

2012 - Mazda6 - Body and Accessories

IMMOBILIZER SYSTEM-RELATED PARTS PROGRAMMING [KEYLESS ENTRY SYSTEM]

Foreword

- When replacing immobilizer system-related parts or programming an additional key, program the immobilizer system-related parts so that the system operates normally. For immobilizer system-related parts programming, select the programming procedures according to the service. (See [Selection of Procedure for Immobilizer System-Related Parts Programming](#).)

CAUTION:

- The engine cannot be started if any step or procedure for each service operation is skipped. Perform all procedures in the order of the steps.
- If any metallic or magnetic object is near the key, communication between the key and the vehicle may be obstructed, resulting in a failure to program the immobilizer system-related parts. Remove any metallic or magnetic objects, such as key holders, from the key when programming immobilizer system-related parts.
- If any of the following devices are inside the vehicle, programming of immobilizer system-related parts may fail. Do not bring any of the following devices or similar products inside the vehicle when programming immobilizer system-related parts.
 - M-MDS
 - Personal computer
 - Devices that can send/receive radio waves
- If the engine is started during immobilizer system-related parts programming, the programming mode cancels. Therefore, do not start the engine unless indicated in the procedure. Repeat the procedure from the beginning if the engine is started during the immobilizer system-related parts programming.

NOTE:

- The "Valid key" referred to in this manual indicates the key that can start the engine.
- Two or more key ID numbers must be programmed for the engine to start.
- A maximum of eight key ID numbers can be programmed for one vehicle.
- The number of programmed key ID numbers can be verified using the M-MDS.
- Do not select any screen menu other than the ones indicated in the procedure during M-MDS operation.

Selection of Procedure for Immobilizer System-Related Parts Programming

1. Verify that the room fuse is equipped.
2. Select the applicable programming procedure from the service content of the immobilizer system-

related parts.

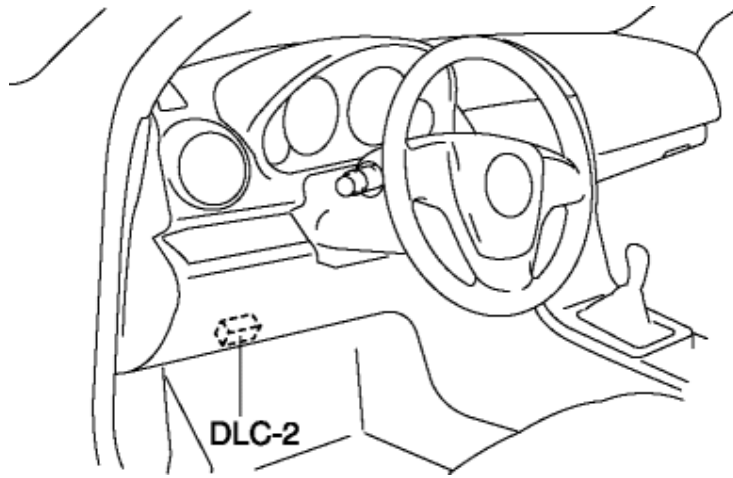
Immobilizer System-Related Parts Service and Programming Procedure Table

No.	Service		Programming procedure
1	Additional key programming	Have two or more valid keys	(See No.1 Additional Key Programming Procedure (Using Two Valid Keys) .)
2		Have one valid key or none	(See No. 2 Additional Key Programming Procedure (Using the M-MDS) .)
3	Additional key programming procedure setting	Disable programming using valid keys	(See No.3 Additional Key Programming Procedure Changing .)
		Enable programming using valid keys	
4	Programming due to PCM replacement		(See No.4 Programming Procedure Due to PCM Replacement .)
5	Programming due to instrument cluster replacement		(See No.5 Programming Procedure Due to Instrument Cluster Replacement .)
6	Programming due to simultaneous replacement of immobilizer system-related parts • PCM • Instrument cluster		(See No.6 Programming Procedure Due to Simultaneous Replacement of Immobilizer System-related Parts (PCM and Instrument Cluster) .)
7	Programming due to coil antenna replacement		Programming of immobilizer system-related parts is not necessary

M-MDS Connecting Procedure

NOTE:

- Do not place the M-MDS in the vehicle while programming the immobilizer system.
1. Fully lower the door glass.
 2. Connect the M-MDS (IDS) to the DLC-2.



3. Place the M-MDS (IDS) outside the vehicle.

CAUTION:

- Cover the vehicle body with a clean rag so as not to damage the vehicle body with the cable.

No.1 Additional Key Programming Procedure (Using Two Valid Keys)

CAUTION:

- The engine cannot be started if any step or procedure is skipped. Perform all procedures in the order of the steps.

Conditions

- Have two or more valid keys.

NOTE:

- If a key ID number cannot be programmed and DTC 15 is displayed, the maximum number of programmed keys may have been reached. Verify the number of programmed keys using the M-MDS.
- If eight keys have already been programmed and it is necessary to program other keys, the previously programmed key ID numbers must first be cleared.
- If "Customer spare key programming disable" is selected, perform additional key programming using the M-MDS. (See **No. 2 Additional Key Programming Procedure (Using the M-MDS)**.)

Procedure

VALID KEY	  KEY 1 KEY 2
KEY FOR REGISTRATION	 KEY 3

Step	Procedure	Action after procedure	
1	LAUNCH PROGRAMMING MODE • Switch the ignition to ON using key 1. • After verifying that the security light illuminates for approx. 3 s and turns off, switch the ignition off within approx. 4 s using key 1. • Remove key 1. • Switch the ignition to ON using key 2. • After verifying that the security light illuminates for approx. 3 s and turns off, switch the ignition off within approx. 4 s using key 2. • Remove key 2.	Go to the next step.	
2	PERFORM ADDITIONAL KEY PROGRAMMING • Switch the ignition to ON using key 3. • Verify that the security light illuminates for approx. 3 s, and then turns off. • Remove key 3. • Are there other keys to be programmed?	Yes	Go back to Step 1.
		No	Go to the next step.
3	VERIFY THAT ANY KEY IS PROGRAMMED • Verify that the engine can start and run for 5 s or more using all the programmed keys. NOTE: • When verifying that the engine starts, wait at least 5 s or more before	Procedure is completed	

	starting the engine using the next key.	
--	---	--

No. 2 Additional Key Programming Procedure (Using the M-MDS)

CAUTION:

- The engine cannot be started if any step or procedure is skipped. Perform all procedures in the order of the steps.

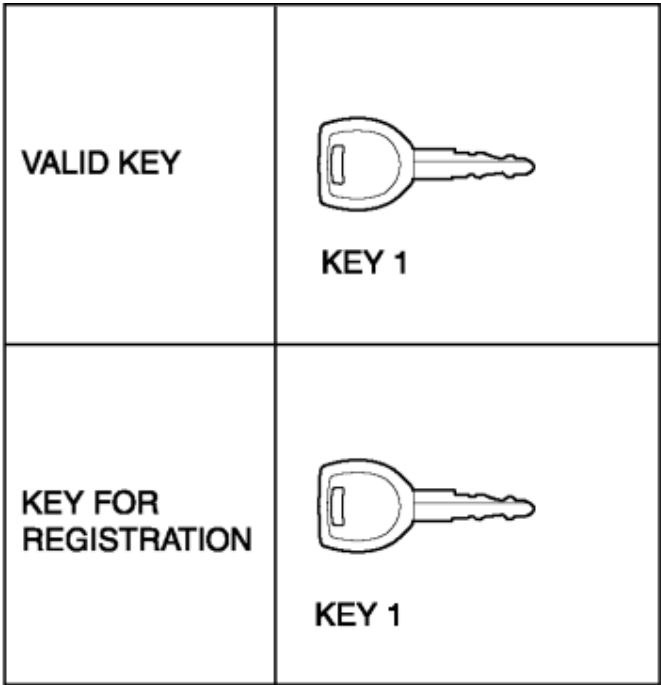
Conditions

- There is only one valid key, or none.

NOTE:

- If a key ID number cannot be programmed and DTC 15 is displayed, the maximum number of programmed keys may have been reached. Verify the number of programmed keys using the M-MDS.
- If eight keys have already been programmed and it is necessary to program other keys, the previously programmed key ID numbers must first be cleared.

Procedure



Step	Procedure	Action after procedure	
1	PERFORM ADDITIONAL KEY PROGRAMMING • Connect the M-MDS (IDS) to the DLC-2. (See M-MDS Connecting Procedure)	Yes	Change the key and repeat Step 1. NOTE: • Additional key programming can be

	• Switch the ignition to ON using key 1. NOTE: • Although the security light starts flashing and DTC 15 is displayed after approx. 1 min, this does not indicate an improper procedure. Continue to perform the procedure as indicated. • After the vehicle is identified, select the following items from the initial screen of the M-MDS. ▪ When using the IDS (laptop PC): ▪ Select the "Body" ▪ Select the "Security" ▪ Select the "PATS Functions" • Then, select an item from the screen menu. item • Program Additional Ignition Key • Perform the security access according to the directions on the M-MDS screen. NOTE: • After executing the above menu, "This operation is successful" is displayed. This indicates that the programming of the key that currently has the ignition switched on is completed. • After verifying that the PATS function menu is displayed again on the M-MDS screen, switch the ignition off. • Remove key 1. • Are there other keys to be programmed?	performed using the procedure in No.1 Additional Key Programming Procedure (Using Two Valid Keys).
2	CLOSE THE M-MDS • After verifying that the PATS function menu is displayed again on the M-MDS screen, select "Finish (this menu)".	No Go to the next step. Go to the next step.

	Switch the ignition to off.	
3	VERIFY THAT ANY KEY IS PROGRAMMED Verify that the engine can be started with the programmed key. NOTE: When verifying that the engine starts, wait at least 5 s or more before starting the engine using the next key.	Procedure is completed

No.3 Additional Key Programming Procedure Changing

NOTE:

- This procedure is performed for disabling the No.1 Additional Key Programming Procedure (Using Two Valid Keys).
- The setting is "Customer spare key programming enable" when the vehicle is new or the keyless control module is replaced with a new one.

Procedure

Step	Procedure	Action after procedure
1	CHANGE CUSTOMER SPARE KEY PROGRAMMING PROCEDURE - Connect the M-MDS (IDS) to the DLC-2. (See M-MDS Connecting Procedure.) - Switch the ignition ON using a key (the key can be either the valid key or an unprogrammed key). NOTE: - If an unprogrammed key is used, the security light starts flashing and DTC 15 is displayed after approx. 1 min. However, this does not indicate an improper procedure. Continue to perform the procedure as indicated. - After the vehicle is identified, select the following items from the initial screen of the M-MDS. - When using the IDS (laptop PC): - Select the "Body" - Select the "Security" - Select the "PATS Functions"	Procedure is completed

Select either of the following from the M-MDS menu to change the additional key programming procedure.

- When "Customer Spare Key Programming Enable" is selected:
The additional key programming procedure using valid keys is enabled.
 - When "Customer Spare Key Programming Disable" is selected:
The additional key programming procedure using valid keys is disabled.
- Perform the security access according to the directions on the M-MDS screen.
 - After verifying that the PATS function menu is displayed again on the M-MDS screen, select "Finish (this menu)".
 - Switch the ignition to off.

No.4 Programming Procedure Due to PCM Replacement

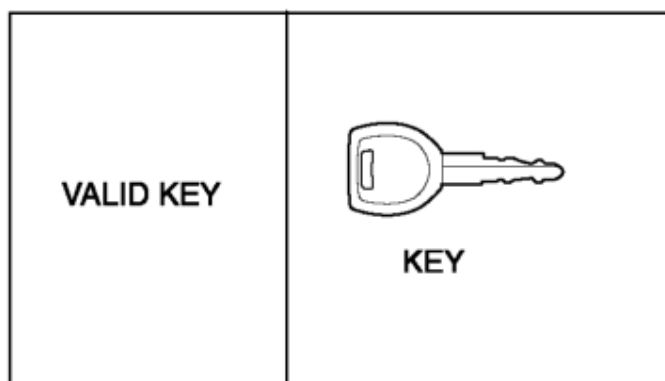
CAUTION:

- The engine cannot be started if any step or procedure is skipped. Perform all procedures in the order of the steps.

Conditions

- Have two or more valid keys.

Procedure



Step	Procedure	Action after procedure
1	REPLACE PCM Refer to PCM removal/installation to perform PCM replacement and configuration. (See PCM REMOVAL/ INSTALLATION [MZR 2.5] .) (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6] .)	Go to the next step.

2	PERFORM PARAMETER RESET • Connect the M-MDS (IDS) to the DLC-2. (See M-MDS Connecting Procedure.) • Turn the ignition switch to the ON position using a key (The key can be either the valid key) NOTE: • Although the security light remains illuminated and DTC 23 is displayed after approx. 1 min, continue to perform the procedure as indicated. • After the vehicle is identified, select the following items from the initial screen of the M-MDS. ▪ When using the IDS (laptop PC): ▪ Select the "Body" ▪ Select the "Security" ▪ Select the "PATS Functions" • Then, select an item from the screen menu. item • Parameter Reset • Perform the security access according to the directions on the M-MDS screen. • Select the replaced parts "PCM" according to the directions on the M-MDS screen. CAUTION: • At this time, do not select the other parts from the M-MDS menu. • After verifying that the PATS function menu is displayed again on the M-MDS screen, select "Finish (this menu)". • Switch the ignition to off. • Switch the ignition to ON. • Verify that the security light illuminates for approx. 3 s, and then turns off. • Switch the ignition to off.	Go to the next step.	
3	VERIFY THAT THE KEY IS PROGRAMMED TO THE PCM • Verify that the engine can be started with all the keys. • Can the engine be started?	Yes No	Procedure is completed Perform the corresponding DTC inspection to repair the malfunctioning part.

No.5 Programming Procedure Due to Instrument Cluster Replacement

CAUTION:

- The engine cannot be started if any step or procedure is skipped. Perform all procedures in the order of the steps.

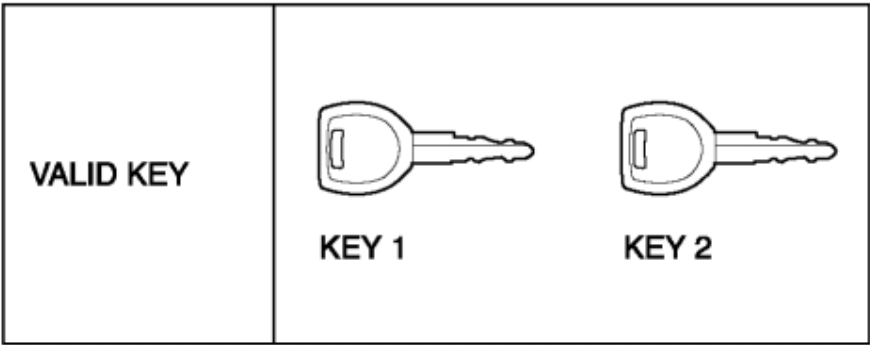
NOTE:

- Since two or more keys need to be programmed to start the engine, program two or more keys after the replacement.

Conditions

- Have two or more keys to be programmed after the replacement.

Procedure



Step	Procedure	Action after procedure
1	REPLACE INSTRUMENT CLUSTER Refer to instrument cluster removal/installation to perform instrument cluster replacement and configuration. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION.) (See INSTRUMENT CLUSTER CONFIGURATION.)	Go to the next step.
2	PERFORM PARAMETER RESET • Connect the M-MDS (IDS) to the DLC-2. (See M-MDS Connecting Procedure.) • Turn the ignition switch to the ON position using a key (The key can be either the valid key) NOTE: • Although the security light remains illuminated and DTC 15 is displayed after approx. 1 min, continue to perform the procedure as indicated.	

	• After the vehicle is identified, select the following items from the initial screen of the M-MDS. ▪ When using the IDS (laptop PC): ▪ Select the "Body" ▪ Select the "Security" ▪ Select the "PATS Functions" • Then, select an item from the screen menu. item • Parameter Reset • Perform the security access according to the directions on the M-MDS screen. • Select the replaced parts "IC" according to the directions on the M-MDS screen. CAUTION: • At this time, do not select the other parts from the M-MDS menu. • Verify that the PATS function menu is displayed again on the M-MDS screen.	Go to the next step.	
3	CLEAR IGNITION KEY ID NUMBERS • Select "Ignition Key Code Erase and Program" from the M-MDS screen menu. • Clear the ignition key code according to the directions on the M-MDS.	Go to the next step.	
4	PERFORM IGNITION KEY ID NUMBER PROGRAMMING • Program two keys according to the directions on the M-MDS. • After verifying that the PATS function menu is displayed again on the M-MDS screen, select "Finish (this menu)". • Switch the ignition to off. • Switch the ignition to ON. • Verify that the security light illuminates for approx. 3 s, and then turns off. • Switch the ignition to off. • Disconnect the M-MDS from the DLC-2.	Go to the next step.	
5	VERIFY THAT ANY KEY IS PROGRAMMED • Verify that the engine can be started with all the keys.	Yes	Procedure is completed
			Perform the corresponding

	Can the engine be started?	No	DTC inspection to repair the malfunctioning part.
--	--	----	---

No.6 Programming Procedure Due to Simultaneous Replacement of Immobilizer System-related Parts (PCM and Instrument Cluster)

CAUTION:

- The engine cannot be started if any step or procedure is skipped. Perform all procedures in the order of the steps.

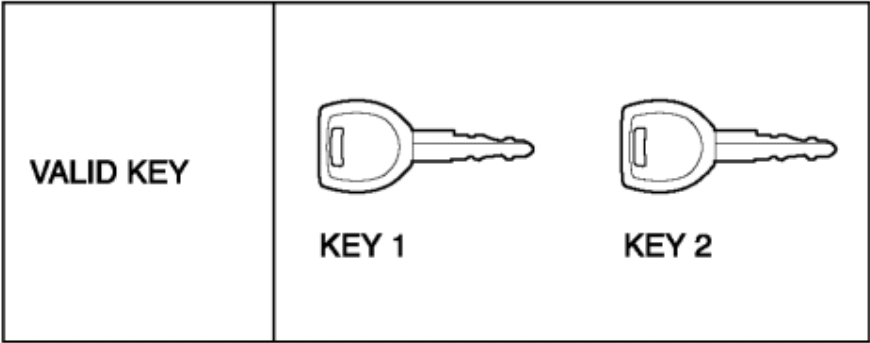
NOTE:

- Since two or more keys need to be programmed to start the engine, program two or more keys after the replacement.

Conditions

- Have two or more keys to be programmed after the replacement.

Procedure



Step	Procedure	Action after procedure
1	REPLACE INSTRUMENT CLUSTER Refer to instrument cluster removal/installation to perform instrument cluster replacement and configuration. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION .)	Go to the next step.
2	REPLACE PCM Refer to PCM removal/installation to perform PCM replacement and configuration. (See PCM REMOVAL/ INSTALLATION [MZR 2.5] .) (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6] .)	Go to the next step.
3	PERFORM PARAMETER RESET Connect the M-MDS (IDS) to the DLC-2.	

	(See M-MDS Connecting Procedure.) - Switch the ignition to ON using a valid key. NOTE: - Although the security light remains illuminated and DTC 15 is displayed after approx. 1 min, continue to perform the procedure as indicated. - After the vehicle is identified, select the following items from the initial screen of the M-MDS. - When using the IDS (laptop PC): - Select the "Body" - Select the "Security" - Select the "PATS Functions" - Then, select an item from the screen menu. item - Parameter Reset - Perform the security access according to the directions on the M-MDS screen. - Select the replaced parts according to the directions on the M-MDS screen. - If the instrument cluster is replaced: Select "IC". - If the PCM is replaced: Select "PCM". CAUTION: - At this time, do not select the other parts from the M-MDS menu. - Verify that the PATS function menu is displayed again on the M-MDS screen.	Go to the next step.
4	CLEAR IGNITION KEY ID NUMBERS - Select "Ignition Key Code Erase and Program" from the M-MDS screen menu. - Clear the ignition key code according to the directions on the M-MDS.	Go to the next step.
5	PERFORM IGNITION KEY ID NUMBER PROGRAMMING - Program two keys according to the directions on the M-MDS. - After verifying that the PATS function menu is displayed	

	again on the M-MDS screen, select "Finish (this menu)". • Switch the ignition to off. • Switch the ignition to ON. • Verify that the security light illuminates for approx. 3 s, and then turns off. • Switch the ignition to off. • Disconnect the M-MDS from the DLC-2.	Go to the next step.	
6	VERIFY THAT ANY KEY IS PROGRAMMED • Verify that the engine can be started with all the keys. • Can the engine be started?	Yes	Procedure is completed
		No	Perform the corresponding DTC inspection to repair the malfunctioning part.

2012 - Mazda6 - Body and Accessories

IMMOBILIZER SYSTEM-RELATED PARTS PROGRAMMING [KEYLESS ENTRY SYSTEM]

Foreword

- When replacing immobilizer system-related parts or programming an additional key, program the immobilizer system-related parts so that the system operates normally. For immobilizer system-related parts programming, select the programming procedures according to the service. (See [Selection of Procedure for Immobilizer System-Related Parts Programming](#).)

CAUTION:

- The engine cannot be started if any step or procedure for each service operation is skipped. Perform all procedures in the order of the steps.
- If any metallic or magnetic object is near the key, communication between the key and the vehicle may be obstructed, resulting in a failure to program the immobilizer system-related parts. Remove any metallic or magnetic objects, such as key holders, from the key when programming immobilizer system-related parts.
- If any of the following devices are inside the vehicle, programming of immobilizer system-related parts may fail. Do not bring any of the following devices or similar products inside the vehicle when programming immobilizer system-related parts.
 - M-MDS
 - Personal computer
 - Devices that can send/receive radio waves
- If the engine is started during immobilizer system-related parts programming, the programming mode cancels. Therefore, do not start the engine unless indicated in the procedure. Repeat the procedure from the beginning if the engine is started during the immobilizer system-related parts programming.

NOTE:

- The "Valid key" referred to in this manual indicates the key that can start the engine.
- Two or more key ID numbers must be programmed for the engine to start.
- A maximum of eight key ID numbers can be programmed for one vehicle.
- The number of programmed key ID numbers can be verified using the M-MDS.
- Do not select any screen menu other than the ones indicated in the procedure during M-MDS operation.

Selection of Procedure for Immobilizer System-Related Parts Programming

1. Verify that the room fuse is equipped.
2. Select the applicable programming procedure from the service content of the immobilizer system-

related parts.

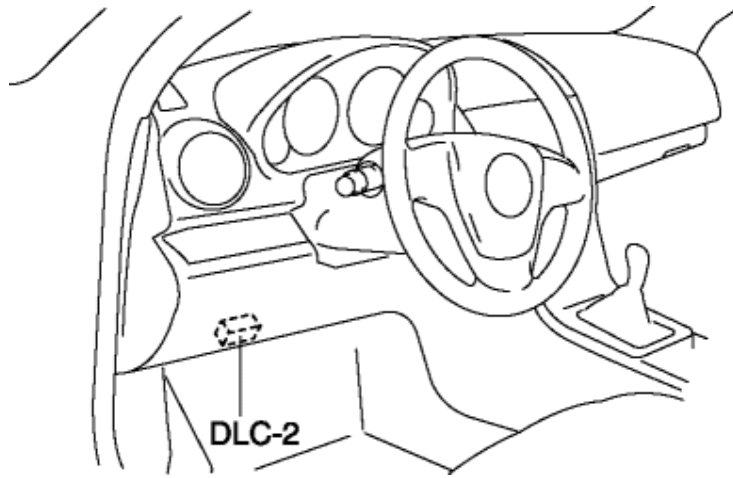
Immobilizer System-Related Parts Service and Programming Procedure Table

No.	Service		Programming procedure
1	Additional key programming	Have two or more valid keys	(See No.1 Additional Key Programming Procedure (Using Two Valid Keys) .)
2		Have one valid key or none	(See No. 2 Additional Key Programming Procedure (Using the M-MDS) .)
3	Additional key programming procedure setting	Disable programming using valid keys	(See No.3 Additional Key Programming Procedure Changing .)
		Enable programming using valid keys	
4	Programming due to PCM replacement		(See No.4 Programming Procedure Due to PCM Replacement .)
5	Programming due to instrument cluster replacement		(See No.5 Programming Procedure Due to Instrument Cluster Replacement .)
6	Programming due to simultaneous replacement of immobilizer system-related parts • PCM • Instrument cluster		(See No.6 Programming Procedure Due to Simultaneous Replacement of Immobilizer System-related Parts (PCM and Instrument Cluster) .)
7	Programming due to coil antenna replacement		Programming of immobilizer system-related parts is not necessary

M-MDS Connecting Procedure

NOTE:

- Do not place the M-MDS in the vehicle while programming the immobilizer system.
1. Fully lower the door glass.
 2. Connect the M-MDS (IDS) to the DLC-2.



3. Place the M-MDS (IDS) outside the vehicle.

CAUTION:

- Cover the vehicle body with a clean rag so as not to damage the vehicle body with the cable.

No.1 Additional Key Programming Procedure (Using Two Valid Keys)

CAUTION:

- The engine cannot be started if any step or procedure is skipped. Perform all procedures in the order of the steps.

Conditions

- Have two or more valid keys.

NOTE:

- If a key ID number cannot be programmed and DTC 15 is displayed, the maximum number of programmed keys may have been reached. Verify the number of programmed keys using the M-MDS.
- If eight keys have already been programmed and it is necessary to program other keys, the previously programmed key ID numbers must first be cleared.
- If "Customer spare key programming disable" is selected, perform additional key programming using the M-MDS. (See **No. 2 Additional Key Programming Procedure (Using the M-MDS)**.)

Procedure

VALID KEY	  KEY 1 KEY 2
KEY FOR REGISTRATION	 KEY 3

Step	Procedure	Action after procedure	
1	LAUNCH PROGRAMMING MODE • Switch the ignition to ON using key 1. • After verifying that the security light illuminates for approx. 3 s and turns off, switch the ignition off within approx. 4 s using key 1. • Remove key 1. • Switch the ignition to ON using key 2. • After verifying that the security light illuminates for approx. 3 s and turns off, switch the ignition off within approx. 4 s using key 2. • Remove key 2.	Go to the next step.	
2	PERFORM ADDITIONAL KEY PROGRAMMING • Switch the ignition to ON using key 3. • Verify that the security light illuminates for approx. 3 s, and then turns off. • Remove key 3. • Are there other keys to be programmed?	Yes	Go back to Step 1.
		No	Go to the next step.
3	VERIFY THAT ANY KEY IS PROGRAMMED • Verify that the engine can start and run for 5 s or more using all the programmed keys. NOTE: • When verifying that the engine starts, wait at least 5 s or more before	Procedure is completed	

	starting the engine using the next key.	
--	---	--

No. 2 Additional Key Programming Procedure (Using the M-MDS)

CAUTION:

- The engine cannot be started if any step or procedure is skipped. Perform all procedures in the order of the steps.

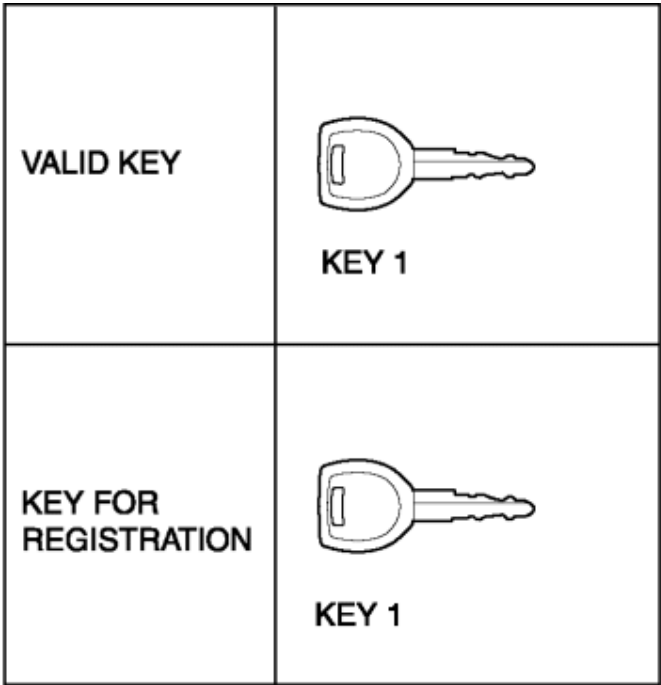
Conditions

- There is only one valid key, or none.

NOTE:

- If a key ID number cannot be programmed and DTC 15 is displayed, the maximum number of programmed keys may have been reached. Verify the number of programmed keys using the M-MDS.
- If eight keys have already been programmed and it is necessary to program other keys, the previously programmed key ID numbers must first be cleared.

Procedure



Step	Procedure	Action after procedure	
1	PERFORM ADDITIONAL KEY PROGRAMMING • Connect the M-MDS (IDS) to the DLC-2. (See M-MDS Connecting Procedure)	Yes	Change the key and repeat Step 1. NOTE: • Additional key programming can be

	• Switch the ignition to ON using key 1. NOTE: • Although the security light starts flashing and DTC 15 is displayed after approx. 1 min, this does not indicate an improper procedure. Continue to perform the procedure as indicated. • After the vehicle is identified, select the following items from the initial screen of the M-MDS. ▪ When using the IDS (laptop PC): ▪ Select the "Body" ▪ Select the "Security" ▪ Select the "PATS Functions" • Then, select an item from the screen menu. item • Program Additional Ignition Key • Perform the security access according to the directions on the M-MDS screen. NOTE: • After executing the above menu, "This operation is successful" is displayed. This indicates that the programming of the key that currently has the ignition switched on is completed. • After verifying that the PATS function menu is displayed again on the M-MDS screen, switch the ignition off. • Remove key 1. • Are there other keys to be programmed?	performed using the procedure in No.1 Additional Key Programming Procedure (Using Two Valid Keys).
2	CLOSE THE M-MDS • After verifying that the PATS function menu is displayed again on the M-MDS screen, select "Finish (this menu)".	No Go to the next step. Go to the next step.

	Switch the ignition to off.	
3	VERIFY THAT ANY KEY IS PROGRAMMED Verify that the engine can be started with the programmed key. NOTE: When verifying that the engine starts, wait at least 5 s or more before starting the engine using the next key.	Procedure is completed

No.3 Additional Key Programming Procedure Changing

NOTE:

- This procedure is performed for disabling the No.1 Additional Key Programming Procedure (Using Two Valid Keys).
- The setting is "Customer spare key programming enable" when the vehicle is new or the keyless control module is replaced with a new one.

Procedure

Step	Procedure	Action after procedure
1	CHANGE CUSTOMER SPARE KEY PROGRAMMING PROCEDURE - Connect the M-MDS (IDS) to the DLC-2. (See M-MDS Connecting Procedure.) - Switch the ignition ON using a key (the key can be either the valid key or an unprogrammed key). NOTE: - If an unprogrammed key is used, the security light starts flashing and DTC 15 is displayed after approx. 1 min. However, this does not indicate an improper procedure. Continue to perform the procedure as indicated. - After the vehicle is identified, select the following items from the initial screen of the M-MDS. - When using the IDS (laptop PC): - Select the "Body" - Select the "Security" - Select the "PATS Functions"	Procedure is completed

Select either of the following from the M-MDS menu to change the additional key programming procedure.

- When "Customer Spare Key Programming Enable" is selected:
The additional key programming procedure using valid keys is enabled.
 - When "Customer Spare Key Programming Disable" is selected:
The additional key programming procedure using valid keys is disabled.
- Perform the security access according to the directions on the M-MDS screen.
 - After verifying that the PATS function menu is displayed again on the M-MDS screen, select "Finish (this menu)".
 - Switch the ignition to off.

No.4 Programming Procedure Due to PCM Replacement

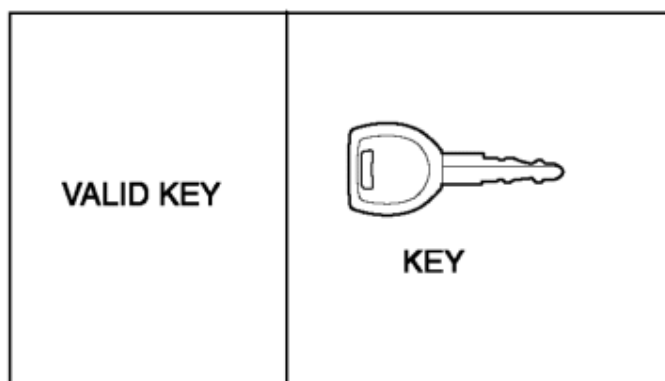
CAUTION:

- The engine cannot be started if any step or procedure is skipped. Perform all procedures in the order of the steps.

Conditions

- Have two or more valid keys.

Procedure



Step	Procedure	Action after procedure
1	REPLACE PCM Refer to PCM removal/installation to perform PCM replacement and configuration. (See PCM REMOVAL/ INSTALLATION [MZR 2.5] .) (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6] .)	Go to the next step.

2	PERFORM PARAMETER RESET • Connect the M-MDS (IDS) to the DLC-2. (See M-MDS Connecting Procedure.) • Turn the ignition switch to the ON position using a key (The key can be either the valid key) NOTE: • Although the security light remains illuminated and DTC 23 is displayed after approx. 1 min, continue to perform the procedure as indicated. • After the vehicle is identified, select the following items from the initial screen of the M-MDS. ▪ When using the IDS (laptop PC): ▪ Select the "Body" ▪ Select the "Security" ▪ Select the "PATS Functions" • Then, select an item from the screen menu. item • Parameter Reset • Perform the security access according to the directions on the M-MDS screen. • Select the replaced parts "PCM" according to the directions on the M-MDS screen. CAUTION: • At this time, do not select the other parts from the M-MDS menu. • After verifying that the PATS function menu is displayed again on the M-MDS screen, select "Finish (this menu)". • Switch the ignition to off. • Switch the ignition to ON. • Verify that the security light illuminates for approx. 3 s, and then turns off. • Switch the ignition to off.	Go to the next step.	
3	VERIFY THAT THE KEY IS PROGRAMMED TO THE PCM • Verify that the engine can be started with all the keys. • Can the engine be started?	Yes No	Procedure is completed Perform the corresponding DTC inspection to repair the malfunctioning part.

No.5 Programming Procedure Due to Instrument Cluster Replacement

CAUTION:

- The engine cannot be started if any step or procedure is skipped. Perform all procedures in the order of the steps.

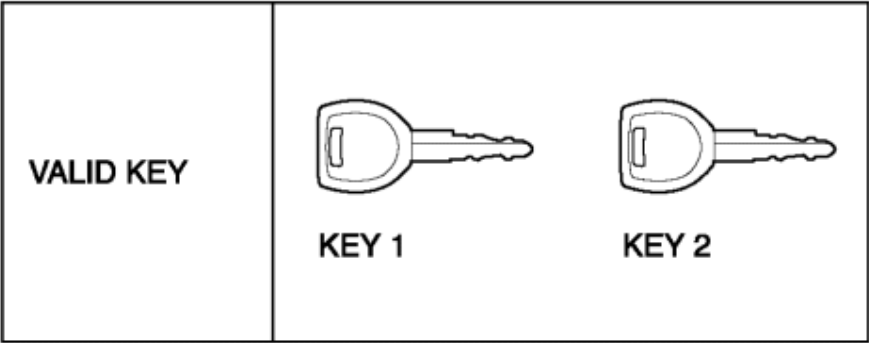
NOTE:

- Since two or more keys need to be programmed to start the engine, program two or more keys after the replacement.

Conditions

- Have two or more keys to be programmed after the replacement.

Procedure



Step	Procedure	Action after procedure
1	REPLACE INSTRUMENT CLUSTER Refer to instrument cluster removal/installation to perform instrument cluster replacement and configuration. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION.) (See INSTRUMENT CLUSTER CONFIGURATION.)	Go to the next step.
2	PERFORM PARAMETER RESET • Connect the M-MDS (IDS) to the DLC-2. (See M-MDS Connecting Procedure.) • Turn the ignition switch to the ON position using a key (The key can be either the valid key) NOTE: • Although the security light remains illuminated and DTC 15 is displayed after approx. 1 min, continue to perform the procedure as indicated.	

	• After the vehicle is identified, select the following items from the initial screen of the M-MDS. ▪ When using the IDS (laptop PC): ▪ Select the "Body" ▪ Select the "Security" ▪ Select the "PATS Functions" • Then, select an item from the screen menu. item • Parameter Reset • Perform the security access according to the directions on the M-MDS screen. • Select the replaced parts "IC" according to the directions on the M-MDS screen. CAUTION: • At this time, do not select the other parts from the M-MDS menu. • Verify that the PATS function menu is displayed again on the M-MDS screen.	Go to the next step.	
3	CLEAR IGNITION KEY ID NUMBERS • Select "Ignition Key Code Erase and Program" from the M-MDS screen menu. • Clear the ignition key code according to the directions on the M-MDS.	Go to the next step.	
4	PERFORM IGNITION KEY ID NUMBER PROGRAMMING • Program two keys according to the directions on the M-MDS. • After verifying that the PATS function menu is displayed again on the M-MDS screen, select "Finish (this menu)". • Switch the ignition to off. • Switch the ignition to ON. • Verify that the security light illuminates for approx. 3 s, and then turns off. • Switch the ignition to off. • Disconnect the M-MDS from the DLC-2.	Go to the next step.	
5	VERIFY THAT ANY KEY IS PROGRAMMED • Verify that the engine can be started with all the keys.	Yes	Procedure is completed
			Perform the corresponding

	Can the engine be started?	No	DTC inspection to repair the malfunctioning part.
--	--	----	---

No.6 Programming Procedure Due to Simultaneous Replacement of Immobilizer System-related Parts (PCM and Instrument Cluster)

CAUTION:

- The engine cannot be started if any step or procedure is skipped. Perform all procedures in the order of the steps.

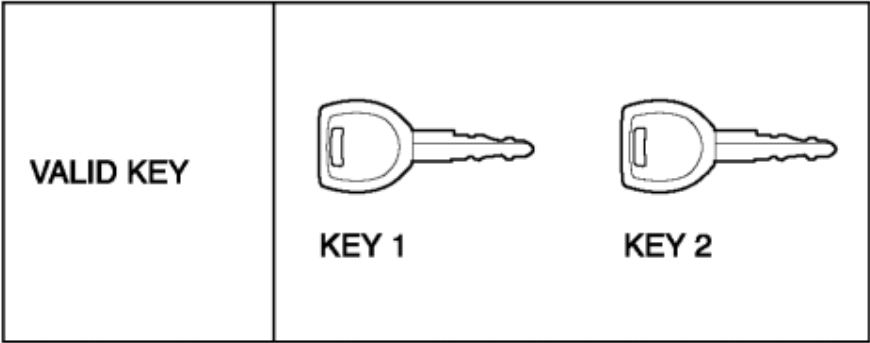
NOTE:

- Since two or more keys need to be programmed to start the engine, program two or more keys after the replacement.

Conditions

- Have two or more keys to be programmed after the replacement.

Procedure



Step	Procedure	Action after procedure
1	REPLACE INSTRUMENT CLUSTER Refer to instrument cluster removal/installation to perform instrument cluster replacement and configuration. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION .)	Go to the next step.
2	REPLACE PCM Refer to PCM removal/installation to perform PCM replacement and configuration. (See PCM REMOVAL/ INSTALLATION [MZR 2.5] .) (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6] .)	Go to the next step.
3	PERFORM PARAMETER RESET Connect the M-MDS (IDS) to the DLC-2.	

	(See M-MDS Connecting Procedure.) - Switch the ignition to ON using a valid key. NOTE: - Although the security light remains illuminated and DTC 15 is displayed after approx. 1 min, continue to perform the procedure as indicated. - After the vehicle is identified, select the following items from the initial screen of the M-MDS. - When using the IDS (laptop PC): - Select the "Body" - Select the "Security" - Select the "PATS Functions" - Then, select an item from the screen menu. item - Parameter Reset - Perform the security access according to the directions on the M-MDS screen. - Select the replaced parts according to the directions on the M-MDS screen. - If the instrument cluster is replaced: Select "IC". - If the PCM is replaced: Select "PCM". CAUTION: - At this time, do not select the other parts from the M-MDS menu. - Verify that the PATS function menu is displayed again on the M-MDS screen.	Go to the next step.
4	CLEAR IGNITION KEY ID NUMBERS - Select "Ignition Key Code Erase and Program" from the M-MDS screen menu. - Clear the ignition key code according to the directions on the M-MDS.	Go to the next step.
5	PERFORM IGNITION KEY ID NUMBER PROGRAMMING - Program two keys according to the directions on the M-MDS. - After verifying that the PATS function menu is displayed	

	again on the M-MDS screen, select "Finish (this menu)". • Switch the ignition to off. • Switch the ignition to ON. • Verify that the security light illuminates for approx. 3 s, and then turns off. • Switch the ignition to off. • Disconnect the M-MDS from the DLC-2.	Go to the next step.	
6	VERIFY THAT ANY KEY IS PROGRAMMED • Verify that the engine can be started with all the keys. • Can the engine be started?	Yes	Procedure is completed
		No	Perform the corresponding DTC inspection to repair the malfunctioning part.