightly ajar, and the deadbolt will not allow entry. To disengage the deadbolt, put a little force on the door by pushing against it and clicking your key fob to disengage the lock. This procedure will take the pressure off the deadbolt and allow for unlocking.

The same applies to the inside, though we always recommend using the remote to unlock your doors or disengage the deadbolt first by pulling the release knob and then opening the door. If you find the door is ajar and not opening because you did not release the deadbolt, try pulling the knob to disengage the bolt. If there is too much tension because the door is ajar, it means the door needs to be pulled shut a bit to allow the deadbolt to disengage. Thunderbolt® provides pull straps to attach to the doors that require tension relief on the bolt to open the door. Test ALL of your doors to see if pull straps should be installed.



INSTALLING PULL STRAPS

If a pull strap is needed, test where the door should be pulled and attach the pull strap using a screw. Once the door is ajar and the deadbolt is still engaged, pull on the strap to release tension and disengage the deadbolt by pulling on the manual release knob. Be sure to attach provided sticker near the manual release to inform passengers. Watch our website's "Installing Pull Strap" video for detailed information.

Note: If you plan on installing anything that may block a manual release knob, be sure to relocate the knob or use an extended knob strap from Thunderbolt®.

REPLACE THE SCREWS WITH RIVETS

Once the locks are tested and working properly, we highly recommend replacing all self-tapping screws on the mounting brackets, strike plates, and housings with the provided rivets. Rivets will give a more permanent long-term hold as self-tapping screws can become loose over time. A hand rivet gun is required and can be purchased at any hardware store. It is important not to use the rivets until the locks are tested as they must be able to be removed during the installation process for adjustments to the deadbolt.



Replace all self-tapping screws with rivets for a more secure hold.

(8) Rivets included in each kit
Rivet Gun (not included).



(6) Large head rivets for brackets and housings.

(2) Small head rivets for strike plates.

ATTACH THE EMBLEM PLATE

The final procedure is to attach the Thunderbolt® emblem plates to the outside of the doors if you desire. We recommend placing the emblem plate near the door handle of the secured door.



IMPORTANT WARNINGS • TERMS AND CONDITIONS

Read the entire guide before installing the product. Deadbolts are intended to protect contents and should NOT be engaged while the vehicle is occupied or running as a safety precaution. The Thunderbolt® manual release should be installed in a location that is easily visible and accessible. The manual release should be disengaged (pulled) before manually operating (opening) the internal factory door handle. You must test the manual release to see if a pull strap is needed. If the door is ajar and there is too much pressure on the bolt to release, you must install and label the pull strap. Attach the appropriate safety stickers provided near the manual release knob.

Each Thunderbolt® lock gets lubricated with silicone spray before it leaves the assembly line. We suggest spraying each lock with silicone periodically.

Thunderbolt® Locks are an aftermarket locking device. Thunderbolt® Locks, Inc. does not cover or extend any warranty on any vehicle. Your vehicle's warranty may be voided by adding any aftermarket products. It is your responsibility to check before ordering or installing the product, and Thunderbolt® Locks, Inc. takes no responsibility for any loss or voided warranty of any kind.

The Thunderbolt® lock products are intended to be used to secure your vehicle; however, Thunderbolt® Locks, Inc. does not guarantee that a break-in is not inevitable or that the possibility of failure of the product for any reason. Thunderbolt® Locks, Inc. takes no responsibility for any theft, damage to the vehicle, or loss of any property whatsoever.

Test your Thunderbolt® locks each time you use your vehicle to ensure they are in proper working order. Instruct any persons in the vehicle exactly how the locks work and how to manually release the locks if needed. Instruct them that the locks should not be engaged when any persons are inside the vehicle or while it is running.

Thunderbolt® Locks, Inc. does not take any responsibility for persons being locked out or locked in a vehicle for any reason, including battery failure or product failure. The Thunderbolt® locks are intended not to be engaged while the vehicle is running or ignition is on. The manual release should be installed in an easily accessible and visible location. Thunderbolt® Locks, Inc. requires every customer to connect the necessary provided lock inhibitor relay wiring to prevent the locks from engaging while the vehicle is running or ignition is on. Thunderbolt® locks should not be engaged if you are operating the locks from the Thunderbolt® remote control unit while the vehicle is running or while persons are inside. Thunderbolt® locks should be disengaged while driving. Every Thunderbolt® lock where a passenger may be riding should have a lock inhibitor installed. Thunderbolt® Locks, Inc. or any of its owners, shareholders, or employees take no responsibility for any injuries or death or for any damages resulting from using or installing our products. Do not install any Thunderbolt® products if you do not agree to these terms and conditions. Contact us if you have any questions on how to operate or test your locks.



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