

www.stealthhitches.com

RACK RECEIVER KIT#: SHR36003

833.694.4824

HITCH INSTALLATION INSTRUCTIONS

MAKE: YEARS: MODEL/TRIM: MINI

2017 - 2024 Countryman Cooper 2017 - 2024 Countryman Cooper All4 2017 - 2024 Countryman Cooper S 2017 - 2024 Countryman Cooper S All4 2022 - 2024 Countryman John Cooper Works

COMPATIBLE WITH TOW KIT: SHT25006

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**



2" RACK RECEIVER



(14) PLASTIC RIVETS



(2) 8" CABLE **TIES**



(2) CABLE TIE **MOUNT**

TOOLS REQUIRED:



15/16" OPEN

END WRENCH



18mm DEEP WELL, 8mm, 10mm & 15/16" SOCKETS



TORQUE WRENCH



SOCKET **EXTENSION**



SAFETY GLASSES



RATCHET





PRY TOOLS

FLASHLIGHT



90 DEGREE PICK



T25 & T30 **TORX**



SIDE **CUTTERS**



DREMEL TOOL



FILE



TIN SNIPS

ADDITIONAL TOOLS FOR TOW KIT:

ADDITIONAL PARTS FOR TOW KIT:



BALL MOUNT 7" RISE, SHORT





2" BALL







MULTIMETER



STRIPPER/ CRIMPING TOOL



SILICONE



DRILL & 3/8" BIT



PLIERS

TOW KIT INSTALLATION: USE STEPS 1-45

<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.



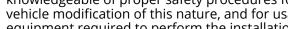
While installation is being performed, check for signs of damage or excessive corrosion. Do not install hitch components over vehicle parts that are broken or have compromised structural integrity.



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.





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



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.



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.



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.



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







- 2. Locate and remove the rubber hatch stop. Turn hatch stop counterclockwise to remove.
- 3. Remove both taillight covers. Use a plastic pry tool to pry plastic cover rearward to remove.

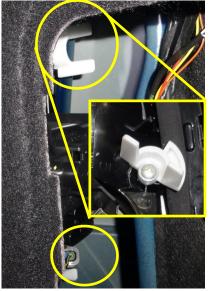






- 4. Remove the (2) nuts securing the taillight to the vehicle.
- 5. Turn (2) plastic turn knobs 90°, inside the cargo access panels behind the taillight.





GAIN ACCESS TO MOUNTING AREA CONTINUED

6. Slide the taillight toward the rear of the vehicle to remove. Disconnect the light plug by pushing down on the clip and pulling the plug outward. Repeat Steps 2-6 on other side of vehicle.











7. Locate (7) push pin plastic rivets located inside rear wheel well. The rivets secure the wheel well trim and mud flap to the vehicle. Remove the rivets. Use a 90 degree pick to push the center out and a pry tool to remove.

NOTE: Replacement plastic rivets are supplied.

8. If mud flaps are present, use a Torx socket to remove (1) screw from the mud flap on the bottom of the fascia.





9. Remove the trim piece around the rear wheel well. Open the rear door. Grasp the front of the rear wheel well trim piece and pull outward (away from the vehicle). Continue until (3) rivets and (6) tabs are released. Use a pry tool to release the (6) tabs.

NOTE: Limit bending the trim piece to prevent distorting the shape of the trim.



GAIN ACCESS TO MOUNTING AREA CONTINUED



- Unplug the light on the rear wheel well trim piece.
 Squeeze the plug clip then pull outwards.
- Use a TORX socket to remove

 screw securing the fascia.
 Repeat Steps 7–11 on other side of vehicle.





- 12. Underneath the vehicle, use a socket to remove (8) screws from the bottom edge of the fascia.
- 13. Remove (1) screw from each side of the bottom edge of the fascia behind the wheel.





- 14. Behind the rear wheel well, put outward pressure on the fascia. With a plastic pry tool, push down on the clips, continue applying outward and rearward pressure until all clips are released. Repeat on other side of vehicle.
- 15. Use a plastic pry tool to unclip the top edge of the fascia on both side of the rear hatch.



GAIN ACCESS TO MOUNTING AREA CONTINUED



16. This step requires a partner.
Slide the fascia rearward,
keep the fascia close to the
vehicle and unplug (4) PDC
sensor plugs, before removing
fascia completely.

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





17. Locate and remove (4) nuts securing the factory reinforcement beam to the vehicle. Save the nuts and factory reinforcement beam for hitch installation.







18. Remove (2) screws from the hands-free trunk release cable holder (yellow arrows).
Unplug center connector on the hands-free trunk release cable holder (green arrow).
Use a plastic pry tool to release (2) clips securing the holder (blue arrow). Remove the holder.







INSTALL STEALTH HITCH FRAME

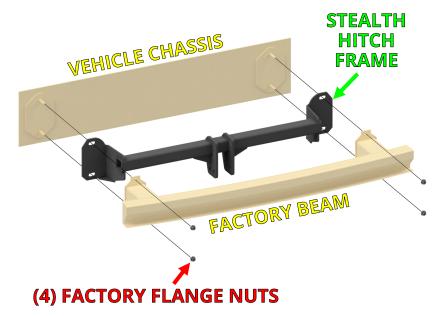


DEEP WELL SOCKET



WRENCH

19. Mount the Stealth hitch frame onto the vehicle studs and place the factory reinforcement beam on top. Center the hitch and beam. Use the (4) nuts saved from the factory reinforcement beam and torque to 85 ft.-lbs.



MOUNT LATCH BLOCK



SOCKET



15/16" OPEN **END WRENCH**



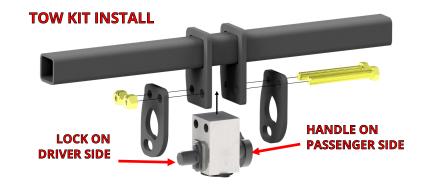
20. Installation of the latch block varies depending on which kit you are installing.

- 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







IF INSTALLING A RACK RECEIVER KIT, SKIP TO STEP 35. IF INSTALLING A TOW KIT, CONTINUE TO STEP 21.

INSTALL PASSIVE WIRING KIT

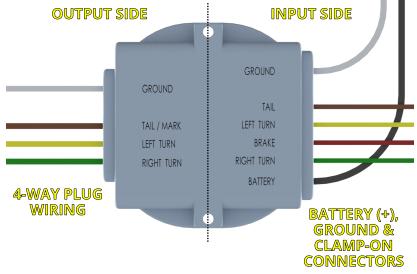
#	DESCRIPTION				
1	4-WAY CONNECTOR HARNESS	1			
2	CONTROL MODULE	1			
3	4-WAY CONNECTOR COVER	1			
4	CABLE TIE – 8"	8			
5	CABLE TIE – 14"	2			
6	MAGNETIC CABLE HOLDER	1			
7	M8 SERRATED FLANGE NUT	1			
8	FORK TERMINAL	1			
9	ADHESIVE FOAM STRIP	2			
10	BUTT CONNECTOR (BLUE)	1			
11	BUTT CONNECTOR (RED)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

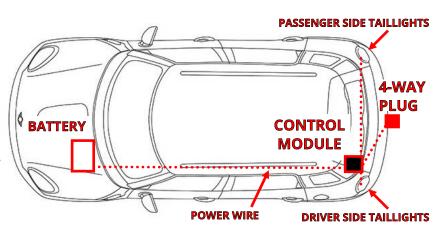


21. Locate the wiring kit box. Review the contents of the box against the list above to check for missing components. The passive wiring kit uses a control module to manage the functions of the trailer lighting. The module has an "input" side that receives power from the vehicle's battery and signals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



22. Locate and remove the indicated grommet from the driver side of vehicle, above the tire. Drill a 3/8" hole in grommet. Route the 4-way plug output wires and the power wire through the grommet from outside of the vehicle to the inside of the vehicle.

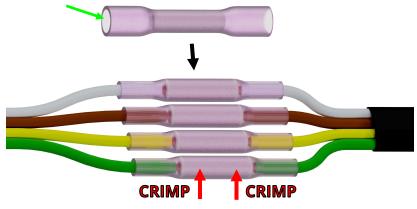




23. Locate the tail of the 4-way connector wire and the output side wires of the control module. Attach each similar color wire to each other using a red butt connector and crimping tool.

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

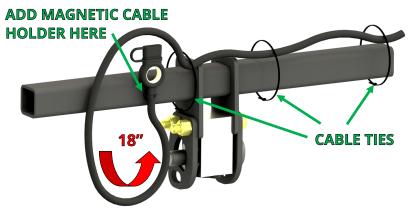
RED BUTT CONNECTOR WITH HEAT-SHRINK ENDS



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.

SECURE OUTPUT WIRES TO HITCH FRAME



INSTALL WIRING KIT CONTINUED





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

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



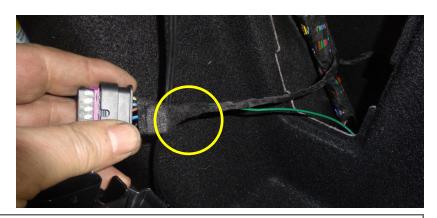


26. On the rear wall of the cargo area, use a 90° pick tool to remove (4) rivets from the threshold. Lift up on threshold and remove.





27. Route the green wire to the passenger side compartment. Use a clamp-on connector to connect to green input wire to the indicated part of the vehicle wiring harness. (As shown in reference table below.)



CLAMP-ON CONNECTOR COLOR REFERENCE TABLE								
SIGNAL INPUT WIRES								
FUNCTION	HARNESS	2017-2021 COUNTRYMAN COOPER	2022 COUNTRYMAN JOHN COOPER WORKS	POWER & GROUND WIRES				
LEFT TURN	YELLOW	■ BLACK/WHITE	■ BLACK/YELLOW	12V+ (PWR)	BLACK	BATTERY (+)		
RIGHT TURN	GREEN	BLUE/GREY	BLACK/YELLOW	<u>GROUND</u>	WHITE	GROUND STUD (-)		
MARKER	BROWN	■ GREY/PURPLE	■ GREY/PURPLE	NOTICE: <u>Do not connect the red brake wire.</u> 2022+ vehicles do not utilize a separate brake circuit. The brake signal is sent down the left and right turn circuits simultaneously.				
BRAKE	RED	BLACK/YELLOW	SEE NOTICE					
<u>REVERSE</u>		NONE	■ GREY/BLUE					

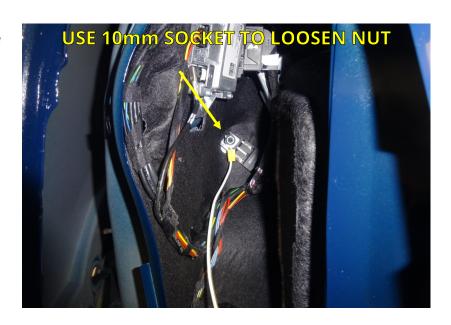
INSTALL WIRING KIT CONTINUED





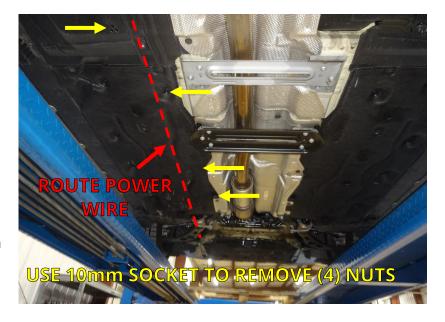
28. Locate the ground stud inside the driver side cargo compartment. Trim the white ground wire so it will reach the stud without excess wire. Crimp the supplied fork terminal to the ground wire with a crimping tool. Loosen the ground stud and secure the fork to the stud.

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





29. 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 and over to the battery. Replace nuts when wire has been passed through undercarriage.







- 30. Inside the engine compartment, uncover the battery. Run power wire to the rear of firewall, and to the positive side of battery.
- 31. Locate the fuse holder supplied in the wiring kit box. Remove the fuse from the fuse holder. Trim the power wire so it will reach the battery without excess wire. Crimp fuse lead to the power wire. Connect fuse ring terminal to the positive battery terminal (+).



INSTALL WIRING KIT CONTINUED



32. Determine the amount of power wire needed to reach the control module inside the vehicle. Trim the control module 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. Use the provided adhesive foam strips to secure the control module to an inside body panel.



TOOL

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

33. Reinstall the 20 Amp fuse in the harness fuse holder located near the battery. Test the 4way plug using a multimeter or connect the plug to a trailer and verify that the lights and brakes work correctly.



SILICONE

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

34. 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.

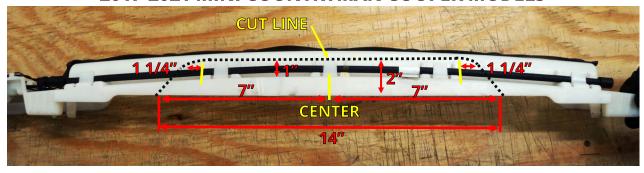
CUT ACCESS TO LATCH BLOCK



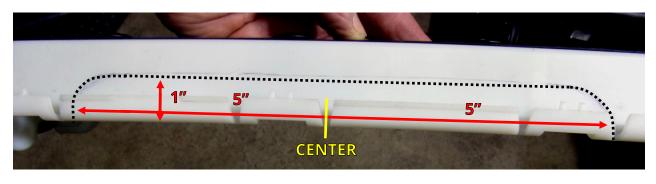
35. Remove hands-free trunk release cable. Trim the hands-free trunk release cable holder as shown, with Dremel tool. Use a file to smooth out the cut.

NOTE: Use care when cutting holder, do not damage any electrical /electronic parts when cutting.

2017-2021 MINI COUNTRYMAN COOPER MODELS



2022 MINI COUNTRYMAN COOPER MODELS (JOHN COOPER WORKS)





FILE

CUT ACCESS TO LATCH BLOCK CONTINUED



TIN SNIPS



DREMEL TOOL



- 36. Trim the heat shield in two places as shown, with tin snips. Fold the cut edges to eliminate sharp, exposed edges. Fold the flap (between cut sides) down and back for clearance. This "fold line" is shown in yellow.
- 37. Cut plastic trim piece as shown. Discard the large Lshaped plastic trim piece. Save smaller plastic trim piece for reinstallation.





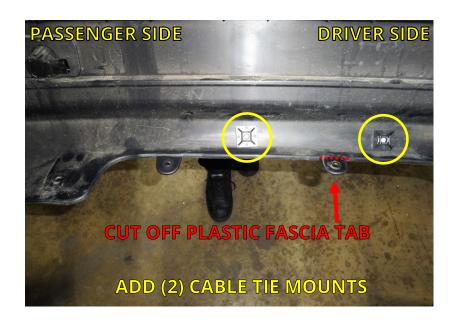




FILE



- 38. Cut off the Driver side fascia tab as shown, with Dremel tool. Use a file to smooth out the cut.
- 39. Add (2) cable tie mounts on fascia as shown.



REINSTALL VEHICLE COMPONENTS



40. Reattach the hands-free trunk release cable holder using a socket. Plug in the center connector.



REINSTALL VEHICLE COMPONENTS CONTINUED



41. Reattach and secure the fascia, taillights, and other vehicle components in reverse order. Refer to Steps 1-16. Use the provided rivets for trim insulation in the wheel well.

NOTICE: Remember to plug in the PDC sensor plugs in Step 16 before reinstalling the fascia.

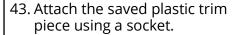








42. Reattach the kick wand to the remaining clips on the handsfree trunk release cable holder. Use the (2) supplied cable ties to attach the handsfree trunk release cable to the fascia. Attach the cable ties to the cable tie mounts attached in Step 39.







FINAL VEHICLE EXAMINATION

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