



# HITCH INSTALLATION INSTRUCTIONS

**MAKE:** Mercedes    **YEARS:** 2023 - 2024    **MODEL/TRIM:** GLC SUV 300 (Also AMG line pkg)  
 2023 - 2024    GLC 300 4-matic SUV (Also AMG line pkg)

www.stealthhitches.com    833-694-4824

RACK RECEIVER KIT#: **SHR32031**

COMPATIBLE WITH TOW KIT: **SHT25033**



**2" RACK RECEIVER MAXIMUM PAYLOAD:** 350 LBS  
**MAXIMUM TOW RATING:** 3500 LBS  
**MAXIMUM TONGUE WEIGHT:** 350 LBS

## UNDER VEHICLE TRIMMING:

HEAT SHIELD: **NO**  
 FASCIA: **YES**  
 GRAVEL GUARD TRIMMING: **NO**

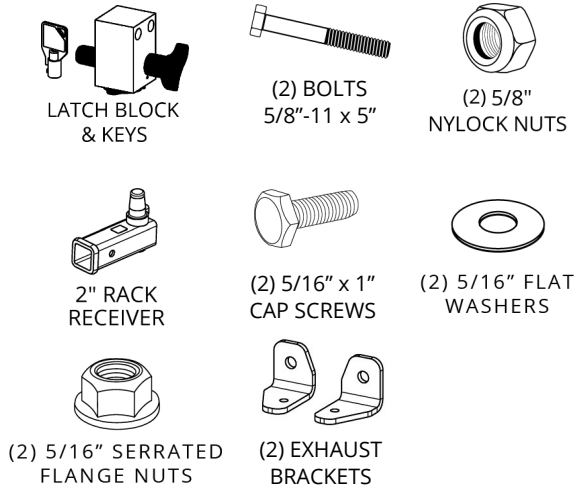


**READ ALL INSTRUCTION WARNINGS AND LABELS**

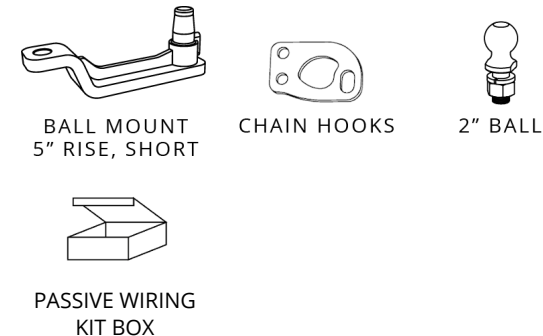


**NO WELDING, METAL DRILLING OR VISIBLE TRIMMING REQUIRED**

### PARTS SUPPLIED WITH RACK RECEIVER KIT:



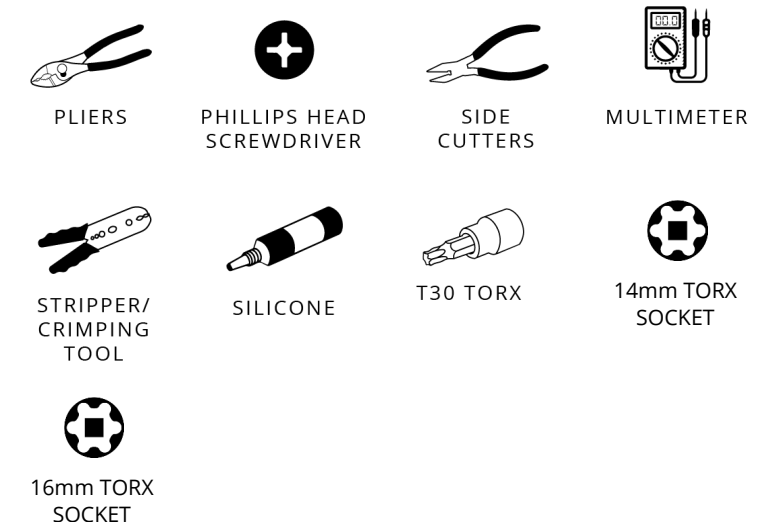
### ADDITIONAL PARTS FOR TOW KIT:



### TOOLS REQUIRED:



### ADDITIONAL TOOLS FOR TOW KIT:



# <THESE INSTRUCTIONS MUST BE GIVEN TO THE END USER>

**NOTICE:** Installation of Stealth products may or may not require the addition of a wiring harness to the vehicle.










- The Rack Receiver only product does not require adding a wiring harness.
- The Rack Receiver plus Tow Kit requires the addition of a "Passive" wiring harness to the vehicle. The passive harness "reads" the output of the vehicle's lights and translates the signals to the trailer without being connected to the vehicle computer.

**INSTALLATION NOTE:** In most instances, these instructions will only outline disassembly of vehicle components. Re-installation of components will require the installer to retain vehicle hardware and work through disassembly instructions in reverse order. When installation is complete, double check that all vehicle components have been replaced and are secured.

## IMPORTANT SAFETY NOTICE FOR STEALTH HITCH INSTALLERS AND CUSTOMERS.

Read all installation and operating instructions along with all labels before installing or using this product. Do not perform any installation or towing procedures without fully understanding the correct tools and actions for all steps. Call for support if needed.

### **WARNING** Failure to comply with the safety information in these instructions could result in serious injury or death.

-  Do not modify this product in any manner. Doing so could alter its integrity and lead to a loss of attachment between the trailer and the tow vehicle.
-  Adding Stealth hitch components to the chassis of any vehicle can be hazardous. There is potential for unexpected combustion of fuel, electric shock, burns, shifting or falling of unstable vehicle, damage to vehicle, injury from tool usage and many other hazards. This installation must be completed by someone who is aware of the hazards involved. This person must be knowledgeable of proper safety procedures for a vehicle modification of this nature, and for usage of the equipment required to perform the installation.
-  Without proper knowledge, towing can be a dangerous activity. Understand all the risks involved with towing before proceeding. For information on towing safety, see "**The Trailer Handbook: A Guide to Understanding Trailer and Towing Safety**" from the National Association of Trailer Manufacturers, [www.NATM.com](http://www.NATM.com) and your trailer and tow vehicle manufacturer's owner's manual.
-  Do not exceed tow or tongue rating of coupler, tow or tongue rating of hitch, or tow or weight ratings of tow vehicle or trailer. See vehicle and trailer manufacturer information for ratings. Exceeding these ratings may cause damage to towing components or loss of attachment between the trailer and vehicle.
-  While installation is being performed, check for signs of damage or excessive corrosion. Do not install hitch components over vehicle parts that are broken or have compromised structural integrity.
-  This product was designed to fit vehicles in their original, "as manufactured" condition. Compatibility with vehicles having replacement parts, or other modifications is not guaranteed. Inspect vehicle for modifications before installation of this product.
-  Some accessories, like the rack receiver, are not rated for towing. Do not use any accessories without proper knowledge of their use.
-  A visual inspection of the hitch should be performed before each use. Regularly check that all connections are secure, including those that secure the hitch to the vehicle. Check for cracks or damage to the hitch. Do not use the hitch if cracks or damage outside of normal wear is found. Using a hitch that has unsecure connections and/or cracks or damage could result in damage to the tow vehicle, trailer, towing components and loss of attachment between the tow vehicle and trailer.
-  Stealth hitches are not compatible with any weight distribution or sway control products. Adding additional products to the trailer or chassis which modifies the function of the Stealth hitch may cause hitch failure.

**NOTICE:** Installation of hitch requires removal of vehicle parts and interaction with vehicular electronics. Before installation, check the condition of body panels and note any locations where panels are not flush. Check the electronic functions of the vehicle, such as: headlights, taillights, turn signals, cameras, backup sensors, Parking Distance Controller (PDC), foot activated cargo access, etc. It is the responsibility of the installer to restore the fit and function of the vehicle.

## GAIN ACCESS TO MOUNTING AREA

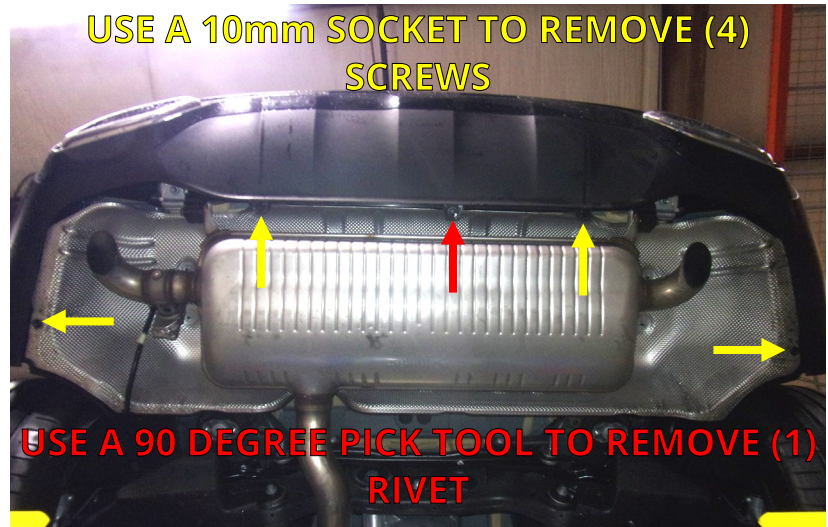


10mm  
SOCKET



90 DEGREE  
PICK

1. Underneath the rear cargo area of the vehicle, use a socket to remove (4) screws connecting the bottom of the fascia to the vehicle (yellow arrows) Use a 90 degree pick to remove (1) rivet (red arrows).



PLASTIC  
PRY TOOLS

2. The rear fascia is clipped to the vehicle body behind the wheel wells. Pull outward on the top front of the rear fascia to expose a clip in the seam. With a plastic pry tool, push down on the exposed clip to disconnect. Continue to pull outward on the fascia and disconnect clips as they are exposed. Repeat on both sides of the vehicle.



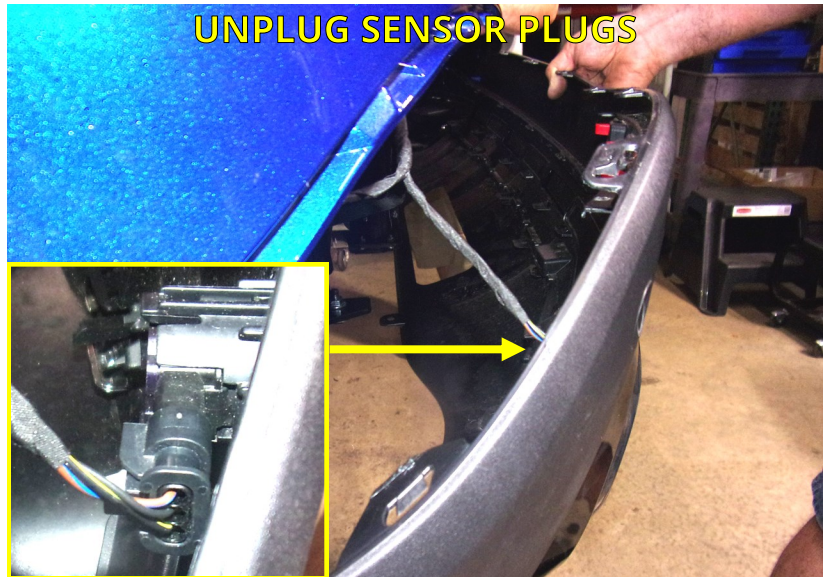
3. A few clips will remain inside the fascia. These clips are released by reaching inside the fascia and disconnecting the clips. Press down and towards the rear of the vehicle to disconnect these clips.



## GAIN ACCESS TO MOUNTING AREA

- This step requires a partner. Pull the fascia rearward enough to access up to (4) sensor plugs if present. Unplug each plug. Remove the fascia completely.

**NOTICE:** Carefully remove the fascia and place on a blanket or pad.

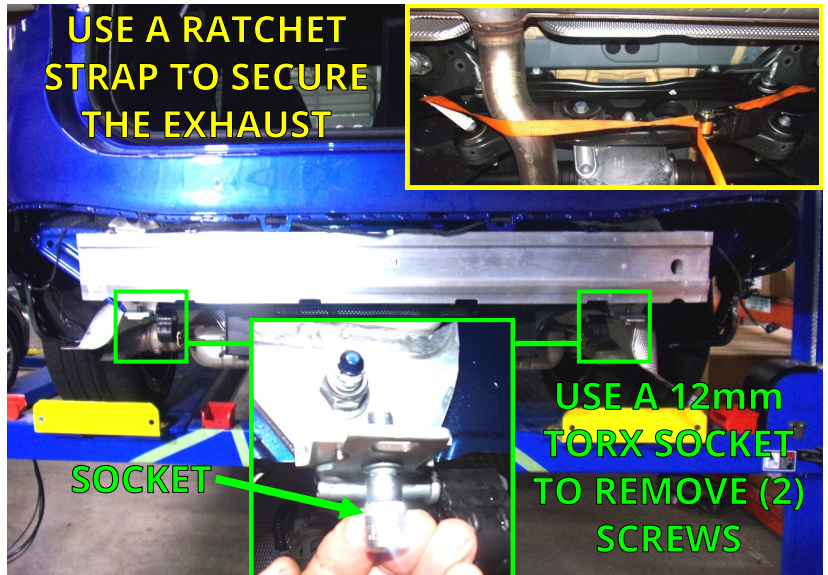


RATCHET STRAP



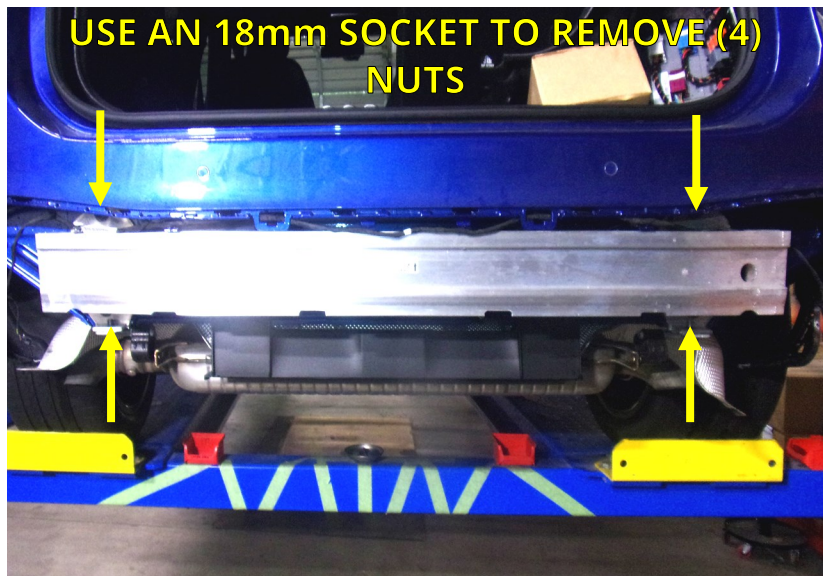
12mm TORX SOCKET

- Attach a ratchet strap under the vehicle to support the exhaust. Above the exhaust are (2) screws connecting the exhaust hanger brackets to the factory reinforcement beam. Use a torx socket to remove (2) screws and lower the exhaust.



18mm SOCKET

- Use a socket to remove (4) nuts securing the factory reinforcement beam to the vehicle. **Save** the factory nuts and discard the reinforcement beam.



## INSTALL STEALTH HITCH FRAME



RATCHET



18mm  
SOCKET



1/2" SOCKET



1/2" WRENCH

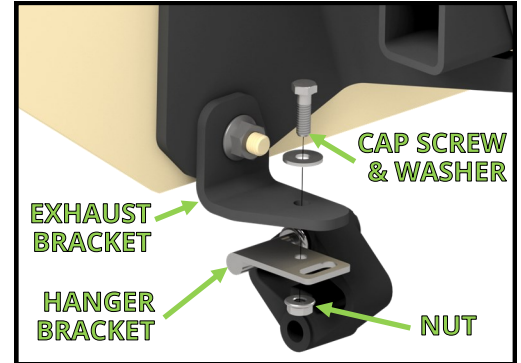
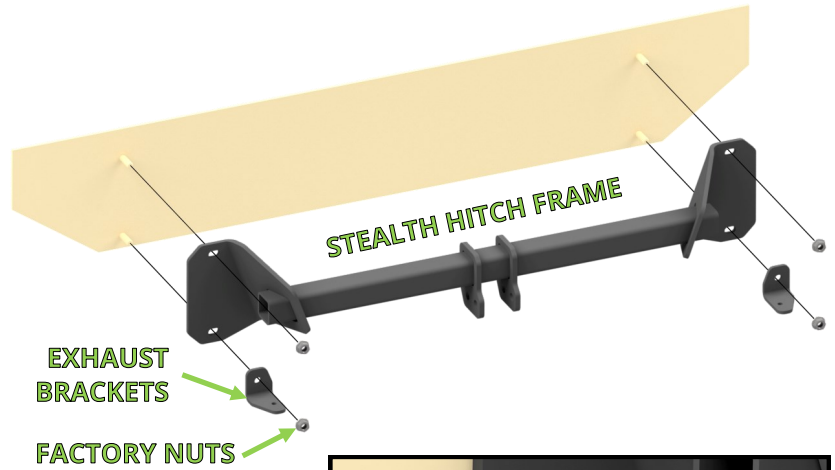


TORQUE  
WRENCH

7. Install Stealth hitch frame and exhaust brackets over the studs used for the factory reinforcement beam. The exhaust brackets will install on the bottom two studs over the hitch frame. Center the hitch frame. Level the exhaust brackets. Use a torque wrench to tighten the (4) factory nuts to 85 ft.-lbs.

- Using the supplied 5/16" cap screws, flat washers, and flange nuts, reattach the exhaust hangers to the exhaust brackets as shown in the image. Repeat on both sides of the vehicle.

## USE 18mm SOCKET TO TIGHTEN NUTS



## USE A 1/2" SOCKET AND WRENCH TO TIGHTEN BOLTS

## MOUNT LATCH BLOCK



15/16"  
SOCKET



15/16" OPEN  
END WRENCH



TORQUE  
WRENCH

8. Installation of the latch block varies depending on which kit you are installing.

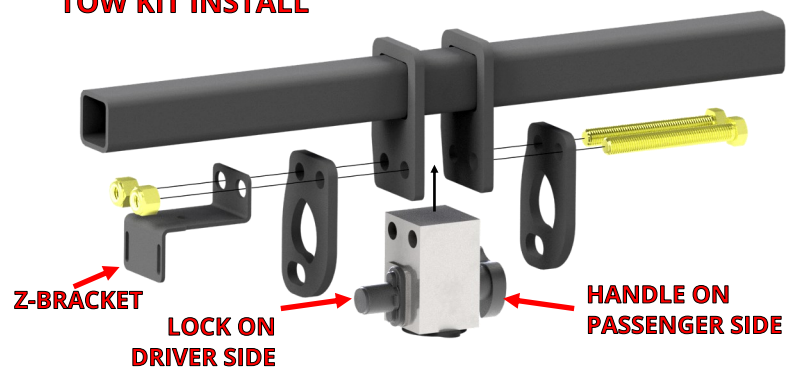
- **Rack Receiver Kit:** Install the latch block with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock nuts. Tighten each bolt to 150 ft.-lbs.
- **Tow Kit:** Retrieve Z-bracket from wiring harness kit box. Install the latch block, (2) chain hooks, and Z-bracket with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock nuts. Tighten each bolt to 150 ft.-lbs.

**NOTICE:** Keys are packaged within the latch block, remove keys and store in safe location.

## RACK RECEIVER KIT INSTALL



## TOW KIT INSTALL



IF INSTALLING A RACK RECEIVER KIT, SKIP TO STEP 25.  
IF INSTALLING A TOW KIT, CONTINUE TO STEP 9.

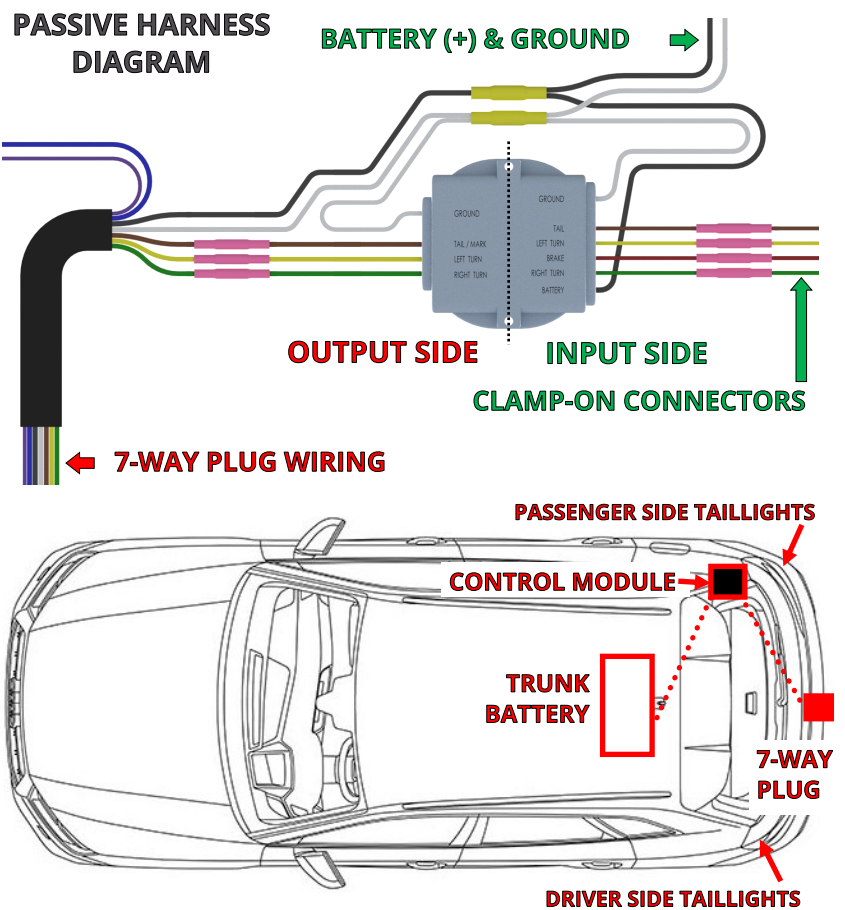
## INSTALL PASSIVE WIRING KIT

#	DESCRIPTION	QTY
1	7-WAY WIRING HARNESS <ul style="list-style-type: none"> <li>• FUSE HOLDER &amp; FUSE</li> <li>• CONTROL MODULE &amp; WIRES</li> </ul>	1
2	ADHESIVE FOAM STRIP	2
3	FORK TERMINAL	1
4	CLAMP-ON CONNECTORS	5
5	5/8" LONG PHILLIPS SCREWS	6
6	#10 LOCK NUT	6
7	CABLE TIE - 8"	4
8	CABLE TIE - 14"	3
9	Z-BRACKET	1
10	MOUNTING BRACKET	1
11	7-WAY HOUSING	1
12	7-POLE TO 4-POLE ADAPTER	1



9. Locate the wiring kit box. Review the contents of the box against the list above to check for missing components. The passive wiring kit uses a control module to manage the functions of the trailer lighting. The module has an **"input"** side that receives power from the vehicle's battery and signals from the vehicle's taillights. The **"output"** side of the module delivers this information to the 7-way plug. The control module is connected to the vehicle's battery and taillight wiring as outlined in the next steps.

**NOTICE: Do not allow electrical system to become disconnected from power or ground. Doing so may interrupt electrical systems.**



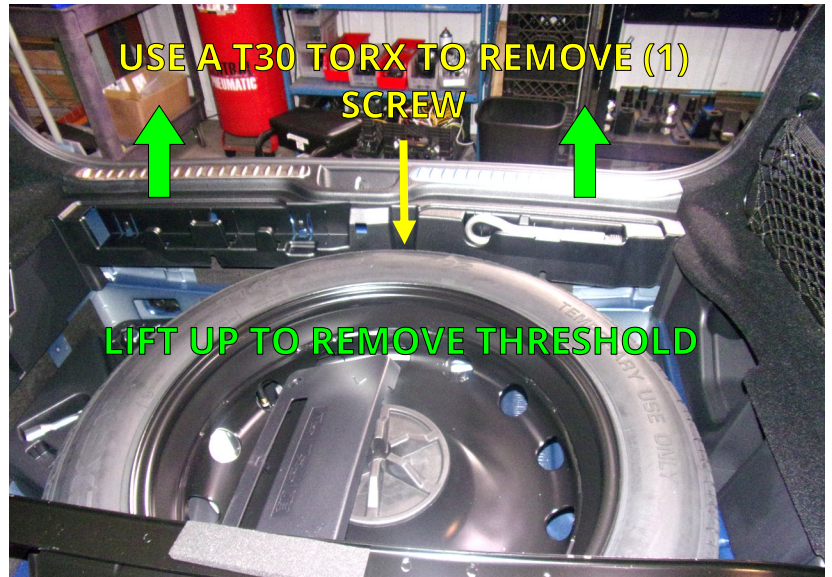
## INSTALL WIRING KIT CONTINUED

10. Inside the rear cargo area, lift up and remove the floor panel.



T30 TORX

11. Use a Torx to remove one screw from the rear wall of the cargo area (yellow arrow). Lift up and remove the threshold from the bottom of the rear cargo area door (green arrows).



14mm or 16mm  
TORX SOCKET



90 DEGREE  
PICK

12. On both sides of the cargo area, use a 90 degree pick tool to open the (4) plastic anchor covers (yellow arrows). Use a Torx socket to remove the screw under each cover that secures each anchor (red arrow).



## INSTALL WIRING KIT CONTINUED



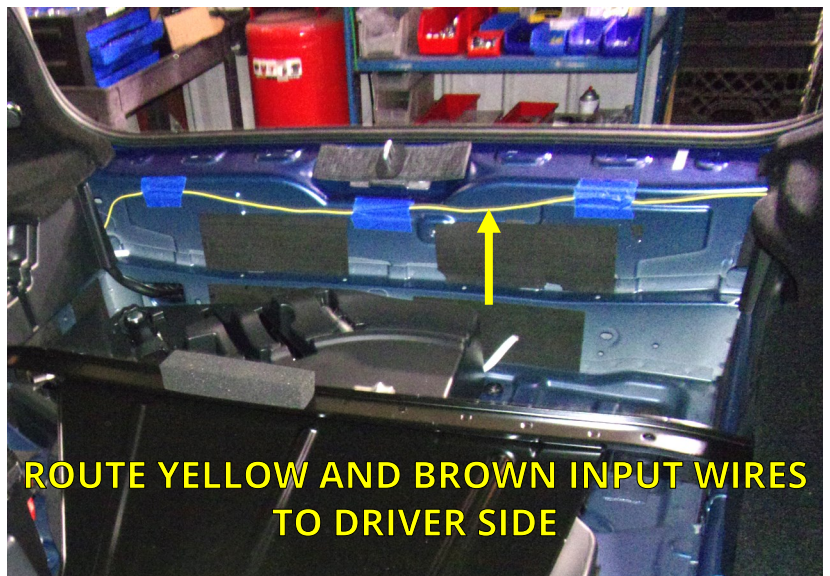
13. Use a plastic pry tool to dislodge the passenger side panel in the cargo area. Pull the side panel open enough to gain access to the compartment behind it. Retrieve the harness control module from the wiring kit box. Use the adhesive foam strip to secure the module in the indicated location against the vehicle body



14. Locate the grommet in the rear of the trunk wall. Use side cutters to cut the tip off from one of the fingers in the grommet. Route the control module output wires from inside to the outside of vehicle through the hole in the grommet.



15. The wires on the input side of the module need to be attached to the vehicle wiring. Route the yellow and brown, left turn and marker signal input wires through the cargo compartment to the area behind the driver side taillight.





## INSTALL WIRING KIT CONTINUED



MULTIMETER



PLIERS

16. Inside the driver side cargo compartment locate the indicated part of the vehicle wiring harness. Use clamp-on connectors to connect the yellow and brown wires to the left turn and marker signal wires behind the taillight (as shown in reference table on below).

**NOTE:** Vehicles may have different wire colors than those shown. Verify circuits (wire colors) with multimeter. Ensure vehicle wires are pressed firmly into connector to make contact.

**USE CLAMP-ON CONNECTOR TO CONNECT THE YELLOW AND BROWN INPUT WIRES**



MULTIMETER

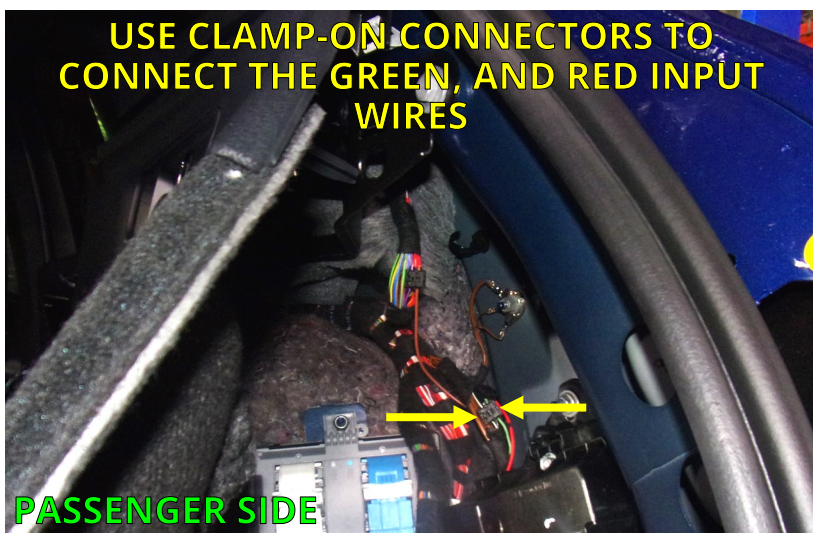


PLIERS













17. Inside the passenger side compartment locate the indicated part of the vehicle wiring harness. Use clamp-on connectors to connect the green and red input wires to the right turn, and brake signal wires behind the taillight (as shown in reference table below).

**NOTE:** Vehicles may have different wire colors than those shown. Verify circuits (wire colors) with multimeter. Ensure vehicle wires are pressed firmly into connector to make contact.

**USE CLAMP-ON CONNECTORS TO CONNECT THE GREEN, AND RED INPUT WIRES**

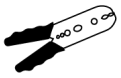


### CLAMP-ON CONNECTOR COLOR REFERENCE TABLE

SIGNAL INPUT WIRES			POWER & GROUND WIRES		
FUNCTION	HARNESS	VEHICLE			
<u>LEFT TURN</u>	 YELLOW	 PURPLE/BLACK	<u>12V+ (POWER)</u>	 BLACK	POSITIVE (+) BATTERY TERMINAL
<u>RIGHT TURN</u>	 GREEN	 WHITE/GREEN	<u>GROUND</u>	 WHITE	GROUND STUD
<u>MARKER</u>	 BROWN	 ORANGE/BLACK			
<u>BRAKE</u>	 RED	 PURPLE/GREEN			
<u>REVERSE</u>	 PURPLE	For use with trailer reverse lights or to disable the trailer brakes when backing with surge brakes. To connect, isolate vehicle's reverse light circuit and connect the purple wire from the trailer wiring harness to vehicle reverse light circuit. <b>Trailers rarely have reverse lights or surge brakes.</b>			
<u>ELECTRIC BRAKE</u>	 BLUE	Only used when a hard wired brake controller is mounted inside the vehicle and your trailer has electric brakes. See brake controller instructions for this wire.			

**NOTE:** If two colors are listed, the first color is the dominant color.

## INSTALL WIRING KIT CONTINUED

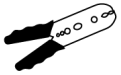


STRIPPER/  
CRIMPING  
TOOL



10mm  
SOCKET

18. Locate the fuse holder supplied in the wiring kit box. Remove the fuse from the fuse holder. Trim black power wire so it will reach the fuse holder next to the battery without excess wire. Crimp fuse holder lead to black power wire and attach the ring terminal to the (+) positive battery terminal.



STRIPPER/  
CRIMPING  
TOOL



10mm  
SOCKET

19. Locate the ground stud in the rear passenger side cargo area. Trim white ground wire so it will reach stud without excess wire. Crimp supplied fork terminal to the ground wire with a crimping tool. Loosen the ground stud and secure the fork to the ground stud.

**NOTICE: Loosen ground stud just enough to install fork terminal, so vehicle wiring does not lose ground.**

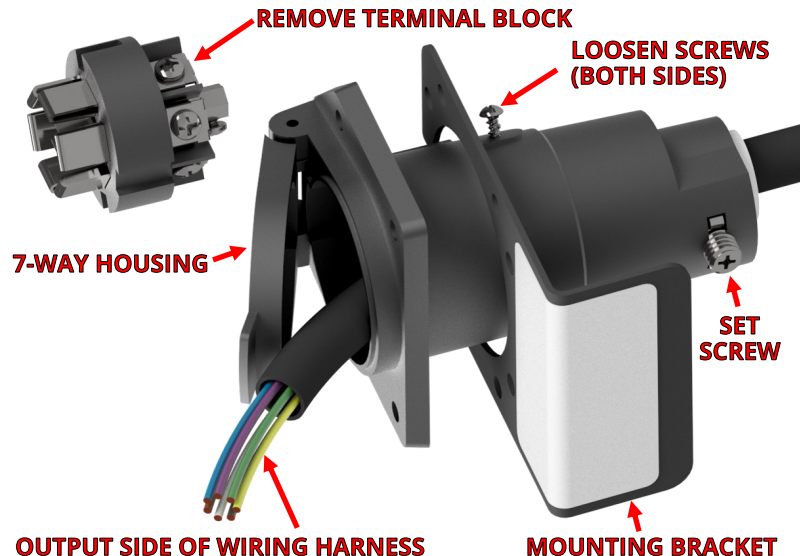


## WIRE 7-WAY PLUG



PHILLIPS HEAD  
SCREWDRIVER

20. Locate the 7-way housing. Use a screwdriver to loosen (2) screws. Remove 7-way round terminal block. Place the mounting bracket onto the 7-way housing as shown. Use a screwdriver to loosen the set screw at the bottom of the 7-way housing. Route output side wires of the wiring harness through the 7-way housing.



## WIRE 7-WAY PLUG CONTINUED

**Please follow instructions below very carefully.**

**Incorrect wiring of the 7-way receptacle causes the vast majority of wiring problems.**



PHILLIPS HEAD  
SCREWDRIVER

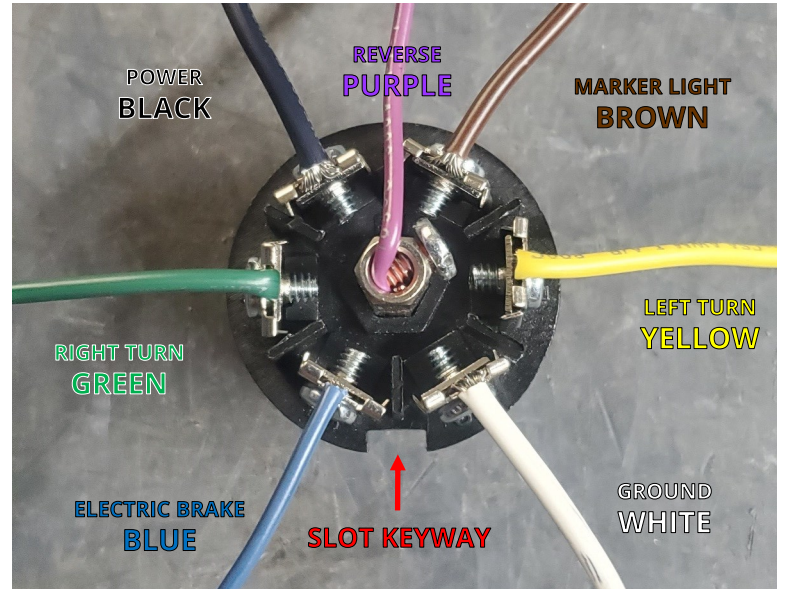


STRIPPER/  
CRIMPING  
TOOL

21. Locate the slot keyway.  
Starting from the keyway  
going **clockwise**, attach the  
wires as follows:

- Blue
- Green
- Black
- Brown
- Yellow
- White
- Purple (middle)

***NOTICE: Markings on the receptacle may not match the correct wire configuration. Please disregard and follow the instruction above.***



## TEST 7-WAY HARNESS WIRING

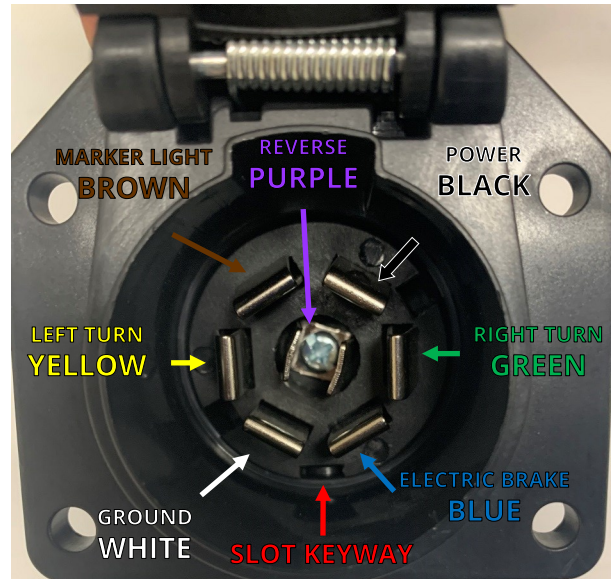


PHILLIPS HEAD  
SCREWDRIVER



MULTIMETER

22. Put the 7-way receptacle back together. While everything is still accessible, you should test the wiring to make sure everything is connected properly and in working order. **Replace the 20 Amp fuse into the fuse holder.**



- Start by connecting the multimeter negative probe to the ground blade on the 7-way receptacle.
- Next, connect the multimeter positive probe to the power blade on the 7-way receptacle and check for 12 volts.
- Once that is confirmed, move the positive probe to the left turn blade on the 7-way receptacle and check for 12 volts when the vehicle left turn blinker is active. You should see it pulse.
- Next, move the positive probe to the right turn blade and check for 12 volts when the right turn blinker is active. You should see it pulse.
- Next, move the positive probe to the marker/taillights. With the vehicle lights on you should see 12 volts constant.
- Lastly, with the brake depressed, move the positive probe to the left turn blade where you should see 12 volts constant. Move the probe to the right turn blade where you should also see 12 volts constant.

## INSTALL WIRING KIT CONTINUED

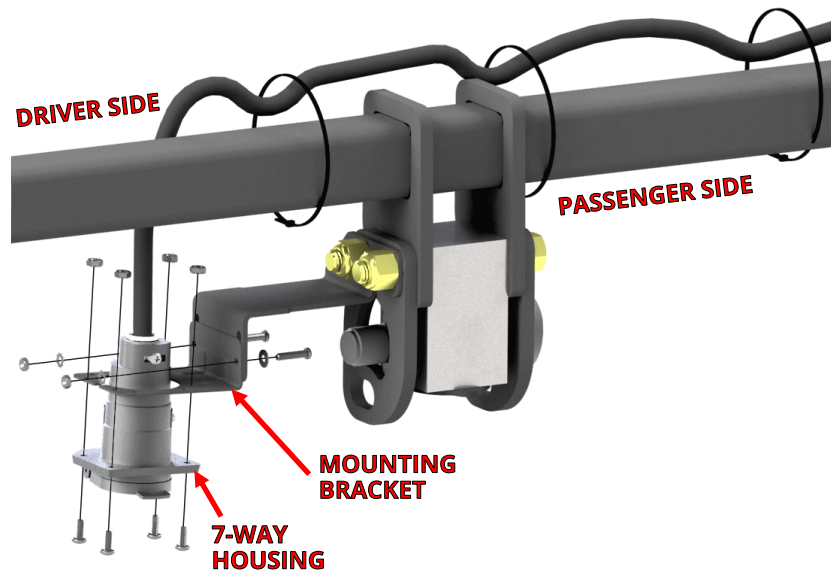


PHILLIPS HEAD  
SCREWDRIVER



SILICONE

23. Attach the mounting bracket and 7-way housing to the Stealth hitch frame as shown. Secure harness to Stealth hitch frame with cable ties.
24. Secure all wires and wiring components. Use the remaining cable ties to secure wiring so that it is not loose and will not interfere with replacement of the fascia. Wiring should not be visible once the vehicle is reassembled. Use silicone to waterproof the grommet, see Step 14.



## CUT ACCESS TO THE LATCH BLOCK



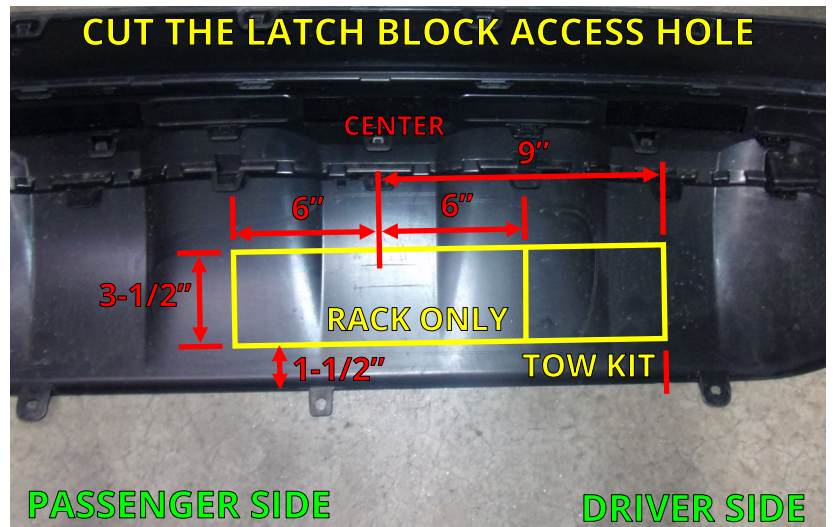
DREMEL TOOL



FILE

25. Cut out fascia and plastic support with Dremel tool as shown. Use a file to smooth out the cut.

**NOTE:** The access hole necessary is different for the rack receiver and tow kits. Follow correct template.



## REINSTALL VEHICLE COMPONENTS

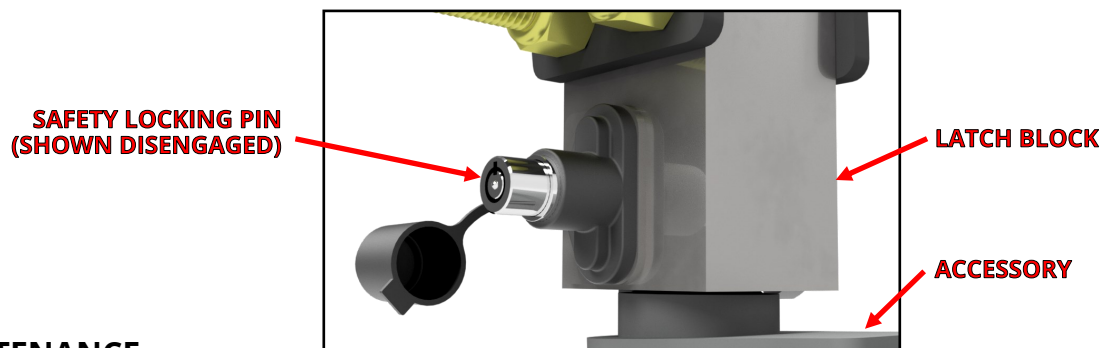
26. Reattach and secure the fascia, and other vehicle components in reverse order. Refer to Steps 1-6.

**NOTICE:** Remember to route and reconnect the electrical sensor plugs unplugged in Step 4.



## FINAL VEHICLE EXAMINATION

27. Examine the body panels to ensure that they are in a pre-installation condition. Test the electronic functions of the vehicle. Correct any inconsistencies.
28. Ensure that hitch components work properly.
  - **Verify that the lock works correctly.** Push in the safety lock on the latch block then unlock with key. The lock should slide back out with the key when unlocked.
  - **Verify that each accessory can be installed correctly.** Use the following steps to install and remove each accessory that will be used with the hitch. (*Rack Receiver and Ball Mount if purchased.*)
    1. Prepare latching mechanism. Turn handle clockwise if needed.
    2. Firmly insert "post" of accessory into latch block until handle releases indicating that the accessory is latched.
    3. Push in the safety locking pin until it fully engages. The locking pin prevents the handle from turning when pushed in, and confirms that the block is securely latched onto the accessory. The safety locking pin will not depress if the accessory is not fully latched.
    4. Use key to release safety locking pin.
    5. While holding on to the accessory, rotate handle clockwise to release and remove the accessory.
  - **Verify that no part of the accessories come into contact with the body of the vehicle.**



## PRODUCT USE AND MAINTENANCE

**NOTICE: If the hitch is being installed by a professional, the installer is responsible for training the end user in the use and maintenance of the product.**

- **Accessory installation procedure:**
  1. Prepare latching mechanism. Turn handle clockwise if needed.
  2. Firmly insert "post" of accessory into latch block until handle spins counter-clockwise indicating that the accessory is latched.
  3. Always depress the safety locking pin and check that it has fully engaged.
- **Never use any accessory with the safety lock disengaged.** Until the safety locking pin is engaged, the handle is able to turn. A fully engaged safety locking pin is confirmation that the accessory is properly latched into the latch block.
- **Never use the rack receiver for towing.** The rack receiver accessory is only to be used with payload carrying products, such as bike racks or luggage racks.
- **Before each use, give the post of the accessory a light coating of lithium based grease.**
- **Before each use, inspect the hitch to ensure that all bolted connections are secure and that no cracks or damage are present.** Do not tow with the hitch if cracks or damage outside of normal wear is found.
- **Remove the Stealth accessories from the latch block after each use.** Do not leave accessories plugged in for extended periods of time.

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