# **GENUINE Mazda Mobile Start**

# **INSTALLATION INSTRUCTIONS**

Thank you for purchasing a genuine Mazda accessory. Before removal and installation, be sure to thoroughly read these instructions. Please read the contents of this booklet in order to properly install and use the Mazda Mobile Start. Your safety depends on it. Keep these instructions with your vehicle records for future reference.



• There are several A WARNING and A CAUTION sections in this booklet concerning safely when installing or removing the Mazda Mobile Start. Always read and follow them in order to prevent injuries, accidents, and possible damage to the vehicle.

MARNING: Indicates a situation in which serious injury or death could result if the warning is ignored.

A CAUTION: Indicates a situation in which bodily injury or damage to the vehicle could result if the caution is ignored.

- For areas indicating the tightening torque in this instruction manual, tighten to the specified torque using a torque wrench. For areas in which the tightening torque is indicated inside parentheses (), the tightening torque is indicated as a reference value, however tightening using a torque wrench is not necessary.
- Do not modify the Mazda Mobile Start.
- Do not install the Mazda Mobile Start in any way other than described in the following instructions.
- If in any doubt, please ask your Mazda dealer to install the accessory in order to prevent errors in installation.
- If you have any questions about the use of the accessory, ask your Mazda dealer for proper advice before using it.
- Mazda and its suppliers are not responsible for injuries, accidents, and damage to persons and property that arise from the failure of the dealer or installer to follow these instructions.
- To ensure safety and reliability of the work, installation, removal and disposal work must carried out by an Authorized Mazda Dealership.
- Be careful not to lose removed parts, and be sure that they are kept free from scratches, grease or other dirt.

PART NAME : Mazda Mobile Start (MMS) VEHICLE : Mazda CX-3 / Mazda2 PART NUMBER : 0000-8F-Z80 (MMS ECU Kit) 0000-8F-P07 (MMS Harness Kit) [KD53-V7-629 (Hood Switch)]

#### -NOTE -

#### To the dealer

• Please turn over these instructions to the customer after installation.

#### To the customer

- Keep these instructions after installation. The instructions may be necessary for installing other optional parts or removal of this accessory.
- Should the vehicle or this accessory be resold, always leave these instructions with it for the next owner.

# 1. INSTALLATION VIEW



### 2. PARTS

#### - Note

• Verify that the kit includes all the following parts and that they are free of dirt, scratches, or damage.

#### MMS ECU KIT (Part no. 0000-8F-Z80)

Part	Part Name	Qty.	Part	Part Name	Qty.	Part	Part Name	Qty.
A DE LE	MMS ECU	1		Wire Tie (White 200mm)	5		Urethane Foam tape (35 x 115mm)	2
	Double-sided adhesive tape (25 x 69mm)	1		MMS Key Tag	1	$\bigcirc$	Double-sided adhesive tape (25 x 25mm)	3
	Owner's Manual	1			<u>.</u>			

#### HARNESS KIT (Part no. 0000-8F-P07)

Part	Part Name	Qty.	Part	Part Name	Qty.	Part	Part Name	Qty.
	MMS Harness	1		LED	1	$\bigcirc$	★ Harness Clamp	2
	FH Protection Sheet	1		GPS Film Antenna	1	Const Const	GPS Antenna Cable	1
	TEL Film Antenna	1	and a second	TEL Antenna Cable	1	No.	Antenna Template	1
	★ Electro tap	1		Wire Tie (White 200mm)	15		Urethane Foam tape (35 x 115mm)	4
	Installation Instructions (ENG/SPA/FRE)	3		A-Pillar Clip (D09W-68162)	1		★ Wire Tie (Black 200mm)	10

\*: Parts marked with a star mark are only used on vehicles without theft-deterrent or without i-ELOOP system.

#### (Sold separately) The following parts are also necessary for installation.

- Note
- These parts are not necessary for vehicles with theft-deterrent or with i-ELOOP system because the hood switch is already equipped.

#### HOOD SWITCH KIT (Part no. KD53-V7-629)

Part	Part Name	Qty.	Part	Part Name	Qty.
	Hood switch	1	EDIN	Screw	1

### **REQUIRED TOOLS**

- 10mm Socket Wrench Scissors
- Electrical Tape Panel Removal Tool

Primer (3M Promoter-4298)

- Torque Wrench
- · Soft clean cloth
- IPA (Isopropyl alcohol)
- Taped Flathead Screwdriver
- Mat
- Nipper
- · Phillips Screwdriver
- Squeegee Glass Cleaner

Pliers

When the negative battery cable is connected during operation, it may cause electric shock or other personal injuries. Disconnect the negative battery cable before removal/installation.	When connecting or disconnecting connectors, grasp the connectors, not the wires. Otherwise a short, an accident from poor contact or fire may occur.	Do not pull the harness with excessive force. Doing so can cause a breakage or a short- related accident, as well as an electrical short or fire.	Park the vehicle on a level ground. Set the vehicle on park (P) and apply the parking brake. Be sure to turn the ignition switch off, otherwise the vehicle can move, causing personal injury or vehicle damage.
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Using improper tools may cause damage and or broken parts. Use the correct tool for the job.	Wrap protective tape around screwdrivers and fastener removal tools to prevent scratching the vehicle.	Put the removed parts and the parts in the kit on the protective sheet to prevent scratches.	Excessive length of wire tie may interfere with other parts and cause damage. Cut unnecessary part up to about 5 mm {0.19 in} from the fixed point.
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<b>x</b>	54		



· When the negative battery cable is removed, the clock, radio, trim meters and other memories will be erased. Make sure to record the content of the memory.

Refer to the Workshop Manual for removal and installation of vehicle parts. Not following the procedures for removal/installation in the Workshop Manual could result in an accident or vehicle malfunction.

# 4. CONNECTION USING ELECTRO-TAP



Branch connection procedure using electro tap.

- Insert the vehicle wiring harness into the electro tap. 1.
- Fold the electro tap as shown in the figure and lock it. 2.

#### Caution -

- Firmly engage the lock part until a click sound is heard.
- 3. Insert the harness to the end of the electro tap.
- Firmly press the electro tap terminal using pliers. 4.
- Fold the electro tap in the direction of the arrow shown in 5. the figure and lock it.

# 5. CONNECTION DIAGRAM







(FEMALE PIN)



(FEMALE PIN)

F

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С 1X (TERMINAL PIN)



(MALE PIN)





(FEMALE PIN)



(FEMALE PIN)



(MALE PIN)

(FEMALE PIN)

TEL

### 6. VEHICLE DISASSEMBLY

#### - Note

• Be careful not to damage or lose any parts removed from the vehicle since they will be reused.



- 1. Place the vehicle in park with the parking brake set.
- 2. Disconnect negative battery terminal and wrap tape around it to insulate.

#### - 🕂 Warning -

• When the negative battery cable is connected during operation, it may cause electric shock or personal injuries. Disconnect the negative battery cable before removal / installation.

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Bolt tightening torque: 4.0 - 6.0 N·m (2.9 - 4.4 ft-lbf)
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#### Passenger side scuff plate removal

- 1. Use shaded area to pull (1) and lift (2) Passenger side Front Scuff Plate to detach Tab A and Clip A.
- 2. Use shaded area to pull (3) and lift (4) Passenger side Front Scuff Plate to detach Tab B and Clip B.



#### Passenger side front trim removal

- 1. Peel back the Seaming Welt.
- 2. Remove Cap Nut.
- 3. Remove Front Side trim.









#### Glove box removal

- 1. Push both sides of the Glove box then pull to dislodge 2 Hooks (B).
- 2. Remove the Glove box by pulling to dislodge 2 bottom Hooks (C).

3. Remove Glove box under cover in order of arrows (1-3).

#### **Decoration panel removal**

- 1. Place hand into the glove compartment opening and push out 3 clips (A) towards the rear of the vehicle.
- 2. Disengage the remaining clips (A) using the Removal tool.

3. Remove the decoration panel.

#### –<u>∕</u>∩Caution -

• If decoration panel is pulled out on one side, you will damage it, make sure to pull the whole panel straight out.



# Clip B Clip B Clip B Clip A Passenger Side A-Pillar

Vehicle Front

(1)



#### Passenger side lower panel removal

1. Remove 3 Screws and 1 Bolt.

Bolt tightening torque: 2.0 - 6.0 N•m (1.5 - 4.4 ft•lbf)

2. Remove lower panel by pulling in the order of arrows (1-4).

#### A-Pillar trim removal

- 1. Partially peel back the seaming welt.
- 2. Dislodge the Passenger side A-pillar trim by pulling on the shaded area to disengage Clip B and A.

#### – <u>/ C</u>aution –

• Do not use excessive force, A-pillar could be damaged.

- 3. Cut the A-pillar tab connecting part B and the grommet of the A-pillar tether clip.
- 4. Remove the A-pillar trim while detaching guides.



- 7. HOOD SWITCH INSTALLATION
- Note
- This procedure is not necessary for vehicles with Theft-deterrent System or with i-ELOOP system because the hood switch is already installed.



1. Remove Hood latch cover by using a tape-wrapped flat head screwdriver to detach the 2 tabs.

- Bolts Bolts Fresh air duct
- 2. Remove 2 Bolts from the Fresh air duct.

Bolt tightening torque: 7.8 - 10.8 N•m (5.7 - 7.9 ft•lbf)

- 5. Remove the Grommet from the A-pillar by using a flat head screwdriver by following sequence (1) (3).
- 6. Install the new supplied A-pillar tether clip into A-pillar trim before proceeding.
  - \_\_\_\_\_\_Caution —
  - Ensure the new supplied tether clip is used in step 6.



3. While pressing the tab, lift the relay and fuse block cover to remove it.

- 4. Install the Hood switch to the hood latch and secure it using the supplied Screw.
- 5. Hook the Hood switch harness to the Hood latch and secure it using a wire tie (black).

6. Peel the tape backings from the harness clamps and affix them on the shroud at 2 locations.

#### – <u>/</u>Caution -

 Clean attachment surface using isopropyl alcohol and cleaning towel.

- 7. Route the hood switch harness securing it to the 2 harness clamps. Press firmly on clamp tabs to ensure secure retention of hood switch harness.
- 8. Lift the fresh air duct to route the hood switch harness between fresh air duct and the shroud.



#### CX-3

9. Route the hood switch harness along the vehicle wiring harness and secure it with 3 wire ties (black).

#### Mazda2

9. Route the hood switch harness along the vehicle wiring harness and secure it with 3 wire ties (black).



 Insert the hood switch harness (white) terminal to the empty terminal of the vehicle wiring harness 18 pin connector (terminal F).

#### - <u>/</u>Caution

- When connecting a terminal to a connector, always refer to the following, <Terminal insertion procedure>.
- Connect the harness terminal to the specified signal line because a system or vehicle malfunction may occur if it is connected incorrectly.
- Branch connect the hood switch harness (Black) to the vehicle wiring harness 18 pin connector (terminal A (Black)) using an electro tap, and wrap the electro tap using electrical vinyl tape.

#### – <u>/</u>Caution -

- Connect the electro tap to the specified signal line because a system or vehicle malfunction may occur if it is connected incorrectly.
- For branch connection procedure using electro tap, refer to [4. CONNECTION USING ELECTRO TAP] on page 4.





#### CX-3

- 12. Secure hood switch harness to vehicle harness with 1 wire tie (black).
- 13. Bundle up excess hood switch harness and secure to the vehicle harness using 1 wire tie (black) between the vehicle harness clip and vehicle harness branch.

#### Mazda2

- 12. Secure hood switch harness to vehicle harness with 1 wire tie (black).
- 13. Bundle up excess hood switch harness and secure to the vehicle harness with 1 wire tie (black) just below the vehicle harness clip.

# 8. MAZDA MOBILE START INSTALLATION



#### **GPS and TEL Antenna Installation**

1. Place the Antenna template face down on the windshield outside the vehicle, aligning to the passenger side A-pillar and the top right corner with the headliner temporarily secure it with electrical tape.









- 20. Cut the FH Protection sheet in half.
- 21. Wrap the Antenna cables starting from the bottom of the A-pillar using the 2 pieces of 1/2 FH Protection sheet.
- 22. Secure the FH Protection sheet using electrical tape.

- 23. Secure the GPS & TEL Antenna Cables to the vehicle harness using 2 wire ties (white).
- 24. Route both GPS & TEL Antenna Cables down towards the Glove box area.

- 25. Continue routing the Antenna cables from the A-pillar behind the IP reinforcement bar.
- 26. Secure the Antenna Cables along the Vehicle Harness using 2 wire ties (white).

#### **MMS Harness Installation**

27. Install the MMS harness Ground terminal to the Vehicle ground terminal bolt.

#### Bolt tightening torque: 8.8 - 12.7 N·m (6.4 - 9.3 ft-lbf)

28. Secure the MMS Harness Ground wire to the Vehicle Harness using the 1 wire tie (white).



29. Plug in MMS harness 2P connector to Vehicle Harness 2P Pre-connector.

#### - Note

• The 2P Pre-connector is located either in front or back of the vehicle harness depending on vehicle specs.

- 30. Secure the MMS Harness to the Vehicle Harness using 1 wire tie (white).
- 31. Secure the MMS Harness to the Vehicle Harness along the lower HVAC area using 2 wire ties (white).

- 32. Route the MMS Harness along the rear side of the Vehicle Harness and secure using 1 wire tie (white).
- 33. Secure the Antenna Cables and MMS Harness together with the Vehicle Harness using 1 wire tie (white).

#### **MMS ECU Installation**

- 34. Apply 1/2 Urethane foam tape on the MMS ECU.
- 35. Rotate the MMS ECU and apply 1 Urethane Foam tape as shown.





36. Plug in the MMS harness 24P connector, TEL and GPS connectors to the MMS ECU.

# Vehicles without protective pad on glove box undercover (Steps 37 to 41)

37. Degrease the Glove Box under cover using primer; apply primer only to indicated areas where double sided tape will be attached.

#### ─ ⚠ Caution —

- Use 3M Promoter-4298 for primer.
- When degreasing using primer, only apply primer to indicated area to prevent other parts from becoming discolored.
- After degreasing using primer, let it dry for 1 min. or more.
- 38. Apply 3 Double-sided adhesive tapes (25 x 25 mm) to the Glove Box under cover on 3 locations.
- 39. Degrease the bottom of the MMS ECU using primer.
- 40. Place the MMS ECU on Glove Box undercover as shown and ensure Double-sided adhesive tape secures MMS ECU to the Glove Box undercover.

#### - Note -

Ensure ECU is properly aligned as shown.

#### – <u>∕</u>£Caution —

- Ensure MMS ECU harness connector, GSM and TEL connectors are plugged into the MMS ECU before attaching to the Glove Box under cover.
- 41. Apply 2 Urethane Foam tapes to secure the MMS Harness, GPS and TEL cables on the Glove Box under cover as shown.









# Vehicles with protective pad on glove box undercover (Steps 42 to 50)

42. Peel off part of the protective pad and clean off adhesive residue from the glove box undercover.

#### - <u>/ C</u>aution -

- Use 3M Promoter-4298 for primer.
- When degreasing using primer, only apply primer to indicated area to prevent other parts from becoming discolored.
- After degreasing using primer, let it dry for 1 min. or more.
- 43. Degrease the indicated areas of Glove Box under cover using primer.
- 44. Apply 3 Double-sided adhesive tapes (25 x 25 mm) to the Glove Box under cover on 3 indicated locations.
- 45. Degrease the bottom side of the MMS ECU using primer.
- 46. Place the MMS ECU on Glove Box undercover as shown and ensure Double-sided adhesive tape secures MMS ECU to the Glove Box undercover.

- Note -

• Ensure ECU is properly aligned as shown.

#### −<u>∕</u>Caution

- Ensure MMS ECU harness connector, GSM and TEL connectors are plugged into the MMS ECU before attaching to the Glove Box under cover.
- 47. Apply the Double-sided adhesive tape (25 x 69mm) on the MMS ECU as indicated.
- 48. Reapply the protective cover over the MMS ECU securing it with the Double-sided tape.

- 49. Cut 1 Urethane foam tape into 2/3 size.
- 50. Apply 1 and the 2/3 sized Urethane Foam tapes to secure the MMS Harness, GPS and TEL cables on the Glove Box under cover.



MMS Harness LED

- 51. Bundle up the excess Antenna Cables and secure with Electrical tape.
- 52. Secure the bundled up Antenna Cable to the vehicle harness using 2 wire ties (white).

53. Connect the LED to the MMS Harness 2P White connector.

Complete Section 9 {MMS Registration Procedure} & Section 10 {MMS Check Mode} before proceeding to Section 11 {Reinstallation/Inspection}

# 9. MMS REGISTRATION PROCEDURE

#### Make sure of the following conditions:

- 1. In possession of 2 Advanced Keys that are already registered to the vehicle.
- 2. Do not open any doors during MMS registration procedure.

	Steps		MMS Registration Procedure	Response when successful	Response when it fails
	1		<ul> <li>Connect the negative battery cable and close the hood.</li> <li>Enter vehicle's passenger side and close the door.</li> <li>MMS Harness LED lights up, wait 30 seconds until the LED light turns off</li> </ul>	30 Seconds	
Steps 3 - 6 must be completed within 60 seconds of completion of Step 2.	2	2X Within 10 Seconds	<ul> <li>Connect and disconnect the RES Diagnostic Connectors twice within 10 seconds.</li> <li>MMS Harness LED makes 2 flashes.*</li> <li>If the MMS Harness LED did not flash, this procedure has failed.</li> <li>Disconnect the battery and start over from step 1.</li> </ul>	2X	
	3	ON ®	<ul> <li>Hold up the Advanced Key over the Start Button switch, then press the Start Button with the Advanced Key twice to the ON position.</li> <li>Security indicator turns ON for 3 seconds, then turns off</li> <li>If Security indicator does not turn ON, this procedure has failed.</li> <li>Disconnect the battery and start over from step 1.</li> </ul>	Security Indicator ON for 3 Seconds	OFF
	4	OFF	<ul> <li>Within 4 seconds of the security indicator turning off, press the Start Button with the Advanced Key to the OFF position.</li> <li>The Security indicator flashes.</li> <li>If Security indicator does not flash, this procedure has failed.</li> <li>Disconnect the battery and start over from step 1.</li> </ul>	Security Indicator Flashing	OFF
6 mu	5		Repeat steps 3 and 4 for the 2nd Advanced Key.		
Steps 3 - 60 secor	6	Connect for 3 Seconds	<ul> <li>After both Advanced keys have been authenticated, connect the RES Diagnostic Connectors for at least 3 seconds then disconnect. Observe the number of flashes from the MMS Harness LED.</li> <li>MMS Harness LED flash 2 times and Start Button light will turn ON automatically for a few seconds then shuts off, indicating a successful registration. Proceed to next section MMS Check Mode.</li> <li>If this procedure failed, the ignition switch stays OFF. Look at the table below to determine the cause of failed registration.</li> <li>Check and fix the cause of failed registration.</li> <li>Disconnect the battery and start over from step 1.</li> </ul>	2X on Start Stop Engine	1,3,4,5,6,7 1, 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

# of LED Flashes	Cause of Failed Registration
1	Missed operation or step
3	3 or more MMS ECU's have already been registered to the vehicle
4	Vehicle condition is not satisfied or MMS ECU is already registered (proceed to MMS Check Mode)
5	Time limit have elapsed
6	Advanced Keys are not registered.
7	Communication error between MMS and SSU.

\*If LED makes 5 flashes on step 2, refer to table above for 3 flashes.

#### [After a successful MMS registration, proceed to next section for MMS Check Mode]

# 10. MMS CHECK MODE

The following procedure is performed to verify MMS operation after MMS registration. Make sure that MMS Registration was successful prior to proceeding.

#### MMS check mode preparations:

- 1. Place 1 Advanced Key at least 5 feet away from the vehicle and keep 1 Advanced key in your possession.
- 2. Close the hood, enter the vehicle's passenger side and leave the door open.
- 3. Press the hazard lights switch on the center console and take note of where the hazard light indicators are on the dash. Turn off hazard lights.

	Steps		MMS Check Mode	Response when successful	Response when it fails
erep z must be completed within 15 seconds of completion of step 1.	1	Disconnect After 10 Seconds	<ul> <li>A. Connect RES Diagnostic connectors.</li> <li>B. After 10 seconds, disconnect and reconnect the RES Diagnostic connectors. <ul> <li>Horn will sound 2 times.</li> </ul> </li> <li>If the Horn does not sound, this procedure has failed. <ul> <li>Disconnect the Diagnostic connectors and start over.</li> </ul> </li> </ul>	2X /	
	2	PUSH 3X	<ul> <li>A. Press the Start Button 3 times to switch ignition to ON and OFF.</li> <li>B. Exit the vehicle with the Advanced key and place it at least 5 feet away from the vehicle.</li> <li>C. Enter the vehicle and close the door. <ul> <li>Horn will sound 2 times.</li> <li>Horn will sound 2 times again before the engine starts.</li> </ul> </li> <li>If the engine does not start or horn does not sound, this procedure has failed. <ul> <li>Disconnect the Diagnostic connectors and start over from step 1.</li> </ul> </li> </ul>		
	3		<ul> <li>A. Let the engine run for at least 6 seconds.</li> <li>B. Disconnect the Diagnostic connectors and observe Hazard lights for number for flash.</li> <li>Engine stops, check table below for corresponding hazard light flashes.</li> </ul>		

# Hazard Flashes	Meaning of Hazard Flashes
2	Check mode successful
4	Communication Module and MMS ECU connection problem
6	TEL antenna connection problem
8	GPS antenna connection problem
10	Inadequate reception problem

#### MMS Check mode will end if any of the following conditions are met:

- 1. Engine has stopped when any one of the MMS engine stop conditions is met.
- 2. 10 minutes have elapsed.
- 3. RES Diagnostic connectors are disconnected.
- 4. MMS check mode will end if starting engine via MMS failed.

# **11. REINSTALLATION / INSPECTION**





Lower panel (Passenger's side) Glove compartment Standard value: 0.5-2.5mm



1. Disconnect the LED from the MMS Harness and discard

- 2. Secure MMS harness LED connector to the vehicle harness with 1 wire tie (white).
- 3. Secure the RES Diagnostic connectors to the vehicle harness with 1 wire tie (white).

- 4. Reinstall parts in the reverse order of the installation procedure [Section 6 Vehicle Disassembly].
- 5. After installing the passenger's side lower panel and glove compartment, measure the clearance, and verify that the measurement value is within the specification shown in the figure.

#### —<u>/</u>↑ Caution \_

- If the measurement value is not within the specification after measuring the clearance between the passenger's side lower panel and glove compartment, adjust the passenger's side lower panel to the proper position.
- Refer to "Required servicing after disconnection/ connecting negative battery cable" in the vehicle workshop manual or the owner's manual to restore the vehicle functions.
- 7. Attach key tag to Advanced Key.

Date:			
VIN:			
Approved	Checked	Person in charge	

# INSTALLATION INSPECTION SHEET

Mazda CX-3 Mazda2

# Mazda Mobile Start (MMS)

0000-8F-Z80 (MMS ECU Kit) 0000-8F-P07 (MMS Harness Kit) KD53-V7-629 (Hood Switch)

Check

Perform the following inspections.

#### 

- Before starting the engine, make sure there are no persons in front of or behind the vehicle, or around the engine compartment. Otherwise a serious accident could result by the vehicle suddenly moving.
- Do not start the engine in a place like a garage or other placer with poor ventilation. Otherwise, poisoning or asphyxation could result from accumulation of exhaust gas.
- Always set the wheel blocks on level ground before performing the verification.

#### 1. Inspection items after installation

• Verify the fitting between the vehicle part and the installed part, and inspect for damage or dirt.

2.	Vehicle	parts	reinstallation
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Inspection Parts	Inspection Items	Inspection	Check
Negative battery cable	Torque check	Are the battery cables securely tightened to the terminals?	
Ground	Torque check	Is the ground bolt tightened to the proper torque?	
Function restore procedure after removal / Installation of battery	Operation	Have the vehicle's functions been restored by referring to "Required servicing after disconnecting connecting negative battery cable", in the workshop manual or the owner's manual?	

#### 3. Installation of accessory, operation check

Inspection Parts	Inspection Items	Inspection	Check
MMS ECU	Registration	Has the MMS ECU been registered and checked per Section 9 (MMS Registration Procedure) and Section 10 (MMS Check Mode) of the installation instructions?.	