

## **Installation Instructions**

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August 2009

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Accessories, Electric Trailer Brake Controller

Ver 1.0

Accessory Development

#### **SUBJECT**

#### ELECTRIC TRAILER BRAKE CONTROLLER - P/N 82 11 0 420 082

#### **MODEL**

X5 (E70): Vehicle Production SOP-on\*
X6 (E71): Vehicle Production SOP-on\*

#### SUGGESTED INSTALLATION TIME: 1.25 HOURS

Total installation time may vary depending on vehicle options and equipment.

The instructions below are developed for BMW vehicles and are not to be compared to any other existing instructions for vehicles other than BMW. No methods other than those specified in this document are to be used for installation in BMW vehicles. Left and right are determined from the driver's seat.

Carefully read all instructions and supplements before proceeding with the installation. Reference should be made to TIS for instructions dealing with a stock part of the vehicle but not stated in detail in these instructions.

The instructions were complete and up to date at time of publication; however, changes to the vehicle or installation may have occurred. Please report any problems or changes noted with the installation to BMW Technical Hotline, along with VIN, date of manufacture and as much detail as possible.

WARNING: Electric trailer brake functionality cannot be checked until a trailer with electric brakes is connected to the vehicle. Settings and adjustments to the electric trailer brake controller must also be performed with a trailer connected to the vehicle.

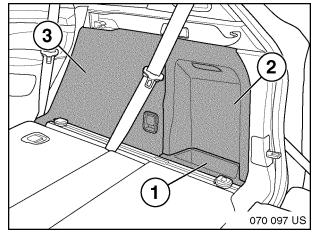
<sup>\*</sup> For use only with BMW NA approved trailer hitch kits.

## **PARTS INFORMATION**

### Contents of Kit - P/N 82 11 0 420 082

Description	Qty	<b>BMW Part Number</b>
Electric Trailer Brake Control	1	N/A
Wiring Harness	1	N/A
Mounting Bracket	1	82 11 0 420 085
Mounting Screws	2	N/A
Owner's Manual	1	01 41 2 152 589

#### **Vehicle Preparation**

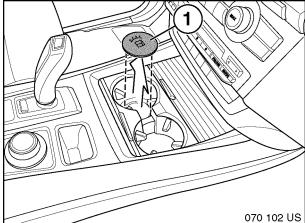


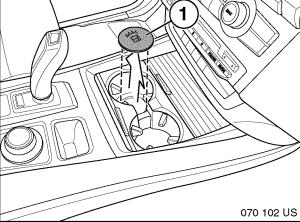
- 3 2 070 098 US
- 3 070 099 US
- 070 100 US

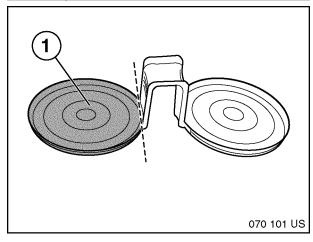
- 1. Disconnect vehicle battery.
- 2. Remove the following components using procedures available through TIS:
  - Storage pocket (1)
  - Fuse panel cover (2)
  - Cargo area trim (3)
- 3. Remove the following rear seating area trim panels:
  - Wheel arch trim (1)
  - Door sill/B pillar trim (2)
  - B pillar trim (3)
  - Air conditioning vent (4)

- 4. Remove the following right front seating area trim panels:
  - Door sill trim (1)
  - Kick panel (2)
  - Under dash trim (3)
  - Carpeted console trim (4)

5. Remove rubber base from cup holder (1).







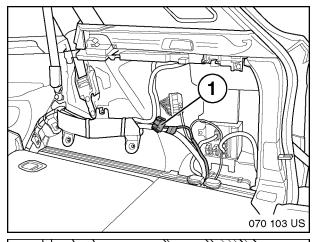
6. Remove transmission lock access cover (1).

### **Optional procedure**

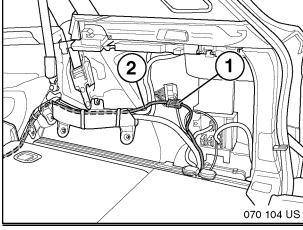
7. Cut away left side portion of base, and reinstall right side into cup holder.

Vehicle preparation complete

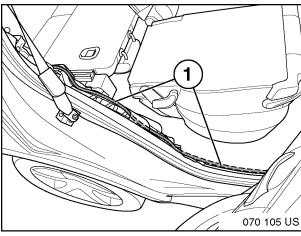
#### **Install Procedure**



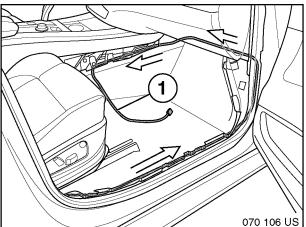
 Locate black 4 pin connector (1) from previously installed accessory trailer hitch wiring harness.



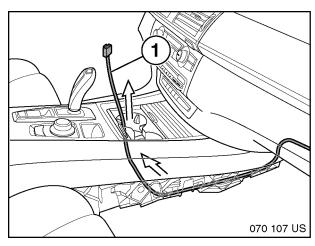
Connect electric trailer brake wiring harness
 to 4 pin connector (1). Route along other wire harness as shown.



3. Route harness (1) along right side of vehicle and secure to existing vehicle wiring harness.

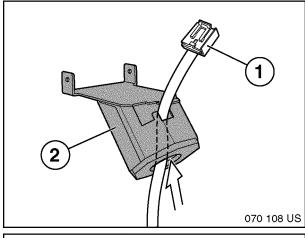


- 4. Continue harness routing across right side foot well, behind floor ducting.
- 5. Route remainder of harness (1) along right side of center console, into footwell area.

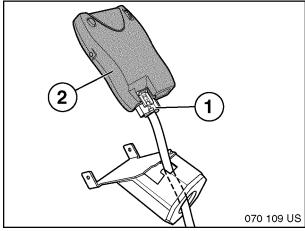


Note: Removal of left side carpeted center console trim may aid in wire routing for the next step.

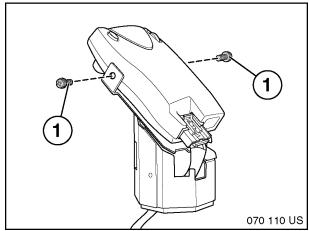
6. With a wire routing tool, or the help of an assistant, route remaining harness length (1) under center console, up through shift lock access hole in left side cup holder.



7. Insert harness connector (1) through the hole in bottom of controller mount bracket (2), up through rectangular hole in front of bracket.

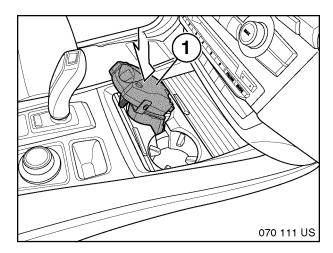


8. Insert harness connector (1) into brake control unit (2).



9. Position control unit into bracket, align mounting holes, install supplied screws (1).

Caution: Do not over tighten screws



- 10. While feeding excess harness length back through access hole, guide control unit/bracket assembly downward into cup holder until the bracket snaps into position, being held by the 4 spring loaded fingers.
- 11. Secure remaining harness length along center console ducting and existing vehicle wiring along firewall in passenger foot well.

**Installation Complete** 

#### **RETROFIT CODING**

There is no retrofit coding required for this installation.

#### **QUICK OPERATION (POWER UP) CHECK**

- Set vehicle ignition to accessory mode or engine ON mode
- Display on controller should flash "n.c." for 15 seconds
- After 15 seconds the display should change to ".."

If no display is present or if other characters are displayed please check electrical connections

WARNING: Complete electric trailer brake functionality cannot be checked until a trailer with electric brakes is connected to the vehicle. Settings and adjustments to the electric trailer brake controller must also be performed with a trailer connected to the vehicle.

# **Troubleshooting Chart**

Display	Situation	Probable Cause	
0.9	Flashes 2 times a second or a steady display.	Trailer is connected and BMW Electric Brake Control loses connection to battery ground.	
O.L	Flashes 2 times per second.	BMW Electric Brake Control "sees" an overload condition during operation.	
<b>5.</b> H	Flashes 2 times per second.	<ol> <li>Brake wire sees short during idle condition.</li> <li>Use of some test lights or non-BMW approved testers can cause this problem.</li> </ol>	
	The lower two bars flash	BMW Electric Brake Control is mounted at too low an angle.	
	The upper two bars flash	BMW Electric Brake Control is mounted at too high an angle.	
ח.כ.	Flashes for 15 seconds	<ol> <li>Trailer not connected to tow vehicle.</li> <li>Trailer connected with open circuit on brake line.</li> <li>Trailer connector disconnected or corroded.</li> <li>Loss of trailer brake magnet ground.</li> </ol>	
(Blank	No display with manual or pedal activation.	Loss of power to BMW Electric Brake Control.     Loss of ground to BMW Electric Brake Control.	
Display)	No display until activation	BMW Electric Brake Control is in power-saving mode due to no motion for fifteen minutes.	
0.0	No braking	Power control set to 0.	
P.L.	Power interruption while brake pedal is depressed.		