

# IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING

B3E091467002W02

## Foreword

• When performing the following procedures, the immobilizer resetting procedure using the WDS or equivalent must also always be performed: "instrument cluster replacement", "PCM replacement", "instrument cluster and PCM joint replacement", "Key ID number clearing". The engine will not start unless all work is performed using the WDS or equivalent.

• There are two methods for registering an additional key: Using the WDS or equivalent and using two keys that are able to start the engine.

• When replacing any of the immobilizer system component parts, adding/erasing keys or performing other functions, refer to the following table and perform the applicable procedure (No.1 to 5).

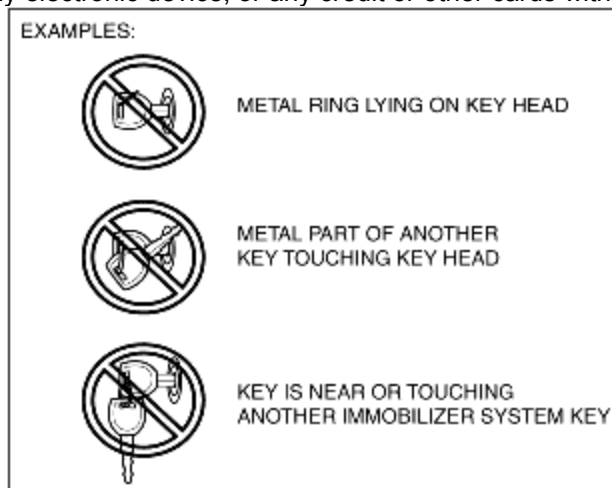
Reference number	Situation	Required items	Cautionary notes
1	Making a spare key when the customer has two or more keys that can start the engine. Or registering an additional key.	• Registration key	• If the additional key registration method has been changed to "Customer spare key programming disabled" (inhibiting the method that uses two keys that are able to start the engine), the WDS or equivalent is required when registering the additional key. In that case, perform procedure No.2.
2	Making a spare key when the customer has one key that can start the engine or no keys. Or registering an additional key.	• Registration key • WDS or equivalent	-
3	Clearing previously registered key ID numbers.	• Registration keys (two or more) • WDS or equivalent	• All the key ID numbers registered in the vehicle will be cleared. • Unless keys are re-registered after clearing the key ID numbers, the engine cannot be started. Before beginning the procedure, verify that the customer has turned in all of the keys for the vehicle. • Unless two or more keys are registered after replacement, the engine cannot be started. • The keys (two or more keys) readied before beginning the procedure do not have to be new keys. Any key that is capable of starting the engine before beginning the procedure can be used.
3	Replace all the keys. (Key cylinder replacement)	• Registration keys (two or more) • WDS or equivalent	• When replacing the key cylinder, have two or more keys ready for registration before beginning the procedure, since the previous keys will be invalid.
4	Changing the method for registering additional keys. (Method for registering other keys using two keys that can start the engine is disabled.)	• WDS or equivalent	• After performing this procedure it is not possible to register additional keys according to procedure No.1. The system can be returned to the original setting. The WDS or equivalent must always be used to change the system setting.

4	Changing the method for registering additional keys. (Method for registering other keys using two keys that can start the engine is enabled.)	• WDS or equivalent	• This is the default setting on new vehicles.
5	Replacing the instrument cluster.	• Replacement instrument cluster • Registration keys (two or more) • WDS or equivalent	<ul style="list-style-type: none"> <li>• Unless keys are registered after replacing the steering lock, the engine cannot be started. Before beginning the procedure, verify that the customer has turned in all of the keys for the vehicle.</li> <li>• Unless two or more keys are registered after replacement, the engine cannot be started.</li> <li>• The keys (two or more keys) readied before beginning the procedure do not have to be new keys. Any key that is capable of starting the engine before beginning the procedure can be used.</li> </ul>
5	Replacing the PCM.	• Replacement PCM • WDS or equivalent	-
5	Replacing the PCM and instrument cluster.	• Replacement PCM • Replacement instrument cluster • Registration keys (two or more) • WDS or equivalent	<ul style="list-style-type: none"> <li>• Unless keys are registered after replacing the steering lock, the engine cannot be started. Before beginning the procedure, verify that the customer has turned in all of the keys for the vehicle.</li> <li>• Unless two or more keys are registered after replacement, the engine cannot be started.</li> <li>• The keys (two or more keys) readied before beginning the procedure do not have to be new keys. Any key that is capable of starting the engine before beginning the procedure can be used.</li> </ul>
-	Replacing the coil antenna.	• New coil antenna	• It is not necessary to reset the immobilizer system.

### Caution

• If any of the following items are touching or near the key head, signal communication between the key and vehicle is negatively affected, resulting in the engine not starting or the key registration failure. Do not perform the procedure if any of the following items are touching or near the key head.

- Any metallic object
- Spare keys or keys for other vehicles equipped with an immobilizer system
- Any electronic device, or any credit or other cards with magnetic strips



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## Note

- Within the following procedures, the term a "valid key" means a "key that can start the engine".
- After adding/registering keys, clearing ID numbers or replacing any component part of the immobilizer system, verify that all keys can start the engine **within 5 s**.
- When verifying that the keys can start the engine, wait at least **5 s or more** between inserting them.
- If the engine cannot be started using a registered key, repeat the procedure from the beginning.
- Do not start the engine until the key registration procedure for all the necessary keys is completed. If the engine is started during the registration procedure, registration is stopped at that point. Repeat the procedure starting from the beginning if the engine is started before completion.
- Two or more key ID numbers must be registered for the engine to start.
- A maximum of eight key ID numbers can be registered for one vehicle. The WDS or equivalent can be used to verify the number of key ID numbers registered to a single vehicle.
- Do not select screen menus of the WDS or equivalent that are not indicated within the procedures.

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

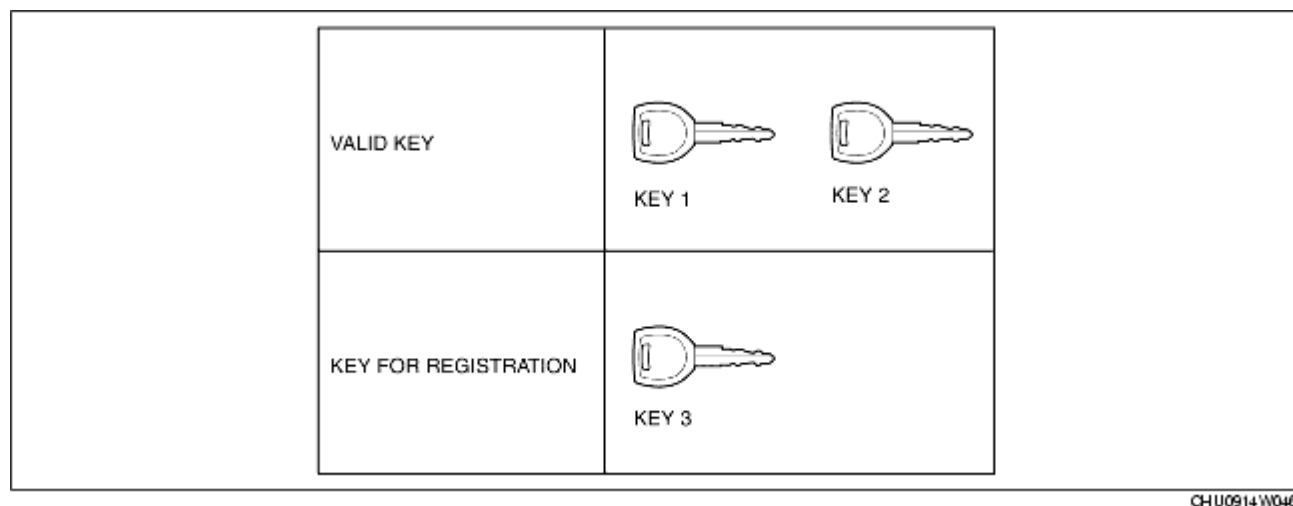
### Conditions

- Customer has two or more valid keys.

## Note

- A maximum of eight keys can be registered for any one vehicle. If key registration is not successful and DTC 15 appears even though the procedure was performed properly, use the PID/data monitor function of the WDS or equivalent and verify the number of keys that have been registered.
- If eight keys have already been registered, and it is necessary to register other keys, the previously registered key ID numbers must first be cleared. To clear the key ID numbers, refer to "[No.3 Key Replacement Procedure \(Clearing Previously Registered Key ID Numbers, Key Re-registration\)](#)".

### Procedure



1. Have one key (key 3) ready for registration.
2. Using key 1, turn the ignition switch to the ON position.
3. Verify that the security light illuminates for **approx. 3 s** and then goes out.
4. Using key 1, turn the ignition switch to the LOCK position **within approx. 4 s** after the security light goes out.
5. Remove key 1

6. Repeat Steps 2-5 using key 2.
7. Repeat Steps 2-5 using key 3.
8. If additional keys need to be registered, repeat Steps 1-7 in the same manner as key 3.

## No.2 Additional Key Registration Procedure (Using the WDS or equivalent)

### Conditions

- Customer has only one valid key. Or customer has no valid keys. (Can also be performed even if there are two or more valid keys)

### Note

- A maximum of eight keys can be registered for any one vehicle. If key registration is not successful and DTC 15 appears even though the procedure was performed properly, use the PID/data monitor function of the WDS or equivalent and verify the number of keys that have been registered.
- If eight keys have already been registered, and it is necessary to register other keys, the previously registered key ID numbers must first be cleared. To clear the key ID numbers, refer to "[No.3 Key Replacement Procedure \(Clearing Previously Registered Key ID Numbers, Key Re-registration\)](#)".

### Procedure

1. Have one key (key 1) ready for registration.
2. Using key 1, turn the ignition switch to the ON position.

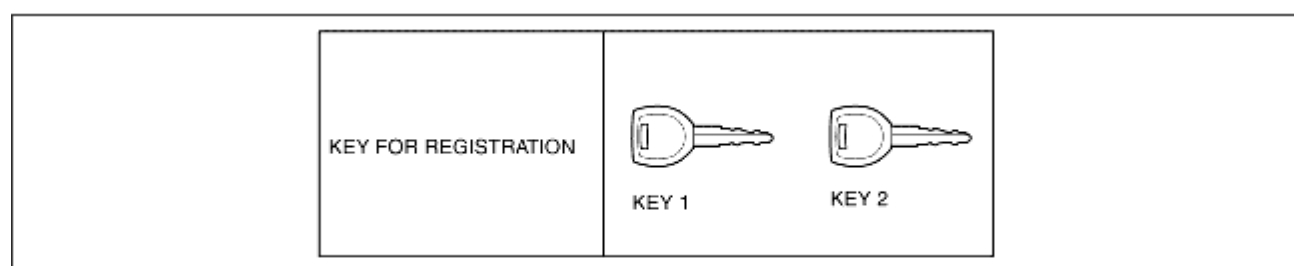
### Note

- Although the security light flashes and DTC 15 is displayed, this does not indicate an improper procedure. Continue to perform the procedure as indicated.

3. Connect the WDS or equivalent to the DLC-2.
4. Select "Body/Security/PATS function" from the WDS or equivalent screen menu.
5. Perform security access as indicated on the WDS or equivalent screen. (See [No.6 Security Access Procedure](#).)
6. Select "Program Additional Ignition Key" from the WDS or equivalent screen menu.

## No.3 Key Replacement Procedure (Clearing Previously Registered Key ID Numbers, Key Re-registration)

### Procedure



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1. Have two or more keys (key 1, key 2) ready for registration after the clearing the key ID numbers.
2. Using key 1, turn the ignition switch to the ON position.

### Note

- Although the security light flashes and DTC 15 is displayed, this does not indicate an improper procedure. Continue to perform the procedure as indicated.

3. Connect the WDS or equivalent to the DLC-2.
4. Select "Body/Security/PATS function" from the WDS or equivalent screen menu.
5. Perform security access as indicated on the WDS or equivalent screen. (See [No.6 Security Access Procedure.](#))
6. Select "Ignition key ID number Erase" from the WDS or equivalent screen menu and perform the tasks according to the WDS or equivalent screen.

## No.4 Changing the Method for Registering Additional Keys

### Note

- This procedure is for changing the enable/disable setting of the "No.1 Additional Key Registration Procedure (Using Two Valid Keys)".
- The default setting for new vehicles and new instrument cluster replacement is "Enabled".
- By disabling the "No.1 Additional Key Registration Procedure (Using Two Valid Keys)", only the WDS or equivalent can be used to register additional keys, thereby preventing two valid keys from being used to create an unauthorized spare key. This function is for use by rental car or other companies with vehicle fleets.

### Procedure

1. Using any key, turn the ignition switch to the ON position. (Either a valid or an unregistered key can be used.)

### Note

- When using an unregistered key, although the security light flashes and DTC 15 is displayed, this does not indicate an improper procedure. Continue to perform the procedure as indicated.

2. Connect the WDS or equivalent to the DLC-2.
3. Select "Body/Security/PATS function" from the WDS or equivalent screen menu.
4. Perform security access as indicated on the WDS or equivalent screen. (See [No.6 Security Access Procedure.](#))
5. Select either "Customer Spare Key Programming Enable" or "Customer Spare Key Programming Disable" from the WDS or equivalent screen menu. Depending on the selected menu, the additional key registration method is as shown below:

Setting	Additional key registration method	
	Procedure using two valid keys	Procedure using the WDS or equivalent
Customer spare key programming enable	x	x

Customer spare key programming disable	-	x
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x : Procedure is possible  
 - : Procedure is not possible

6. After verifying that the PATS function menu is displayed again on the WDS or equivalent screen, select "Exit" to complete the WDS or equivalent function.

7. After Step 6, wait **10 s or more** and then turn the ignition switch to the LOCK position.

## No.5 Resetting Procedure for the Immobilizer System when Replacing the PCM or Instrument Cluster

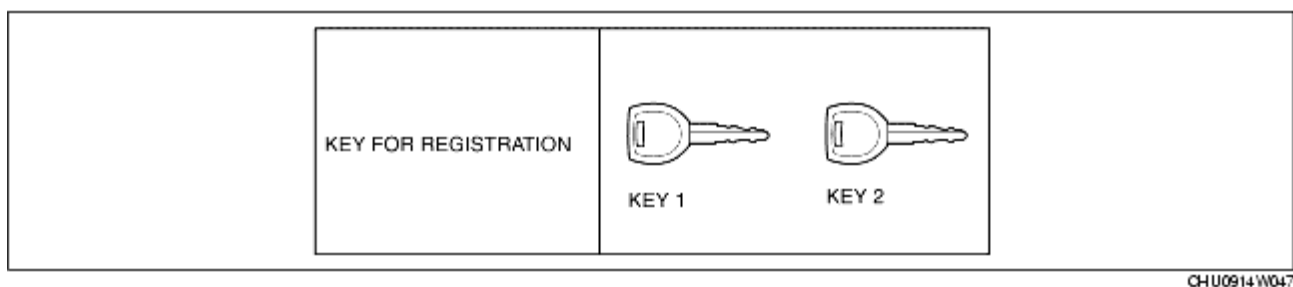
### Conditions

- When replacing only the PCM: No conditions.
- When replacing only the instrument cluster: Customer has two or more valid keys after replacement tasks.
- When replacing the PCM and the instrument cluster: Customer has two or more valid keys after replacement.

### Caution

- When replacing the PCM and the instrument cluster at the same time, follow the same instructions described in the procedure for "when replacing the instrument cluster".
- When replacing only the PCM, start from Step 2. Also, when key 1 is indicated within the procedure, any valid key can be used.
- Before starting Step 1, complete the procedure for PCM and instrument cluster replacement.

### Procedure



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1. Have two or more keys (key 1, key 2) ready for registration.
2. Using key 1, turn the ignition switch to the ON position.

### Note

- When replacing only the PCM: The security light illuminates **for 3 s** and then goes out.
- When replacing the instrument cluster: Although the security light flashes and DTC 15 is displayed, this does not indicate an improper procedure. Continue to perform the procedure as indicated.

3. Connect the WDS or equivalent to the DLC-2.
4. Select "Body/Security/PATS function" from the WDS or equivalent screen menu.

5. Perform security access as indicated on the WDS or equivalent screen. (See [No.6 Security Access Procedure](#).)
6. Select "Parameter Reset" from the WDS or equivalent screen menu.
7. Perform security access again as indicated on the WDS or equivalent screen. (See [No.6 Security Access Procedure](#).)
8. Select the replaced part as indicated on the WDS or equivalent screen.
  - When replacing only the PCM: Select "PCM".
  - When replacing only the instrument cluster: Select "HEC".

### Note

- At this time, do not select any other parts from the WDS or equivalent screen menu.
9. Perform the tasks according to the WDS or equivalent screen.

## No.6 Security Access Procedure

### Note

- Security access must be performed when performing the following functions: "Program Additional Ignition Key", "Ignition Key ID Number Erase", "Customer Spare Key Programming Enable/Disable" and "Parameter Reset".

### Procedure

1. Connect the WDS or equivalent to the DLC-2.
2. Select "Body/Security/PATS function" from the WDS or equivalent screen menu.
3. Security access is started and the WDS or equivalent displays "Outcode".

### Caution

- After reading out the outcode, do not turn ignition switch from LOCK to ON position 5 times, otherwise the outcode value will be changed.
4. Input the corresponding "Incode" for the "Outcode" displayed on the WDS or equivalent screen.
  5. After successfully performing security access, "Program Additional Ignition Key", "Ignition key ID number Erase" or "Customer Spare Key Programming Enable/Disable" is displayed on the WDS or equivalent screen. When performing "Parameter Reset", security access is requested two times and after successfully performing it the second time, "Replacement Module" is displayed.