

HITCH INSTALLATION INSTRUCTIONS

MAKE: YEARS: MODEL/TRIM:

**MERCEDES** 2010 - 2015 GLK (X204 chassis)

www.stealthhitches.com

833 • 694 • 4824

RACK RECEIVER KIT#: SHR32025

COMPATIBLE WITH TOW KIT: SHT25018

2" RACK RECEIVER MAXIMUM PAYLOAD: 350 LBS

**MAXIMUM TOW RATING: 3500 LBS MAXIMUM TONGUE WEIGHT:** 350 LBS



### **UNDER VEHICLE TRIMMING:**

**HEAT SHIELD: NO FASCIA: YES** 

GRAVEL GUARD TRIMMING: NO



**READ ALL INSTRUCTION** WARNINGS AND LABELS



NO WELDING, METAL DRILLING OR VISIBLE TRIMMING REQUIRED

#### PARTS SUPPLIED WITH RACK RECEIVER KIT:



LATCH BLOCK & KEYS



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



(2) 5/8" **NYLOCK NUTS** 



2" RACK **RECEIVER** 



(8) BOLTS 7/16" x 1-1/2"



(8) 7/16" FLAT WASHERS



(8) 7/16" SERRATED FLANGE NUTS



21" CHROME **EDGE TRIM** 

#### **TOOLS REQUIRED:**







8mm, 10mm, 16mm, 17mm, 5/8", 11/16" END WRENCHES & 15/16" SOCKETS



TORQUE WRENCH



**PRY TOOLS** 



RATCHET



SOCKET

**EXTENSION** 



SAFETY GLASSES



T20, T30 & T40 TORX



FILE

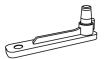


DREMEL TOOL



10 mm **HOLLOW NUT** DRIVER

#### ADDITIONAL PARTS FOR TOW KIT:



**BALL MOUNT** 3" RISE, SHORT



CHAIN HOOKS



2" BALL



### ADDITIONAL TOOLS FOR TOW KIT:



MULTIMETER



STRIPPER/ CRIMPING TOOL



PHILLIPS HEAD **SCREWDRIVER** 



DRILL & 3/8" BIT



**PLIERS** 



SILICONE



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 <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**

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



2. Remove the driver and passenger side compartment storage covers. Rotate knob to release cover.









3. Locate and remove (1) Torx screw in the center of the rear vehicle wall. Use a pry tool then pull up and lift to remove threshold.





- 4. To gain access to the jack holder, remove the driver side cargo panel by lifting upward.
- 5. Locate and remove (2) Torx screws to remove the jack holder. Slide the jack holder inward to remove.









6. Remove the passenger side cargo holder liner to expose screws. Remove (2) Torx screws and (2) screws to remove cargo holder.





7. Locate (4) nuts along the rear wall of the cargo area, as shown in the image. Use a hollow nut driver to remove the nuts.





8. Use a socket to remove (3) nuts securing the taillight. Unplug the wiring harness from the taillight by pushing down on the clips and pulling away from the light.



- 9. Slide the taillight to the rear of the vehicle. A plastic pry tool can be used to help if the light does not slide freely.
- 10. With the light removed, disconnect the light plug by pushing down on the clip and pulling the plug outward. Repeat Steps 9-10 on the other side of the vehicle.







10mm SOCKET

- 11. Inside the rear wheel well, behind the tire, locate the (2) rivets which are holding the wheel well liner (yellow arrows). Use a 90 degree pick to remove these rivets and save for reinstallation.
- 12. Fold the flexible liner back toward the tire. Locate and remove (1) screw (green arrow). Repeat Steps 11-12 on the other side of the vehicle.







13. Underneath the rear of the vehicle, remove (4) Torx screws and (2) 10mm screws from the bottom of the fascia.





14. The fascia is clipped to the vehicle body directly behind the wheel wells. Pull outward on the fascia to expose the first clip in the seam. With a plastic pry tool, push down on the exposed clip to disconnect. Continue to pull outward on the fascia and disconnect clips as they are exposed until all clips are released. Repeat on other side of vehicle.



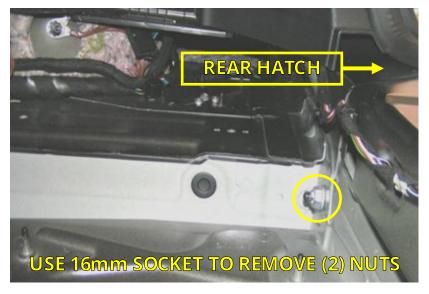
 This step requires a partner.
 Pull the fascia rearward and remove the fascia completely.

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





16. Inside the cargo area of the vehicle, remove (2) factory reinforcement beam nuts.
One each side of the vehicle.

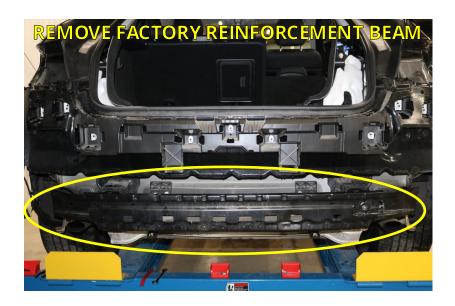




17. Underneath the vehicle, remove (6) factory reinforcement beam nuts.



18. Remove and discard the factory reinforcement beam.



### **INSTALL STEALTH HITCH FRAME**



5/8" SOCKET

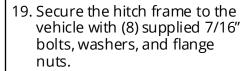


11/16" SOCKET

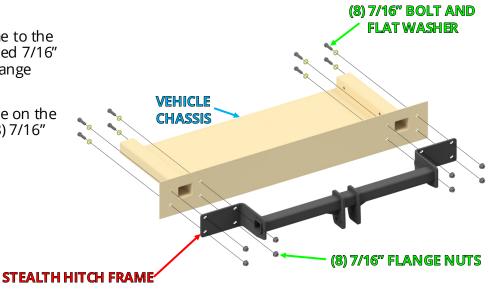


TORQUE

WRENCH



20. Center the hitch frame on the vehicle. Torque the (8) 7/16" bolts to 65 ft.-lbs.



### **MOUNT LATCH BLOCK**



15/16" SOCKET



15/16" OPEN END WRENCH



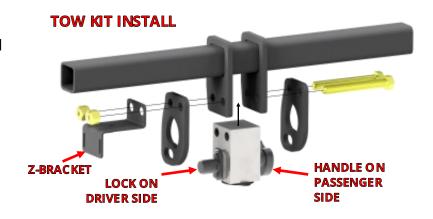
WRENCH

21. 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.
- from Kit: Retrieve Z-bracket from wiring harness kit box. Install the latch block, (2) chain hooks, and Z-bracket with (2) 5/8"-11 x 5" bolts and (2) 5/8" nylock nuts. Tighten each bolt to 150 ft.-lbs.

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







IF INSTALLING A RACK RECEIVER KIT, SKIP TO STEP 38. IF INSTALLING A TOW KIT, CONTINUE TO STEP 22.

### **INSTALL PASSIVE WIRING KIT**

-11	DECEDIDION	0 TV
#	DESCRIPTION	QTY
1	7-WAY WIRING HARNESS	1
	<ul> <li>FUSE HOLDER &amp; FUSE</li> </ul>	
	<ul> <li>CONTROL MODULE &amp; WIRES</li> </ul>	
2	ADHESIVE FOAM STRIP	2
3	FORK TERMINAL	1
4	BUTT CONNECTOR	1
5	5/8" LONG PHILLIPS SCREWS	4
6	M6 FLANGE NUT	1
7	#10 LOCK NUT	4
8	CLAMP-ON CONNECTORS	4
9	CABLE TIE – 8"	8
10	CABLE TIE – 14"	2
11	POWER WIRE	1
12	Z-BRACKET	1
13	MOUNTING BRACKET	1
14	7-WAY HOUSING	1
15	7-POLE TO 4-POLE ADAPTER	1

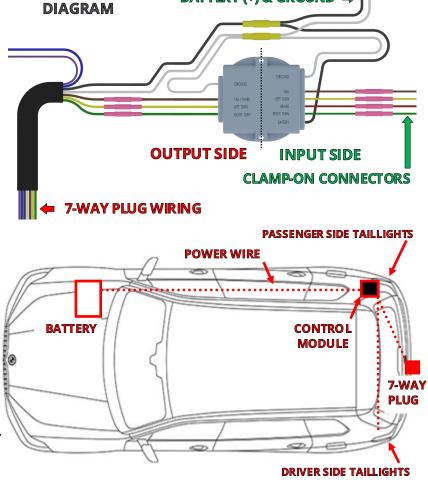


**PASSIVE HARNESS** 



22. 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.



BATTERY (+) & GROUND

### **INSTALL WIRING KIT CONTINUED**



23. Locate and remove the indicated grommet in the passenger rear cargo area. Drill a 3/8" hole in grommet.



24. Place the control module in the passenger side cargo compartment. Pass the grommet over the output wires. Feed the output wires to the outside rear of the vehicle through the hole where the grommet was.

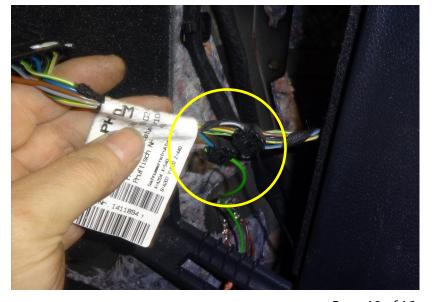






25. The wires on the input side of the module need to be attached to the vehicle wiring. Inside the passenger side cargo compartment locate the indicated part of the vehicle wiring harness. Use clamp-on connectors to connect the brown, green, and purple wires to wires behind taillight. (As shown in reference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

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



### **INSTALL WIRING KIT CONTINUED**





26. 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								
SIC	SNAL INPUT	<u>WIRES</u>	POWER & GROUND WIRES					
<u>FUNCTION</u>	<u>HARNESS</u>	VEHICLE	FOWER & GROUND WIRES					
<u>LEFT TURN</u>	YELLOW	ORANGE	<u>12V+ (POWER)</u>	BLACK	BATTERY (+)			
RIGHT TURN	GREEN	BLUE	GROUND	WHITE	GROUND STUD			
MARKER	BROWN	GRAY/BLUE						
<u>BRAKE</u>	RED	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.						
REVERSE	PURPLE	GRAY/YELLOW						
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.						

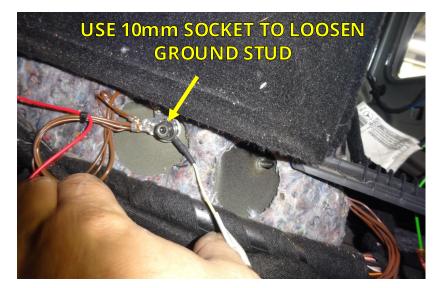
NOTE: If two colors are listed, the first color is the dominant color.





27. 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.

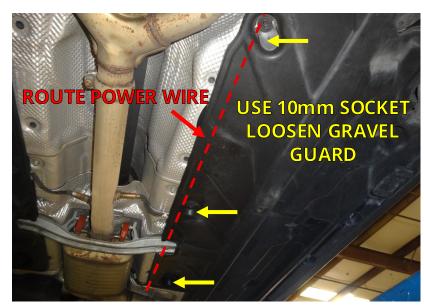
NOTICE: Loosen ground stud just enough to install fork terminal, so vehicle wiring does not lose ground.



### **INSTALL WIRING KIT CONTINUED**



- 28. The power wire will need to be routed to the battery. The power wire will be routed above a gravel guard located on the bottom passenger side of the vehicle. Loosen the gravel guard by removing (3) nuts.
- 29. Route power wire to the front of the vehicle to feed it up into where the battery is located. Use a fish tape or similar tool to reach the battery.





- 30. Uncover the battery. Locate the fuse holder supplied in the wiring kit box. Remove the fuse from fuse holder. Crimp the fuse lead to power wire and connect to the positive battery terminal (+).
- 31. At the rear of the vehicle, route the other end of the power wire into the vehicle through the same grommet as the output wires. Cut off any excess length and crimp the power wire to the black input wire on the module.

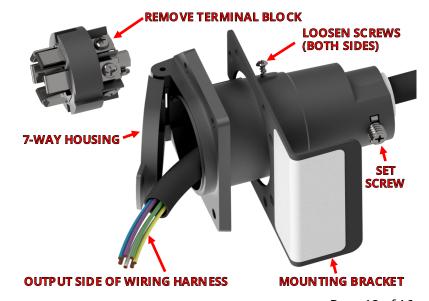


### **WIRE 7-WAY PLUG**



PHILLIPS HEAD SCREWDRIVER

32. 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.



### **WIRE 7-WAY PLUG CONTINUED**

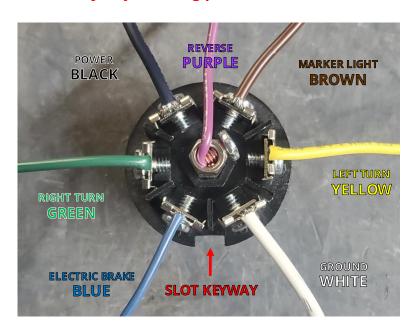
<u>Please follow instructions below very carefully.</u>
<u>Incorrect wiring of the 7-way receptacle causes the vast majority of wiring problems.</u>





- 33. 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.



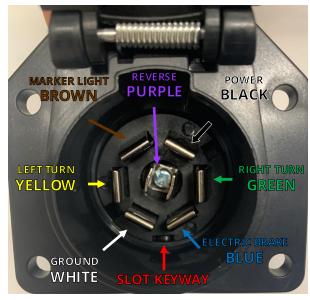
### **TEST 7-WAY HARNESS WIRING**





34. Put the 7-way receptacle back together. While everything is still accessible, you should test the wiring to make sure everything is connected properly and in working order. Replace the 20 Amp fuse into the fuse holder, located near the power supply.

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



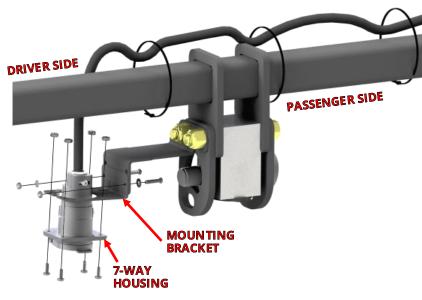
- Start by connecting the multimeter negative probe to the ground blade on the 7-way receptacle.
- Next, connect the multimeter positive probe to the power blade on the 7-way receptacle and check for 12 volts.
- Once that is confirmed, move the positive probe to the left turn blade on the 7-way receptacle and check for 12 volts when the vehicle left turn blinker is active. You should see it pulse.
- Next, move the positive probe to the right turn blade and check for 12 volts when the right turn blinker is active. You should see it pulse.
- Next, move the positive probe to the marker/taillights. With the vehicle lights on you should see 12 volts constant.
- Lastly, with the brake depressed, move the positive probe to the left turn blade where you should see 12 volts constant. Move the probe to the right turn blade where you should also see 12 volts constant.

### **SECURE TOW KIT**





- 35. Attach the mounting bracket and 7-way housing to the Stealth hitch frame as shown. Secure harness to Stealth hitch frame with cable ties.
- 36. Secure all wires and wiring components. Use the remaining cable ties to secure wiring so that it is not loose and will not interfere with replacement of the fascia. Wiring should not be visible once the vehicle is reassembled.
- 37. Use silicone to waterproof the grommet. Use the provided adhesive foam strips to secure the control module to an inside body panel.



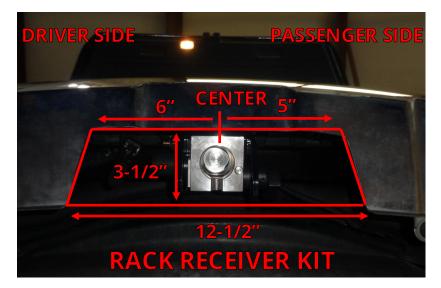
### **CUT ACCESS FOR LATCH BLOCK**

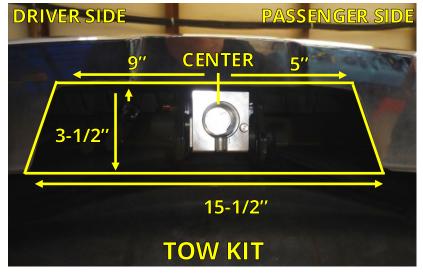




FILE

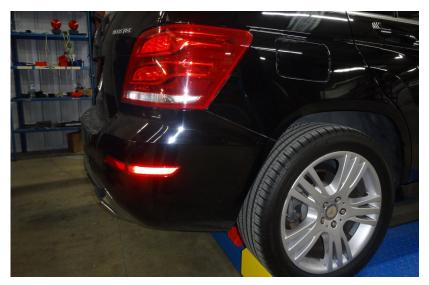
38. Cut out fascia with Dremel tool. The access hole necessary varies depending on which kit you are installing. Follow indicated template. Use a file to smooth out the cut.





## **REINSTALL VEHICLE COMPONENTS**

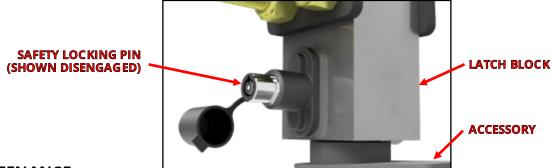
39. Reattach and secure the fascia and other vehicle components in reverse order. Refer to Steps 1-15.





### FINAL VEHICLE EXAMINATION

- 40. Examine the body panels to ensure that they are in a pre-installation condition. Test the electronic functions of the vehicle. Correct any inconsistencies.
- 41. 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.
  - 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.