

HITCH INSTALLATION INSTRUCTIONS

MODEL/TRIM: MAKE: YEARS:

AUDI 2019 - 2023 Q3

www.stealthhitches.com

833 • 694 • 4824

RACK RECEIVER KIT#: SHR30012

COMPATIBLE WITH TOW KIT: SHT25003

2" RACK RECEIVER MAXIMUM PAYLOAD: 600 LBS

MAXIMUM TOW RATING: 6000 LBS **MAXIMUM TONGUE WEIGHT:** 600 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**



(2) BOLTS 1/4" x 1"



(2) 1/4" FLAT WASHERS



(2) 1/4" NYLOCK **NUTS**



(4) WASHER PLATES



(8) M8 1.25 x 40mm BOLTS



(8) M8 LOCK WASHERS



(8) M8 FLAT WASHERS

TOOLS REQUIRED:



15/16" OPEN **END WRENCH**



13mm, 15/16", & 7/16" SOCKETS



PLASTIC **PRY TOOLS**



SOCKET **EXTENSION**





FLASHLIGHT



RATCHET



SAFETY GLASSES

TORQUE WRENCH



T25 TORX

PAINTER'S TAPE



10 mm **HOLLOW NUT** DRIVER

ADDITIONAL TOOLS FOR TOW KIT:



MULTIMETER



PLIERS



SILICONE



SOCKET



BALL MOUNT 3" RISE, SHORT



CHAIN HOOKS



2" BALL



STRIPPER/ CRIMPING TOOL



90 DEGREE PICK



DRILL & 3/8" BIT



T20, T30 & T40 TORX



PASSIVE WIRING KIT BOX

RACK RECEIVER INSTALLATION: USE STEPS 1-14 & 34-36

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 <u>Rack Receiver plus Tow Kit</u> 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.



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.



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.



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.



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.



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.



Some accessories, like the rack receiver, are not rated for towing. Do not use any accessories without proper knowledge of their use.



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.



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



T25 TORX

1. Remove the taillight cover trim. Push the cover towards the vehicle, to disengage three clips, then pry inward on the cover trim with a pry tool to remove. Remove the (2) screws securing the taillight to the vehicle.







2. Slide the taillight to 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. In the rear cargo area, lift up and remove the floor panel.



GAIN ACCESS TO MOUNTING AREA CONTINUED

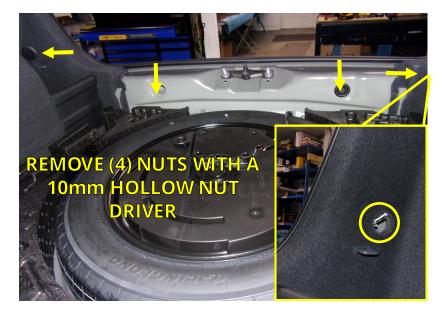


4. Remove the threshold in the rear cargo area. Use a pry tool on the side of the threshold to lift up and remove.





5. Locate and remove the (4) rubber grommets in the rear of the cargo area, as shown in the image. Use a hollow nut driver to remove the (4) nuts located inside the holes that were covered by grommets.





6. Inside the rear wheel well, behind the tire, locate the (2) screws which are holding the bottom corner of 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







7. To gain access to a screw securing the fascia, the wheel well trim will need to be partially detached. Use outward pressure and find the end of the clips inside the wheel well. Press down on the clips with a pry tool to release them. Remove the (3) clips closest to the rear of the vehicle, as shown. Remove the uncovered Torx screw. Repeat Steps 6-7 on other side of vehicle.

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







8. Under the rear of the vehicle, remove (6) or (8) screws from the bottom of the fascia.

NOTE: Some vehicles may not have the two screws near the middle of the fascia.





9. 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.

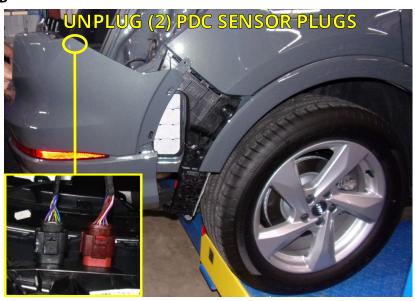
Continue applying outward and rearward pressure until all the clips up to the light assembly area are released. Repeat on other side of vehicle.



GAIN ACCESS TO MOUNTING AREA CONTINUED

10. This step requires a partner. Slide the fascia rearward enough to access the (2) PDC sensor plugs on the driver side. Press down on the clips to unplug the PDC sensor plugs. Remove the fascia completely.

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





 Remove (8) bolts using a socket. Remove and discard the factory reinforcement beam and factory bolts.

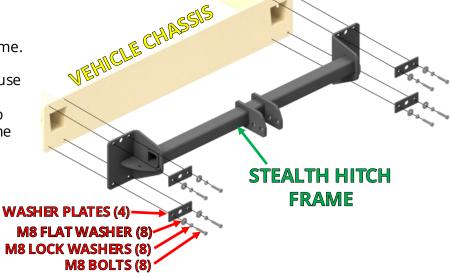
NOTE: Some models have a cellular antenna attached to the factory reinforcement beam. If present, remove from the factory reinforcement beam. The antenna will be reattached to the Stealth hitch frame.



INSTALL STEALTH HITCH FRAME



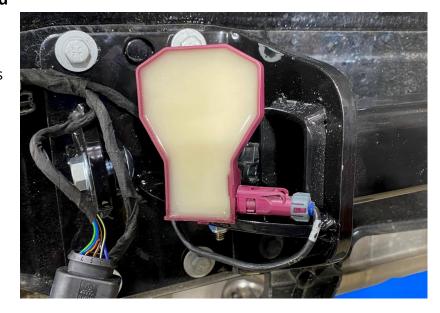
12. Install the Stealth frame where the factory reinforcement beam had been. Center the hitch frame. Place the washer plates on top of the hitch holes and use the supplied M8 bolts, washers, & lock washers to fasten the hitch. Torque the (8) bolts to 20 ft.-lbs.



INSTALL STEALTH HITCH FRAME continued



7/16" SOCKET 13. If your vehicle has cellular antenna, use the supplied 1/4" hardware to reattach the antenna to the hitch frame, as shown.



MOUNT LATCH BLOCK



SOCKET



15/16" OPEN **END WRENCH**



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

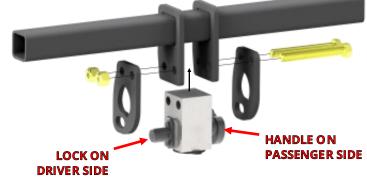
Rack Receiver Kit: Install the latch block with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock nuts. Tighten each bolt to 150 ft.-lbs.

Tow Kit: 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.









IF INSTALLING A RACK RECEIVER KIT, SKIP TO STEP 34. IF INSTALLING A TOW KIT, CONTINUE TO STEP 15.

INSTALL PASSIVE WIRING KIT

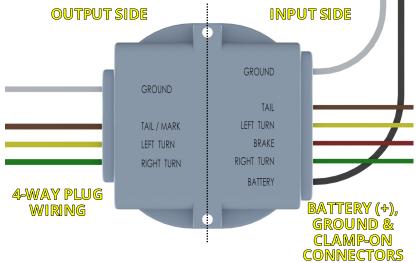
#	DESCRIPTION				
1	4-WAY CONNECTOR HARNESS	1			
2	CONTROL MODULE	1			
3	4-WAY CONNECTOR COVER	1			
4	CABLE TIE – 8"	8			
5	CABLE TIE – 14"	2			
6	MAGNETIC CABLE HOLDER	1			
7	M8 SERRATED FLANGE NUT	1			
8	FORK TERMINAL	1			
9	ADHESIVE FOAM STRIP	2			
10	BUTT CONNECTOR (BLUE)	1			
11	BUTT CONNECTOR (RED)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

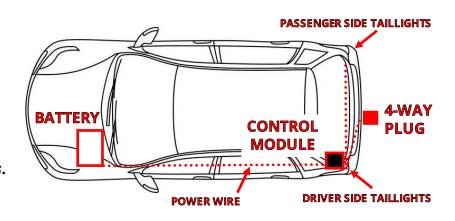


15. Locate the wiring kit box. Review the contents of the box against the list above to check for missing components. The passive wiring kit uses a control module to manage the functions of the trailer lighting. The module has an "input" side that receives power from the vehicle's battery and signals from the vehicle's taillights. The "output" side of the module delivers this information to the 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.







16. Inside the rear cargo area, remove the Styrofoam insert around the outside of the spare tire.





17. Behind the rear seat there is a plastic bracket which held the cargo area floor panel.
Remove (3) screws from the bracket and remove bracket.







18. Above the plastic bracket is a cargo anchor. Use a 90 degree pick to remove plastic cover from cargo anchor. Use a T40 Torx to remove screw and cargo anchor.



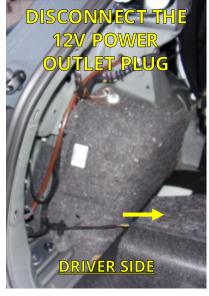




19. In the top corner of the panel behind the seats locate the plastic cargo hook. Use a 90 degree pick to remove the hook. Use a T20 Torx to remove the screw under the hook. Repeat Steps 20-22 on other side of vehicle.



- 20. In the rear cargo area, dislodge the driver side panel. Behind the panel, disconnect the 12 volt power plug outlet, then remove the panel.
- 21. In the rear cargo area, dislodge the passenger side panel. Behind the panel, disconnect the light plug, then remove the panel.







22. Under the vehicle next to the driver side chassis beam, locate and remove the rubber grommet shown in the image. Drill a 3/8" hole in grommet. Retrieve the power wire and the 4-way plug with wire. 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.

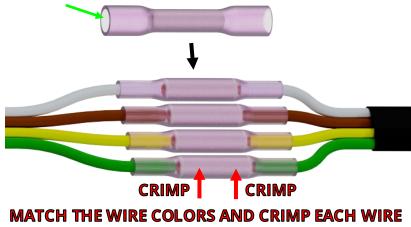




23. Locate the tail of the 4-way connector wire and the output side wires of the control module. Attach each similar color wire to each other using a red butt connector and crimping tool.

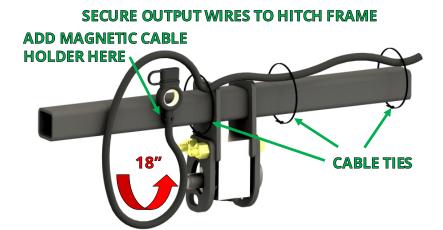
NOTICE (OPTIONAL): The butt connectors are heat shrink connectors. Apply heat to waterproof the connectors after crimping.

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

24. 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.







25. 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 on next page.)

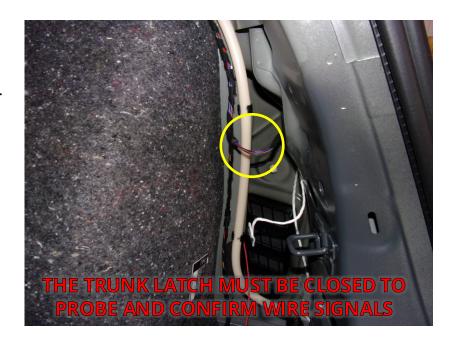
NOTICE: Verify wire signals with multimeter. Manufacturer may use different colors. The trunk latch must be closed when probing and confirming wire signals.







26. 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.)



CLAMP-ON CONNECTOR COLOR REFERENCE TABLE								
<u>SIG</u>	NAL INPUT	<u>WIRES</u>	POWER & GROUND WIRES					
<u>FUNCTION</u>	<u>HARNESS</u>	<u>VEHICLE</u>						
<u>LEFT TURN</u>	YELLOW	RED/BLACK	12V+ (POWER)	BLACK	BATTERY (+)			
RIGHT TURN	GREEN	RED/BLACK	GROUND	WHITE	GROUND STUD			
MARKER	BROWN	BLUE/YELLOW	NOTICE: <u>Do not connect the red brake wire.</u> This vehicle does not utilize a separate brake circuit. The brake signal is sent down the left and right turn circuits simultaneously.					
BRAKE	RED	NOTUSED						

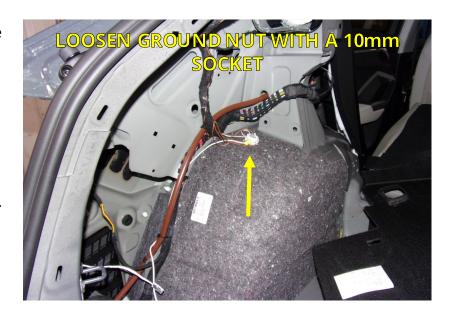
NOTE: If two colors are listed, the first color is the dominant color.





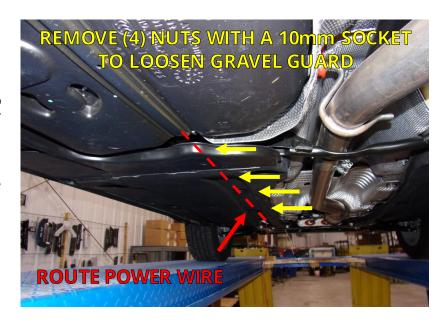
27. Locate the ground stud in the driver side cargo area. Trim white ground wire so it will reach stud without excess wire. Crimp supplied fork terminal to the ground wire with a crimping tool. Loosen the ground stud and secure the fork to the stud.

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





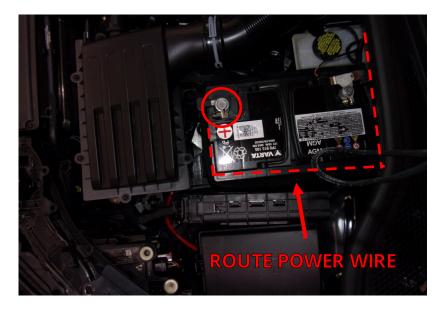
28. The power wire will need to be routed to the engine compartment where it will connect to the battery. Route the wire from the grommet to the gravel guard on the driver side undercarriage. Loosen the (4) nuts holding the gravel guard to allow routing through it. Then pass the wire up into the engine compartment.







29. 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 (+).







STRIPPER/ CRIMPING TOOL



30. 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 blue butt connector to crimp the power wire leading from the battery to the control module power wire. Reinstall the 20 Amp fuse in the harness fuse holder located near the battery.

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

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

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

- 32. Secure all wires and wiring components. Replace the grommet removed earlier on the rear driver side of the vehicle. 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.
- 33. Secure the gravel guard. Reinstall cargo area side panels, refer to Steps 19-24.

REINSTALL VEHICLE COMPONENTS

34. Reattach and secure the fascia and other vehicle components in reverse order. Refer to Steps 1-10.

NOTICE: Remember to plug in the PDC sensor plugs in Step 10 before reinstalling the fascia.



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

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