STEALTH HITCHES

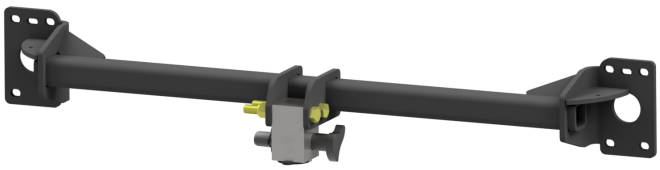
www.stealthhitches.com 833•694•4824

HITCH INSTALLATION INSTRUCTIONS

MAKE:	YEARS:	MODEL/TRIM:
PORSCHE	2011 - 2018	CAYENNE (92A CHASSIS)
	2015 - 2018	CAYENNE S E HYBRID (92A CHASSIS)

RACK RECEIVER KIT#: **SHR35001**

COMPATIBLE WITH TOW KIT: **SHT25025**



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

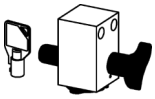
UNDER VEHICLE TRIMMING:

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:


LATCH BLOCK & KEYS


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

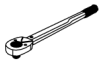

(2) 5/8" NYLOCK NUTS

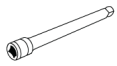

2" RACK RECEIVER

TOOLS REQUIRED:


15/16" OPEN END WRENCH


18mm & 15/16" SOCKETS


TORQUE WRENCH


SOCKET EXTENSION


SAFETY GLASSES


RATCHET

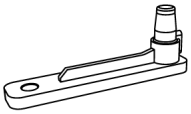

FLASHLIGHT


PAINTER'S TAPE


PLASTIC PRY TOOLS

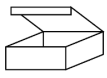

T25 & T30 TORX

ADDITIONAL PARTS FOR TOW KIT:

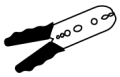

BALL MOUNT 3" RISE, SHORT


CHAIN HOOKS


2" BALL


PASSIVE WIRING KIT BOX

ADDITIONAL TOOLS FOR TOW KIT:


STRIPPER/ CRIMPING TOOL


PHILLIPS HEAD SCREWDRIVER


DRILL & 3/8" BIT


SILICONE


T40 TORX


PLIERS


MULTIMETER


10mm & 13mm SOCKETS

RACK RECEIVER INSTALLATION: USE STEPS 1-14 & 33-36
TOW KIT INSTALLATION: USE STEPS 1-36

<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

PLASTIC PRY TOOLS

T30 TORX

1. Open the rear hatch. Remove the plastic taillight cover using a plastic pry tool. Insert plastic pry tool and pry inward.
2. Under the taillight cover are (2) screws securing the taillight. Remove these screws using a Torx.

PLASTIC PRY TOOLS

3. Slide the taillight to the rear of the vehicle to remove. A plastic pry tool can be used to help if the light does not slide freely. With the lights dislodged, unplug the light plug. Repeat Steps 1-3 on other side of vehicle.

T25 TORX

T30 TORX

4. There is a screw holding the fascia in the taillight housing area. Locate and remove this screw using a Torx.
5. Locate and remove (1) screw from the rubber stop on the side of the hatch frame, using a Torx. Repeat Steps 4-5 on other side of vehicle.

GAIN ACCESS TO MOUNTING AREA CONTINUED

T25 TORX

6. To allow partial removal of the rear wheel well trim (3) screws will need to be removed. Inside the rear wheel well, behind the tire, locate and remove (2) screws.

T25 TORX

7. Locate (1) screw holding the trim underneath the vehicle behind rear wheel. Remove this screw.

T25 TORX

PAINTER'S TAPE

8. Behind the rear wheel well trim are (3) screws holding the fascia. Pull the trim away from vehicle to expose these screws. Use a Torx to remove the screws.

NOTE: *To protect the trim from being scratched during the removal or replacement, cover it with painter's tape or something similar.*

T25 TORX

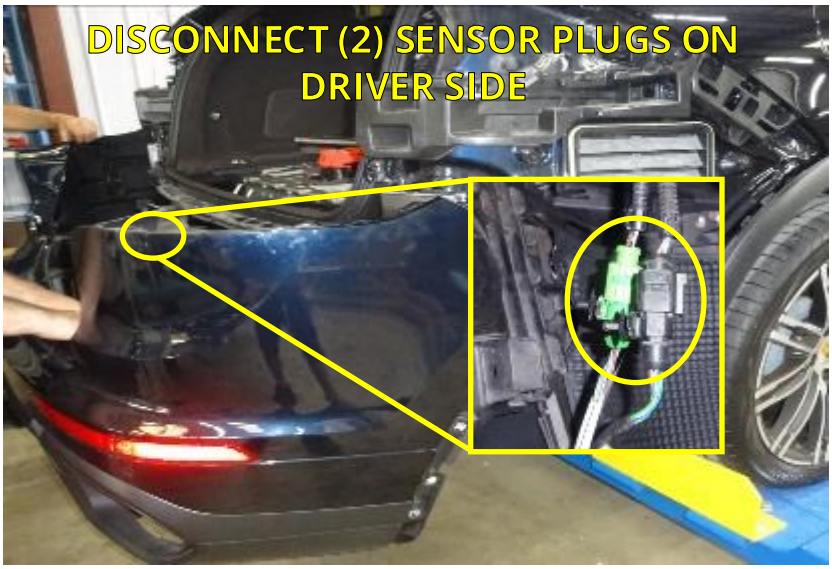
9. Locate and remove (2) screws holding the fascia underneath vehicle behind the rear wheel. Repeat Steps 6-9 on other side of vehicle.

T25 TORX

10. Underneath the rear of the vehicle remove (4) screws from the bottom of the fascia.

11. This step requires a partner. Pull the fascia rearward enough to access the (2) sensor plugs on the driver side. Disconnect the sensor plugs. Remove the fascia completely.

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



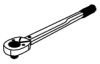
GAIN ACCESS TO MOUNTING AREA CONTINUED

18mm SOCKET

12. Use a socket to remove (8) bolts that secure the factory reinforcement beam. Save the bolts for hitch installation. Discard the factory reinforcement beam.

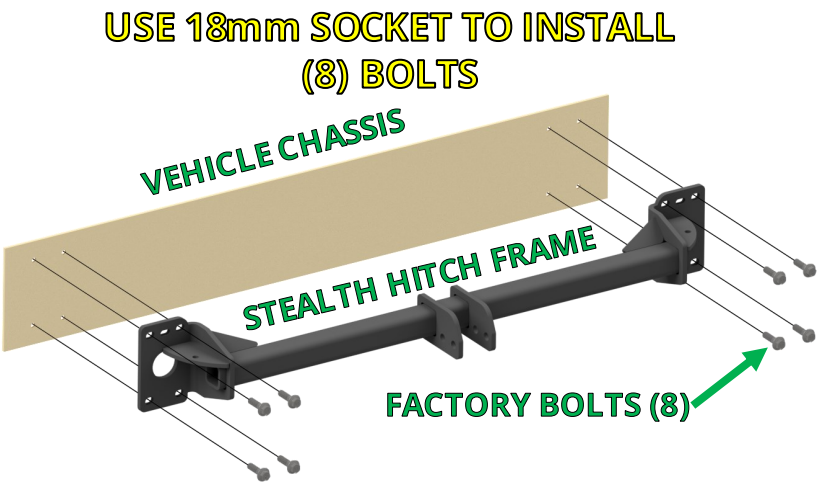
INSTALL STEALTH HITCH FRAME

18mm SOCKET



TORQUE WRENCH

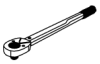
13. Install the Stealth hitch frame onto the vehicle using the saved bolts. Center the hitch frame before tightening. Use a torque wrench to tighten the factory bolts to 85 ft.-lbs.



MOUNT LATCH BLOCK

15/16" SOCKET

15/16" OPEN END WRENCH



TORQUE WRENCH

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

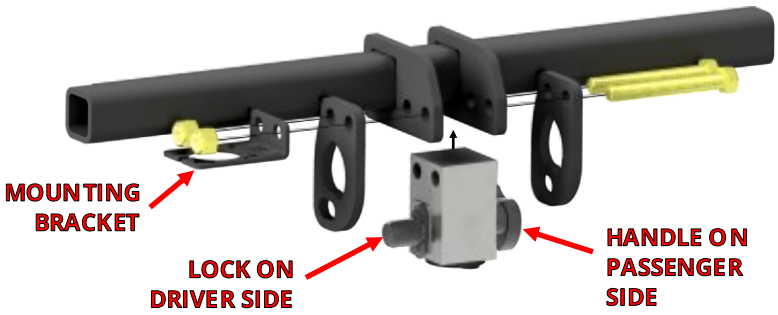
- ***Rack Receiver Kit:*** Install the latch block with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock nuts. Tighten each bolt to 150 ft.-lbs.

- ***Tow Kit:*** Retrieve mounting bracket from wiring harness kit box. Install the latch block, (2) chain hooks, and mounting 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

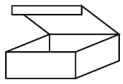
TOW KIT INSTALL



IF INSTALLING A RACK RECEIVER KIT, SKIP TO STEP 33.
IF INSTALLING A TOW KIT, CONTINUE TO STEP 15.

INSTALL PASSIVE WIRING KIT

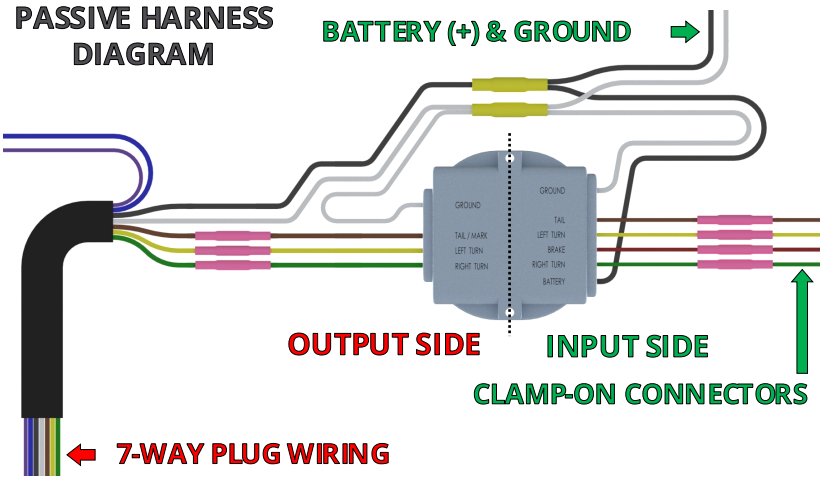
#	DESCRIPTION	QTY
1	7-WAY WIRING HARNESS • • FUSE HOLDER & FUSE • • CONTROL MODULE & WIRES	1
2	POWER WIRE	1
3	ADHESIVE FOAM STRIP	2
4	5/8" LONG PHILLIPS SCREWS	4
5	#10 LOCK NUT	4
6	BUTT CONNECTOR	1
7	M8 FLANGE NUT	1
8	FORK TERMINAL	1
9	CLAMP-ON CONNECTORS	5
10	CABLE TIE – 8"	8
11	CABLE TIE – 14"	3
12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

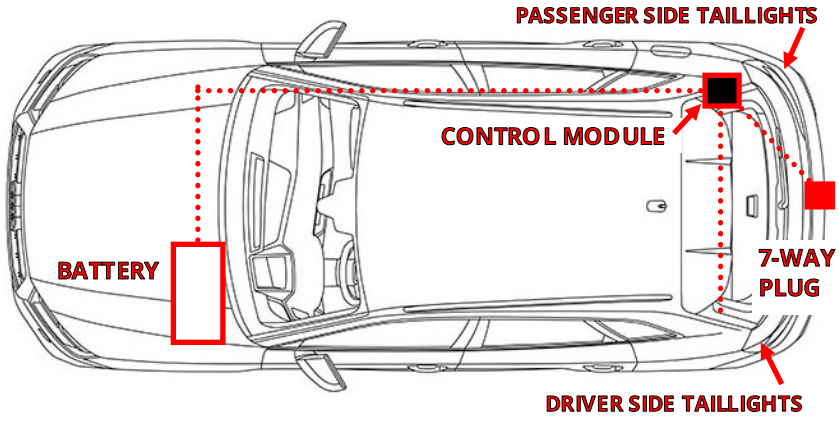


PASSIVE WIRING KIT BOX

15. 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.





16. Lift up to remove cargo area floor panel. Remove spare tire, jack and tool holder. Refer to owner's manual if needed.

NOTE: *The hybrid model has the battery unit in this location instead of the spare tire.*

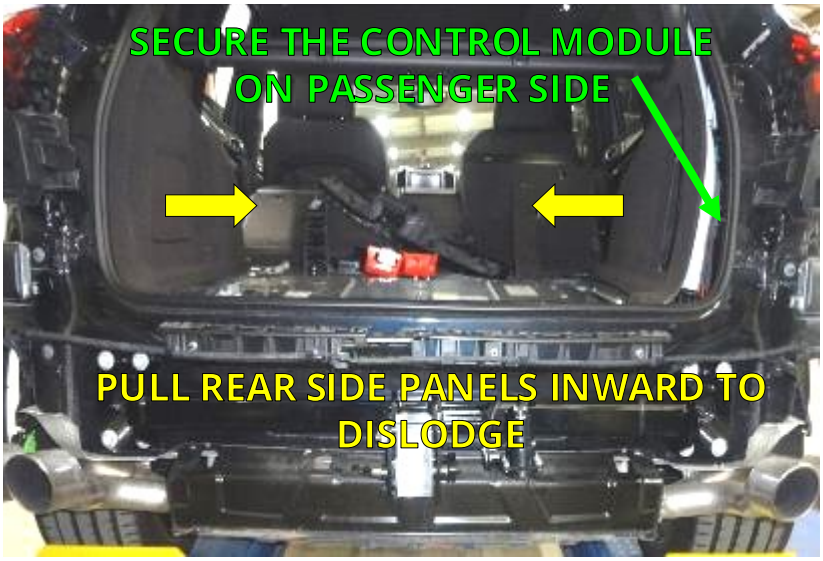
17. Remove the threshold in the rear cargo area. Carefully lift up on the threshold and remove.

T40 TORX

18. In the corners of the cargo area, locate and remove (4) cargo anchors. On each side of the cargo area, remove the large plastic rails on each side of the cargo area.

INSTALL WIRING KIT CONTINUED

19. Dislodge the rear side panels by pulling inward. Retrieve the control module from the wiring kit box. Secure the control module in the passenger side compartment of the vehicle with supplied adhesive foam strips.



DRILL & 3/8" BIT

20. On the passenger side of the vehicle locate and remove the rubber grommet shown. Drill a 3/8" hole in the grommet. Route the output wires and power wire through the grommet.

DRILL A 3/8" HOLE IN GROMMET

PLIERS

MULTIMETER

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

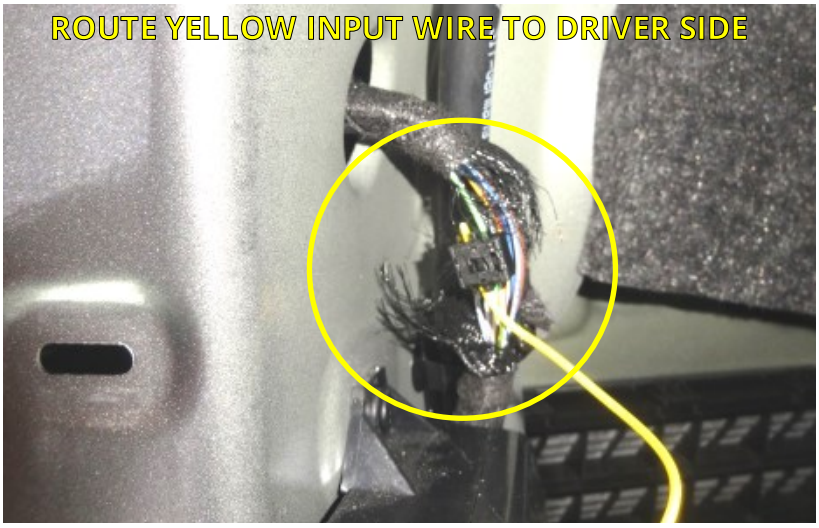
NOTE: *Vehicles may have different wire colors than those shown. Verify circuits (wire colors) with multimeter.*

INSTALL WIRING KIT CONTINUED

PLIERS

MULTIMETER

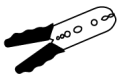
22. Use an existing vehicle wire harness as a guide to route the yellow input wire to the driver side of the vehicle. Locate the indicated part of the vehicle wiring harness. Use a clamp-on connector to connect the yellow wire to left turn signal wire behind the taillight. (As shown in reference table below.)



CLAMP-ON CONNECTOR COLOR REFERENCE TABLE

SIGNAL INPUT WIRES			POWER & GROUND WIRES		
FUNCTION	HARNESS	VEHICLE			
LEFT TURN	YELLOW	GREEN/WHITE	12V+ (POWER)	BLACK	BATTERY (+)
RIGHT TURN	GREEN	BLACK/GREEN	GROUND	WHITE	GROUND STUD
MARKER	BROWN	RED/WHITE			
BRAKE	RED	BLUE/YELLOW			
REVERSE	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. ***Trailers rarely have reverse lights or surge brakes.***			
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.

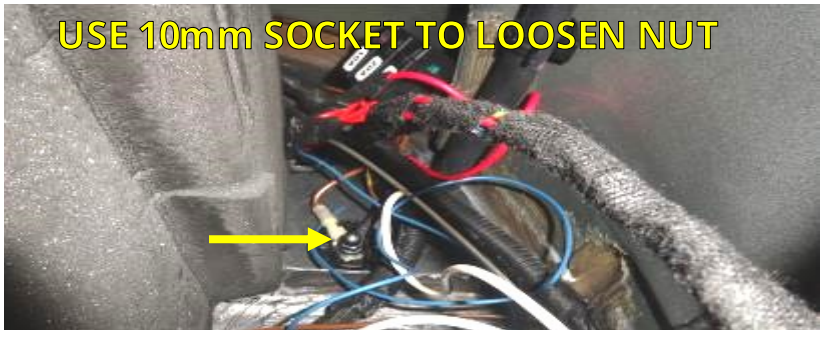


STRIPPER/ CRIMPING TOOL

10mm SOCKET

23. Locate the ground stud in the 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 stud.

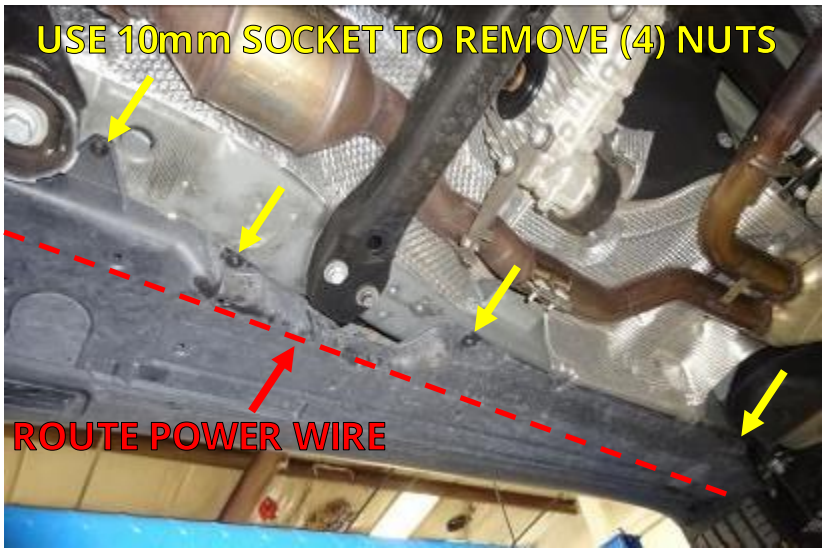
NOTICE: Loosen ground stud just enough to install fork terminal, so vehicle wiring does not lose ground.



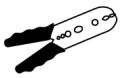
INSTALL WIRING KIT CONTINUED

10mm SOCKET

24. The power wire will be routed from the passenger side cargo compartment to the vehicle's battery in the engine compartment. It will be run under the passenger side of the vehicle, then into and across the engine compartment. Use existing wiring harnesses to route the wire where possible. Under the vehicle remove (4) nuts and loosen gravel guard to enable the wires to be routed under the gravel guard.



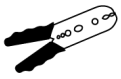
13mm SOCKET



STRIPPER/ CRIMPING TOOL

25. 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 power supply with the M8 nut.

NOTE: *Do not loosen the power supply nut, just add M8 nut on top of ring terminal.*



STRIPPER/ CRIMPING TOOL

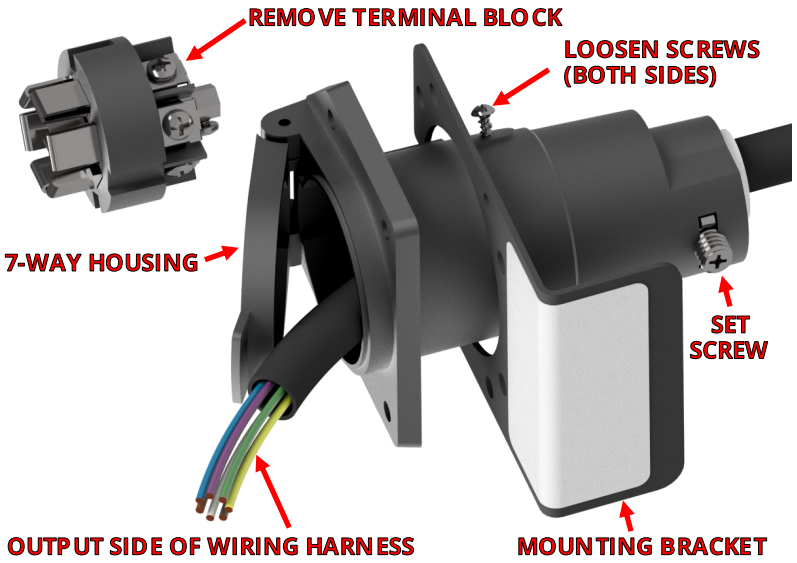
26. Determine the amount of power wire needed to reach the control module inside the vehicle. Trim the control module power wire to remove excess length. Use the included butt connector to crimp the power wire leading from the power supply to the control module power wire.

NOTICE (OPTIONAL): The butt splice connector is a heat shrink connector. Apply heat to waterproof the connector after crimping.

WIRE 7-WAY PLUG

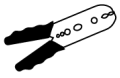
PHILLIPS HEAD SCREWDRIVER

27. 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.

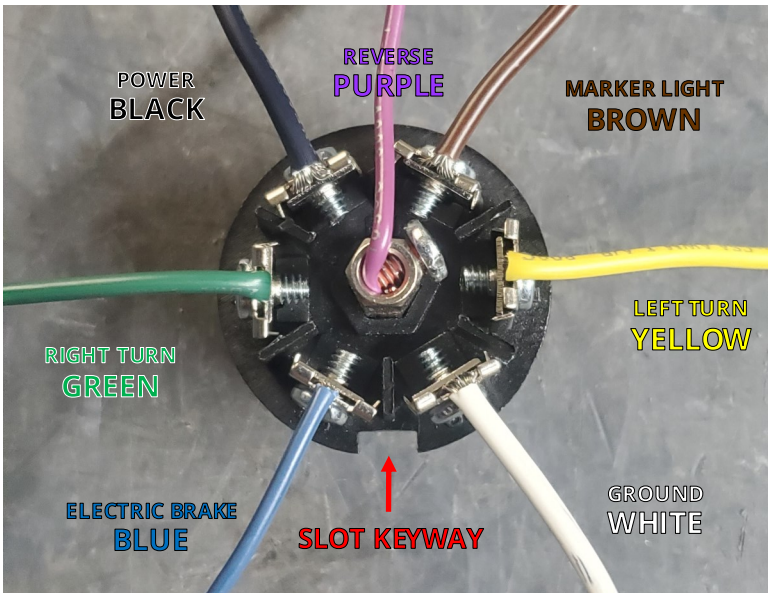
PHILLIPS HEAD SCREWDRIVER



STRIPPER/ CRIMPING TOOL

28. 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.



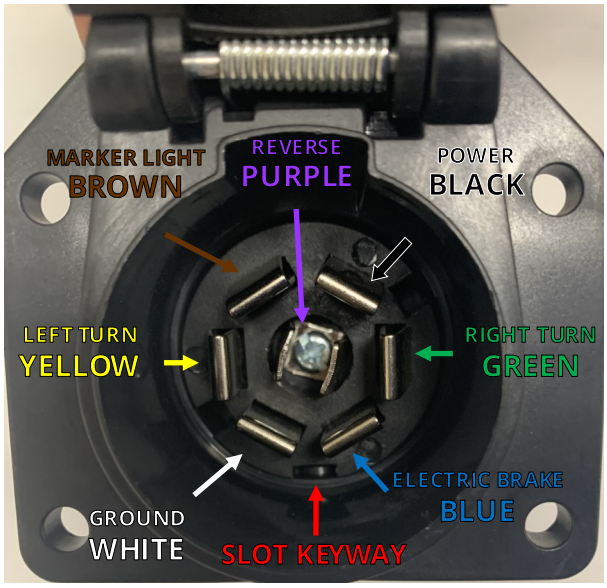
TEST 7-WAY HARNESS WIRING

PHILLIPS HEAD SCREWDRIVER

MULTIMETER

29. 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 battery.**

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



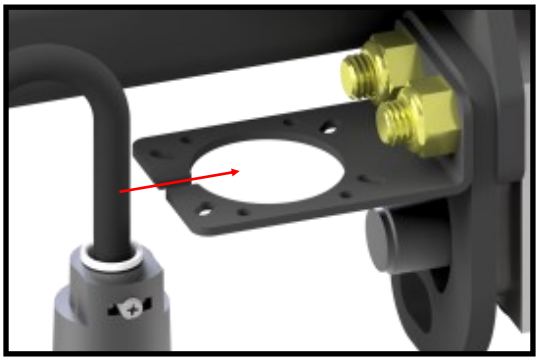
- Start by connecting the multimeter negative probe to the ground blade on the 7-way receptacle.
- Next, connect the multimeter positive probe to the power blade on the 7-way receptacle and check for 12 volts.
- Once that is confirmed, move the positive probe to the left turn blade on the 7-way receptacle 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.

INSTALL WIRING KIT CONTINUED

PHILLIPS HEAD SCREWDRIVER

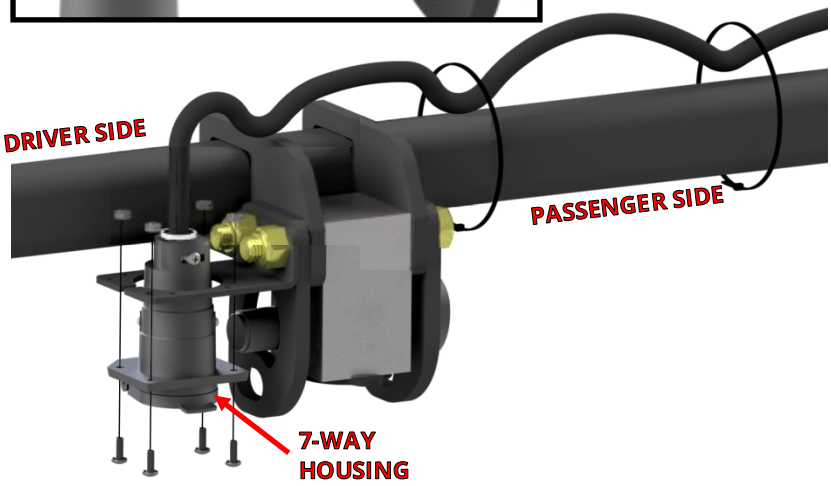
SILICONE

30. Carefully pass the wire of the 7-way housing through the mounting bracket. Attach the 7-way housing to the Stealth hitch frame as shown. Secure harness to Stealth hitch frame with cable ties provided in the wiring kit.



31. Secure all wires and wiring components. Use the remaining wiring kit 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.

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



REINSTALL VEHICLE COMPONENTS

33. Reattach and secure the fascia, taillights, and other vehicle components in reverse order. Refer to Steps 1-11.

NOTICE: Remember to plug in the sensor plugs in Step 11 before reinstalling the fascia.

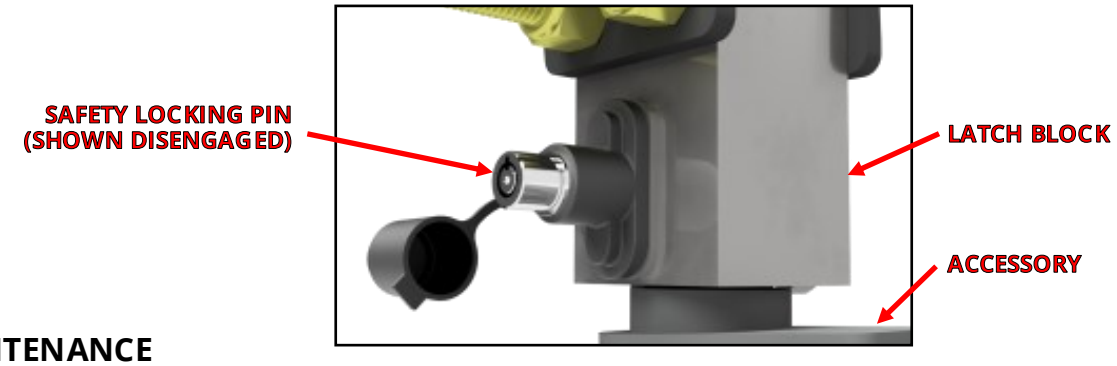
34. The finished, view under the vehicle.

FINAL VEHICLE EXAMINATION

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

36. 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.