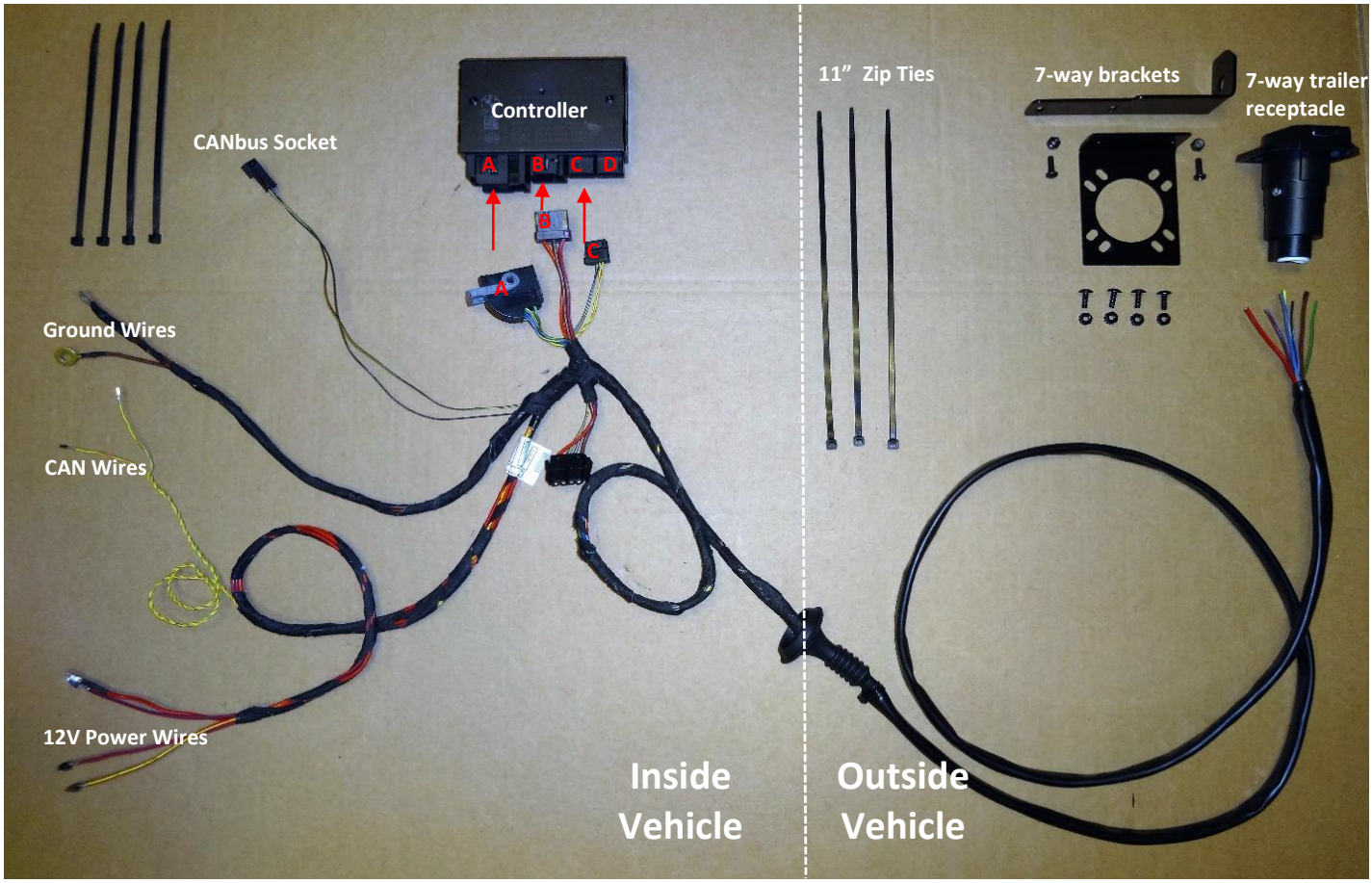
invisihitch

OEM Wiring Installation Instructions

- BMW X5 [F15], 2014 – Current
- BMW X6 [F16], 2015 – Current
- BMW X5M [F85], 2016 – Current
- BMW X6M [F86], 2016 – Current



Hardware Supplied

BMW F15 OEM Wiring Harness Kit

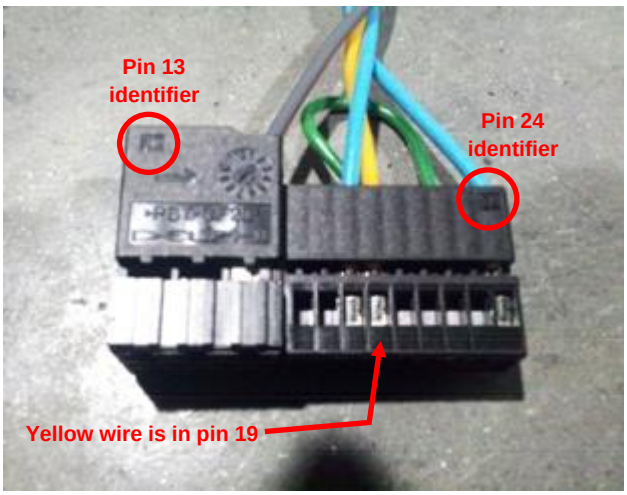
Tools Required

Small flat-blade screwdriver
T30 torx driver
10mm socket
Phillips screwdriver

Components, Procedures, and Locations

1. Familiarize yourself with the harness and the controller, and take note of the following:
   - Socket “D” on the controller will not be used.
   - Unless you are installing a brake controller, the 4-pin plug on the harness will not be used.

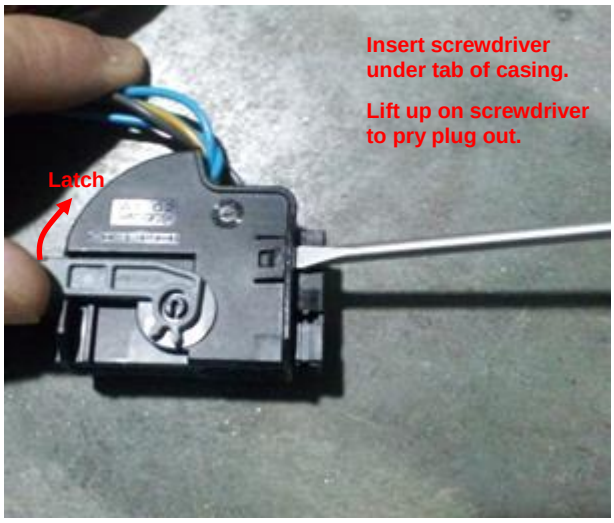
   Ensure that you can identify by number the individual pin locations on a plug (see photo). You will be adding wires into the topside of a plug at specific, numbered locations.



2. To access connectors inside casings, insert a small screwdriver between the casing and the plug, lifting the tab of the casing and pry the plug back out (see photo).

   The housing on this specific 24-pin connector can remain on the connector, but you will need to separate a casing from its plug inside the vehicle wiring area, using this technique.

   Also familiarize yourself with the latching mechanism on the casing. You will need to latch and unlatch these connectors inside the vehicle wiring area.

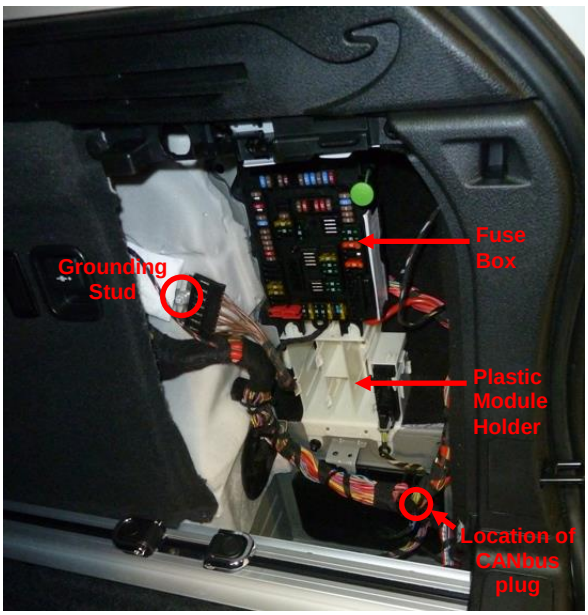


3. Gain access to the wiring area in the vehicle, located in the cargo area on the passenger’s side.

   Remove the plastic storage bin (if vehicle is so equipped). Then remove the side trim panel.

   Ensure that you can locate and identify all components shown in the photo.

   Un-tape the CANbus plug from the vehicle’s wiring harness. You will find the CANbus plug taped tightly to the harness around the junction of the largest wire bundles (see photo).



4. Outside the vehicle locate the two pass-through holes in the chassis, above the passenger-side exhaust. The inner hole should have a solid rubber plug (see photo).

   Remove the rubber plug. Then, starting with the harness inside the vehicle, feed the output wires of the harness through the hole to the outside.

   Properly seat the grommet of the harness into the chassis hole.

External Wiring

NOTE: It is critically important to complete all external wiring before making any wiring connections inside the vehicle. This prevents the external wires from touching anything as the signals go live.

5. Remove 2x screws from the 7-way receptacle housing to release the round block of terminals.

   Feed the external end of the harness between the hitch beam and the vehicle, then through the circular bracket for the 7-way round trailer receptacle, then through the receptacle itself.

   Connect the wires to the round block of terminals as described below:

Function	Wire Color	7-Way Terminal
Left turn/Brake	**Blue/Red**	**5-Red**
Right turn/Brake	**Yellow/Blue**	**6-Brown**
Marker/Tail	**Green/Red**	**3-Green**
Ground	**Brown**	**1-White**
12V	**Red**	**4-Black**
Reverse (Surge Brakes)	**Blue/Yellow**	**7-Center**
Electric Brake Controller	**Black/White**	**2-Blue**

Install the terminal block inside the 7-way trailer receptacle; then bolt the receptacle into its bracket.

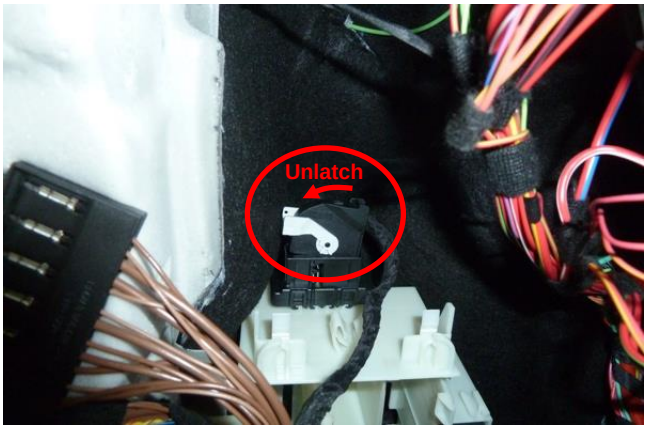
Use the 11-inch zip ties to secure the wiring harness to the hitch beam.

Internal Wiring

6. Unscrew the fuse box using a T30 torx driver.

   Pull the fuse box aside to reveal a 26-pin connector located behind the fuse box. You will find it attached to the top of the white plastic module holder (see photo).

   Unlatch and unplug this 26-pin connector. (Do not unclip the socket from the plastic module holder; just unlatch and unplug the connector).



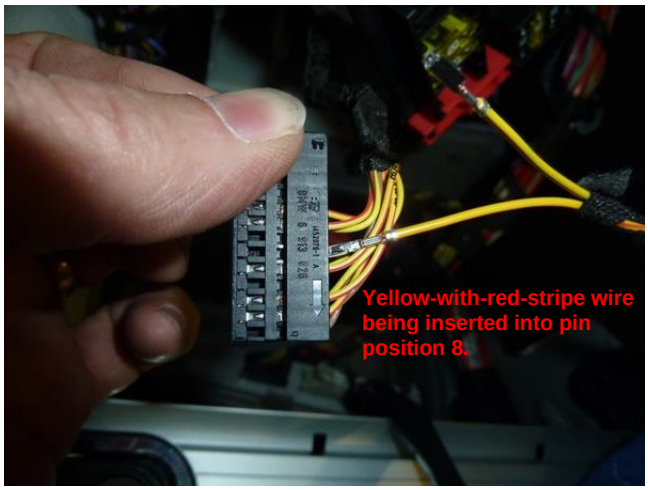
7. Remove the casing from the 26-pin connector.

   Then add the two CAN Wires of the harness (the two small-gauge, yellow wires) to the 26-pin connector as follows:

   (1) Insert the Yellow/red wire into position 8.

   (2) Insert the Yellow/brown wire into position 21.

   The wires should click permanently into place; they cannot be pulled out once properly seated.



   Replace the casing back onto the 26-pin connector.

   Plug the 26-pin connector back in, where it was originally, and latch it.

8. Turn the fuse box around to access the back.

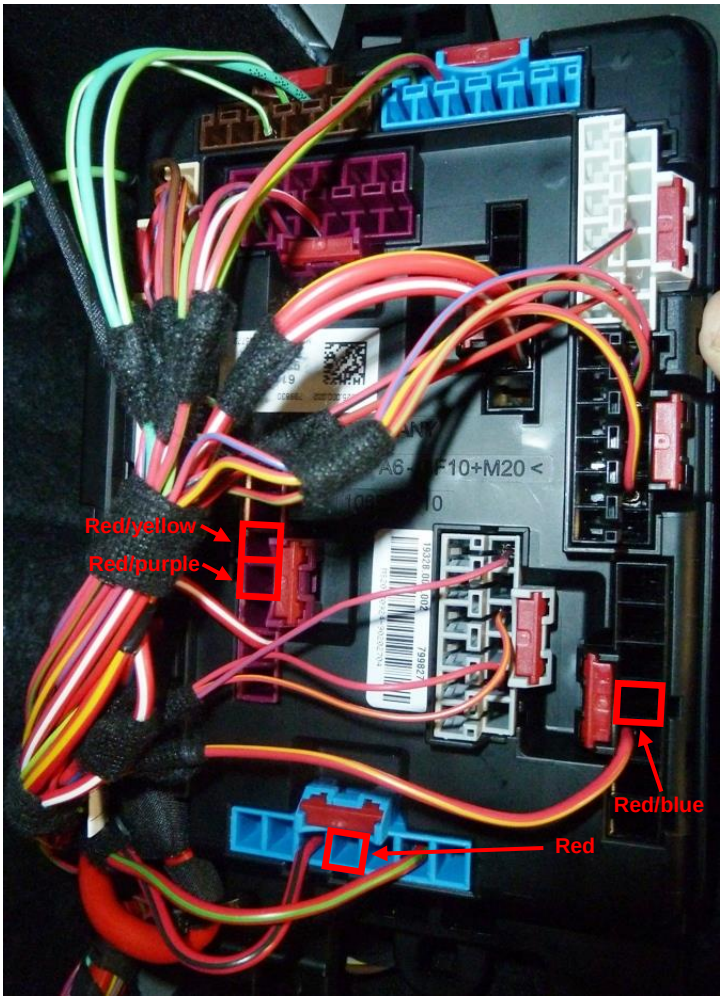
   Carefully identify each of the four red Power Wires of the harness, as they are very similar in color. The colors are:

   Solid Red

   Red/blue

   Red/yellow

   Red/purple



   Click each of these four Power Wires into the back of the fuse box as follows:

   (1) The **Red/blue** wire – into the 4th (center) position of the black slots running vertically along the lower-right edge of the fuse box.

   (2) The solid **Red** wire -- into the 4th (center) position of the blue slots running horizontally along the bottom edge.

   (3) The **Red/purple** wire – into the 4th (center) position of the purple slots running vertically on the left side.

   (4) The **Red/yellow** wire – immediately above the Red/purple wire in the same purple slots.

   Turn the fuse box back around to its original position, and screw back into place with T30 torx.

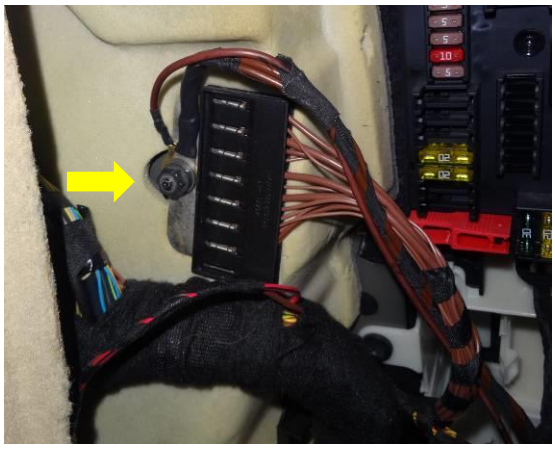
   Make sure all fuses are fully seated after insertion of the four Power Wires.

9. Locate the factory CANbus plug on the vehicle, and connect it to the CANbus Socket on the hitch harness.

   [*see photo in step 3 for location of vehicle plug*]

10. Attach Ground Wires of the hitch harness to the vehicle grounding stud.

    Requires 10mm socket.



11. Connect the cluster of 3 plugs on the hitch harness to the Controller at sockets “A”, “B”, and “C”. (Socket “D” is not used).

    Snap the Controller into an available slot in the vehicle’s white plastic module holder, below the fuse box.

12. Use the 8-inch zip ties to secure all slack in the hitch wiring harness to the vehicle harness in a manner to prevent any rattles.

    Replace the side trim panel, and replace the plastic storage bin if vehicle is so equipped.

The harness installation is complete.

Please note that the vehicle must be reprogrammed before the trailer lights will work properly.

A dash warning may appear until the vehicle is reprogrammed.