



HITCH INSTALLATION INSTRUCTIONS

MAKE:
MAZDA

YEARS:
2017 - 2023

MODEL/TRIM:
CX-5

www.stealthhitches.com 833-694-4824

RACK RECEIVER KIT#: **SHR65002**

COMPATIBLE WITH TOW KIT: **SHT25042**

2" RACK RECEIVER MAXIMUM PAYLOAD: 200 LBS
MAXIMUM TOW RATING: 2000 LBS
MAXIMUM TONGUE WEIGHT: 200 LBS



UNDER VEHICLE TRIMMING:

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

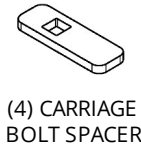
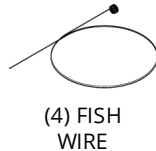
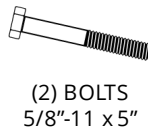


READ ALL INSTRUCTION WARNINGS AND LABELS



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 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.

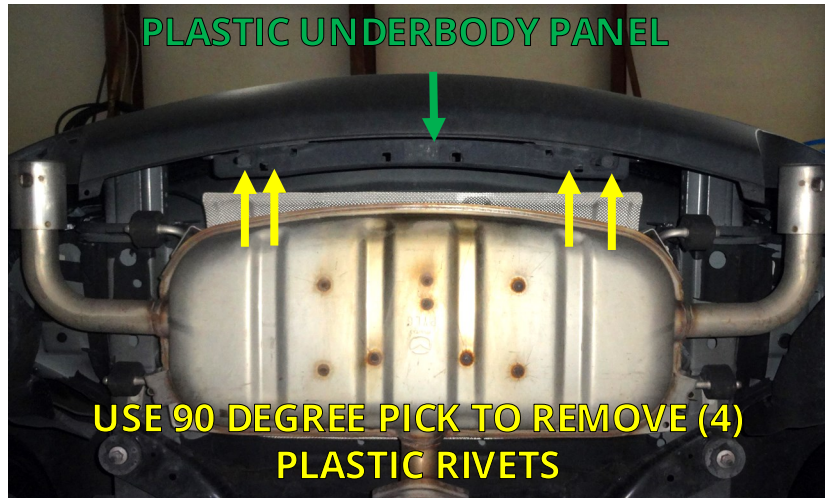
NOTICE: Installation of hitch requires removal of vehicle parts and interaction with vehicular electronics. Before installation, check the condition of body panels and note any locations where panels are not flush. Check the electronic functions of the vehicle, such as: headlights, taillights, turn signals, 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



90 DEGREE PICK

1. Locate and remove (2) plastic rivets on plastic underbody panel. Discard plastic underbody panel. Locate and remove (2) plastic rivets securing the fascia.



RATCHET STRAP



PRY BAR

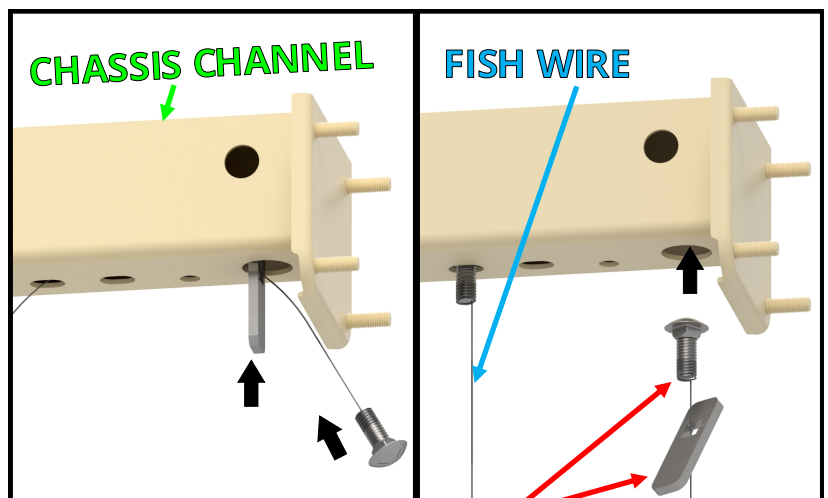
2. To allow access under the vehicle, the muffler will need to be lowered. Use a strap to support the muffler. Remove the (2) top rubber isolators using a pry bar. Repeat on the other side of the vehicle.

NOTE: Spray lubricant on the connection point to ease removal.



FISH WIRE

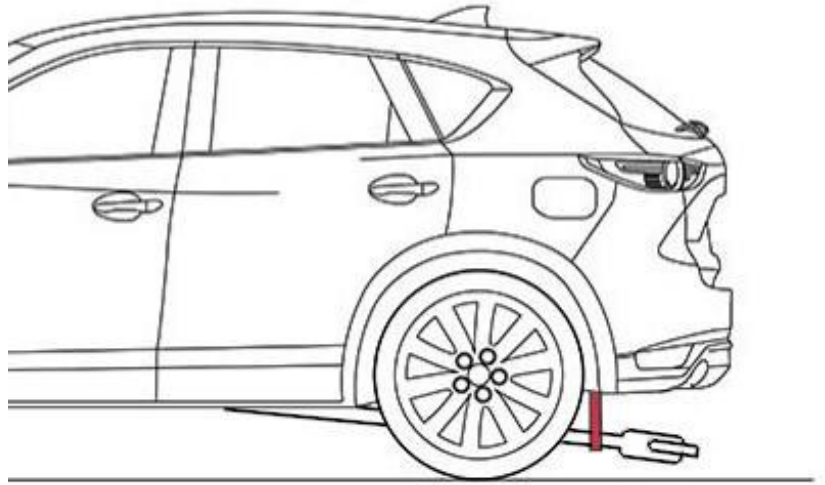
3. Locate the two chassis channels on either side of the vehicle above the muffler. Thread a carriage bolt with a bolt spacer onto the fish wire. Pass the fish wire from the large hole at the end of the chassis channel through the channel into the smaller forward hole as shown. Pass the bolt spacer and carriage bolt into the channel after the fish wire. Pull the carriage bolt through the smaller hole. In the larger hole pass a carriage bolt and bolt spacer with fish wire into the channel as shown. Pull the carriage bolt back down through the bolt spacer and large hole.



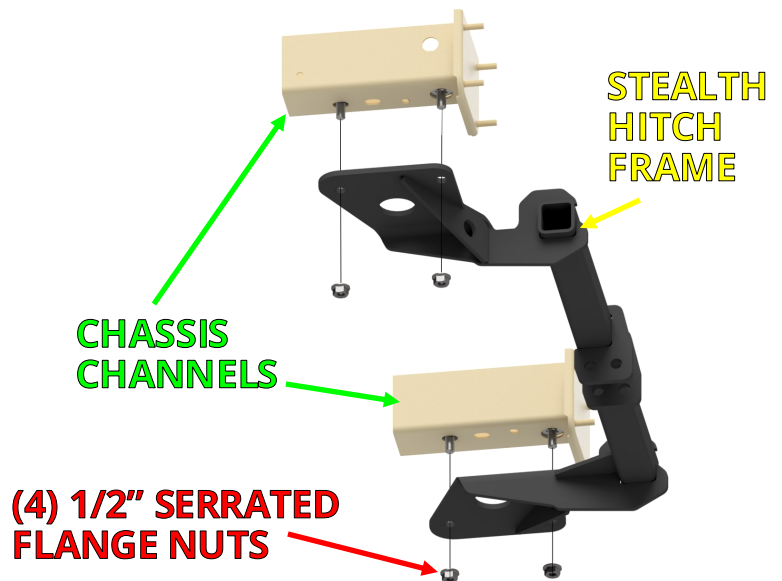
1/2 CARRIAGE BOLT & BOLT SPACER

INSTALL STEALTH HITCH FRAME

4. Lower the ratchet strap and lower the muffler as far as possible without causing damage to the exhaust.



5. Slide the Stealth hitch frame between the bottom of the fascia and the muffler. Take care not to damage the bottom edge of the fascia while sliding the hitch into position. Lift the hitch up to the chassis channels. Align the hitch holes with the four bolts inserted into the bottom of the chassis channels. Slide the hitch upward and hand tighten the nuts.



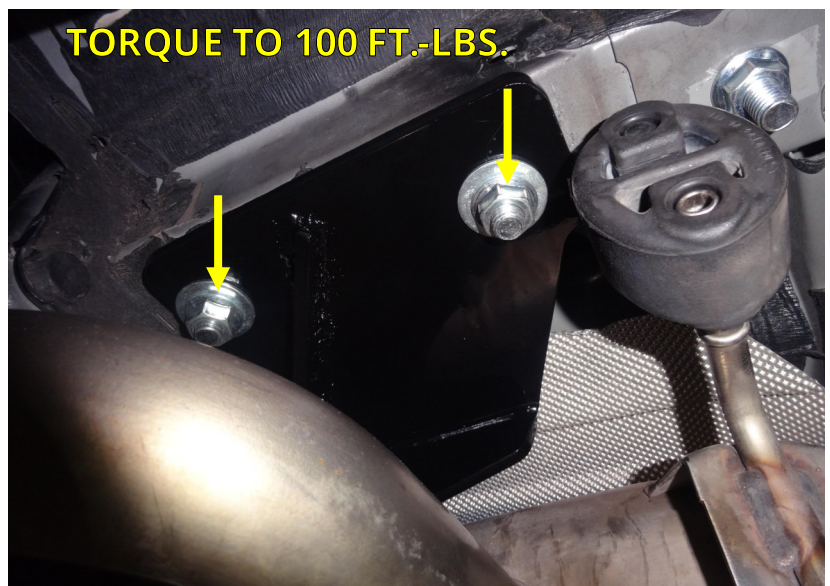
6. With (2) nuts in position on each side, torque the nuts. Use a 3/4\" socket to torque chassis bolts. Torque to 100 ft.-lbs.



3/4\" SOCKET



TORQUE WRENCH



MOUNT LATCH BLOCK



15/16"
SOCKET



15/16" OPEN
END WRENCH



TORQUE
WRENCH

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

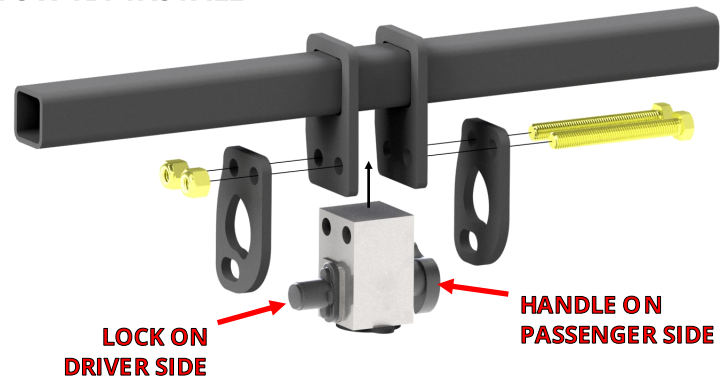
- **Rack Receiver Kit:** Install the latch block with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock nuts. Tighten each bolt to 150 ft.-lbs.
- **Tow Kit:** Install the latch block and (2) chain hooks with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock nuts. Tighten each bolt to 150 ft.-lbs.

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

RACK RECEIVER KIT INSTALL



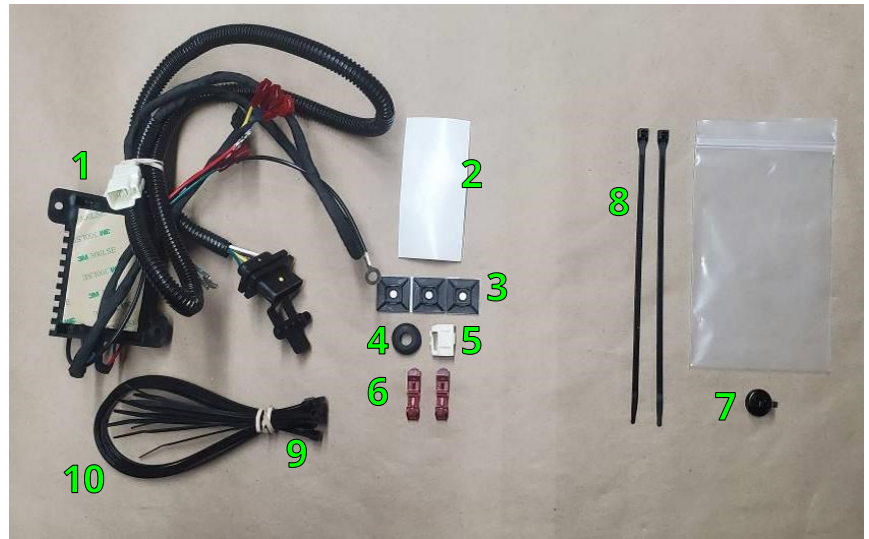
TOW KIT INSTALL



IF INSTALLING A RACK RECEIVER KIT, SKIP TO STEP 43.
IF INSTALLING A TOW KIT, CONTINUE TO STEP 8.

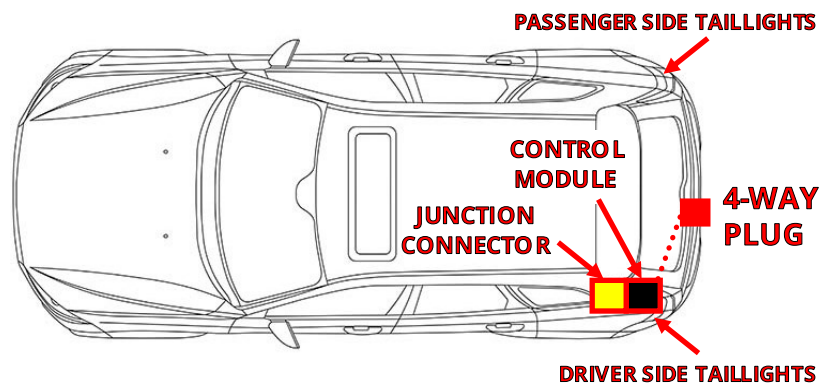
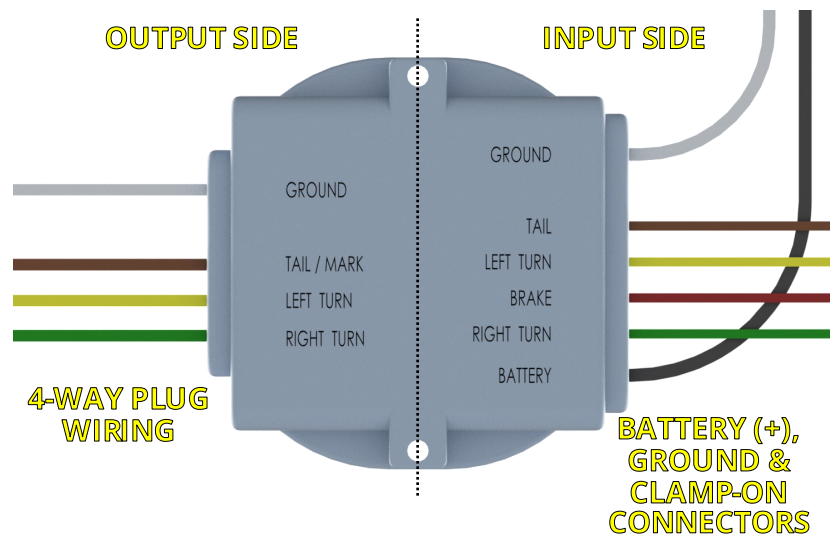
INSTALL PASSIVE WIRING KIT

#	DESCRIPTION	QTY
1	4-WAY WIRING HARNESS <ul style="list-style-type: none"> 4-WAY PLUG & WIRE CONTROL MODULE 	1
2	FOAM STICKER	1
3	CABLE TIE MOUNTS	3
4	GROMMET	1
5	FEMALE CONNECTOR	1
6	T-TAP CONNECTORS	2
7	MAGNETIC CABLE HOLDER	1
8	CABLE TIE - 8"	2
9	CABLE TIE - 6"	8
10	CABLE TIE - 14"	7



8. 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 signals from the vehicle's wiring. The "output" side of the module delivers this information to the 4-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

9. Open the vehicle cargo area. Lift up to remove cargo area floor panel.
10. Lift up and remove the foam holders.



11. Lower rear driver side seat.



90 DEGREE
PICK

12. Locate (2) plastic rivets along rear wall. Remove rivets with a 90 pick. Lift upward to remove threshold.



INSTALL WIRING KIT CONTINUED



90 DEGREE
PICK

13. Remove (1) plastic rivet that was underneath the threshold on the driver side of the vehicle.



90 DEGREE
PICK



10mm
SOCKET

14. On the driver side of the vehicle, dislodge (2) plastic anchor covers with 90 degree pick. Remove (2) screws securing the anchor ring. Remove the anchor rings.



90 DEGREE
PICK



PHILLIPS HEAD
SCREWDRIVER

15. On the driver side of the vehicle lift the release latch handle. Dislodge plastic cover to gain access to (1) screw. Remove the screw securing the release latch handle with a Phillips head screwdriver.



INSTALL WIRING KIT CONTINUED



PHILLIPS HEAD
SCREWDRIVER

16. Remove (1) screw securing the driver side rear side panel.

USE PHILLIPS HEAD SCREWDRIVER TO
REMOVE (1) SCREW



PLASTIC
PRY TOOLS

17. Open the driver side rear door. Remove the kick plate cover with a plastic pry tool.

REMOVE DRIVER SIDE KICK PLATE COVER



PLASTIC
PRY TOOLS

18. Dislodge the driver side rear panel. Move the side panel to the inside of the vehicle.
19. To dislodge the release latch from the side panel push the latch forward then rotate. Pull the release latch cover through panel opening.

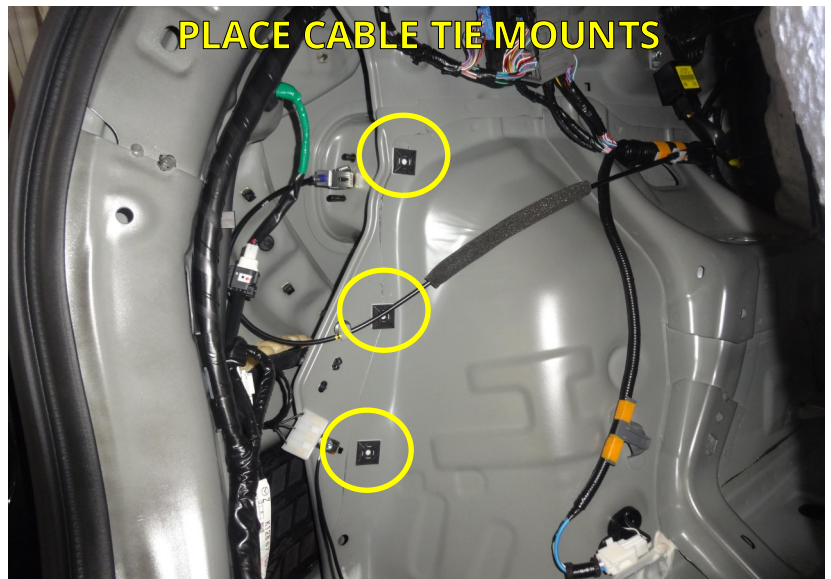


INSTALL WIRING KIT CONTINUED

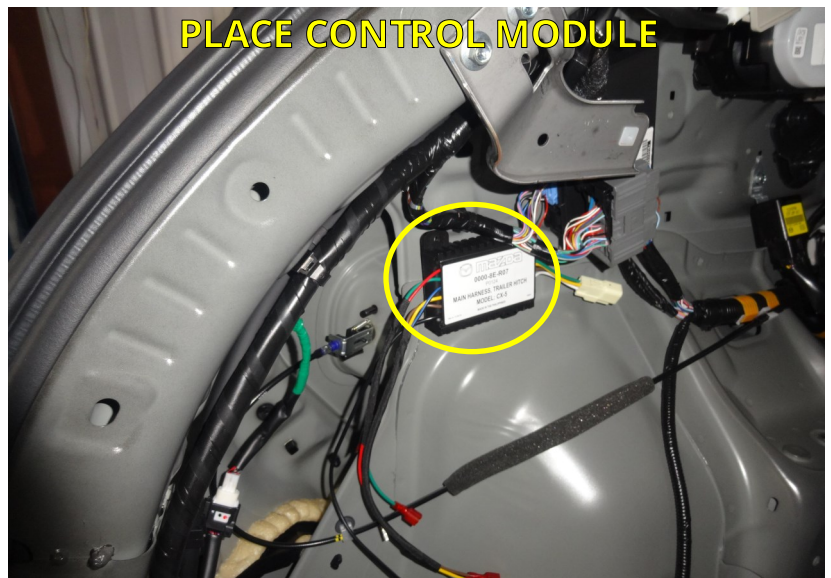
20. Locate the indicated grommet on the driver side of the vehicle. Remove the grommet. Thread harness through supplied grommet with hole. Route the harness from outside of vehicle to inside of vehicle. Make sure the rubber grommet is properly seated in the hole, when replaced.



21. Remove the adhesive backing on the cable tie mounts. Place cable tie mounts in specified locations.

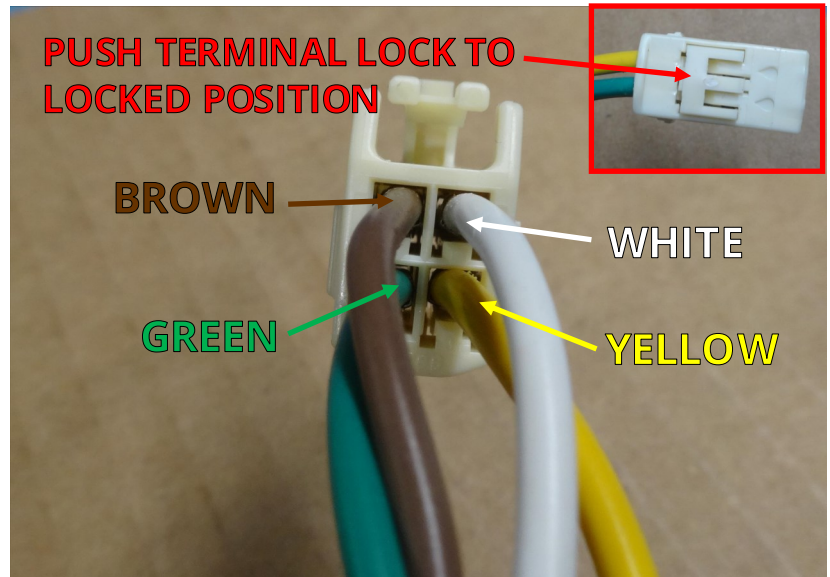


22. Remove the adhesive backing on the control module. Place module in specified location.

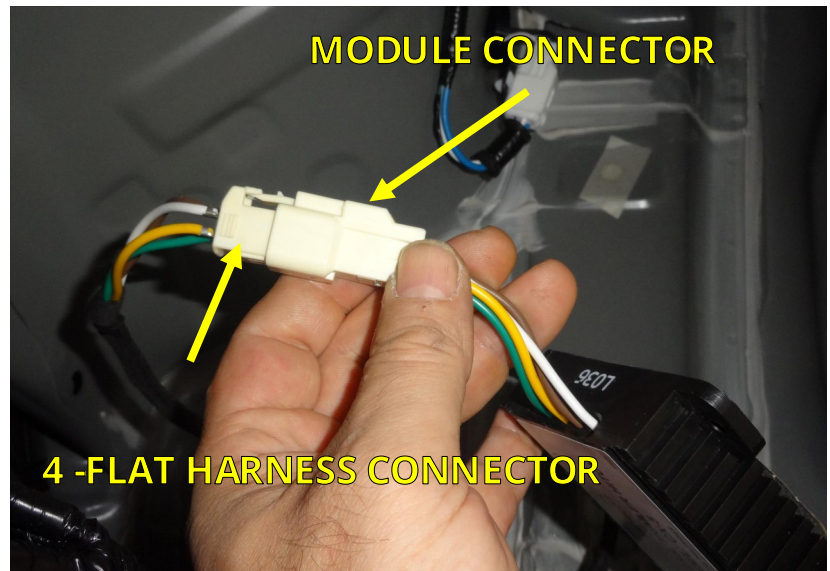


INSTALL WIRING KIT CONTINUED

23. Insert the terminated wires to the provided female connector. Push terminal lock into the locked position.



24. Attach the 4 - flat harness connector to the module connector. The wires should match color to color at the connectors.



25. Locate the ground screw. Remove ground screw with a socket. Attach ground ring to screw and tighten.



10mm
SOCKET

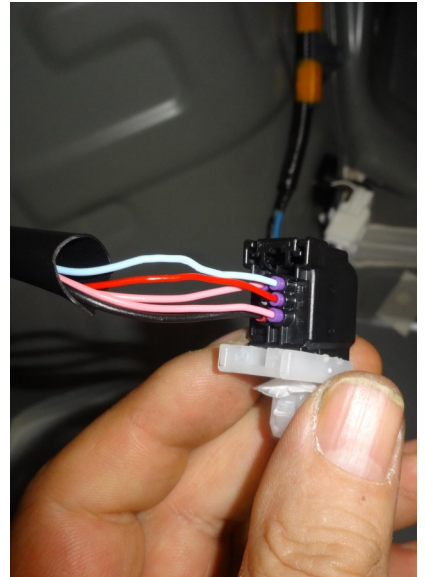
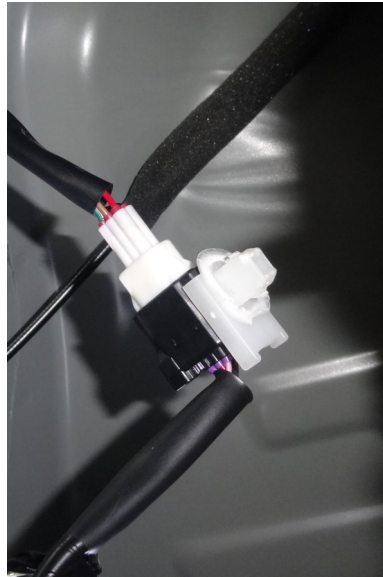


INSTALL WIRING KIT CONTINUED



RAZOR KNIFE

26. Remove taillight connectors from the vehicle. Disconnect the taillight connectors. Carefully cut away rubber sheathing as needed to expose and gain access to wires.

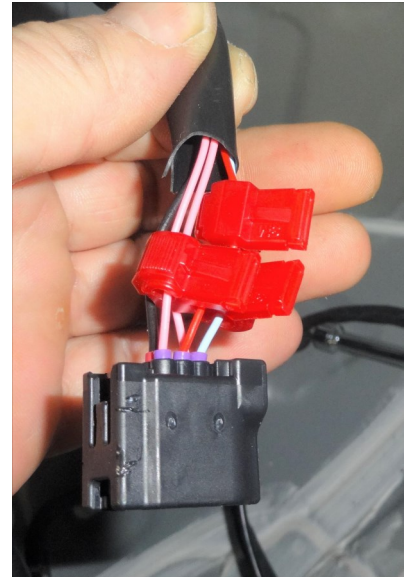


PLIERS

27. Locate and identify wire colors.

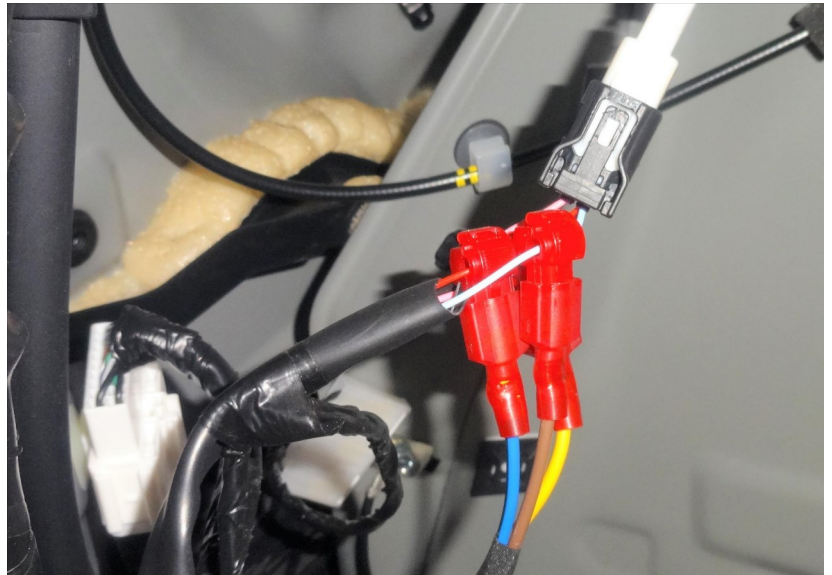
- **Sky Blue - Left Turn**
- **Red - Brake Lights**
- **Pink - Marker Lights**

28. Place wires into T-Tap connectors. Squeeze tightly together with pliers, making secure connection.



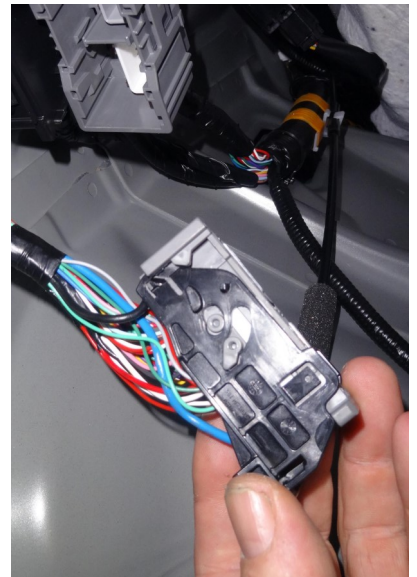
29. Connect main harness spade terminals to wire taps.

- **Sky Blue - Yellow**
- **Red - Blue/Black**
- **Pink - Brown**



INSTALL WIRING KIT CONTINUED

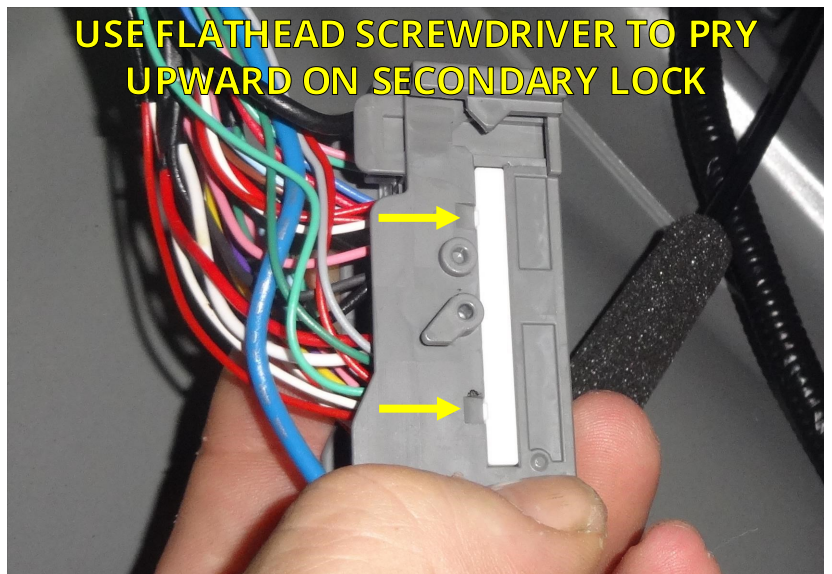
30. Disconnect the rear junction connector by pushing down on the lock and tilting back to release.
31. Once the connector is free, the lock must be returned to its closed position before removing.



32. Remove black lock by using small flathead screwdriver to pry and lift the lock on both mating sides.

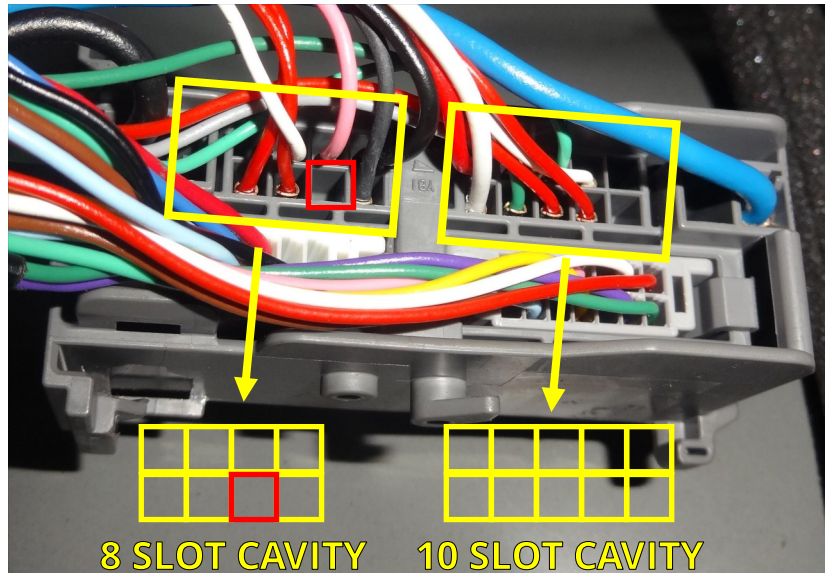


33. Disengage secondary lock on rear junction connector. Use a small flathead screwdriver to pry upward on secondary lock.

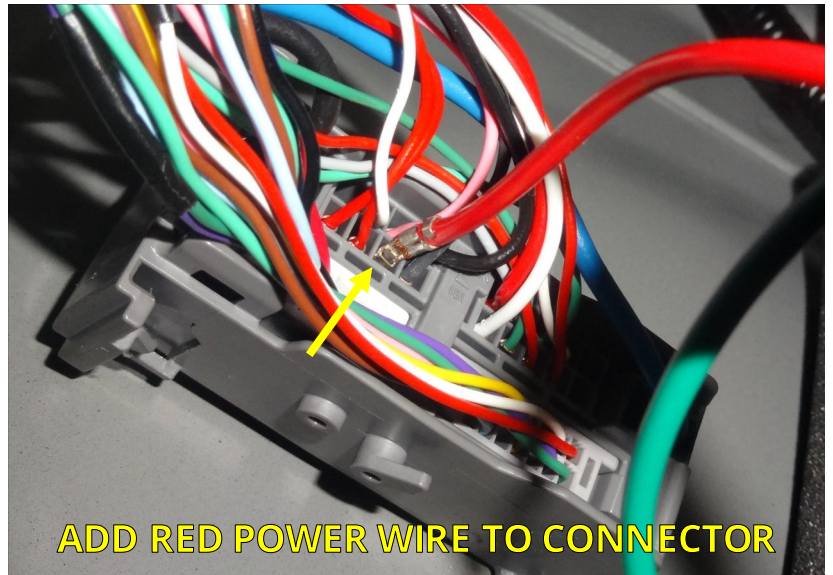


INSTALL WIRING KIT CONTINUED

34. Locate proper cavity to add red power wire.

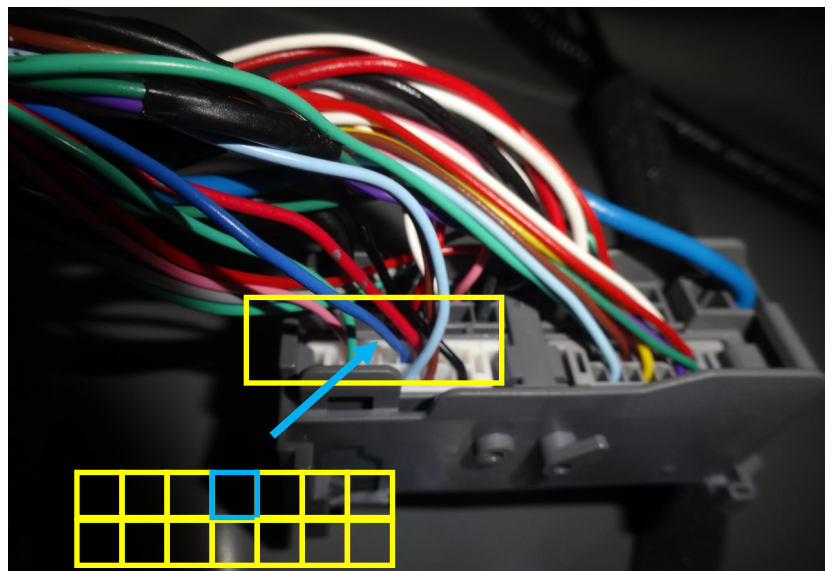


35. Add the red power wire to the rear junction connector. Once terminal is properly engaged in connector, squeeze secondary lock into place.



36. Locate blue wire on the rear junction connector for T-Tap connection.

- **Blue - Right Turn**

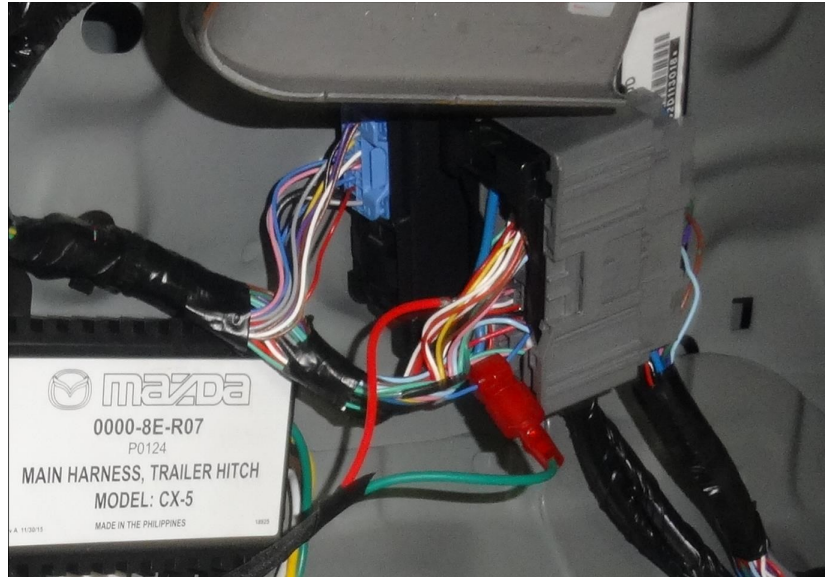


INSTALL WIRING KIT CONTINUED

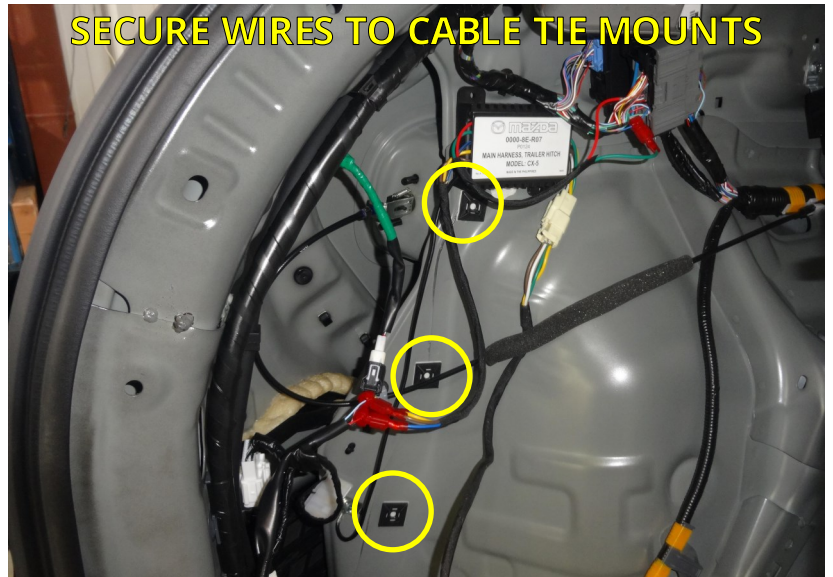


PLIERS

37. Reassemble and insert rear junction connector back in place.
38. Use a T-Tap connector on blue wire of the rear junction connector. Squeeze tightly together with pliers, making secure connection. Snap remaining green main harness wire into T-Tap connector.

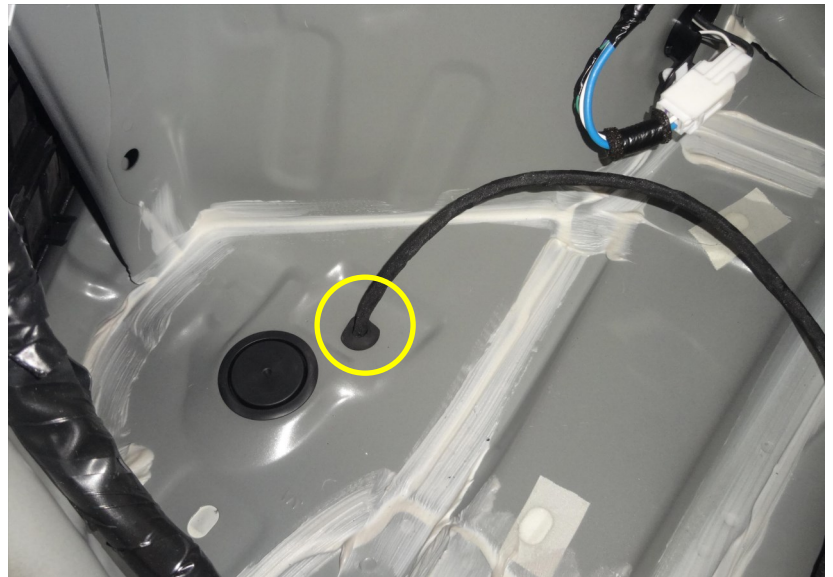


39. Use cable ties to attach the 4-flat harness and the ground wire to cable tie mounts.



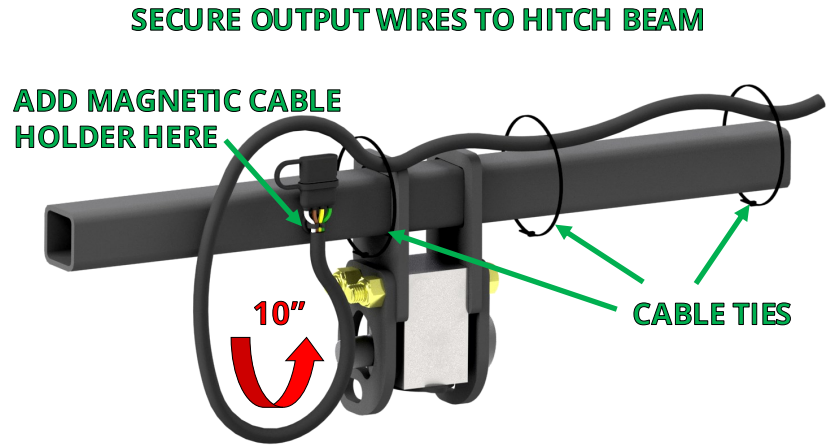
SILICONE

40. Use silicone to waterproof the grommet.

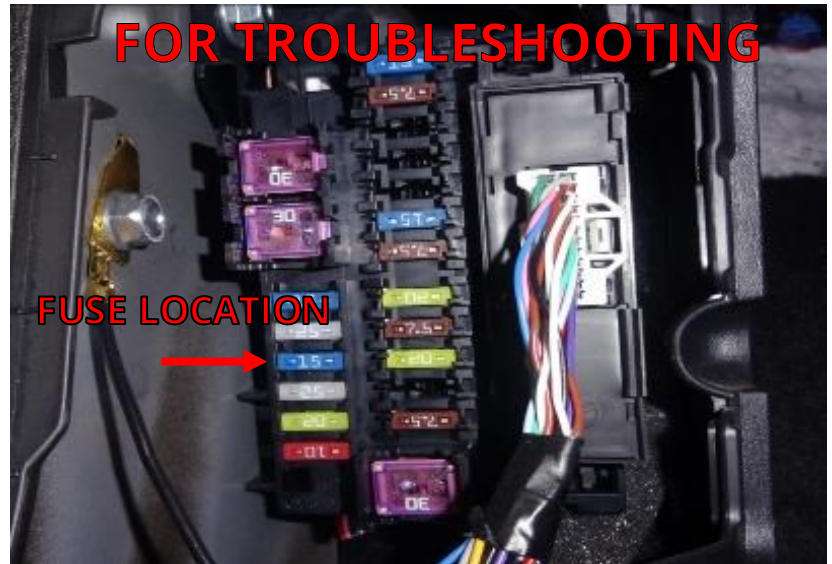


INSTALL WIRING KIT CONTINUED

41. Secure harness to Stealth hitch frame with cable ties. Maintain an 10" loop from the cable tie to the 4-way plug. Add the magnetic cable holder and secure to the harness close to the 4-way plug, with a cable tie.
42. Test the trailer lights to verify that the lights work correctly.



FOR TROUBLESHOOTING-CHECK FUSE Remove fuse relay box cover panel from underneath driver side of the vehicle. A 15 Amp fuse needs to be located in cavity labeled ESCL of the fuse relay box.

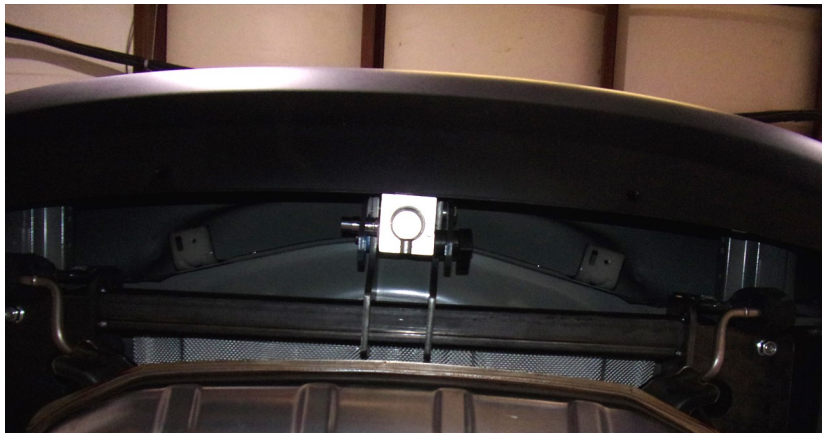


REINSTALL VEHICLE COMPONENTS

43. Reattach and secure vehicle components in reverse order. Refer to steps 1-2 and 8-17.

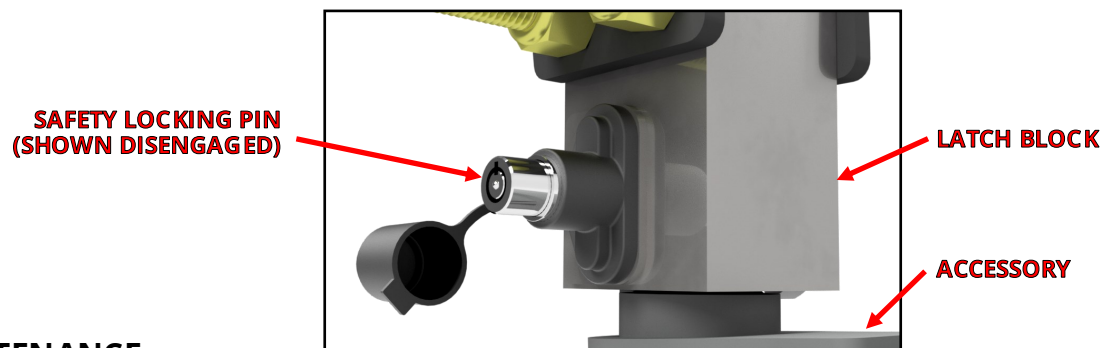


44. Finished look. (Discard black fascia trim piece)



FINAL VEHICLE EXAMINATION

45. Examine the body panels to ensure that they are in a pre-installation condition. Test the electronic functions of the vehicle. Correct any inconsistencies.
46. 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.