



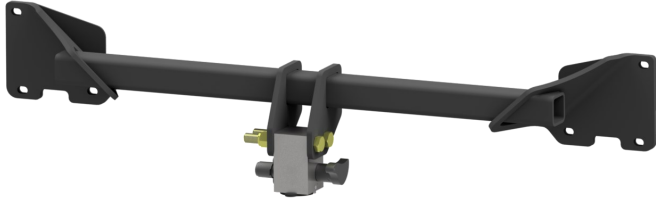
HITCH INSTALLATION INSTRUCTIONS

MAKE: AUDI **YEARS:** 2019 - 2024
 2021 - 2024 **MODEL/TRIM:** A6 Allroad
 RS6 Avant

www.stealthhitches.com 833-694-4824

RACK RECEIVER KIT#: **SHR30002**

COMPATIBLE WITH TOW KIT: **SHT25002**



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

UNDER VEHICLE TRIMMING:

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

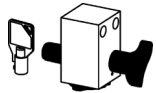


READ ALL INSTRUCTION WARNINGS AND LABELS



NO WELDING, METAL DRILLING OR VISIBLE TRIMMING REQUIRED

PARTS SUPPLIED WITH RACK RECEIVER KIT:



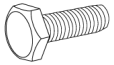
LATCH BLOCK & KEYS



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



(2) 5/8"
NYLOCK NUTS



(6) M10 1.5 x
45mm BOLTS



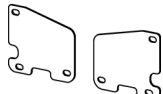
(6) M10 LOCK
WASHERS



2" RACK
RECEIVER



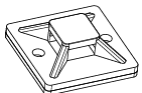
(6) M10 FLAT
WASHERS



COVER PLATES



(6) 8" CABLE
TIES



(6) MOUNTING
BASE 1X1

ADDITIONAL PARTS FOR TOW KIT:



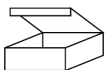
BALL MOUNT
7" RISE, SHORT



CHAIN HOOKS



2" BALL



PASSIVE WIRING
KIT BOX

TOOLS REQUIRED:



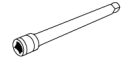
15/16" OPEN
END WRENCH



10mm, 11mm,
16mm, 17mm,
& 15/16" SOCKETS



TORQUE
WRENCH



SOCKET
EXTENSION



SAFETY GLASSES



RATCHET



FLASHLIGHT



T25 TORX



PLASTIC
PRY TOOLS



DREMEL TOOL



GRINDER



FILE



CUTTING DISC



SIDE
CUTTERS

ADDITIONAL TOOLS FOR TOW KIT:



STRIPPER/
CRIMPING
TOOL



DRILL &
3/8" BIT



T30 TORX



MULTIMETER



SILICONE



PLIERS



13mm
SOCKET

<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.

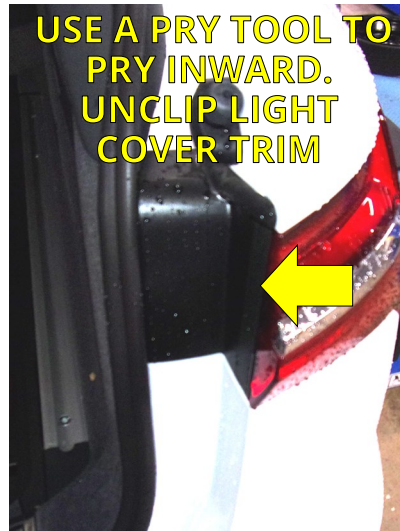
- ⚠️ Do not modify this product in any manner. Doing so could alter its integrity and lead to a loss of attachment between the trailer and the tow vehicle.
- ⚠️ Adding Stealth hitch components to the chassis of any vehicle can be hazardous. There is potential for unexpected combustion of fuel, electric 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.

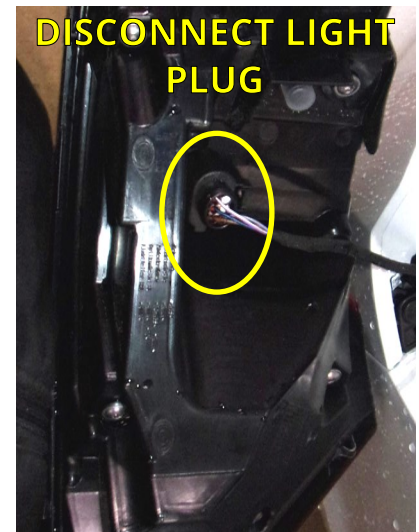
GAIN ACCESS TO MOUNTING AREA



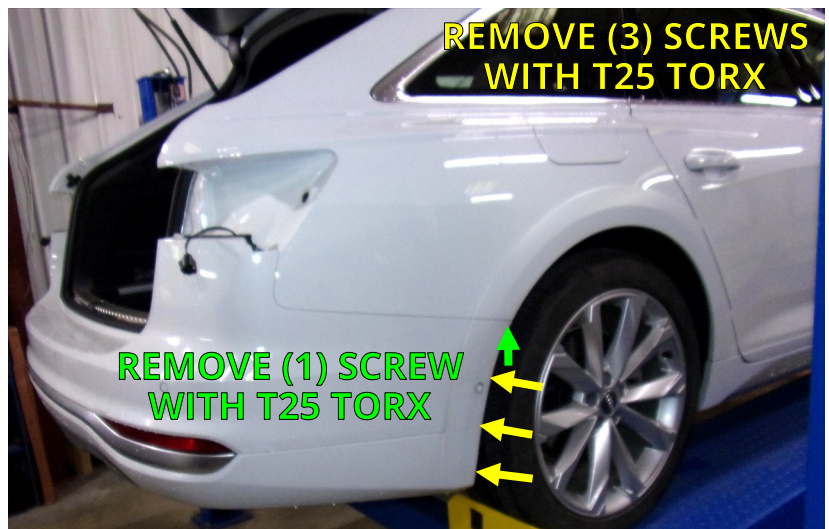
1. At the rear of the vehicle, use a pry tool to remove taillight cover trim. Remove the (2) screws securing the taillight to the vehicle.



2. Slide the taillight toward the rear of the vehicle to remove. A plastic pry tool can be used if the light does not slide freely. Disconnect the light plug by pushing down on the clip and pulling the plug outward. Repeat Steps 1-2 on other side of vehicle.



3. Inside the rear wheel well, behind the tire, locate the (3) screws which are holding the wheel well liner (yellow arrows). Remove these screws and fold the flexible liner back toward the tire. Behind the liner locate an additional screw and remove it (green arrow).

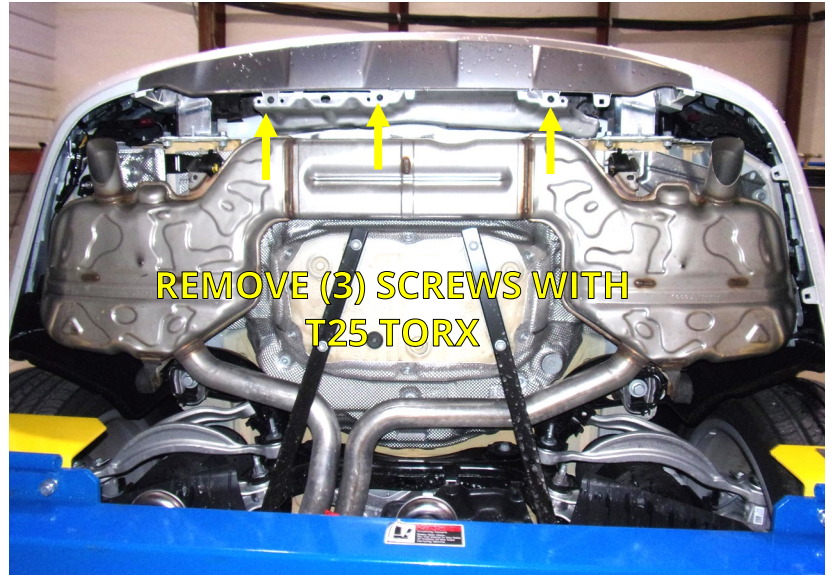


GAIN ACCESS TO MOUNTING AREA CONTINUED



T25 TORX

4. Underneath the vehicle, remove (3) screws connecting the fascia to the vehicle as shown.



PLASTIC PRY TOOLS

5. A fascia lock pin was exposed on each side when the taillights were removed. This pin holds the fascia to the vehicle. Remove the pin on each side of the vehicle. Use a pry tool and lift up.



PLASTIC PRY TOOLS

6. **SOME MODELS.** Behind the tires unclip (3) additional clips. Use outward pressure to expose the clips and a plastic pry tool to push on the clips. Repeat on both sides of the vehicle.



GAIN ACCESS TO MOUNTING AREA CONTINUED



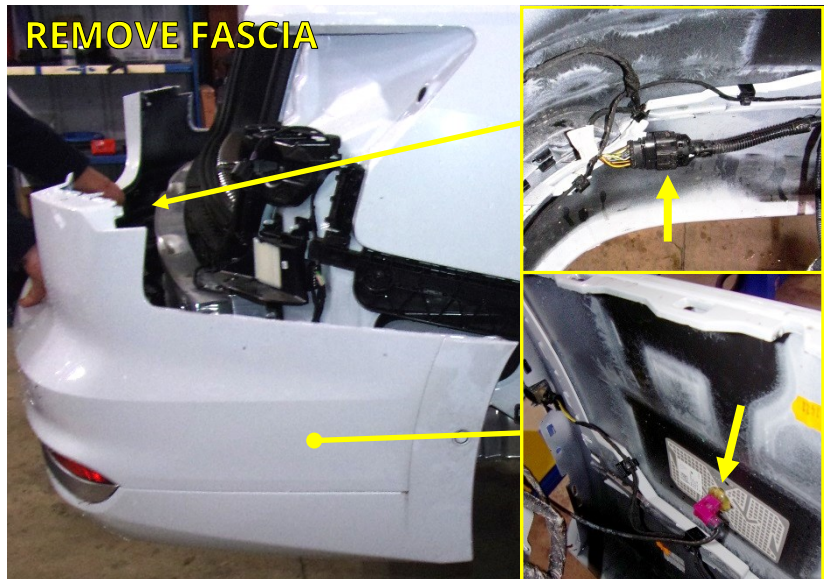
7. The rear fascia is clipped to the vehicle body above and behind the wheel wells. Pull outward on the top front of the rear fascia to expose a clip in the seam. With a plastic pry tool, push down on the exposed clip to disconnect. Continue to pull outward on the fascia and disconnect clips as they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

Continue applying outward and rearward pressure until all the clips up to the light assembly area are released. Repeat on other side of vehicle.



8. This step requires a partner. Pull the fascia rearward enough to access the (2) electrical sensor plugs, one on each side of the vehicle. Unplug the sensor plugs. Remove the fascia completely.

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

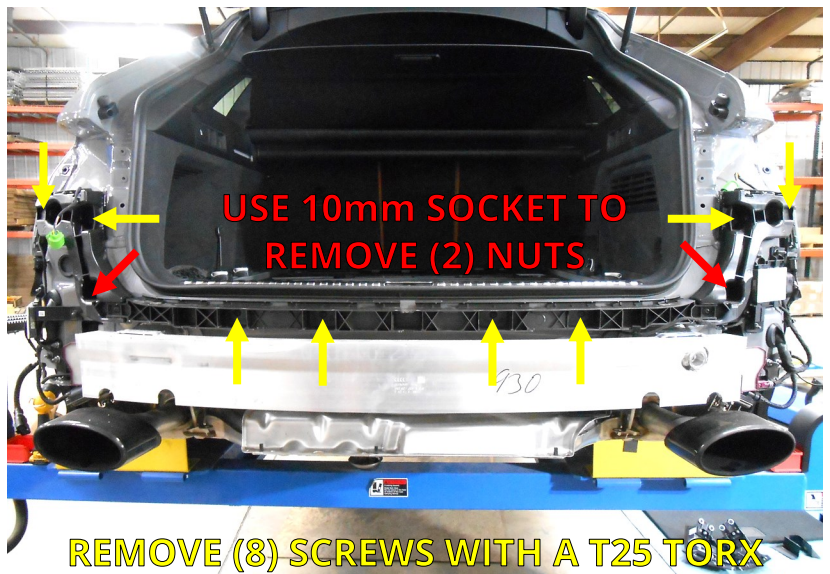


10mm
SOCKET



T25 TORX

9. Remove (8) Torx screws and (2) nuts from the fascia support bracket.

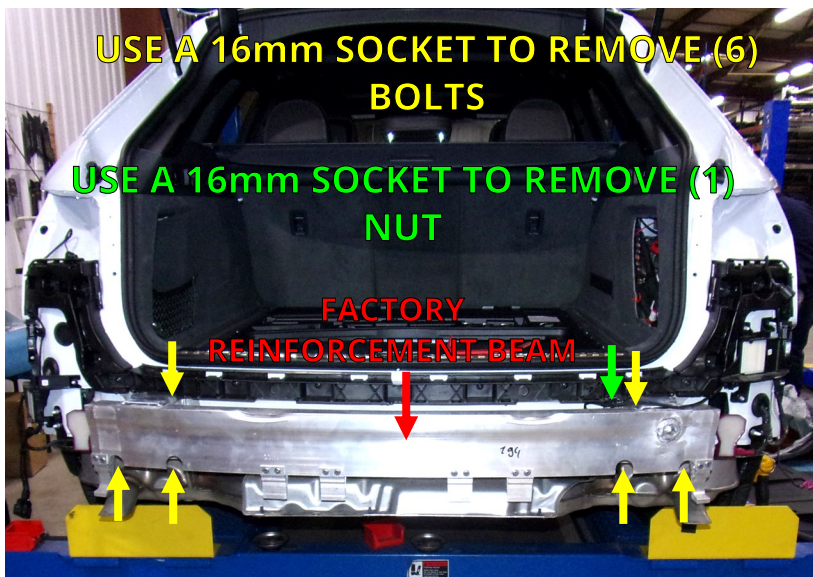


GAIN ACCESS TO MOUNTING AREA CONTINUED



16mm
SOCKET

10. Remove the factory reinforcement beam. Remove (6) bolts on the outside of the vehicle. Remove (1) nut inside the vehicle (green arrow). Discard factory bolts, nuts and the factory reinforcement beam.



11mm
SOCKET



DREMEL TOOL



FILE

11. A module located on the passenger side may interfere with the hitch fitment. Remove the module and housing located on the rear of the vehicle by removing one plastic nut and sliding toward the center. Separate the module from the bracket. Cut the bracket as indicated with a Dremel tool. Clean edges with a file. Replace parts back on the vehicle.



INSTALL STEALTH HITCH FRAME

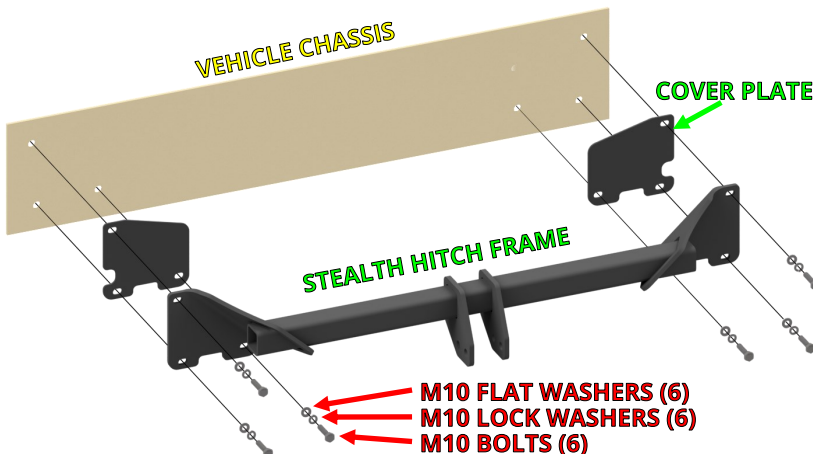


17mm
SOCKET



TORQUE
WRENCH

12. Install the Stealth hitch frame and cover plates onto the vehicle using (6) supplied M10 bolts, lock washers and flat washers, as shown. Center the hitch frame and beam before tightening. Use a torque wrench to tighten the bolts to 45 ft.-lbs.



MOUNT LATCH BLOCK



15/16"
SOCKET



15/16" OPEN
END WRENCH



TORQUE
WRENCH

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

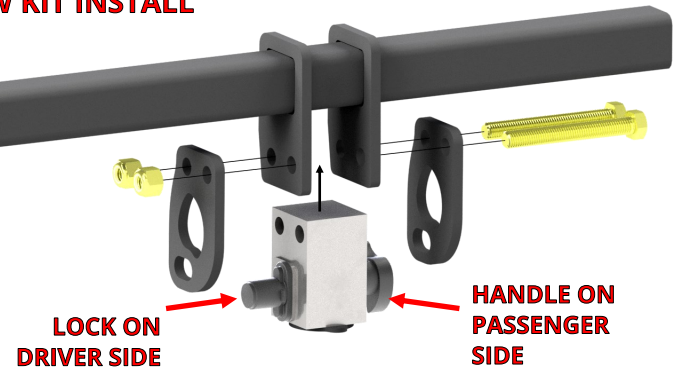
- **Rack Receiver Kit:** Install the latch block with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock nuts. Tighten each bolt to 150 ft.-lbs.
- **Tow Kit:** Install the latch block and (2) chain hooks with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock nuts. Tighten each bolt to 150 ft.-lbs.

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

RACK RECEIVER KIT INSTALL



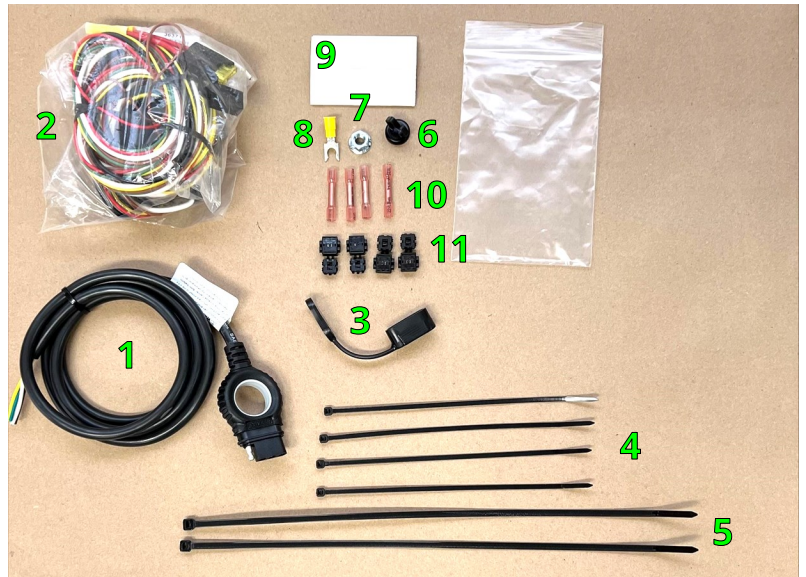
TOW KIT INSTALL



IF INSTALLING A RACK RECEIVER KIT, SKIP TO STEP 30.
IF INSTALLING A TOW KIT, CONTINUE TO STEP 14.

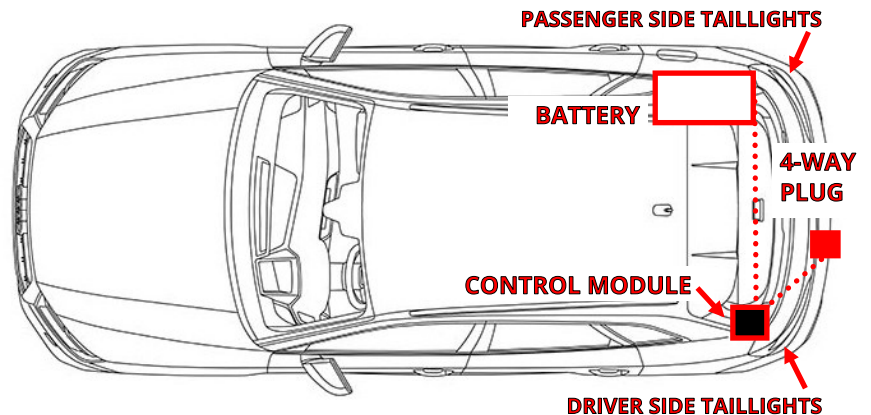
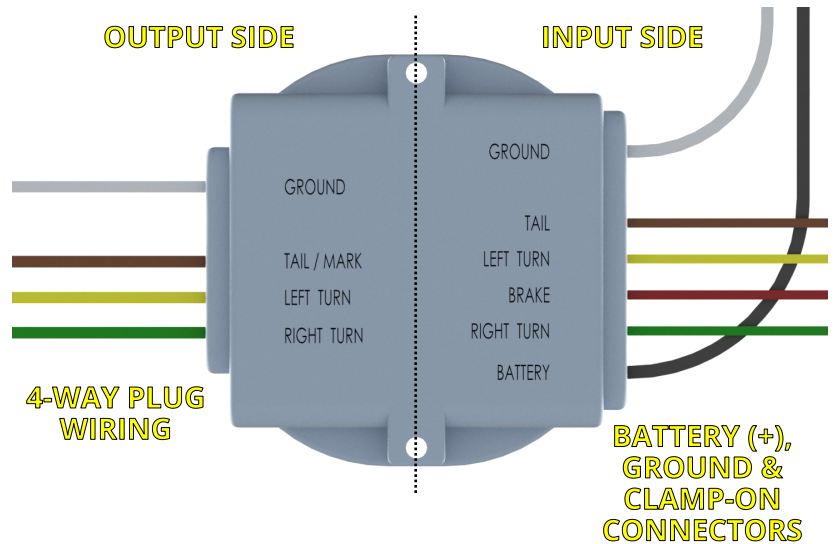
INSTALL PASSIVE WIRING KIT

#	DESCRIPTION	QTY
1	4-WAY CONNECTOR HARNESS	1
2	CONTROL MODULE	1
3	4-WAY CONNECTOR COVER	1
4	CABLE TIE - 8"	4
5	CABLE TIE - 14"	2
6	MAGNETIC CABLE HOLDER	1
7	M8 SERRATED FLANGE NUT	1
8	FORK TERMINAL	1
9	ADHESIVE FOAM STRIP	2
10	BUTT CONNECTOR (RED)	4
11	CLAMP-ON CONNECTORS	4



14. 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 4-way plug. The control module is connected to the vehicle's battery and taillight wiring as outlined in the next steps.

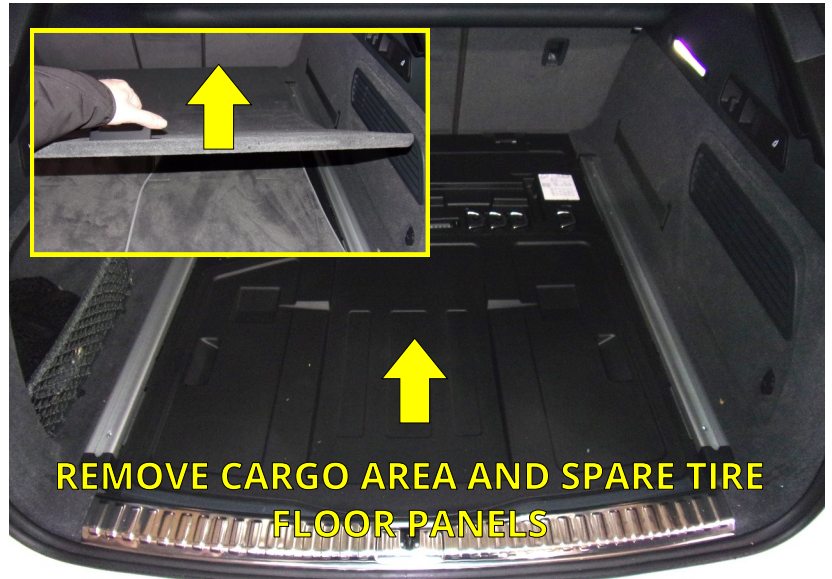
NOTICE: Do not allow electrical system to become disconnected from power or ground. Doing so may interrupt electrical systems



INSTALL WIRING KIT CONTINUED



15. Remove the cargo floor panel and spare tire floor panel by lifting it up and out. Place panels on blanket or safe area.



16. Loosen the belts securing the jack and tool kit. Remove the jack, tool kit, and spare tire. Remove (6) screws securing side rails with a Torx socket. Remove (2) side rails.



17. Use a pry tool to carefully pull up and remove the threshold in the rear cargo area.



18. In the rear corner of the vehicle, locate and lift the handle shown. Remove the screw securing the handle with a Torx socket. Dislodge the rear side panel to gain access to the taillight wires. Repeat on other side of vehicle.

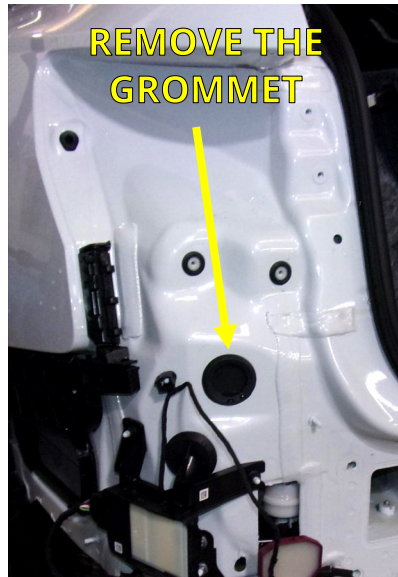


INSTALL WIRING KIT CONTINUED

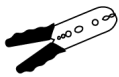


DRILL &
3/8" BIT

19. Locate and remove the grommet from the driver side rear corner of vehicle. Drill a 3/8" hole in grommet. Retrieve the 4-way connector harness. Pass the grommet over the wires so the plug will be on the outside of the vehicle. Thread the end of the wires into the hole and replace the grommet.



DRILL A 3/8" HOLE IN
GROMMET

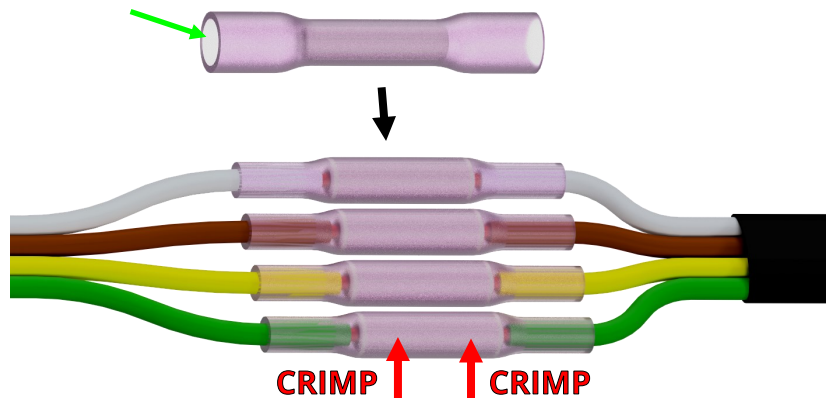


STRIPPER/
CRIMPING
TOOL

20. On the driver side of the vehicle, locate the tail of the 4-way connector wire and the output side wires of the control module. Attach each similar color wire to each other using a red butt connector and crimping tool.

NOTICE (OPTIONAL): The butt connectors are heat shrink connectors. Apply heat to waterproof the connectors after crimping.

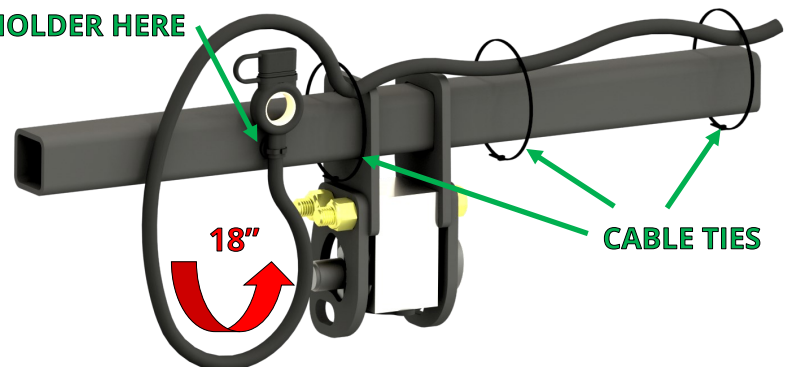
RED BUTT CONNECTOR WITH HEAT-SHRINK ENDS



MATCH THE WIRE COLORS AND CRIMP EACH WIRE INTO THE SIDE OF EACH BUTT CONNECTOR. APPLY HEAT TO WATERPROOF AFTER CRIMPING

21. Secure harness to Stealth hitch frame with cable ties. Maintain an 18" 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.

SECURE OUTPUT WIRES TO HITCH FRAME
ADD MAGNETIC CABLE
HOLDER HERE



INSTALL WIRING KIT CONTINUED



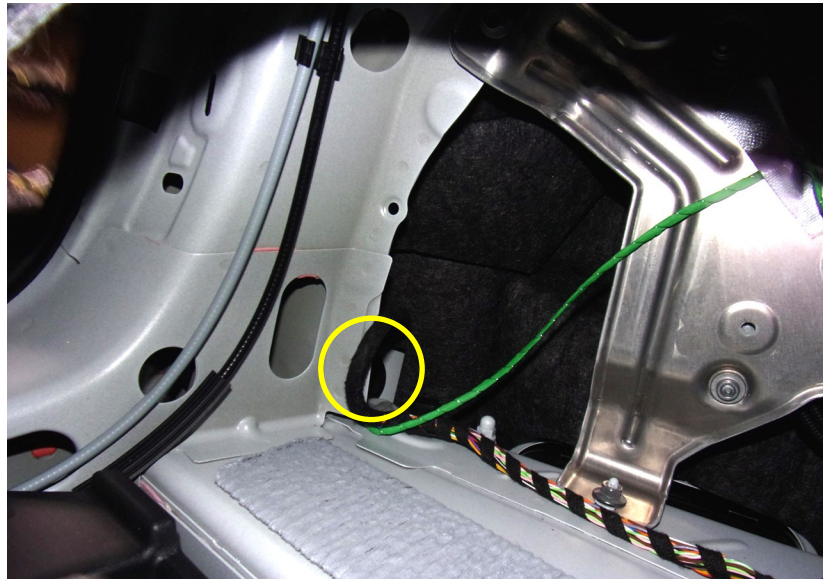
PLIERS



MULTIMETER

22. The wires on the input side of the module need to be attached to the vehicle wiring. Inside the driver side cargo compartment locate the indicated part of the vehicle wiring harness. Use clamp-on connectors to connect the brown and yellow wires to wires behind taillight. (As shown in reference table below.)

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



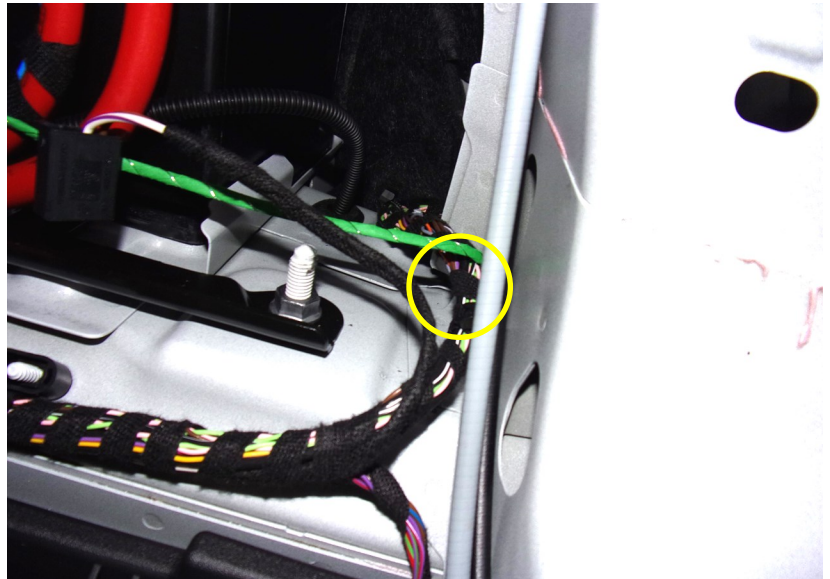
PLIERS












MULTIMETER

23. Use an existing vehicle wire harness as a guide to route the green input wire to the passenger side of the vehicle. Locate the indicated part of the vehicle wiring harness. Use a clamp-on connector to connect the green wire to right turn signal wire 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.



CLAMP-ON CONNECTOR COLOR REFERENCE TABLE

SIGNAL INPUT WIRES			POWER & GROUND WIRES		
FUNCTION	HARNESS	VEHICLE			
LEFT TURN	 YELLOW	 BLUE/BLACK	12V+ (POWER)	 BLACK	BATTERY (+)
RIGHT TURN	 GREEN	 BLACK/BLUE	GROUND	 WHITE	GROUND STUD
MARKER	 BROWN	 WHITE/GRAY	NOTICE: 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.		
BRAKE	 RED	NOT USED			

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

INSTALL WIRING KIT CONTINUED



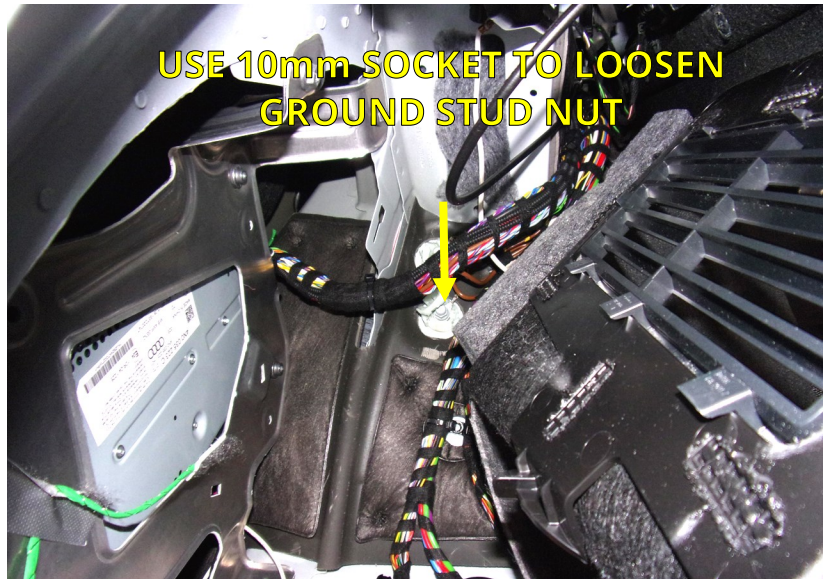
10mm
SOCKET



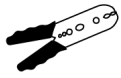
STRIPPER/
CRIMPING
TOOL

24. Locate the ground stud on the driver side of the vehicle. 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 nut 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.



13mm
SOCKET

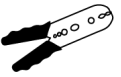


STRIPPER/
CRIMPING
TOOL

25. Route the black power wire to the battery on the passenger side of the vehicle. Locate the fuse holder 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 positive battery terminal (+).



MULTIMETER



STRIPPER/
CRIMPING
TOOL



SILICONE

26. Reinstall the 20 Amp fuse in the harness fuse holder located near the battery.

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

27. Test the 4-way plug using a multimeter or connect the plug to a trailer and verify that the lights and brakes work correctly.

28. Secure all wires and wiring components. Use silicone to waterproof the grommet. 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 the provided adhesive foam strips to secure the control module to an inside body panel.

29. Reinstall the spare tire, side panels, and floor panels. Refer to Steps 15-18.

CUT ACCESS TO LATCH BLOCK

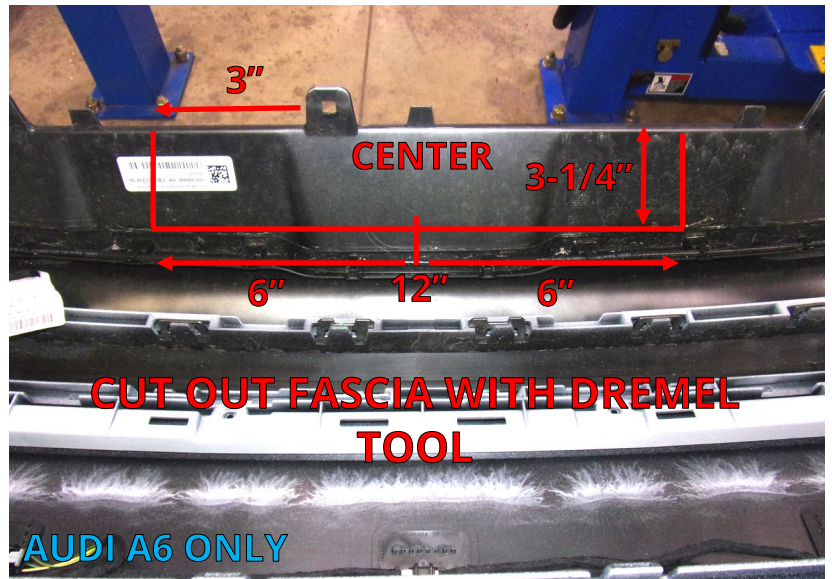


DREMEL TOOL



FILE

30. **AUDI A6 ONLY** Cut out fascia with Dremel tool. Use a file to smooth out the cut.



31. **AUDI RS6 ONLY** Detach the hands-free trunk release cable, from rear fascia.

NOTE: Make sure not to damage the cable during the removal of the cable and the fascia cut.

UNCLIP AND REMOVE HANDS-FREE TRUNK RELEASE CABLE



DREMEL TOOL



FILE

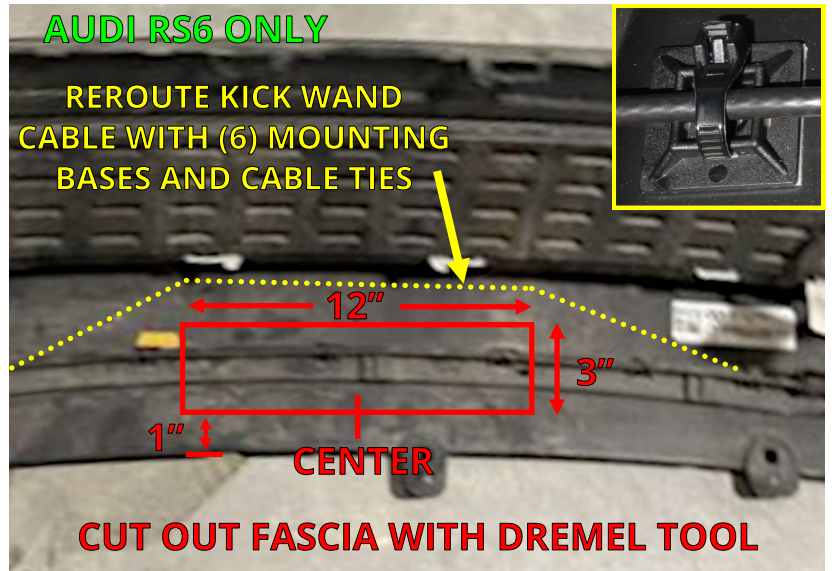


SIDE CUTTERS

32. **AUDI RS6 ONLY** Use a Dremel tool to cut out fascia, as shown. Use a file to smooth out the cut. Reattach the hands-free trunk release cable using the (6) supplied cable tie mounts and cable ties. Secure the cable to the rear fascia as shown. Trim the cable ties when finished.

AUDI RS6 ONLY

REROUTE KICK WAND CABLE WITH (6) MOUNTING BASES AND CABLE TIES



CUT ACCESS TO LATCH BLOCK CONTINUED



GRINDER

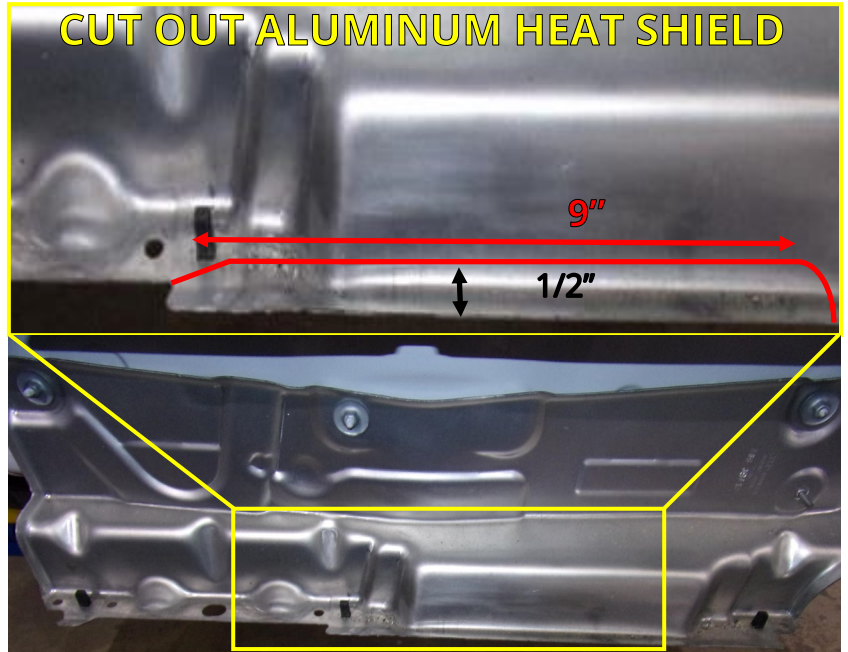


CUTTING DISC



FILE

33. Cut out the aluminum heat shield support panel with grinder and cutting disc. Use a file to smooth out the cut.



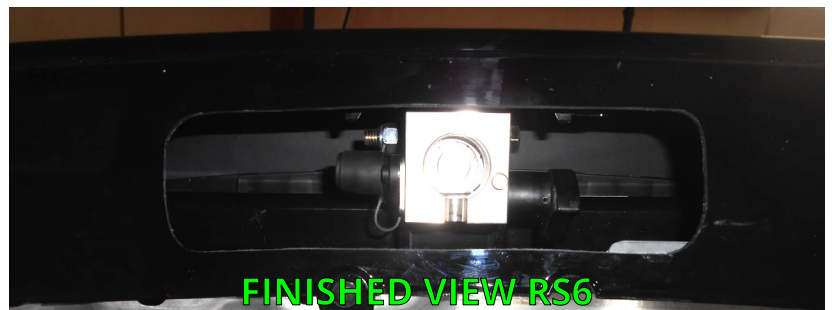
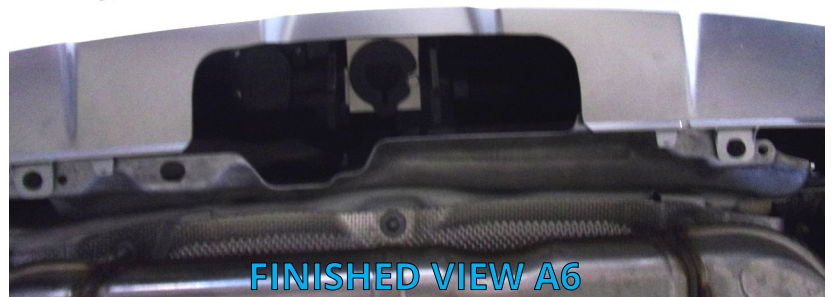
REINSTALL VEHICLE COMPONENTS

34. Reattach and secure the fascia, taillights, and other vehicle components in reverse order. Refer to Steps 1-9.

NOTICE: Remember to plug in the sensor plugs in Step 8 before reinstalling the fascia.

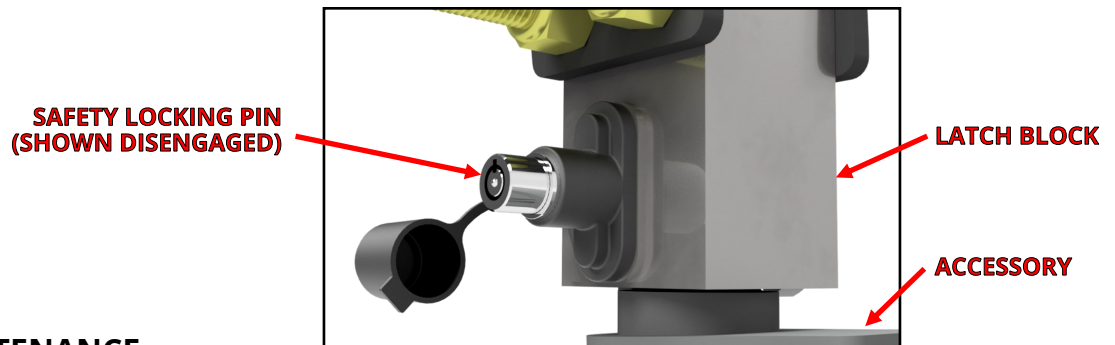


35. Finished view from underneath the vehicle.



FINAL VEHICLE EXAMINATION

36. Examine the body panels to ensure that they are in a pre-installation condition. Test the electronic functions of the vehicle. Correct any inconsistencies.
37. 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.