STEALTH® HITCHES

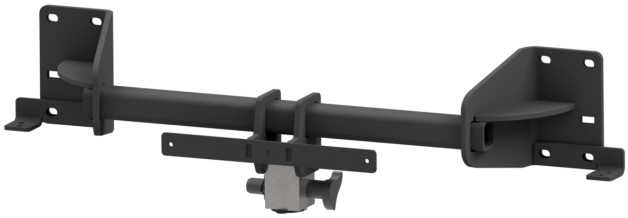
www.stealthhitches.com 833•694•4824

HITCH INSTALLATION INSTRUCTIONS

MAKE:	YEARS:	MODEL/TRIM:
BMW	2020 - 2023	X5M
	2020 - 2024	X5M COMPETITION
	2023	XM

RACK RECEIVER KIT#: **SHR31038**

COMPATIBLE WITH TOW KIT: **SHT25015 & SHT25066**



2" RACK RECEIVER MAXIMUM PAYLOAD: 600 LBS
MAXIMUM TOW RATING: 6000 LBS
MAXIMUM TONGUE WEIGHT: 600 LBS

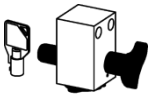
UNDER VEHICLE TRIMMING:

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

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"

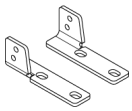

(2) 5/8" NYLOCK NUTS


(2) BOLTS 5/16" x 1"


(2) 5/16" FLAT WASHERS


(2) 5/16" SERRATED FLANGE NUTS


2" RACK RECEIVER

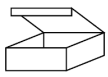

EXHAUST BRACKETS

ADDITIONAL PARTS FOR TOW KIT:


BALL MOUNT 5" RISE, SHORT


CHAIN HOOKS


2" BALL

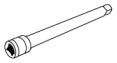

PASSIVE WIRING KIT BOX

TOOLS REQUIRED:


15/16" OPEN END WRENCH


18mm DEEP WELL, 8mm, 10mm, 13mm, 1/2" & 15/16" SOCKETS


RATCHET


SOCKET EXTENSION


TORQUE WRENCH


5/16" ALLEN WRENCH (X5M ONLY)


FLASHLIGHT


PLASTIC PRY TOOLS


SAFETY GLASSES


90 DEGREE PICK


PAINTER'S TAPE


PHILLIPS HEAD SCREWDRIVER


T20 TORX (T25 & T30 TORX for X5M ONLY)


DREMEL TOOL


FILE

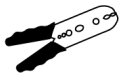

FLATHEAD SCREWDRIVER

ADDITIONAL TOOLS FOR PASSIVE TOW KIT:


PLIERS


SILICONE


MULTIMETER


STRIPPER/ CRIMPING TOOL


DRILL & 3/8" BIT

RACK RECEIVER INSTALLATION: USE STEPS 1-42, & 70-76
2020-2023 X5M/X5M COMPETITION TOW KIT INSTALLATION: USE STEPS 1-48 & 62-76 ***(SHT25015)***
XM & 2024+ X5M COMPETITION TOW KIT INSTALLATION: USE STEPS 1-45 & 49-76 ***(SHT25066)***

<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.

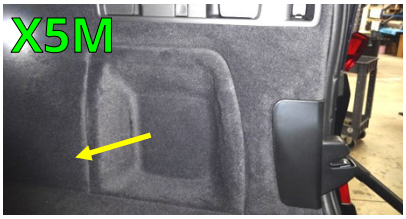
⚠ A visual inspection of the hitch should be performed before each use. Regularly check that all connections are secure, including those that secure the hitch to the vehicle. Check for cracks or damage to the hitch. Do not use the hitch if cracks or damage outside of normal wear is found. Using a hitch 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

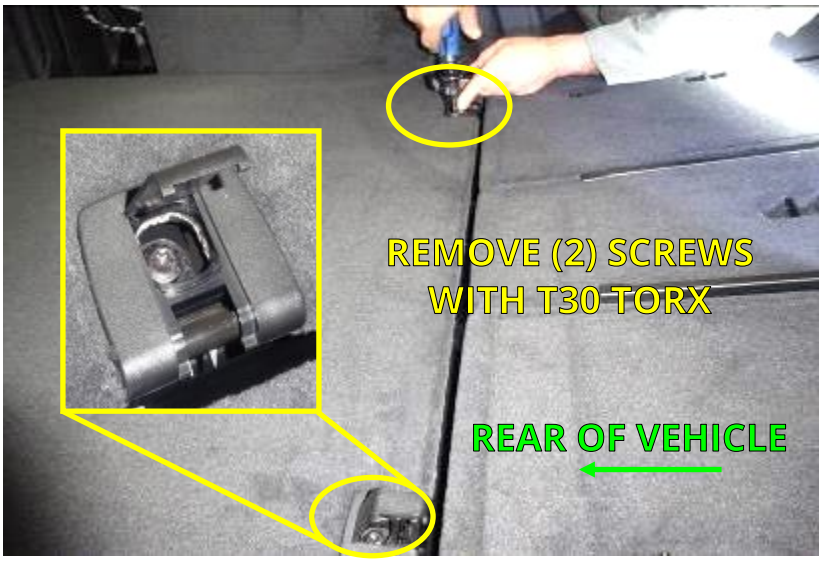
1. Open vehicle cargo area and remove driver and passenger side panels for access to rear of the taillights.



90 DEGREE PICK

T30 TORX

2. **X5M ONLY.** Remove the rear floor panel. Start by locating the (2) plastic cover caps in the front of the rear floor panel. Use a 90 degree pick to open the plastic cover caps to gain access to the screws. Use a Torx socket to remove (2) screws.



FLATHEAD SCREWDRIVER

3. **X5M ONLY.** Raise rear floor panel to gain access to the lift support strut shock. Use a flathead screwdriver to pry the metal clip outward and remove the clip. Remove the rear floor panel by lifting up and out. Place the panel on a blanket or safe area.

NOTE: *Spare tire removal is optional.*

GAIN ACCESS TO MOUNTING AREA CONTINUED

8mm SOCKET

90 DEGREE PICK

4. **X5M ONLY.** Remove (7) plastic rivets and (2) screws (if present) from the battery cover to gain access to the battery compartment.

T20 TORX

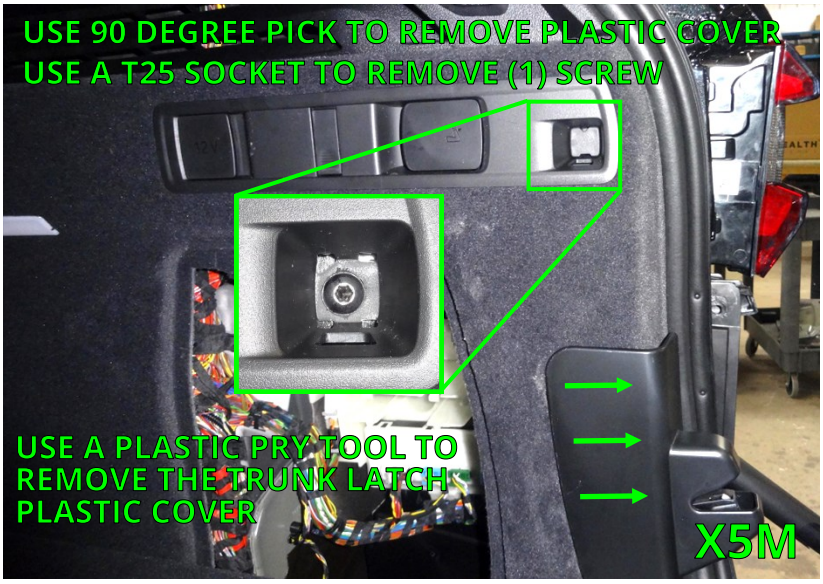
5. **X5M ONLY.** Remove the threshold in the rear cargo area. Use a T20 socket to remove (4) screws. Lift up to remove threshold

90 DEGREE PICK

PLASTIC PRY TOOLS

T25 TORX

6. **X5M ONLY.** To gain access to the passenger side taillight, remove the rear side panel on the passenger side. Start by dislodging the plastic cover to the rear trunk latch with a plastic pry tool. Slide to the rear to remove.
7. **X5M ONLY.** Locate the square plastic cover on the rear side panel above the trunk latch. With a 90 degree pick, dislodge the plastic cover to gain access to (1) Torx screw. Use a T25 socket to remove (1) screw.



GAIN ACCESS TO MOUNTING AREA CONTINUED

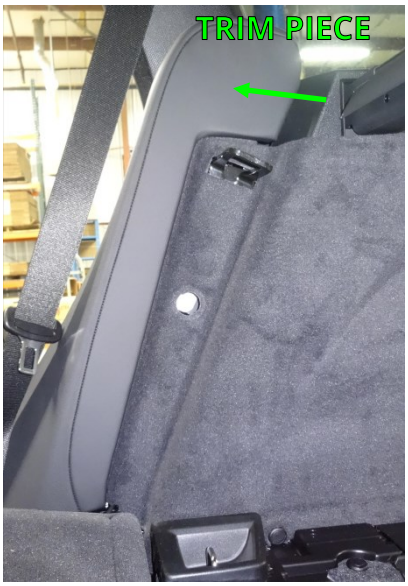
PLASTIC PRY TOOLS

10mm SOCKET

8. **X5M ONLY.** Locate the plastic cap on the front of the passenger side panel, behind the rear seats. Use a plastic pry tool to remove the plastic cap and gain access to (1) screw. Use a socket to remove (1) screw.

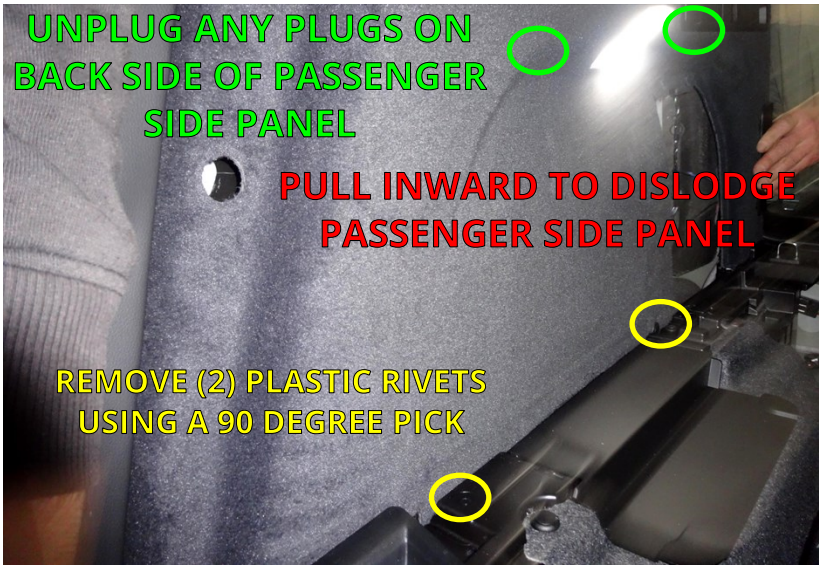
90 DEGREE PICK

9. **X5M ONLY.** Remove the indicated trim piece. Pull the top toward the front of the vehicle until all the clips are released.
10. **X5M ONLY.** After removing the trim piece, use a 90 degree pick to remove (1) plastic rivet.



90 DEGREE PICK

11. **X5M ONLY.** Along the bottom of the passenger side panel, remove (2) plastic rivets using a 90 degree pick.
12. **X5M ONLY.** Remove the passenger side panel by pulling the panel inward and dislodging it. Carefully unplug any wires attached on the back side of panel.



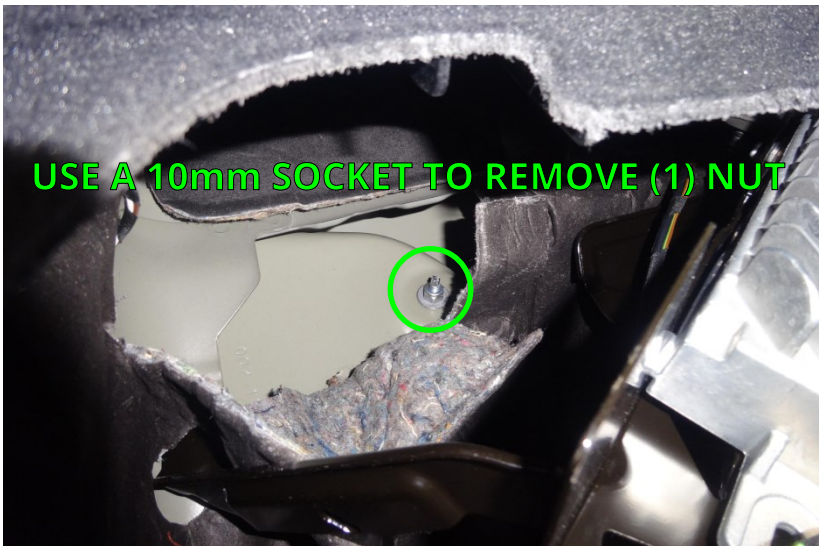
GAIN ACCESS TO MOUNTING AREA CONTINUED

10mm SOCKET

13. **X5M ONLY.** On the passenger side of the cargo area, locate and remove the taillight nut.

10mm SOCKET

14. **X5M ONLY.** Inside the driver side access panel, move the sound proofing liner to find the taillight nut. Remove nut with a socket.



PLASTIC PRY TOOLS

T30 TORX

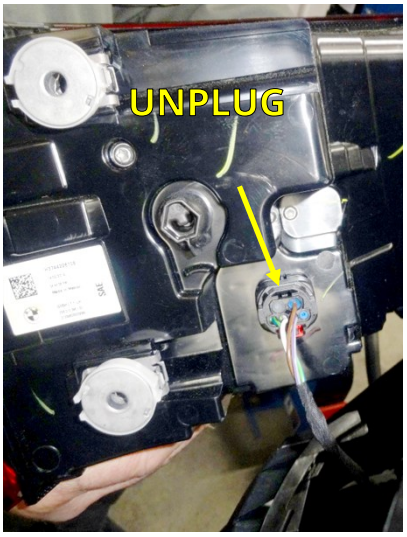
8mm SOCKET

15. **X5M ONLY.** With a pry tool, remove the light cover trim on each side of the vehicle.

16. **X5M ONLY.** While holding the taillight in place, remove the screws securing the taillight to the vehicle.

GAIN ACCESS TO MOUNTING AREA CONTINUED

17. **X5M ONLY.** With the taillight dislodged, disconnect the light plug by pushing down on the clip and pulling the plug outward. Remove the light. Repeat Steps 16-17 on other side of vehicle.



PLASTIC
PRY TOOLS

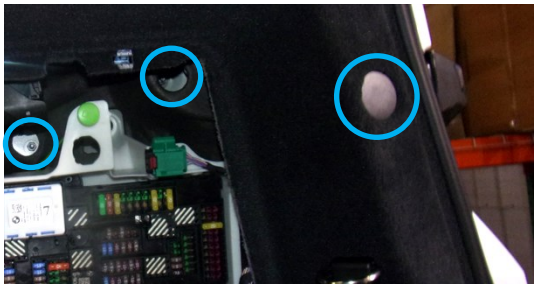
18. **XM ONLY.** Using a plastic pry tool, remove the plastic cap covering the rearmost nut securing the taillights on each side of the vehicle.

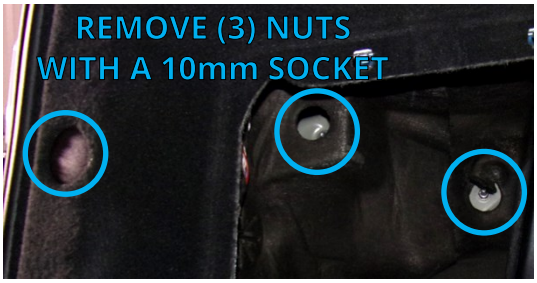
10mm
SOCKET

19. **XM ONLY.** While holding onto the outside of the taillight, remove the (3) nuts securing each taillight from both sides of the vehicle with a socket.

20. **XM ONLY.** Slide the taillight toward the side of the vehicle to remove and disconnect the light plug by pushing down on the clip and pulling the plug outward.

NOTE: *The rearmost hole may have tape on the inside of the opening that will have to be cut to reach the nut.*



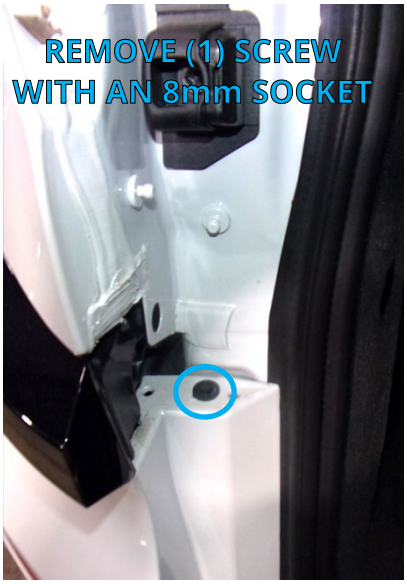


GAIN ACCESS TO MOUNTING AREA CONTINUED

PLASTIC PRY TOOLS

8mm SOCKET

21. **XM ONLY.** With a pry tool, remove the light cover trim on each side of the vehicle.
22. **XM ONLY.** Remove (1) screw located at the top of the bumper fascia on each side of the vehicle.

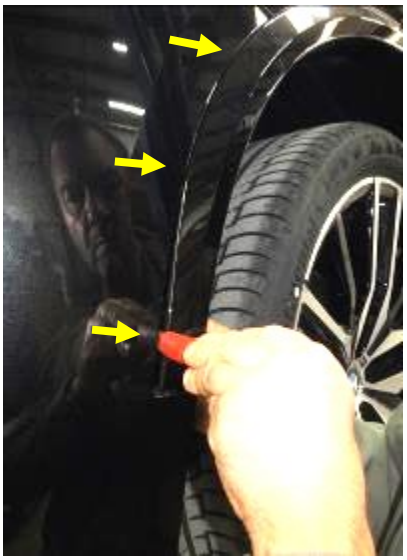


PLASTIC PRY TOOLS

8mm SOCKET

PAINTER'S TAPE

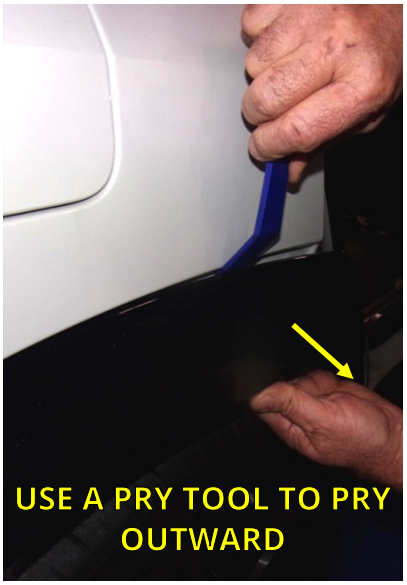
23. To allow partial removal of the rear wheel well trim, (3) clips will need to be disconnected. Apply outward pressure on wheel well trim. Start with the bottom clip and work up. Push down on clip to disconnect. Use plastic pry tools on hard to reach clips.
24. Behind the rear wheel well trim is a screw holding the fascia. Pull the trim away from vehicle to expose screw. Use a socket to remove screw. Repeat Steps 23-24 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.*

PLASTIC PRY TOOLS

25. **XM ONLY.** Open the rear passenger side door to remove the wheel well trim piece starting from the front side and moving rearwards. Use a plastic pry tool to release (7) rivets securing the trim piece to the body of the vehicle. Release (2) clips toward the rearmost part of the trim piece. Remove the trim piece.
26. Repeat step 25 for driver side trim piece.



GAIN ACCESS TO MOUNTING AREA CONTINUED

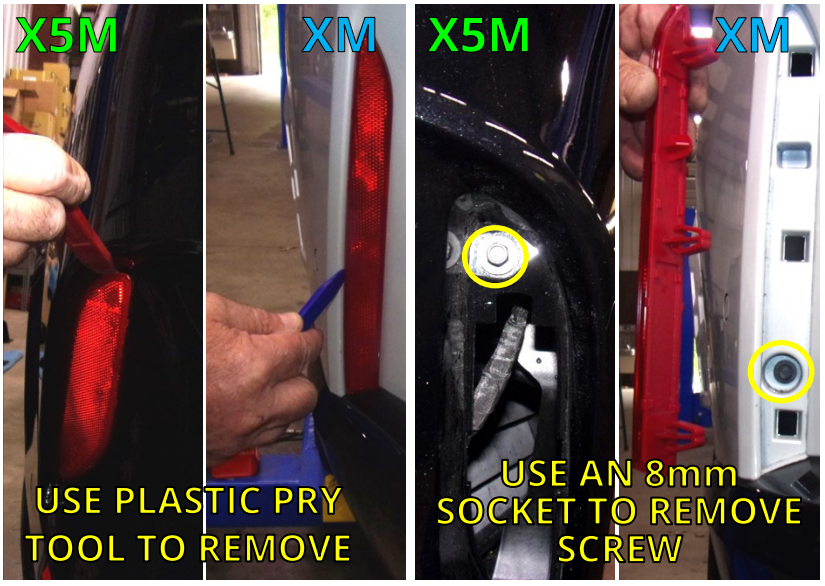
8mm SOCKET

27. **XM ONLY.** Use a socket to remove (2) screws securing the bumper fascia.

PLASTIC PRY TOOLS

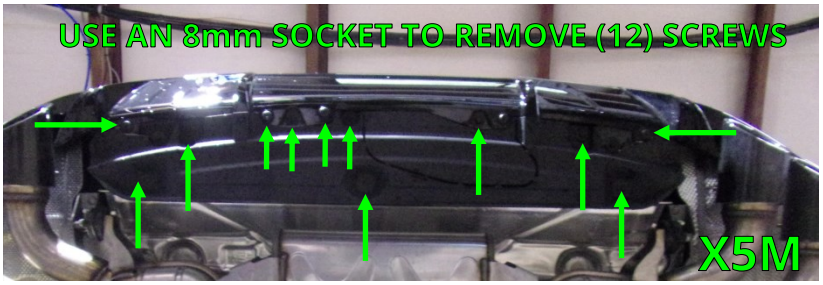
8mm SOCKET

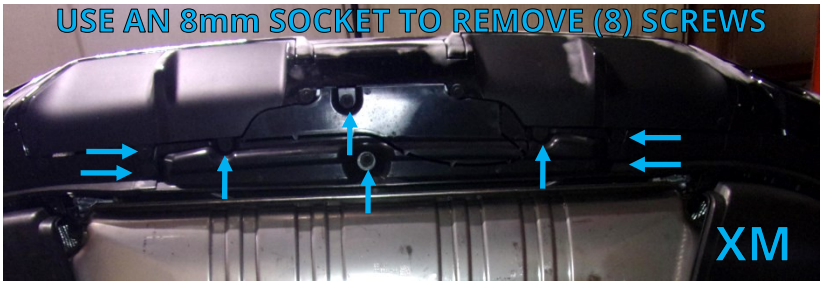
28. Remove the (2) reflectors located under the rear taillights on each side of the vehicle with a plastic pry tool. **X5M ONLY**, pry from the top of the reflector to remove. **XM ONLY**, pry from the outside of the reflector to remove.
29. A screw, which is holding the fascia, will be exposed when the reflector is removed. Use a socket to remove the screw.



8mm SOCKET

30. Underneath the vehicle, use a socket to remove **(12)** screws on the **X5M**, or **(8)** screws on the **XM**, from the rear bottom of the fascia and bottom cover plate.

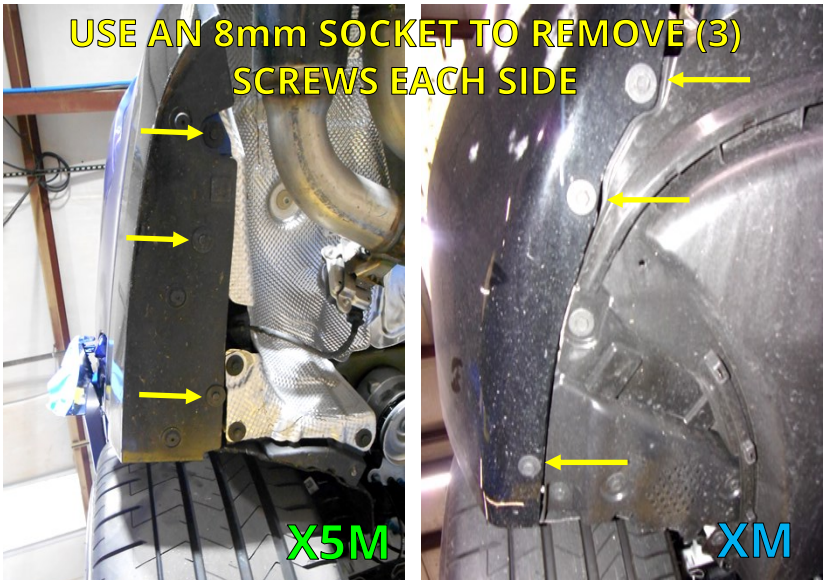




GAIN ACCESS TO MOUNTING AREA CONTINUED

8mm
SOCKET

31. Use a socket to remove (6) screws from the bottom side panels of the fascia.



PLASTIC
PRY TOOLS

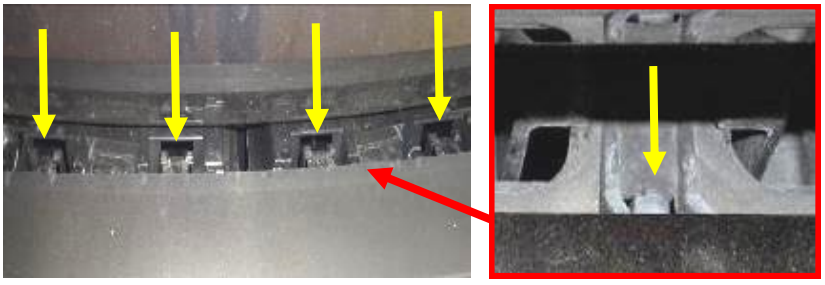
32. The fascia is clipped to the vehicle body directly behind the wheel wells. Pull outward on the fascia to expose the first clip in the seam. With a plastic pry tool, push down on the exposed clip to disconnect. Continue to pull outward on the fascia and disconnect clips as they are exposed.

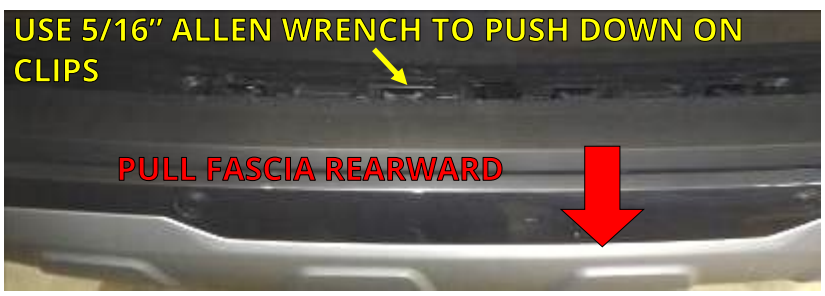
    X5M ONLY. Continue applying outward and rearward pressure until all the clips except the four rear center clips are released.

5/16"
ALLEN WRENCH

33. **X5M ONLY.** While positioned behind the center of the vehicle, locate the (4) remaining clips holding the fascia. Before disconnecting each clip, put rearward pressure on the fascia. Starting from one side, use an Allen wrench to push down and disconnect each clip.

NOTE: *Use caution when pulling the fascia rearward. The fascia is still connected to the vehicle by a wire harness.*





GAIN ACCESS TO MOUNTING AREA CONTINUED

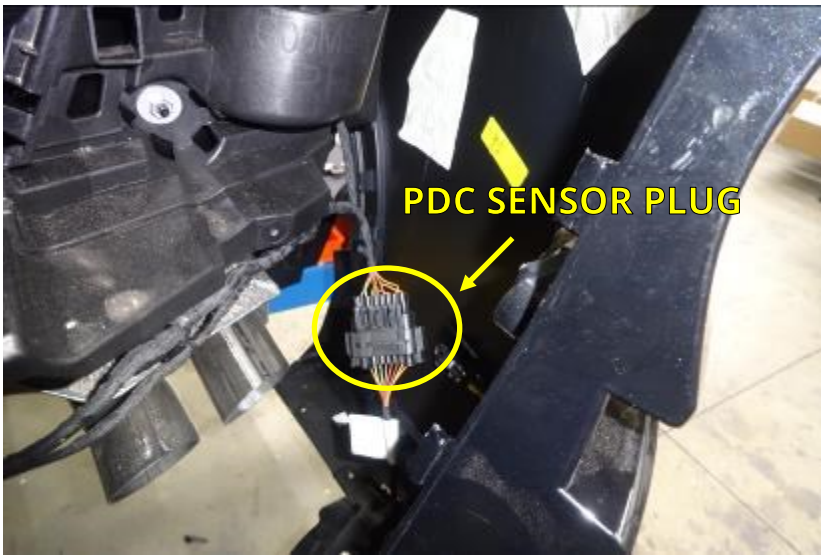
PLASTIC PRY TOOLS

34. **XM ONLY.** Use a plastic pry tool to release (3) plastic clips securing the vertical section of the fascia below the taillight mounting area.

90 DEGREE PICK

35. This step requires a partner. Pull the fascia rearward enough to access the PDC sensor plug on the passenger side. Press down on the clips to unplug the PDC sensor plug. In some cases a 90 degree pick tool will be needed to disconnect the sensor plug. Remove the fascia completely.

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



13mm SOCKET

90 DEGREE PICK

36. Locate the two exhaust brackets under the rear of the vehicle, above the muffler. Use a socket to remove (1) exhaust bracket nut on each side of the vehicle. On the passenger side remove (1) plastic rivet from factory reinforcement beam, as shown.

GAIN ACCESS TO MOUNTING AREA CONTINUED

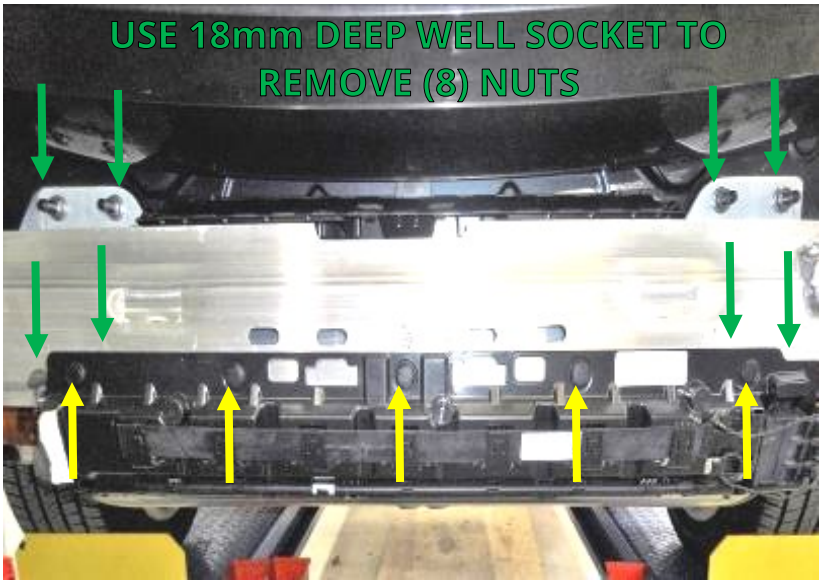
90 DEGREE PICK

37. **X5M ONLY.** Remove two plastic panels that are part of the plastic fascia support on each side. Removing the panels will allow access to the factory nuts securing the factory reinforcement beam. Use a 90 degree pick to remove (2) plastic rivets, and unclip the two clips.

90 DEGREE PICK

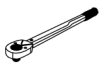
18mm DEEP WELL SOCKET

38. Remove the plastic kick wand panel (5) plastic rivets with a 90 degree pick. Save (3) plastic rivets for reinstallation. Unplug the wire harness connected to the panel and put aside. Remove the factory reinforcement beam (8) nuts with a socket and save for later reinstallation. Discard the factory reinforcement beam.



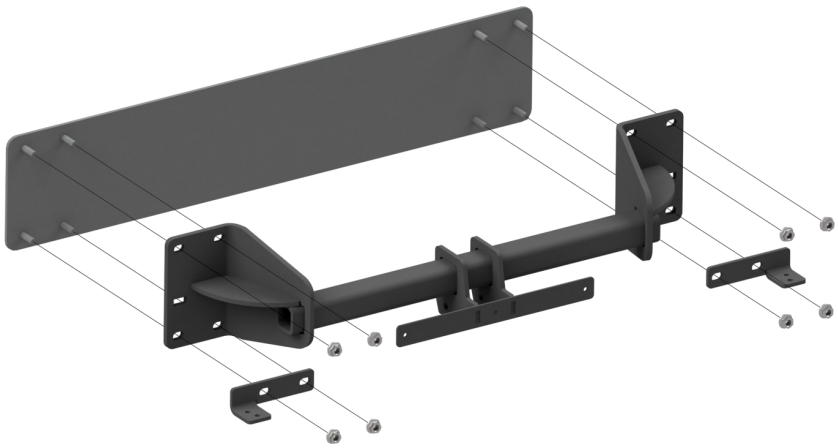
INSTALL STEALTH HITCH FRAME

18mm DEEP WELL SOCKET



TORQUE WRENCH

39. Install the Stealth hitch frame and the supplied exhaust brackets, see image. Use a torque wrench to tighten the factory nuts to 85 ft.-lbs.



USE 18mm DEEP WELL SOCKET TO INSTALL NUTS

INSTALL STEALTH HITCH FRAME CONTINUED

40. **X5M ONLY.** Reinstall plastic fascia support panels removed in Step 37.

1/2" SOCKET

41. Reinstall exhaust brackets removed in Step 36. Use (2) supplied bolts, washers and nuts.

MOUNT LATCH BLOCK

15/16" SOCKET

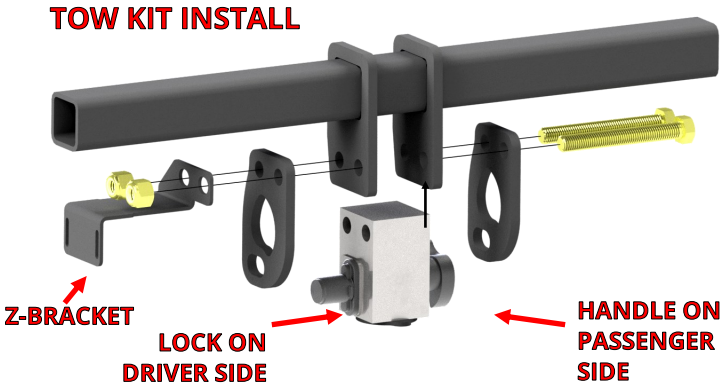
15/16" OPEN END WRENCH

TORQUE WRENCH

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

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



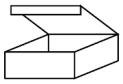
STOP

IF INSTALLING A RACK RECEIVER KIT, SKIP TO STEP 70.
IF INSTALLING A TOW KIT, CONTINUE TO STEP 43.

INSTALL WIRING KIT

2020-2023 X5M/X5M COMPETITION WIRING KIT BOX

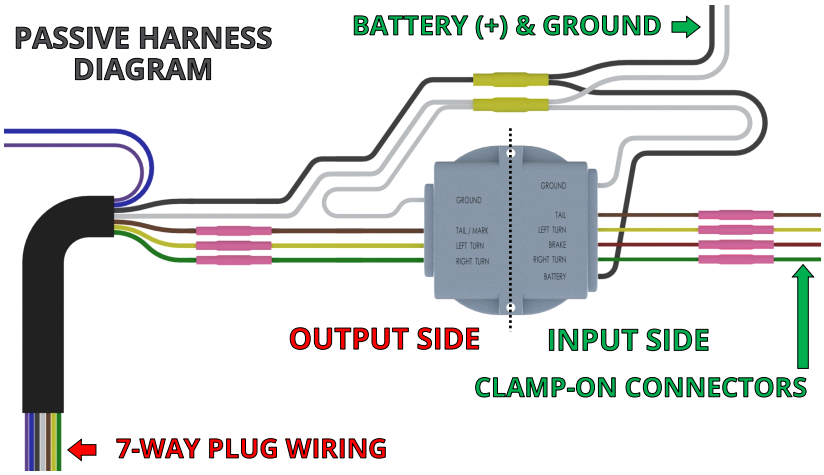
#	DESCRIPTION	QTY
1	7-WAY WIRING HARNESS • FUSE HOLDER & FUSE • CONTROL MODULE & WIRES	1
2	ADHESIVE FOAM STRIP	2
3	FORK TERMINAL	1
4	CLAMP-ON CONNECTORS	5
5	5/8" LONG PHILLIPS SCREWS	4
6	#10 LOCK NUT	4
7	CABLE TIE – 8"	4
8	CABLE TIE – 14"	3
9	Z-BRACKET	1
10	MOUNTING BRACKET	1
11	7-POLE HOUSING	1
12	7-POLE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

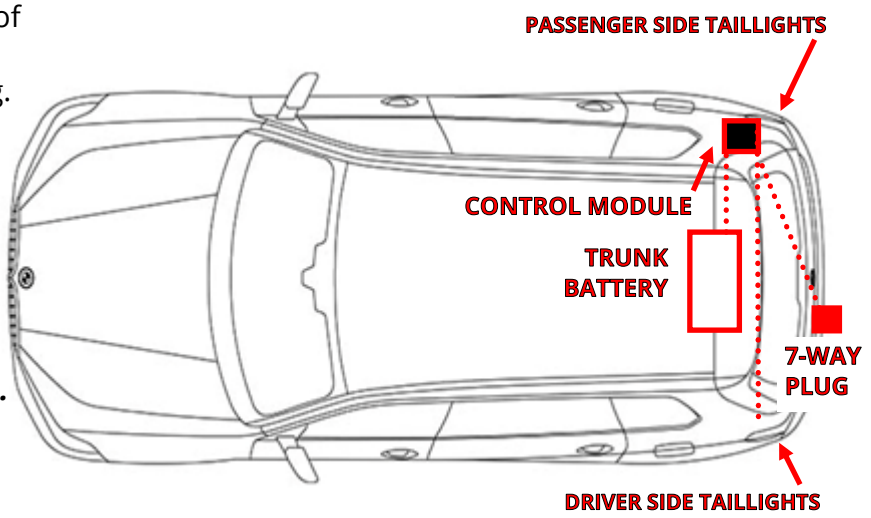


PASSIVE WIRING KIT

43. Locate the wiring kit box. Review the contents of the box against the list above (or on the next page depending on your vehicle version) 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.

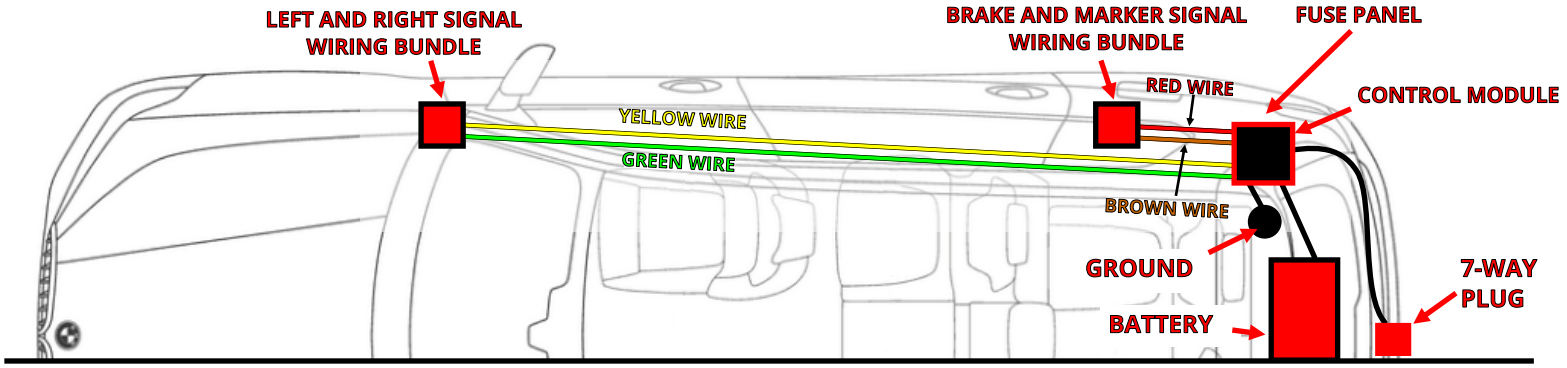
NOTICE: Do not allow electrical system to become disconnected from power or ground. Doing so may interrupt electrical systems.





XM & 2024+ X5M COMPETITION WIRING KIT BOX

#	DESCRIPTION	QTY
1	7-WAY WIRING HARNESS • FUSE HOLDER & FUSE • CONTROL MODULE & WIRES	1
2	ADHESIVE FOAM STRIP	2
3	FORK TERMINAL	1
4	CLAMP-ON CONNECTORS	5
5	5/8" LONG PHILLIPS SCREWS	6
6	#10 LOCK NUT	6
7	BUTT CONNECTOR RED	2
8	CABLE TIE – 8"	6
9	CABLE TIE – 14"	3
10	MOUNTING BRACKET	1
11	Z-BRACKET	1
12	7-POLE HOUSING	1
13	7-POLE TO 4-POLE ADAPTER	1
14	GREEN WIRE BUNDLE - 15'	1
15	YELLOW WIRE BUNDLE - 15'	1



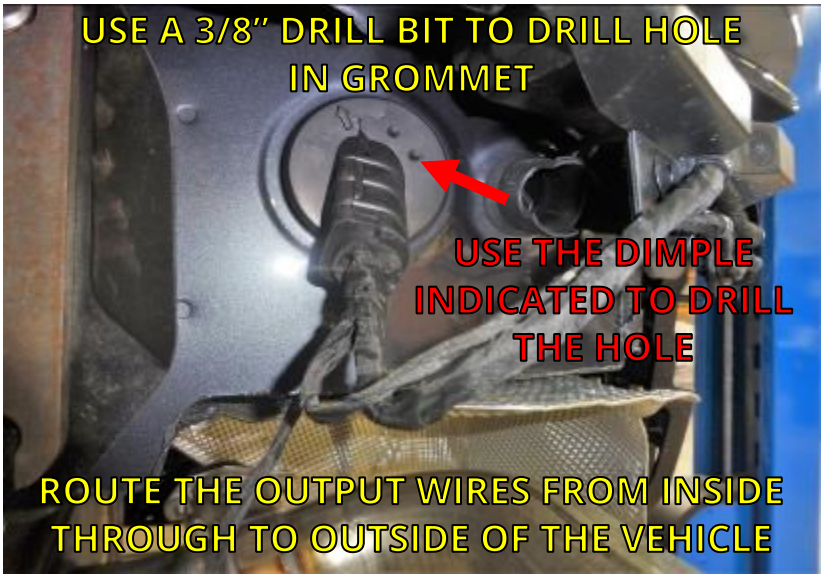
INSTALL WIRING KIT *(ALL VEHICLES)*

DRILL & 3/8" BIT

44. On the passenger side of the vehicle locate the factory grommet to the right of Stealth hitch frame. Drill a 3/8" hole in the grommet where indicated.

NOTICE: Check for obstructions on other side of grommet before drilling. Use caution when drilling.

45. Place the wiring harness inside the passenger side compartment. Feed output wires and black sheathing through grommet from inside vehicle to outside of vehicle.



IF INSTALLING A TOW KIT ON A 2020-2023 X5M VEHICLE, CONTINUE TO STEP 46.

IF INSTALLING A TOW KIT ON A XM OR 2024+ X5M VEHICLE, SKIP TO STEP 49.

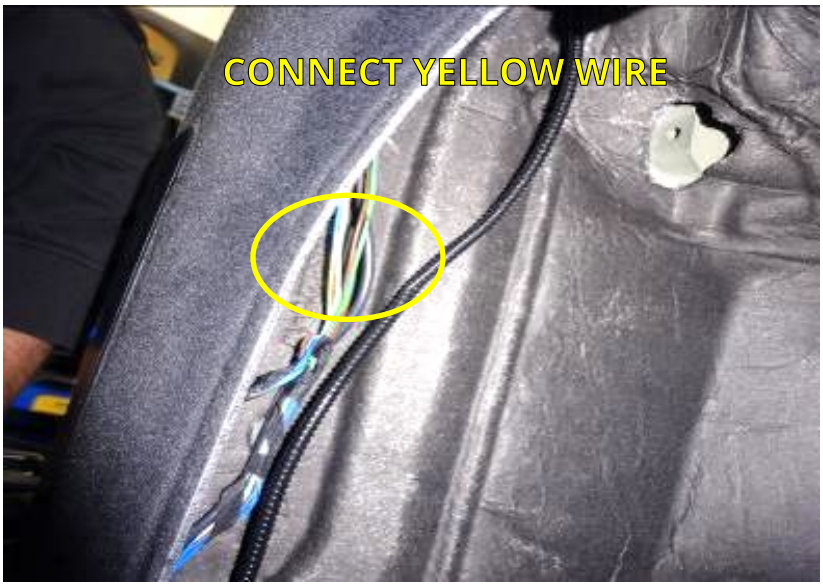
46. From the passenger side of the vehicle, route the yellow input wire to the driver side of the vehicle through the battery compartment using an existing wire harness as a guide.


PLIERS


MULTIMETER

47. The wires on the input side of the wiring module need to be attached to the vehicle wiring. On the driver side, use a clamp-on connector to clamp the yellow wire to the left turn signal wire, behind taillight. (See 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	GREEN/BLUE	12V+ (POWER)	BLACK	BATTERY (+)
RIGHT TURN	GREEN	GREEN/BLUE	GROUND	WHITE	GROUND STUD
MARKER	BROWN	GREY/PURPLE			
BRAKE	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	For use with trailer reverse lights or to disable the trailer brakes when backing with surge brakes. To connect, isolate vehicle's reverse light circuit and connect the purple wire from the trailer wiring harness to vehicle reverse light circuit. ***Trailers rarely have reverse lights or surge brakes.***			
ELECTRIC BRAKE	BLUE	Only used when a hard wired brake controller is mounted inside the vehicle and your trailer has electric brakes. See brake controller instructions for this wire.			

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

INSTALL WIRING KIT 2020-2023 X5M/X5M COMPETITION CONTINUED

PLIERS

MULTIMETER

48. Inside the passenger side compartment, use clamp-on connectors to connect the green and the brown wires to wires behind taillight. (See reference table on the previous page.)

Skip to Step 62 to continue installation.

INSTALL WIRING KIT XM & 2024+ X5M COMPETITION VEHICLES

49. The signal wires for the left and right turn signals are located in the front passenger side area of the cabin. Open the passenger side front door. In the area above the foot well, locate and turn two knobs to release the plastic panel shown in the image. Pull the plastic panel down and unplug the light from the panel. Remove the panel from the vehicle.

VIEW LOOKING ABOVE FRONT PASSENGER SIDE FOOT WELL

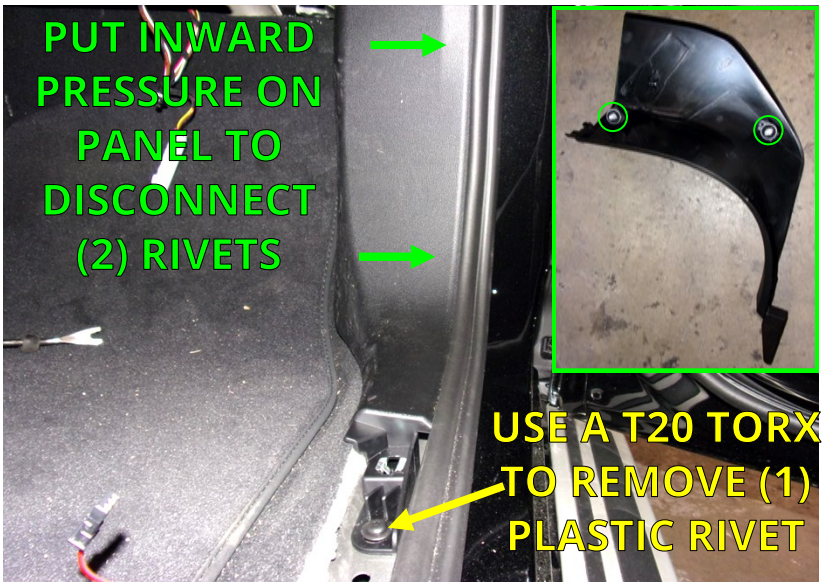
PLASTIC PRY TOOLS

50. Use a plastic pry tool to remove the plastic door frame cover next to the passenger side seat. Use upward pressure on the cover to disconnect (4) plastic rivets. Lift the cover up and unplug the accent light connector. Remove the panel.

T20 TORX

51. Inside the passenger side foot well, use a Torx to remove (1) plastic screw-rivet securing the passenger side door frame panel. Put inward pressure on the top portion of the panel to disconnect two rivets. Remove the panel.

NOTE: *The wire bundle referenced in Step 55 with the left and right turn signal wires is located under this panel.*



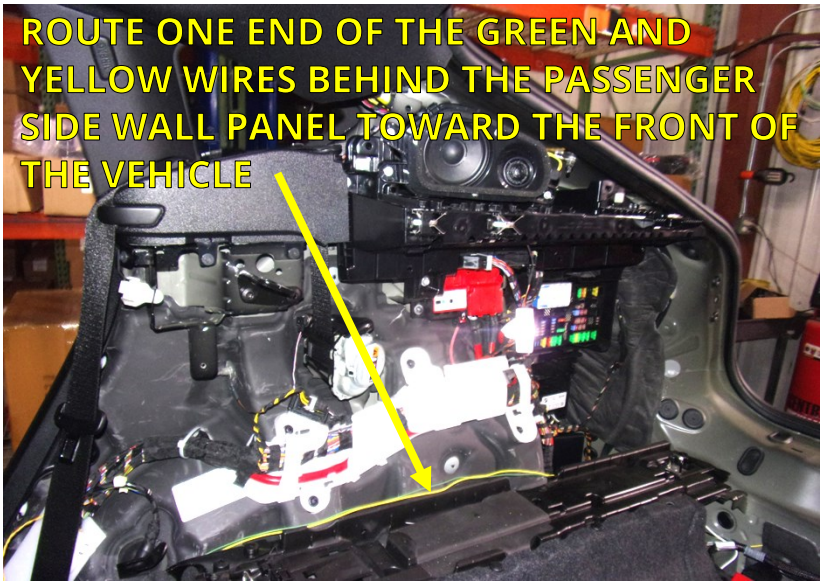
PLASTIC PRY TOOLS

10mm SOCKET

52. **XM ONLY.** Locate the plastic cap on the front of the passenger side panel, behind the rear seats. Use a plastic pry tool to remove the plastic cap and gain access to (1) screw. Use a socket to remove (1) screw. Remove the indicated panel. Pull the top toward the front of the vehicle and remove.

53. Locate the green and yellow wires inside the wiring kit box. Uncoil the wires. Place the loose wires into the cargo compartment. Route one end of the wires behind the passenger side wall panel toward the front of the vehicle.

XM ONLY. The passenger side panel will still be intact. Use a fish wire to route the wires behind the side panel toward the front of the vehicle.



54. Use a fish wire to route the green and yellow wires forward under the trim panel, as shown, to the area where the passenger side door panel was removed in Step 51.

PLIERS

MULTIMETER

55. Locate the indicated wire bundle. Use clamp-on connectors to connect the yellow and green wires to the left and right turn signal wires. (see reference table below.)

NOTE: *Vehicles may have multiple wires with the same color or different wire colors than those shown. Verify circuits (wire colors) with multimeter.*

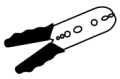
CLAMP-ON CONNECTOR COLOR REFERENCE TABLE

SIGNAL INPUT WIRES			POWER & GROUND WIRES		
FUNCTION	HARNESS	VEHICLE			
LEFT TURN	YELLOW	BLUE	12V+ (POWER)	BLACK	FUSE TERMINAL (+)
RIGHT TURN	GREEN	BLUE/YELLOW	GROUND	WHITE	GROUND NUT
MARKER	BROWN	GREY/BROWN			
BRAKE	RED	BLACK			
REVERSE	PURPLE	For use with trailer reverse lights or to disable the trailer brakes when backing with surge brakes. To connect, isolate vehicle's reverse light circuit and connect the purple wire from the trailer wiring harness to vehicle reverse light circuit. ***Trailers rarely have reverse lights or surge brakes.***			
ELECTRIC BRAKE	BLUE	Only used when a hard wired brake controller is mounted inside the vehicle and your trailer has electric brakes. See brake controller instructions for this wire.			

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

PLASTIC PRY TOOLS

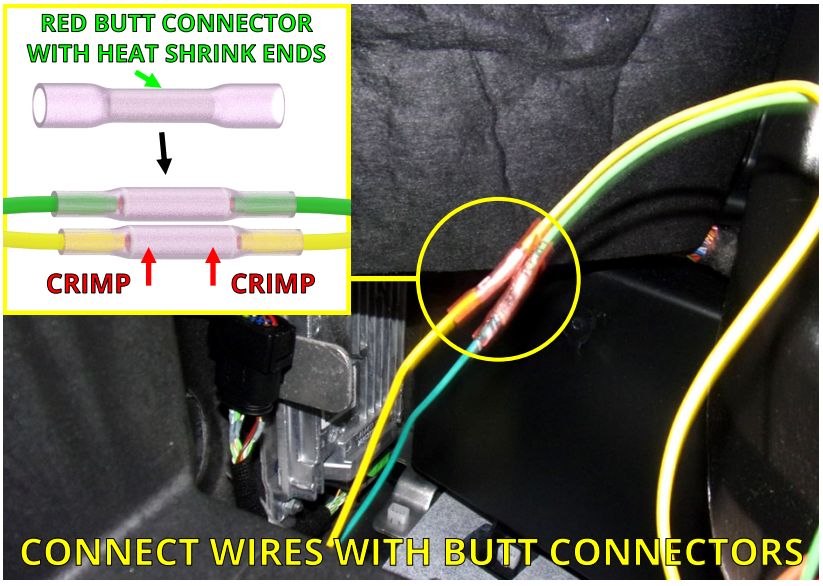
56. With the yellow and green wires connected, tuck the length of green and yellow wire that is visible in the front passenger and rear passenger areas under the trim where possible. No wire should be visible when the removed plastic trim pieces are replaced in a later step.



STRIPPER/ CRIMPING TOOL

57. Inside the wall of the passenger side cargo compartment, locate the loose ends of the green and yellow wires and the green and yellow input wires of the control module. Trim the wires to length. 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.



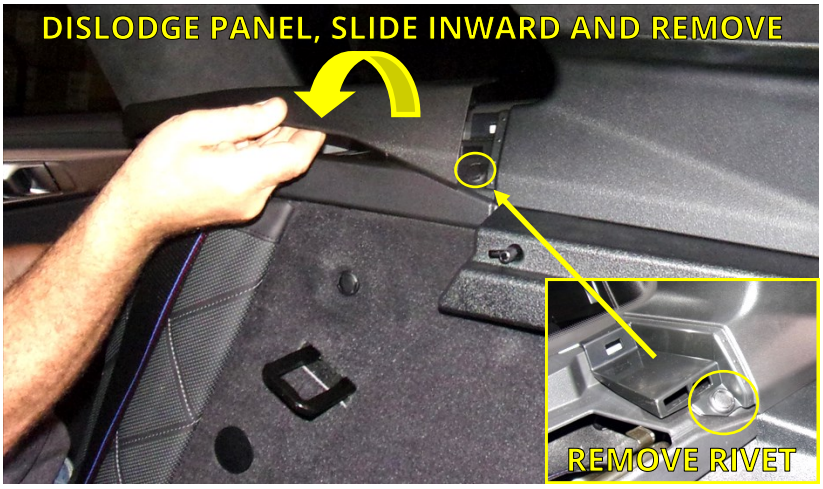
PLASTIC PRY TOOLS

58. **XM ONLY.** Use a plastic pry tool to remove the top panel around the passenger side trunk lid support beam. Use a pry tool to remove the bottom rear pillar panel.

PLASTIC PRY TOOLS

90 DEGREE PICK

59. **XM ONLY.** Use a plastic pry tool to dislodge the panel behind the passenger side rear door pillar. Slide the panel inward to remove. With the panel removed, use a 90 degree pick to remove the exposed rivet.



PLASTIC PRY TOOLS

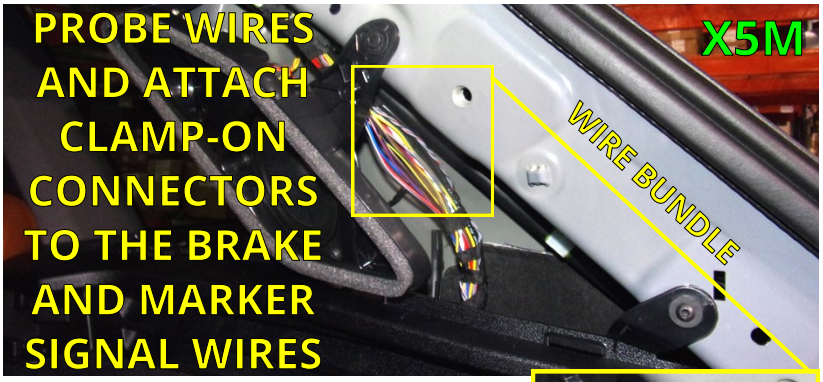
60. To connect the red and brown wires, the passenger side rear top panel needs to be removed. Use a plastic pry tool and inward pressure to remove the panel.

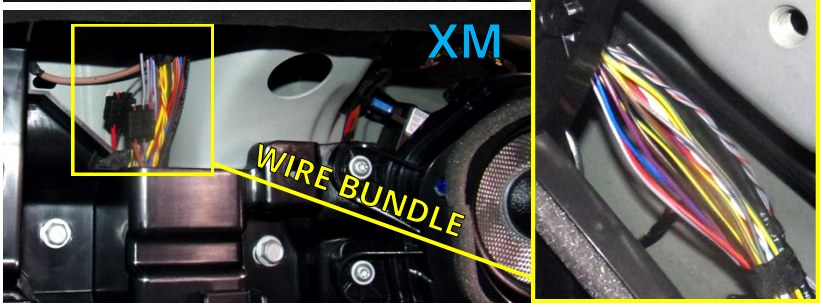
PLIERS

MULTIMETER

61. Locate the indicated wire bundle. Route the red and brown wires to the wire bundle location. Trim the red and brown wires to length and use clamp-on connectors to connect the red and brown wires to the brake and marker signal wires (see reference table on page 19).

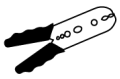
NOTE: *Vehicles may have multiple wires with the same color or different wire colors than those shown. Verify circuits (wire colors) with multimeter.*





INSTALL WIRING KIT ALL VEHICLES

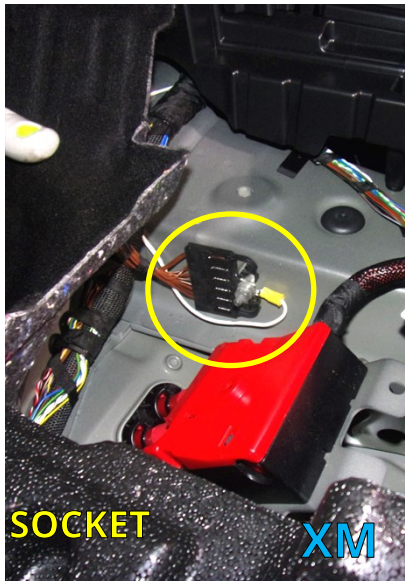
10mm SOCKET



STRIPPER/ CRIMPING TOOL

62. Locate the ground stud in the battery compartment. 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 terminal.

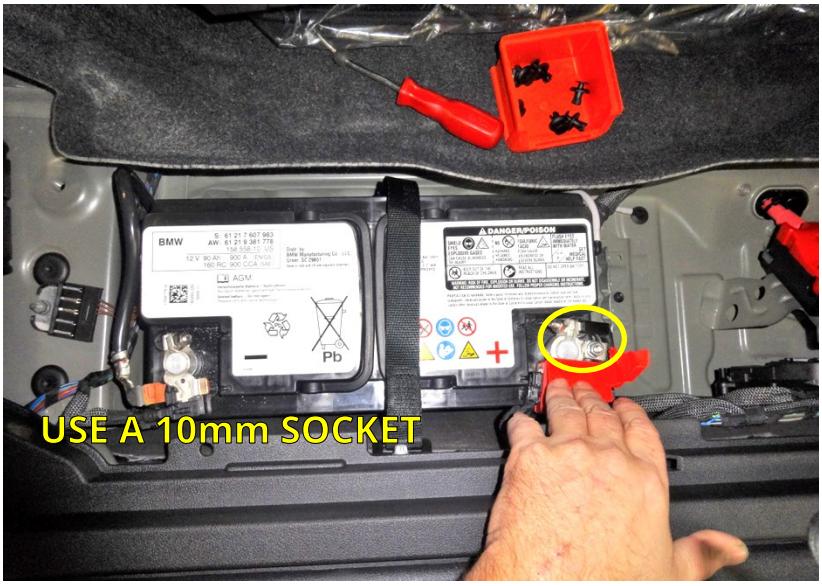
NOTICE: Loosen ground stud just enough to install fork terminal, so vehicle wiring does not lose ground.



10mm SOCKET

STRIPPER/ CRIMPING TOOL

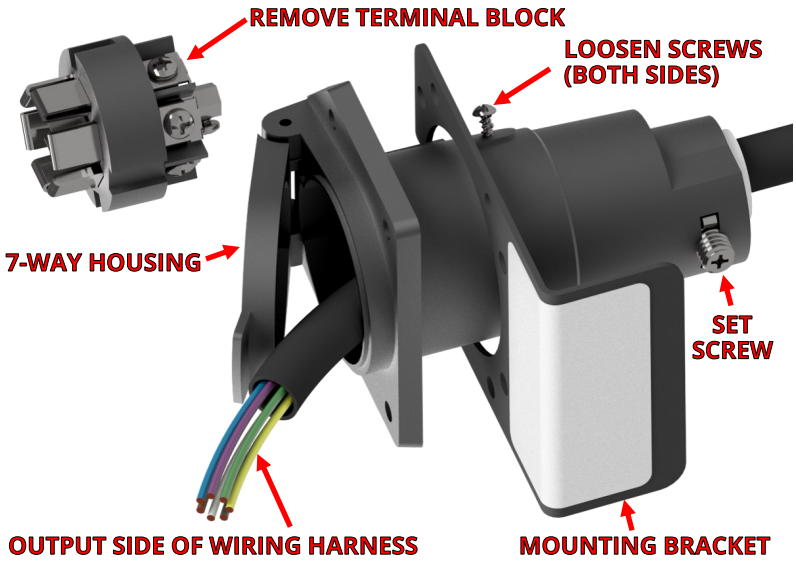
63. Locate the fuse holder supplied in the wiring kit box. Remove the fuse from fuse holder. Route the power wire to the positive battery terminal and trim excess length. Crimp fuse lead to power wire. Connect fuse ring terminal to the positive battery terminal (+).



WIRE 7-WAY PLUG ALL VEHICLES

PHILLIPS HEAD SCREWDRIVER

64. 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 ALL VEHICLES CONTINUED

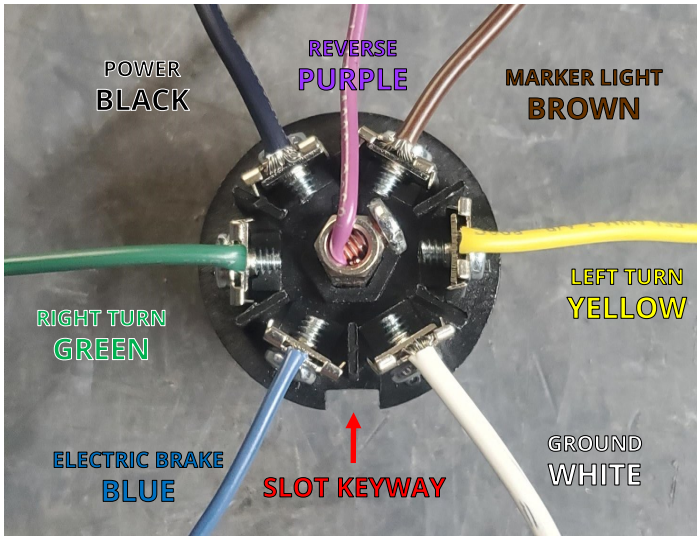
Please follow instructions below very carefully.
Incorrect wiring of the 7-way receptacle causes the vast majority of wiring problems.

PHILLIPS HEAD SCREWDRIVER

STRIPPER/ CRIMPING TOOL

65. Locate the slot keyway. Starting from the keyway going **clockwise**, attach the wires as follows:
    - Blue
    - Green
    - Black
    - Brown
    - Yellow
    - White
    - Purple (middle)

NOTICE: Markings on the receptacle may not match the correct wire configuration. Please disregard and follow the instruction above.



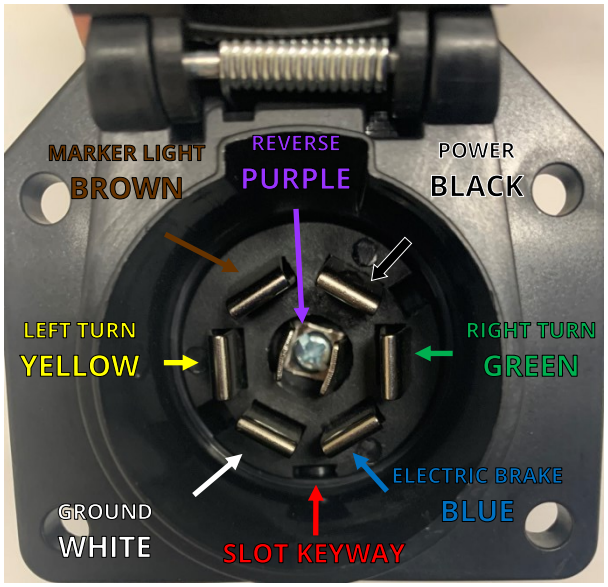
TEST 7-WAY HARNESS WIRING

PHILLIPS HEAD SCREWDRIVER

MULTIMETER

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

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



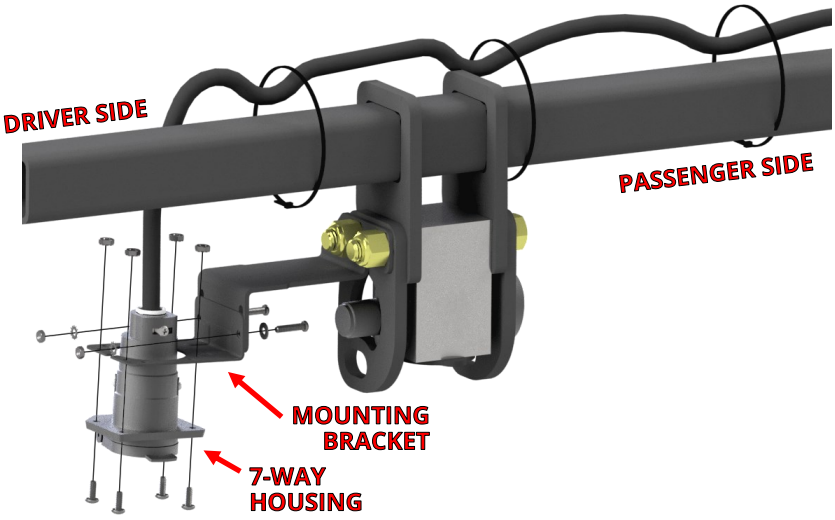
- Start by connecting the multimeter negative probe to the ground blade on the 7-way receptacle.
- Next, connect the multimeter positive probe to the power blade on the 7-way receptacle and check for 12 volts.
- Once that is confirmed, move the positive probe to the left turn blade on the 7-way receptacle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

TEST 7-WAY HARNESS WIRING CONTINUED

PHILLIPS HEAD SCREWDRIVER

SILICONE

67. Attach the mounting bracket and 7-way housing to the Stealth hitch frame as shown. Secure harness to Stealth hitch frame with cable ties.
68. 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.



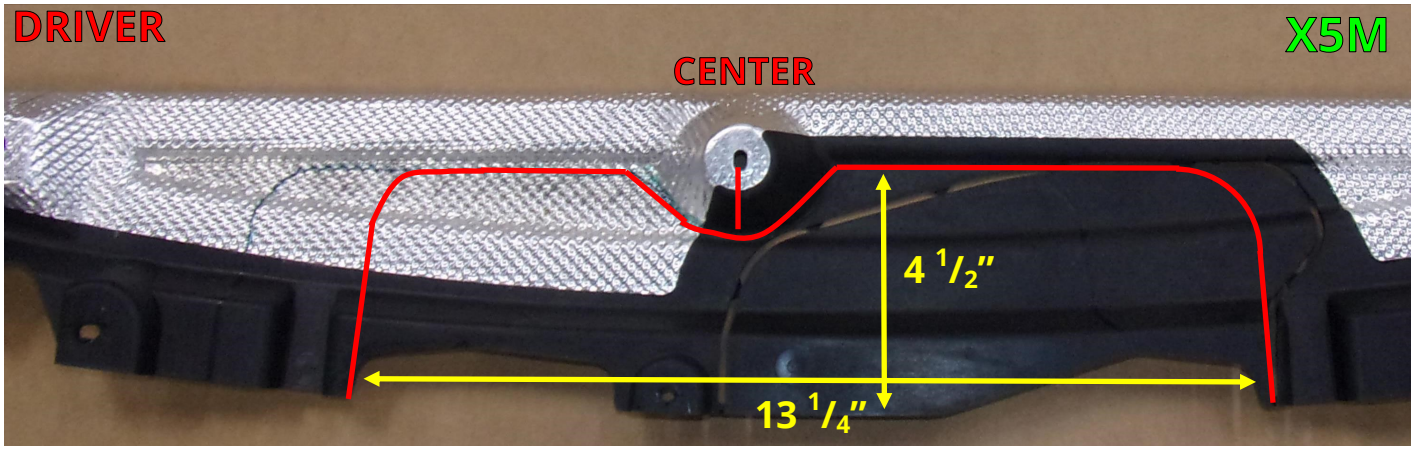
69. Use the provided adhesive foam strips to secure the control module to an inside body panel. Use silicone to waterproof the grommet.

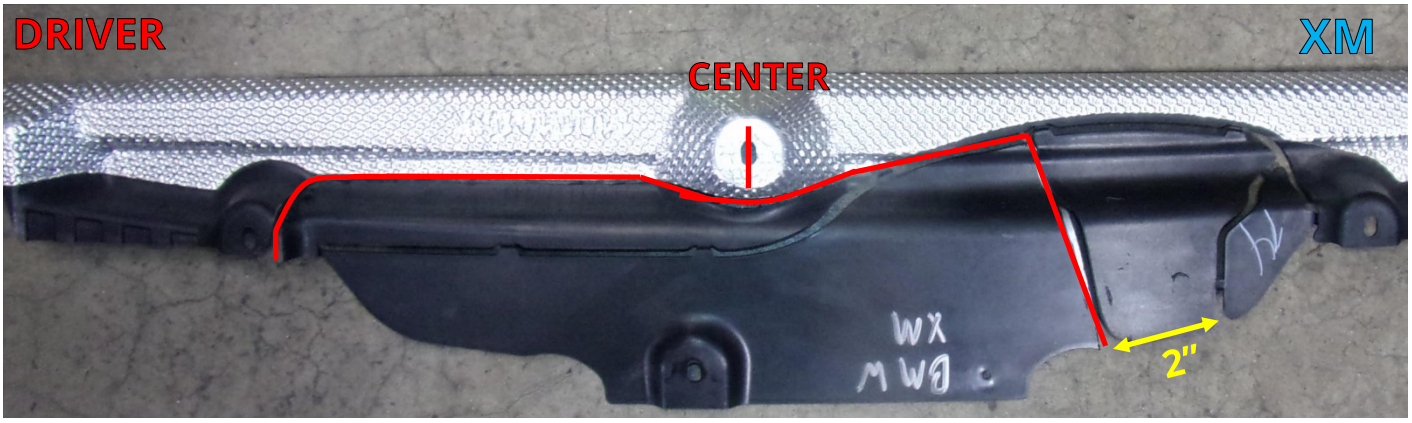
REINSTALL VEHICLE COMPONENTS

DREMEL TOOL

FILE

70. Cut out the gravel guard with Dremel tool, as shown below. Use a file to smooth edges of the cut.



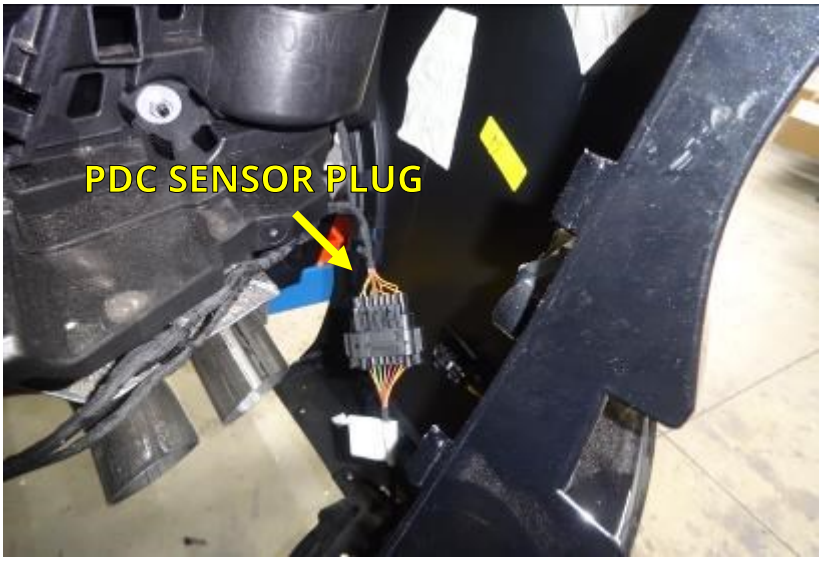


REINSTALL VEHICLE COMPONENTS

71. Reattach the plastic kick wand holder with (3) rivets to the hitch beam bracket. Reattach the wiring harness, unplugged in Step 38, to the plastic kick wand panel.

72. While holding the fascia close to the vehicle, plug in the PDC sensor plug, before replacing the fascia onto vehicle.

NOTICE: It's important to remember to plug in the PDC sensor plug before you completely install the fascia.



73. **X5M ONLY.** Make sure to have all (4) clips aligned with the clip holders before you push to replace the fascia.

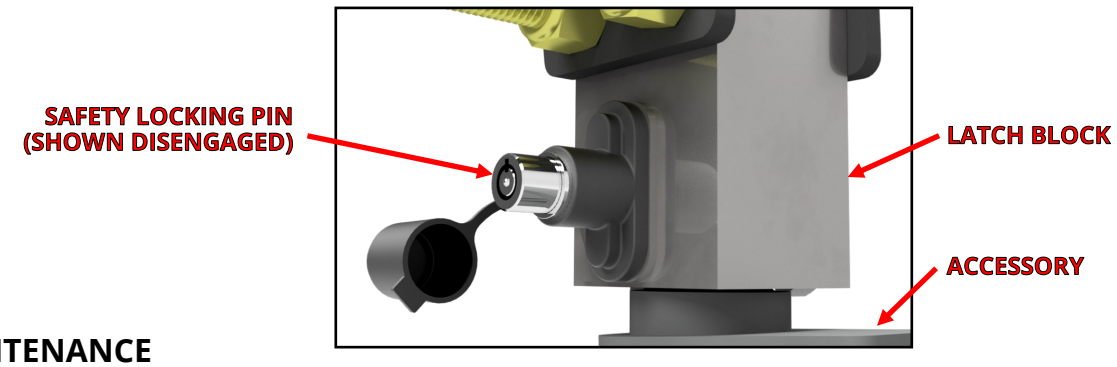
74. Reattach and secure the fascia, taillights, and other vehicle components in reverse order. Refer to Steps 1-36.

FINAL VEHICLE EXAMINATION

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

76. 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.