



www.stealthhitches.com 833-694-4824

HITCH INSTALLATION INSTRUCTIONS

MAKE: MERCEDES
YEARS: 2015 - 2018

MODEL/TRIM: GLE (W166 CHASSIS)

RACK RECEIVER KIT#: **SHR32021**

COMPATIBLE WITH TOW KIT: **SHT25022**



2" RACK RECEIVER MAXIMUM PAYLOAD: 600 LBS
MAXIMUM TOW RATING: 8000 LBS
MAXIMUM TONGUE WEIGHT: 800 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:



LATCH BLOCK & KEYS



(2) BOLTS
5/8" - 11 x 5"



(2) 5/8"
NYLOCK NUTS



(2) FASCIA
BRACKETS



(8) M10 SERRATED
FLANGE NUTS



2" RACK
RECEIVER



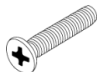
(2) BOLTS
5/16" - 18 x 1"



(2) 5/16" FLAT
WASHERS



(2) 5/16" SERRATED
FLANGE NUTS



(2) 1/4" SCREWS
(BLACK)



(2) 1/4" FLAT
WASHERS



(2) 1/4"
SERRATED
FLANGE NUTS

ADDITIONAL PARTS FOR TOW KIT:



BALL MOUNT
5" RISE, LONG



PASSIVE WIRING
KIT BOX



CHAIN HOOKS



2" BALL

TOOLS REQUIRED:



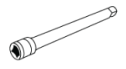
15/16" OPEN
END WRENCH



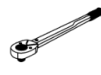
8mm, 10mm, 13mm,
16mm, 17mm, 1/2" &
15/16" SOCKETS



RATCHET



SOCKET
EXTENSION



TORQUE
WRENCH



PLASTIC
PRY TOOLS



T30 & T40
TORX



16mm
RATCHET WRENCH



90 DEGREE
PICK



FLASHLIGHT



SAFETY GLASSES



RATCHET
STRAP



PRY BAR



DREMEL TOOL



FILE

ADDITIONAL TOOLS FOR TOW KIT:



MULTIMETER



STRIPPER/
CRIMPING
TOOL



DRILL &
3/8" BIT



PHILLIPS HEAD
SCREWDRIVER



PLIERS



SILICONE

RACK RECEIVER INSTALLATION: USE STEPS 1-33 & 49-53
TOW KIT INSTALLATION: USE STEPS 1-53

<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

1. Open vehicle cargo area. Lift up and remove rear floor panel.



2. Remove the spare tire. Turn the plastic knob counterclockwise to remove. Refer to owner's manual if necessary.



3. In the rear cargo area, remove the foam insert which was under the tire.

NOTE: On some models the foam holder cannot be removed because of an air tank.



GAIN ACCESS TO MOUNTING AREA CONTINUED



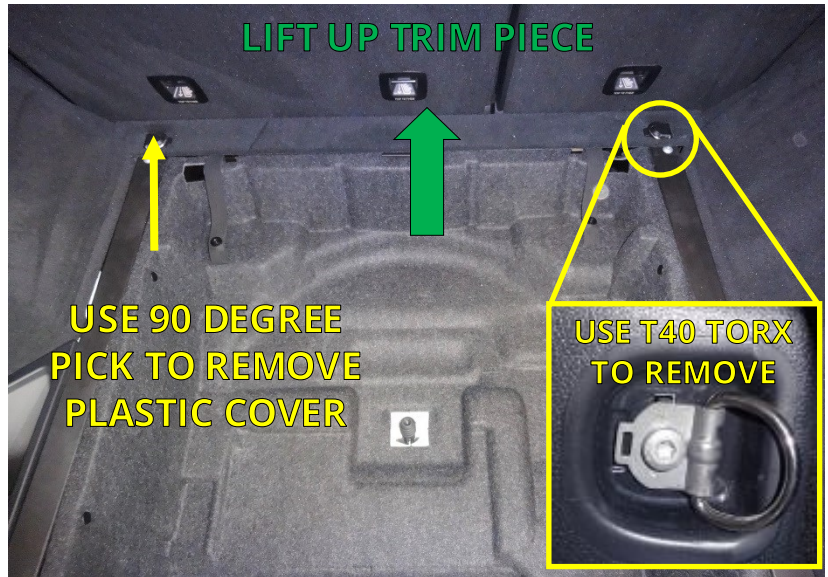
T30 TORX

4. On the rear wall of the cargo area locate and remove (1) screw from the threshold, see image. Lift up to remove the threshold.



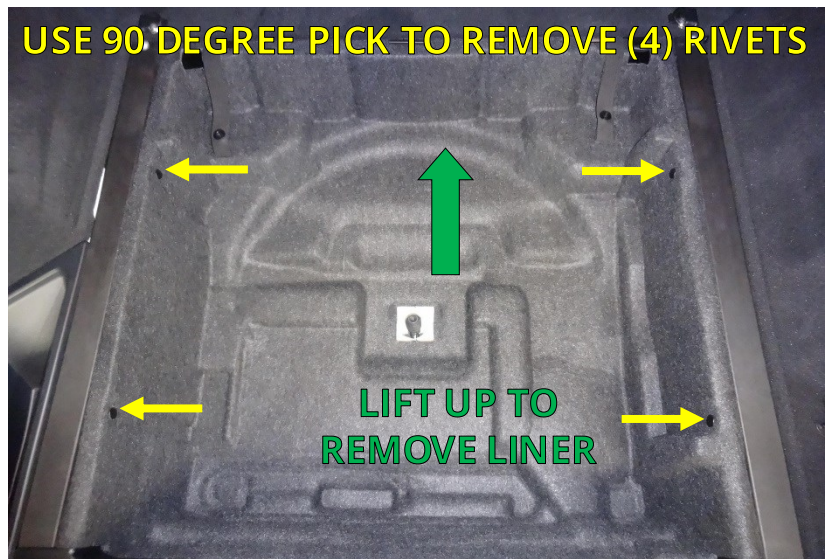
T40 TORX

5. Behind the rear seats, locate and remove (2) plastic anchor ring covers with a 90 degree pick. Remove (1) screw from each anchor ring. Lift up to dislodge trim piece.



90 DEGREE PICK

6. Use a 90 degree pick to remove (4) plastic rivets from the sides of the liner. Lift up to remove the floor liner.



GAIN ACCESS TO MOUNTING AREA CONTINUED

7. Remove driver and passenger side panels for access to rear of the taillights.



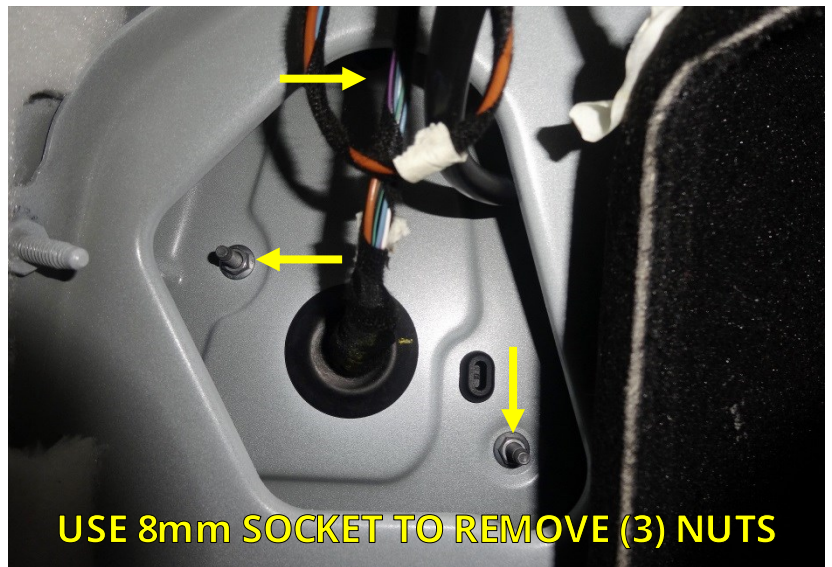
90 DEGREE
PICK

8. On the driver side cargo area, use a 90 degree pick to turn and remove (2) plastic caps. Pull up to remove cargo holder.



8mm
SOCKET

9. Locate and remove (3) nuts securing each of the rear taillights inside the rear cargo area.



GAIN ACCESS TO MOUNTING AREA CONTINUED



10. Slide the taillight to the rear of the vehicle. A plastic pry tool can be used to help if the light does not slide freely. With the lights dislodged, disconnect the light plug. Remove the taillight. Repeat Steps 9-10 on the other side of the vehicle.



11. Inside the rear wheel well, behind the tire, locate (3) plastic rivets which are holding the wheel well liner (yellow arrows). Use a 90 degree pick to remove these rivets.



12. Fold the flexible liner back toward the tire. Behind the liner, locate and remove (2) screws (green arrows). Repeat on the other side of the vehicle.



The GLE class of Mercedes vehicles have a variety of rear fascia styles. The fascia removal instructions are different for each style. Identify which step to proceed to with the photos below.

GO TO STEP 13, 16, OR 21 TO CONTINUE INSTALLATION.

GO TO STEP 13

SKIP TO STEP 16

SKIP TO STEP 21



GAIN ACCESS TO MOUNTING AREA CONTINUED



10mm
SOCKET

13. Underneath the rear of the vehicle, remove (4) screws from the bottom of the fascia and (2) screws on the heat shield.
14. Dislodge or bend the heat shield down to gain access to reinforcement beam nuts.



90 DEGREE
PICK

15. Under the rear of the vehicle, remove (1) plastic rivet from the bottom of the fascia to gain access to plastic rivet inside rear wheel well. Remove (1) plastic rivet inside wheel well. Repeat on other side.



Skip to Step 25 to complete installation.



10mm
SOCKET

16. Underneath the rear of the vehicle, remove (2) screws from the bottom of the fascia.



GAIN ACCESS TO MOUNTING AREA CONTINUED

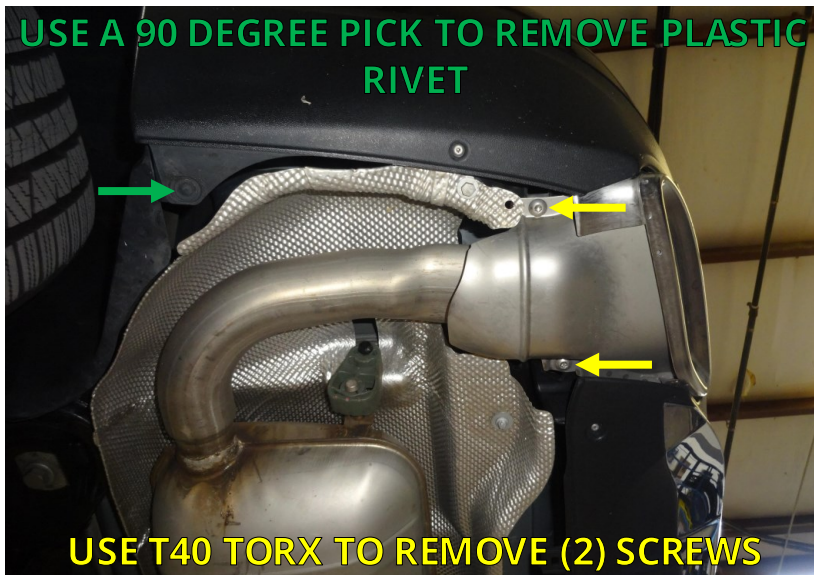


T40 TORX



90 DEGREE PICK

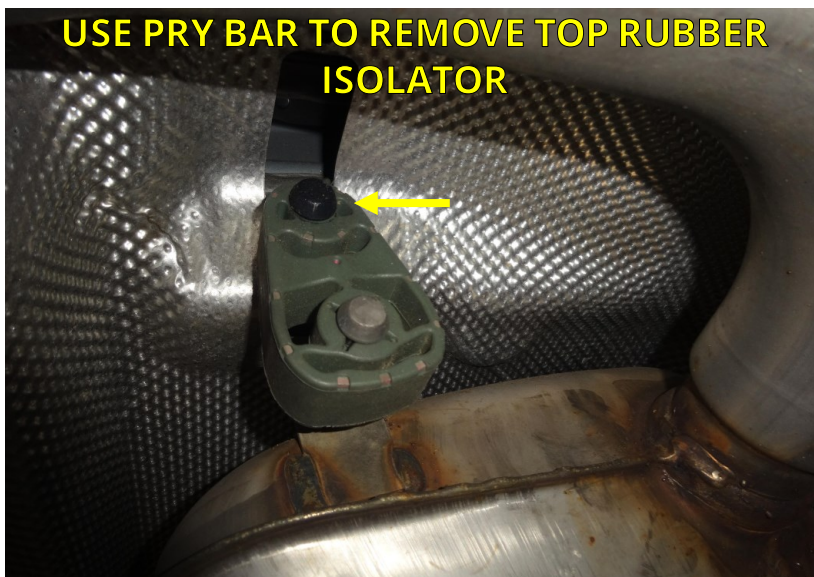
17. Locate the exhaust cover. Use a Torx to remove (2) screws. Remove the exhaust cover. Use 90 degree pick to remove (1) plastic rivet. Repeat on the other side of the vehicle.



PRY BAR

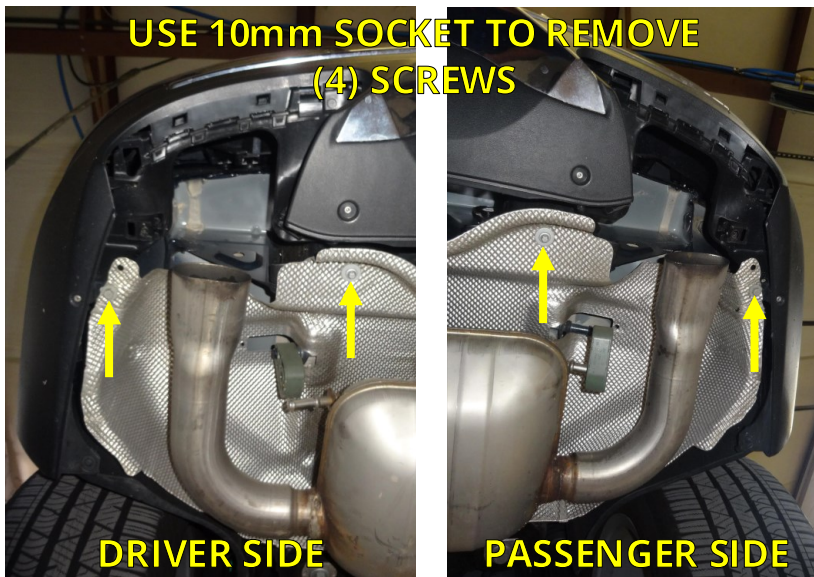
18. Locate the two exhaust brackets under the rear of the vehicle. Use a pry bar to remove the top rubber isolator.

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



10mm SOCKET

19. Locate and remove (2) screws to loosen the heat shield. Repeat on other side of the vehicle.



GAIN ACCESS TO MOUNTING AREA CONTINUED



8mm
SOCKET

20. Remove (6) nuts from heat shield. Dislodge the heat shield.

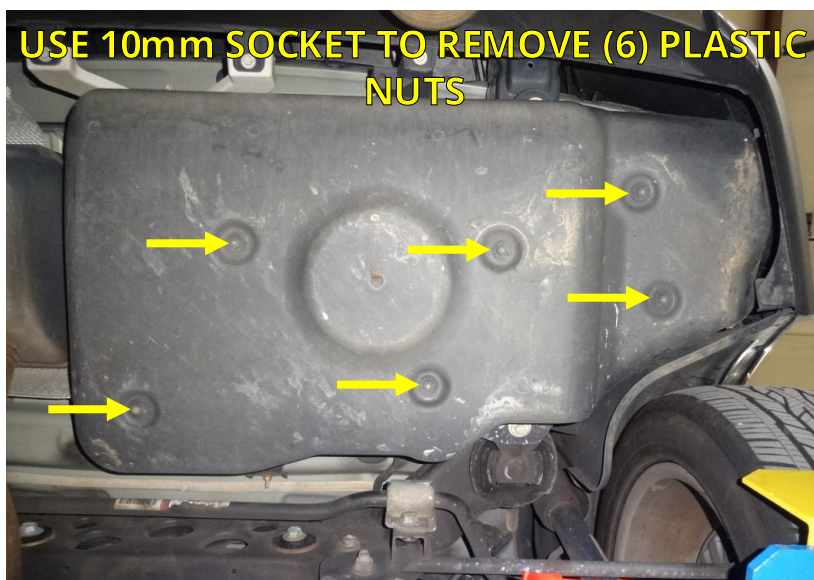


Skip to Step 25 to complete installation.



10mm
SOCKET

21. Under the rear of the vehicle, locate the plastic gas tank cover. Remove (6) plastic nuts to remove the cover.



RATCHET
STRAP



13mm
SOCKET

22. Use a strap to support the gas tank. Remove (4) nuts to dislodge gas tank. Drop the gas tank to gain access to reinforcement beam nuts.



GAIN ACCESS TO MOUNTING AREA



10mm
SOCKET



90 DEGREE
PICK

23. Remove (4) screws from the bottom of the fascia and (1) screw from the heat shield. Use a 90 degree pick to remove (2) plastic rivets. Dislodge or bend heat shield to gain access to reinforcement beam nuts.



PRY BAR

24. Locate the exhaust bracket under the rear of the vehicle. Use a pry bar to remove the top rubber isolator.

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



10mm
SOCKET

25. Under the rear of the vehicle, locate plastic support bracket. Remove (1) nut with a socket and discard plastic support.



GAIN ACCESS TO MOUNTING AREA CONTINUED



26. The rear fascia is clipped to the vehicle body above and 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 until all clips are released. Repeat on other side of vehicle.



27. This step requires a partner. Pull the fascia rearward enough to access the sensor plugs on the driver side. Press down on the clips to unplug the sensor plugs. In some cases a 90 degree pick will be needed to disconnect the sensor plugs. Remove the fascia completely.

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



16mm
SOCKET



16mm
RATCHET WRENCH

28. Inside the rear cargo area, locate and remove (4) nuts securing the reinforcement beam.



GAIN ACCESS TO MOUNTING AREA CONTINUED

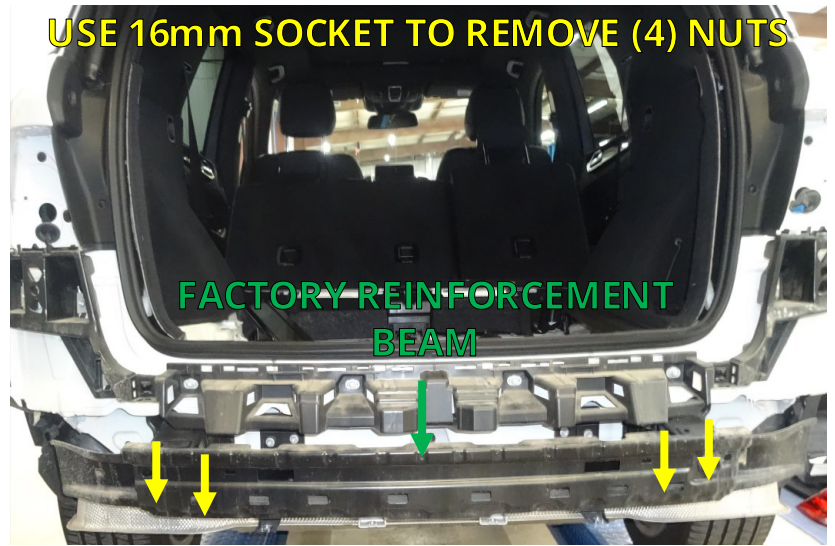


16mm
SOCKET



16mm
RATCHET WRENCH

29. At the rear of the vehicle, locate and remove (4) nuts securing the factory reinforcement beam to the vehicle. Remove reinforcement beam and save for hitch install.



INSTALL STEALTH HITCH FRAME



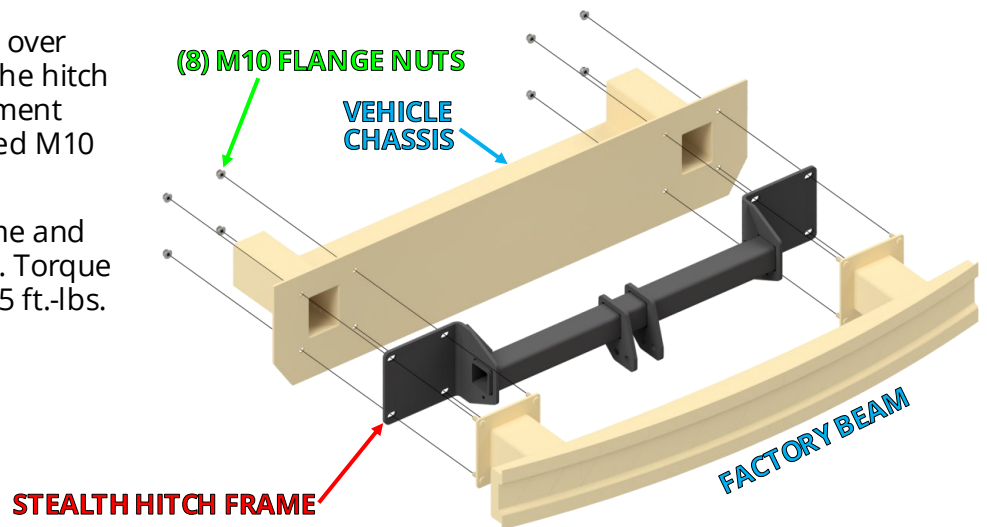
17mm
SOCKET



TORQUE
WRENCH

30. Install the factory reinforcement beam over hitch frame. Secure the hitch frame and reinforcement beam with (8) supplied M10 flange nuts.

31. Center the hitch frame and reinforcement beam. Torque the (8) M10 nuts to 35 ft.-lbs.



INSTALL STEALTH HITCH FRAME CONTINUED



1/2"
SOCKET



TORQUE
WRENCH

32. If no factory fascia support brackets are present, the supplied fascia support brackets must be attached to the hitch frame. Attach using supplied 5/16" bolts, flat washers, and serrated flange nuts. Torque to 15 ft.-lbs.



MOUNT LATCH BLOCK



15/16"
SOCKET



15/16" OPEN
END WRENCH



TORQUE
WRENCH

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

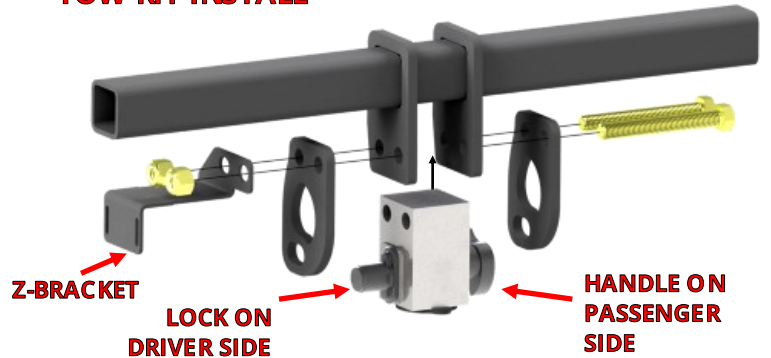
- **Rack Receiver Kit:** Install the latch block with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock nuts. Tighten each bolt to 150 ft.-lbs.
- **Tow Kit:** Retrieve Z-bracket from wiring harness kit box. Install the latch block, (2) chain hooks, and Z-bracket with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock 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 50.
IF INSTALLING A TOW KIT, CONTINUE TO STEP 35.

INSTALL PASSIVE WIRING KIT

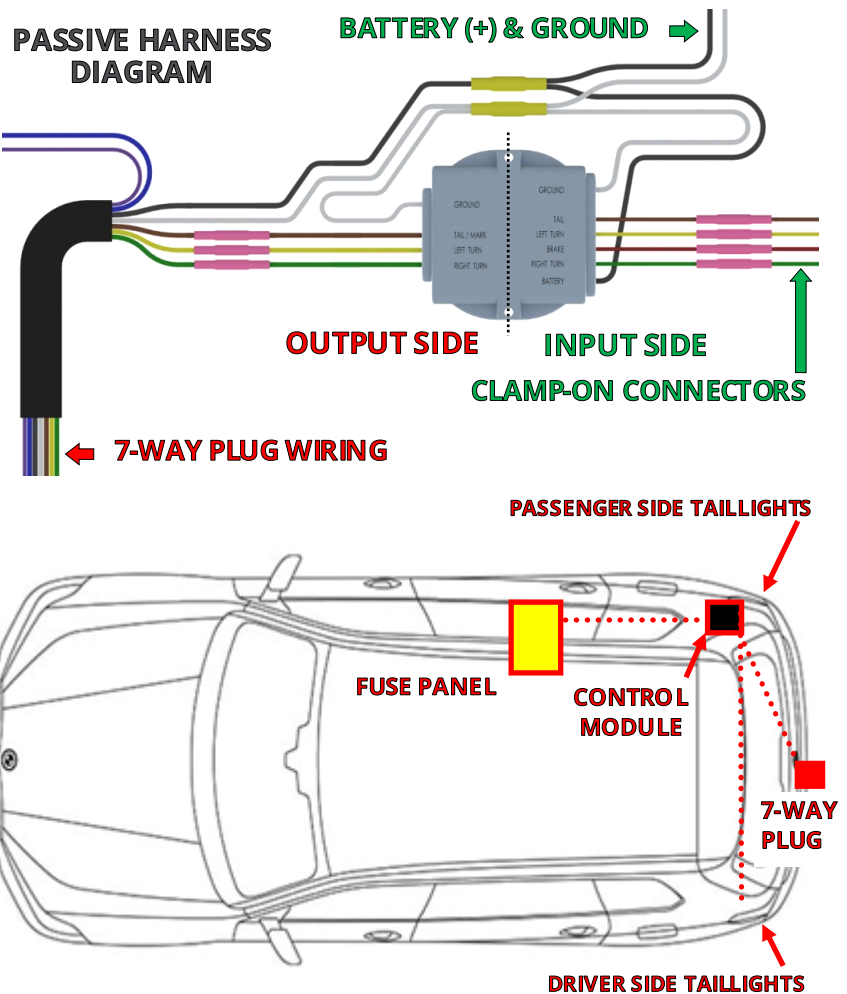
#	DESCRIPTION	QTY
1	7-WAY WIRING HARNESS • FUSE HOLDER & FUSE • CONTROL MODULE & WIRES	1
2	ADHESIVE FOAM STRIP	2
3	5/8" LONG PHILLIPS SCREWS	4
4	#10 LOCK NUT	4
5	FORK TERMINAL	1
6	BUTT CONNECTOR	1
7	M8 FLANGE NUT	1
8	CLAMP-ON CONNECTORS	5
9	CABLE TIE - 8"	8
10	CABLE TIE - 14"	3
11	POWER WIRE	1
12	OFFSET Z-BRACKET	1
13	MOUNTING BRACKET	1
14	7-WAY HOUSING	1
15	7-POLE TO 4-POLE ADAPTER	1



PASSIVE WIRING KIT BOX

34. 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

35. In the passenger side cargo area, locate and remove the rubber grommet shown in the image.



DRILL &
3/8" BIT

36. Drill a 3/8" hole in grommet. Place the control module in the passenger side cargo area. Pass the grommet over the control module output wires. Thread the ends of the wires to the outside of the vehicle through the grommet hole. Replace the grommet.



MULTIMETER



PLIERS

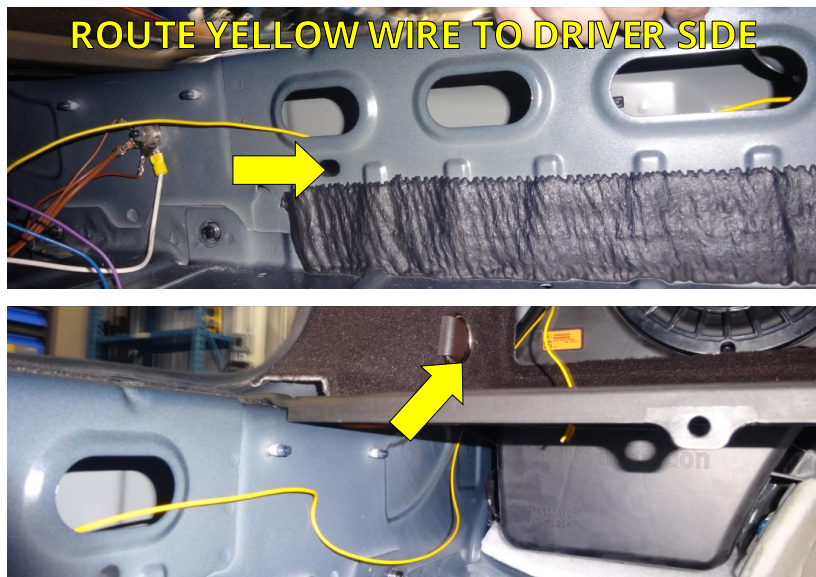
37. The wires on the input side of the module need to be attached to the vehicle wiring. Inside the passenger side cargo area locate the taillight wiring harness. Use clamp-on connectors to connect the brown, green, and purple wires to the taillight wiring harness. (As shown in reference table on next page.)

NOTE: Vehicles may have different wire colors than those shown. Verify circuits (wire colors) with multimeter.



INSTALL WIRING KIT CONTINUED













38. Route the yellow left turn signal wire to the driver side of vehicle by threading the wire into the rear wall of the vehicle. On the driver side pass the wire under the trim and up to the taillight wiring harness.



39. Locate the indicated part of the taillight wiring harness. Use a clamp-on connector to connect the yellow wire to the left turn signal wire. (As shown in reference table below.)



CLAMP-ON CONNECTOR COLOR REFERENCE TABLE

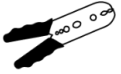
SIGNAL INPUT WIRES			POWER & GROUND WIRES		
FUNCTION	HARNESS	VEHICLE			
LEFT TURN	 YELLOW	 BLACK/WHITE	12V+ (POWER)	 BLACK	FUSE PANEL
RIGHT TURN	 GREEN	 GREEN/BLACK	GROUND	 WHITE	GROUND STUD
MARKER	 BROWN	 GRAY/BLUE			
BRAKE	 RED	<i>Do not connect the red brake wire. This vehicle does not utilize a separate brake circuit. The brake signal is sent down the left and right turn circuits simultaneously.</i>			
REVERSE	 PURPLE	 WHITE/BLUE			
ELECTRIC BRAKE	 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



10mm
SOCKET



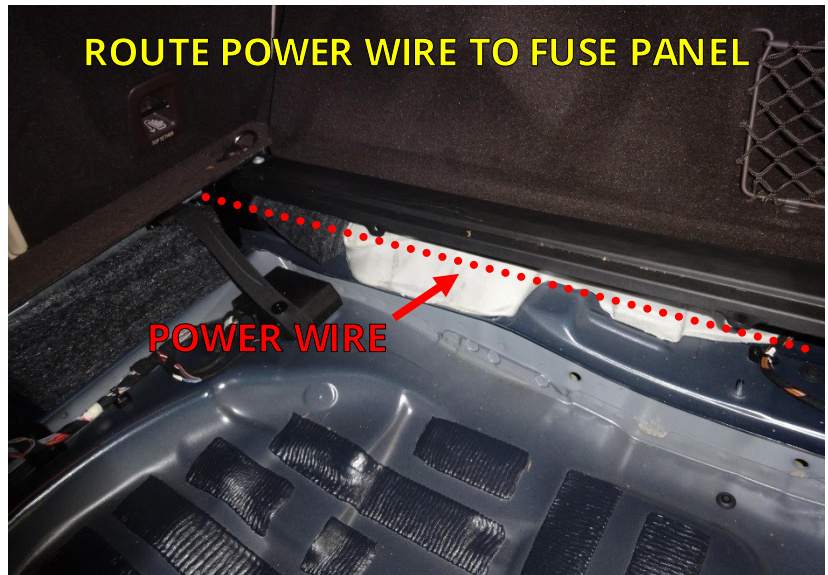
STRIPPER/
CRIMPING
TOOL

40. Locate the ground stud in the passenger side cargo area. Trim white ground wire so it will reach the 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 stud.

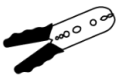
NOTICE: Loosen ground stud just enough to install fork terminal, so vehicle does not lose ground.



41. Lift the rear passenger seat to access fuse panel. Remove the fuse panel cover. Route the power wire along the passenger side of the cargo area to the fuse panel.

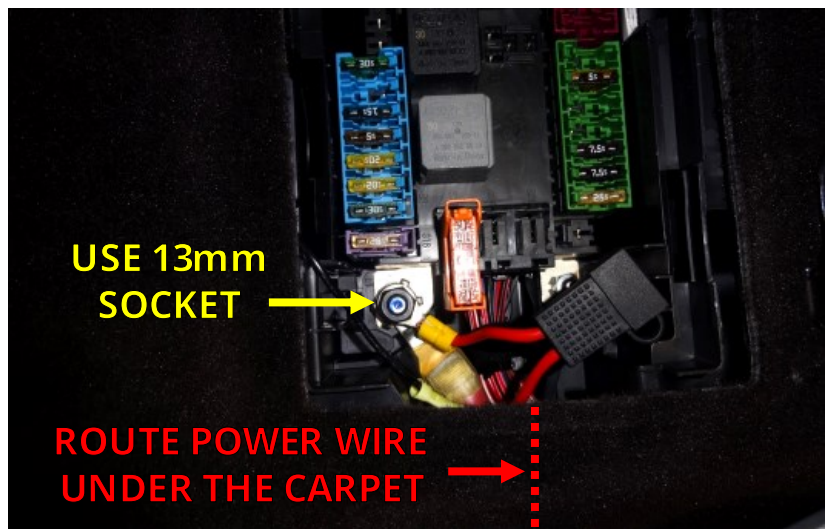


13mm
SOCKET



STRIPPER/
CRIMPING
TOOL

42. Locate the fuse holder and M8 flange nut supplied in the wiring kit box. Remove the fuse from the fuse holder. Crimp the fuse holder lead to the black power wire. Connect the ring terminal to the fuse panel power stud with the M8 nut.

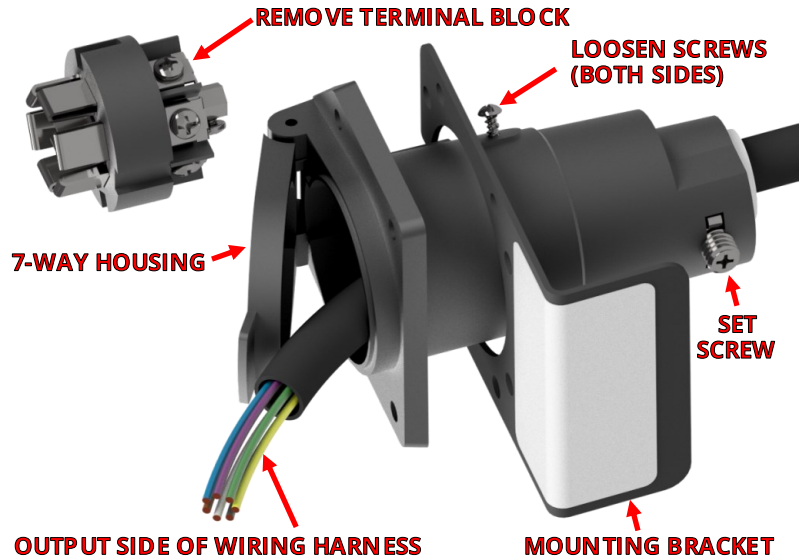


WIRE 7-WAY PLUG



PHILLIPS HEAD
SCREWDRIVER

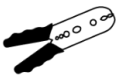
43. Locate the 7-way housing. Use a screwdriver to loosen (2) screws. Remove 7-way round terminal block. Place the mounting bracket onto the 7-way housing as shown. Use a screwdriver to loosen the set screw at the bottom of the 7-way housing. Route output side wires of the wiring harness through the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



Please follow instructions below very carefully.
Incorrect wiring of the 7-way receptacle causes the vast majority of wiring problems.



PHILLIPS HEAD
SCREWDRIVER

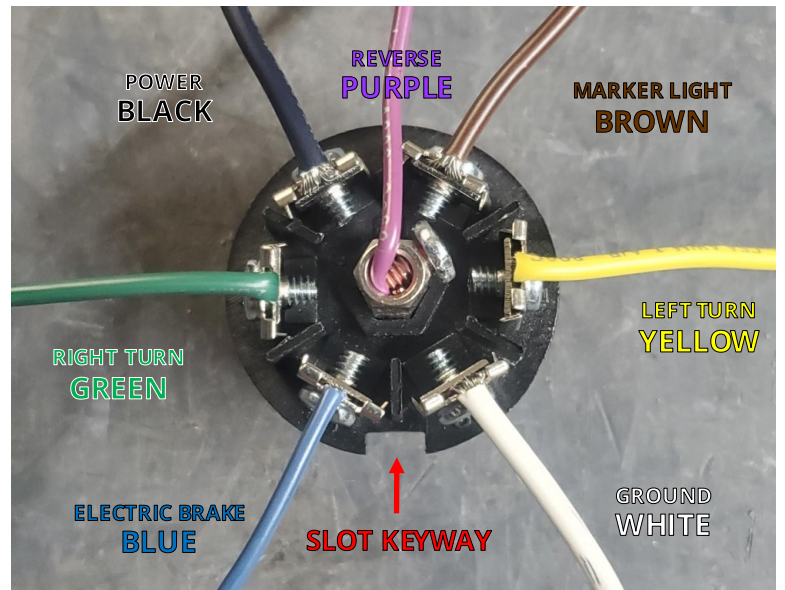


STRIPPER/
CRIMPING
TOOL

44. 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



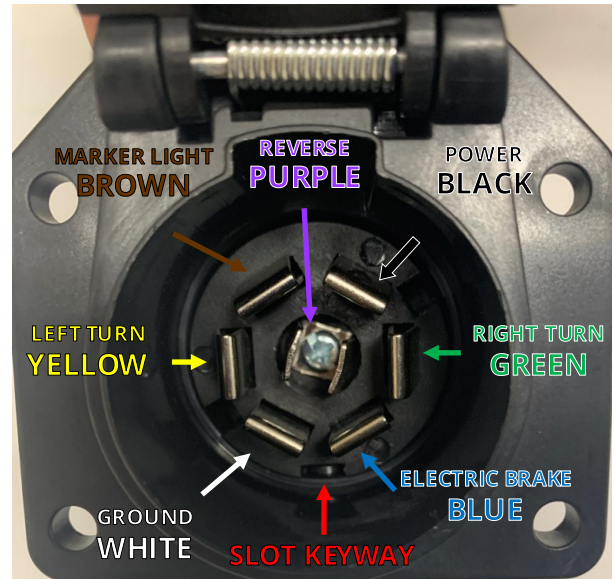
PHILLIPS HEAD
SCREWDRIVER



MULTIMETER

45. 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 located near the power supply.**

NOTE: *Taillights will need to be temporarily plugged in during testing.*



- 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.

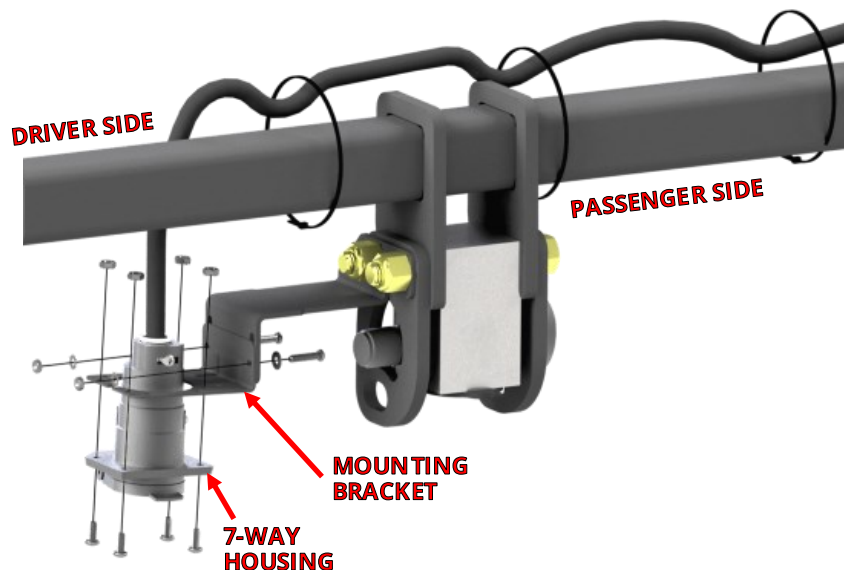
SECURE TOW KIT



PHILLIPS HEAD
SCREWDRIVER

46. Attach the mounting bracket and 7-way housing to the Stealth hitch frame as shown. Secure harness to Stealth hitch frame with cable ties.

47. 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.

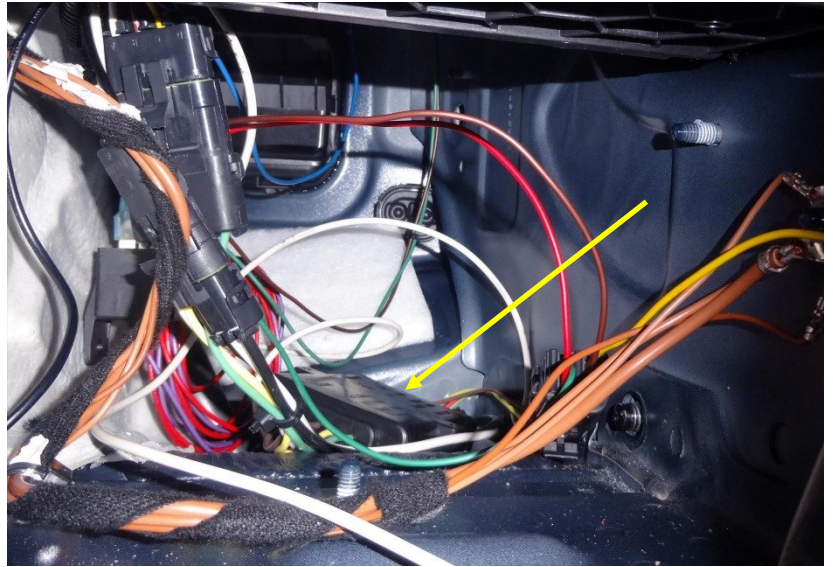


SECURE TOW KIT CONTINUED



SILICONE

48. Use the provided adhesive foam strips to secure the control module to an inside body panel. Use silicone to waterproof the grommet.



CUT ACCESS TO LATCH BLOCK

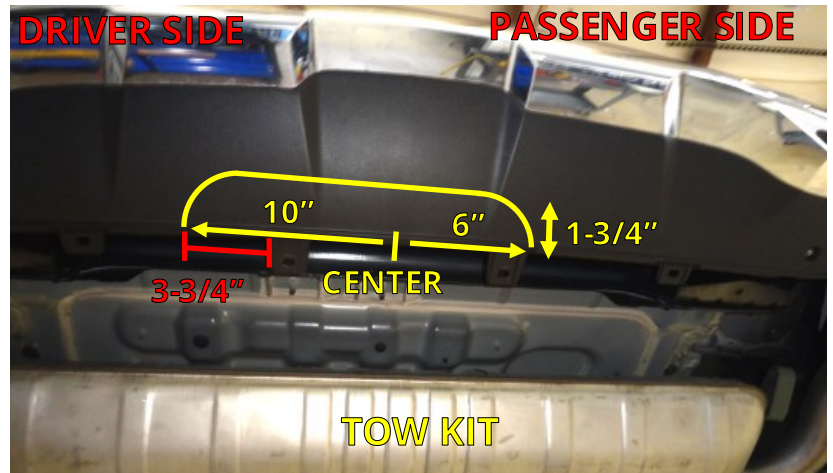


DREMEL TOOL



FILE

49. Use a Dremel tool to cut out fascia, as shown. The access hole necessary varies depending on which kit you are installing. Follow indicated template. Use a file to smooth out the cut.



REINSTALL VEHICLE COMPONENTS



PHILLIPS HEAD
SCREWDRIVER



10mm
SOCKET

50. Reattach and secure the fascia, taillights and other vehicle components in reverse order. Refer to Steps 1-27.

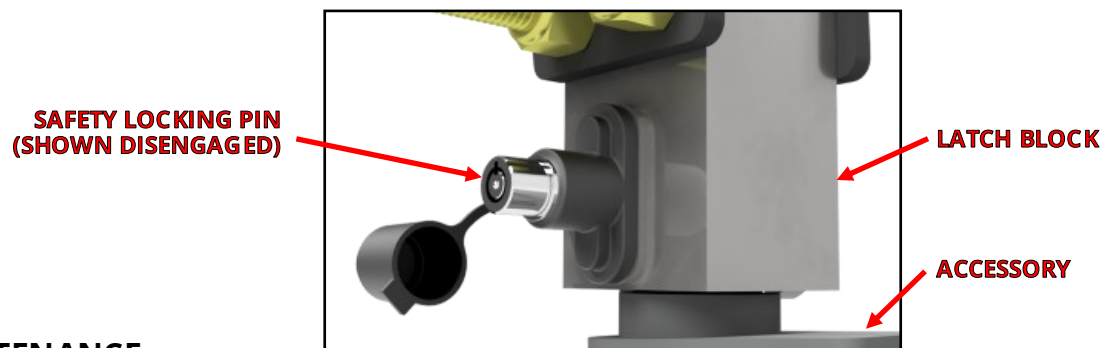
NOTICE: Remember to plug in the sensor plug in Step 27 before reinstalling the fascia.

51. If fascia brackets were installed in Step 33, attach the bottom of the fascia to the brackets using supplied 1/4" screws, flat washers, and flange nuts.



FINAL VEHICLE EXAMINATION

52. Examine the body panels to ensure that they are in a pre-installation condition. Test the electronic functions of the vehicle. Correct any inconsistencies.
53. 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.