

## SECTION 54A

# CHASSIS ELECTRICAL

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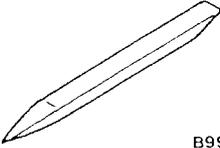
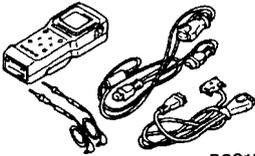
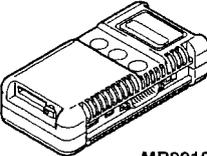
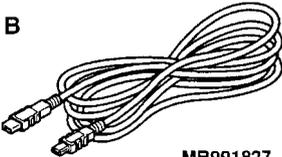
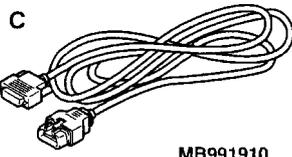
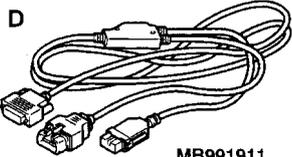
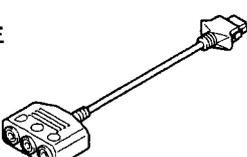
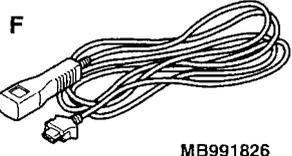
**General**

New servicing information has been established with the adoption of an engine immobiliser system. Apart from the information below, servicing is the same as in the previous model.

# 54A-2 CHASSIS ELECTRICAL – IGNITION SWITCH, ENGINE IMMOBILISER

## Ignition switch and engine immobiliser

### Special tools

Tool	Number	Name	Use
 <p>B990784</p>	MB990784	Ornament remover	Removing under cover assembly and column cover
 <p>B991502</p>	MB991502	MUT-II sub-assembly	Reading diagnosis codes
<p>A</p>  <p>MB991824</p> <p>B</p>  <p>MB991827</p> <p>C</p>  <p>MB991910</p> <p>D</p>  <p>MB991911</p> <p>E</p>  <p>MB991825</p> <p>F</p>  <p>MB991826</p> <p>MB991955</p>	<p>MB991955</p> <p>A: MB991824 B: MB991827 C: MB991910 D: MB991911 E: MB991825 F: MB991826</p>	<p>MUT-III sub-assembly</p> <p>A: V.C.I. (Vehicle Communication Interface)</p> <p>B: USB cable</p> <p>C: MUT-III main harness A (for vehicles fitted with CAN communications)</p> <p>D: MUT-III main harness B (for vehicles not fitted with CAN communications)</p> <p>E: Measurement adapter</p> <p>F: Trigger harness</p>	<p>Reading diagnosis codes</p>

## Troubleshooting

### Engine immobiliser

#### 1. Diagnosis functions

##### 1-1. Reading diagnosis codes

##### 1-1-1. Using the MUT-II/III

The MUT-II/III is used to read the diagnosis codes.

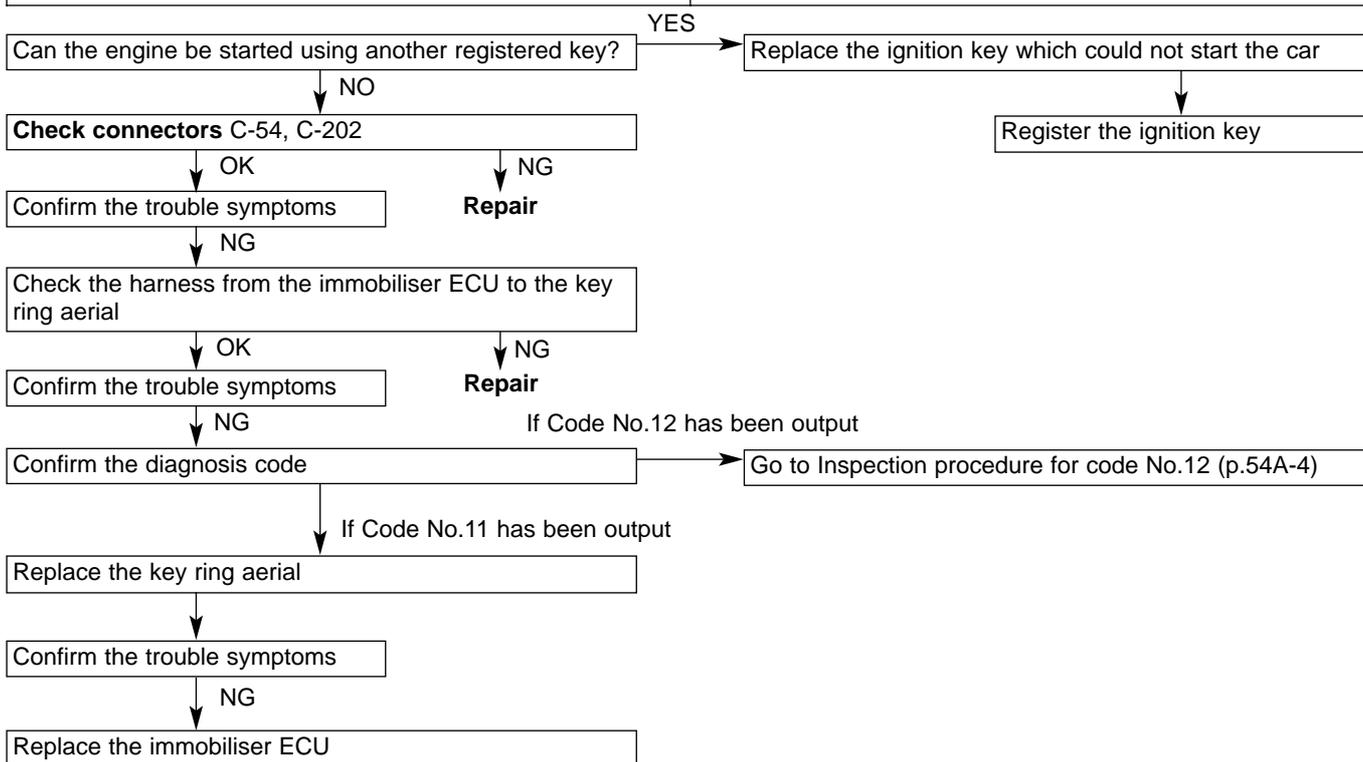
(See Chapter 00, How to Use Troubleshooting and Inspection Service Points.)

#### 2. Chart of diagnosis codes

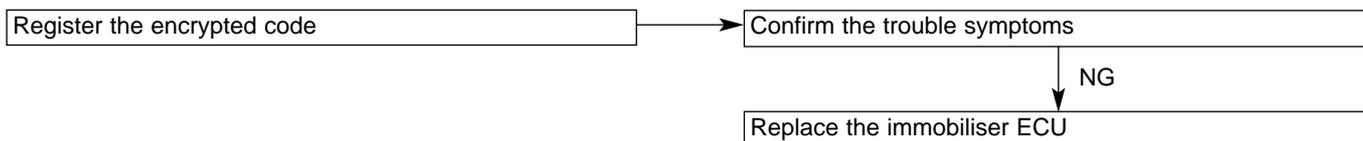
Code No.	Diagnostic Item	Page
11	Problem relating to communication with the ignition key	54A-4
12	Ignition key not registered or code from ignition key does not match	54A-4

#### 3. Inspection procedure classified by diagnosis code

Code No. 11 Problem relating to communication with the ignition key	Possible cause
When the ignition switch is set to the ON position, the ID code is not transmitted from the ignition key to the immobiliser ECU.	<ul style="list-style-type: none"> <li>• Fault in ignition key</li> <li>• Fault in immobiliser ECU</li> <li>• Fault in harness/ connector</li> </ul>



Code No. 12 Ignition key not registered or code not from ignition key does not match	Possible cause
The ignition key is not registered in the immobiliser ECU.	<ul style="list-style-type: none"> <li>• The ignition key has not been registered with the immobiliser ECU</li> <li>• Fault in immobiliser ECU</li> </ul>



# 54A-4 CHASSIS ELECTRICAL – IGNITION SWITCH, ENGINE IMMOBILISER

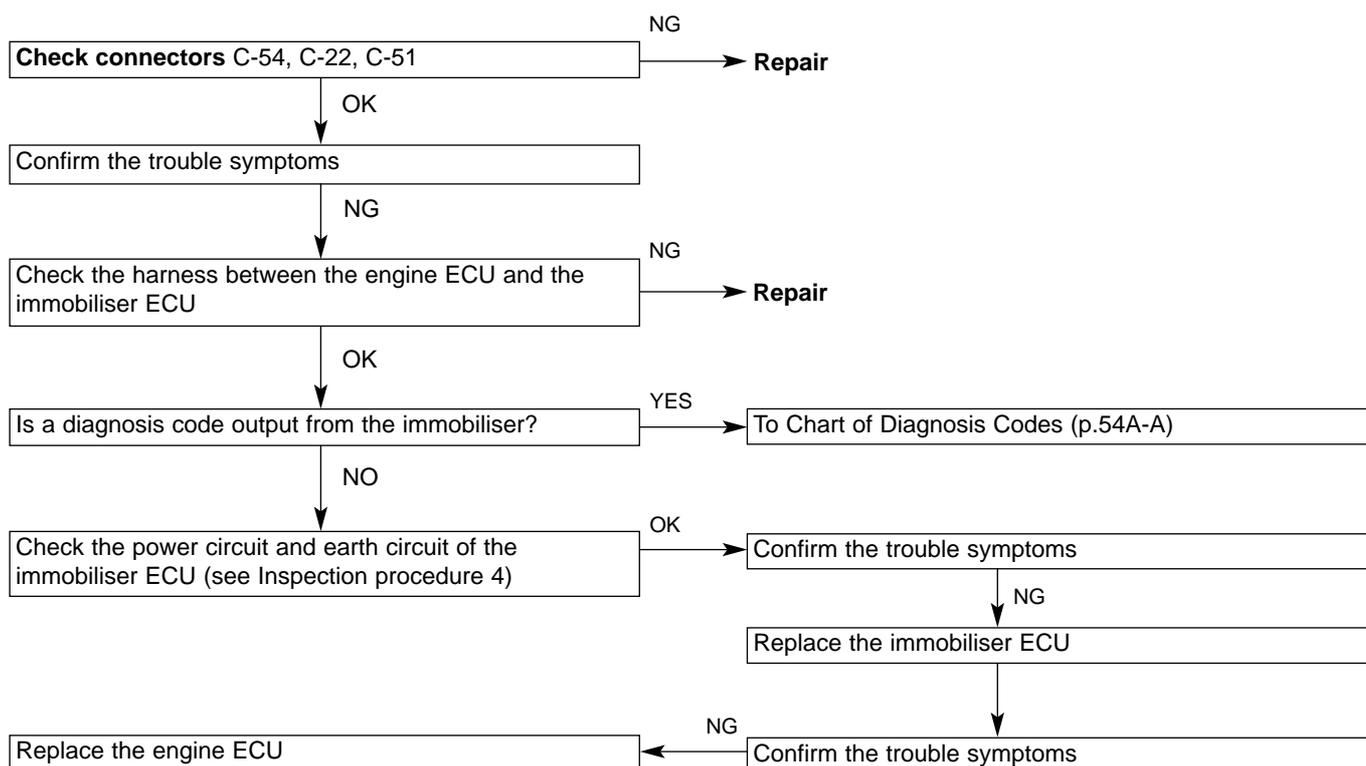
## 4. Inspection Chart for Trouble Symptoms

Trouble symptom	Inspection procedure No.	Reference page
The diagnosis code No.54 is generated by the engine ECU and there is no communication between the MUT-II/III and the immobiliser ECU	1	54A-5
The ignition keys cannot be registered using the MUT-II/III	2	54A-6
The engine does not start. (It cranks but will not fire.)	3	54A-7
Check the immobiliser ECU power supply and earth circuit system	4	54A-7

## 5. Inspection Procedures for Trouble Symptoms

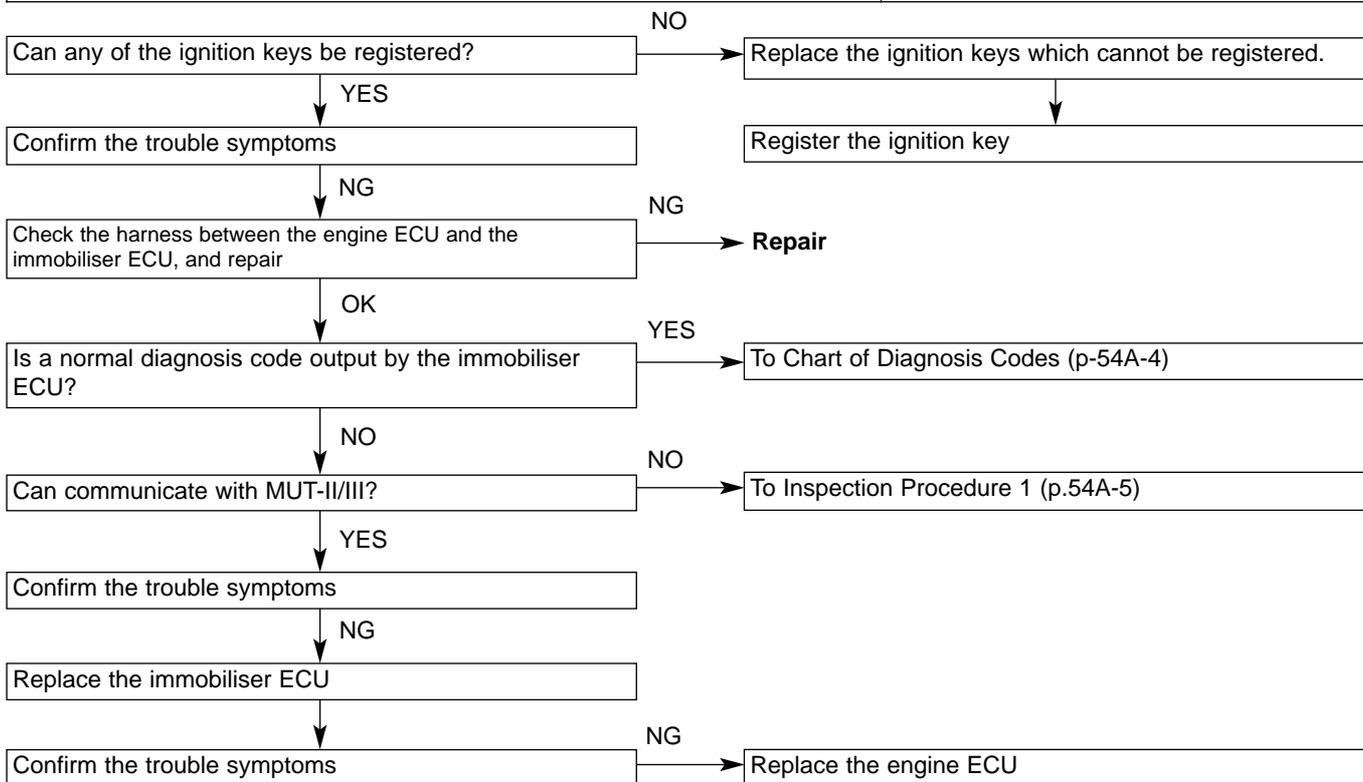
### Inspection Procedure 1

Diagnosis code No.54 is generated by the engine ECU and there is no communication between the MUT-II/III and the immobiliser ECU	Possible cause
There is probably a communications fault between the engine ECU and the immobiliser ECU	<ul style="list-style-type: none"> <li>• Fault in immobiliser ECU power supply or earthing</li> <li>• Fault in harness between engine ECU and immobiliser ECU</li> </ul>



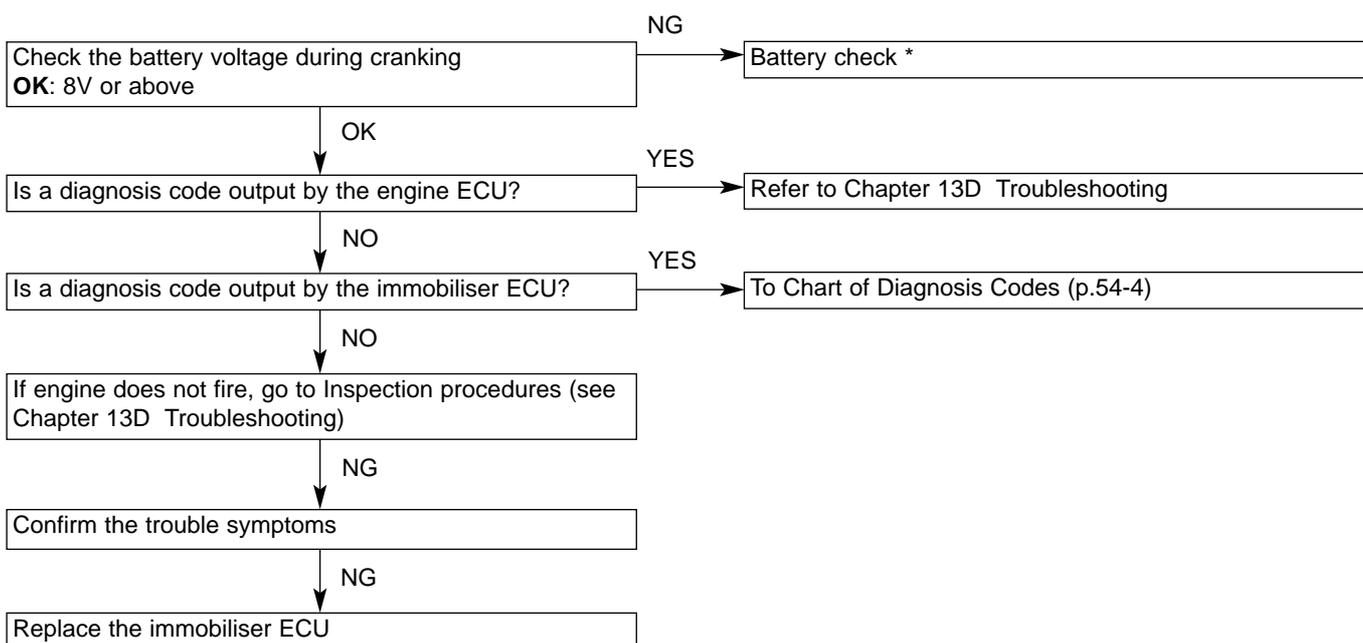
## Inspection Procedure 2

The ignition keys cannot be registered using the MUT-II/III	Possible cause
If only some of the ignition keys cannot be registered, then there is a probably a fault with the ignition keys themselves. If none of the ignition keys can be registered, then there is probably a fault in the immobiliser ECU	<ul style="list-style-type: none"> <li>Fault in ignition key</li> <li>Fault in harness or connector</li> <li>Fault in immobiliser ECU</li> </ul>



## Inspection Procedure 3

The engine does not start. (The engine cranks, but will not fire.)	Possible cause
If the fuel injection does not start, then there may be a problem in the MPI system, in addition to the possibility of a fault in the immobiliser ECU. It is normal for the above situation to occur, if it has attempted to start the engine with a key which has not been registered properly.	<ul style="list-style-type: none"> <li>Fault in MPI system</li> <li>Fault in immobiliser ECU</li> </ul>



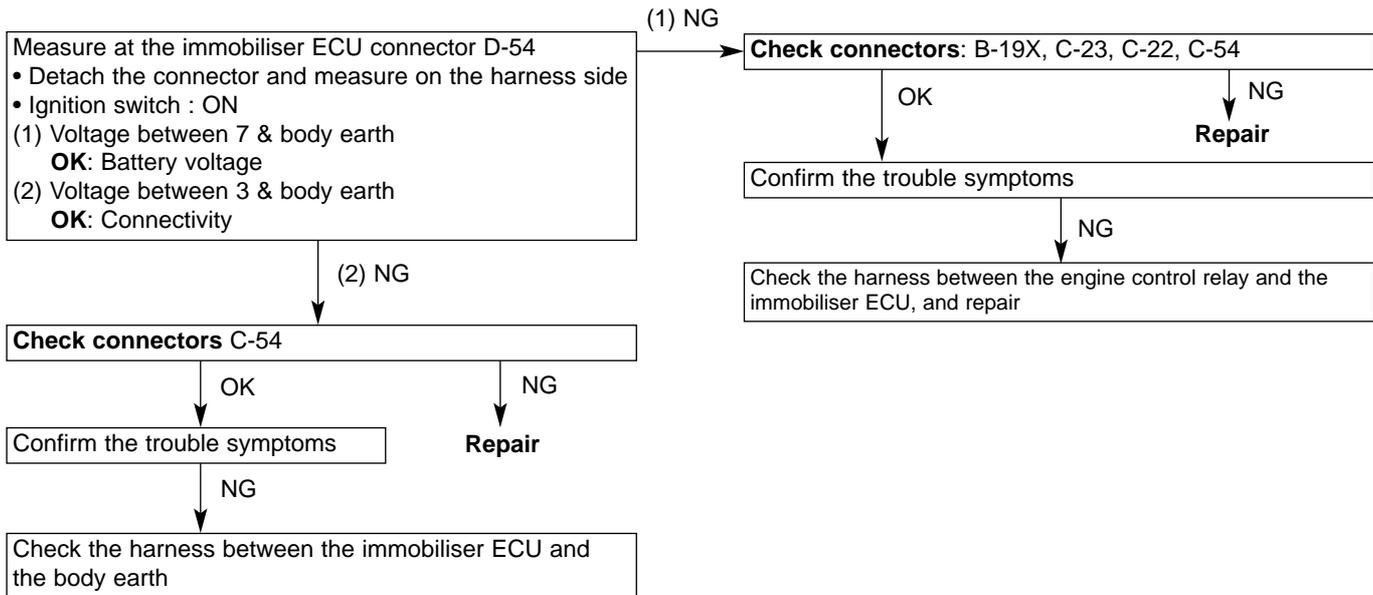
Remarks

\* : See '00-5 Lancer Cedia Servicing Manual (No. 1036K00)

# 54A-6 CHASSIS ELECTRICAL – IGNITION SWITCH, ENGINE IMMOBILISER

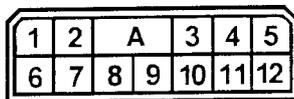
## Inspection Procedure 4

### Checking the power supply and earth circuit system of the immobiliser ECU



## Immobiliser ECU check

### Terminal voltage check table

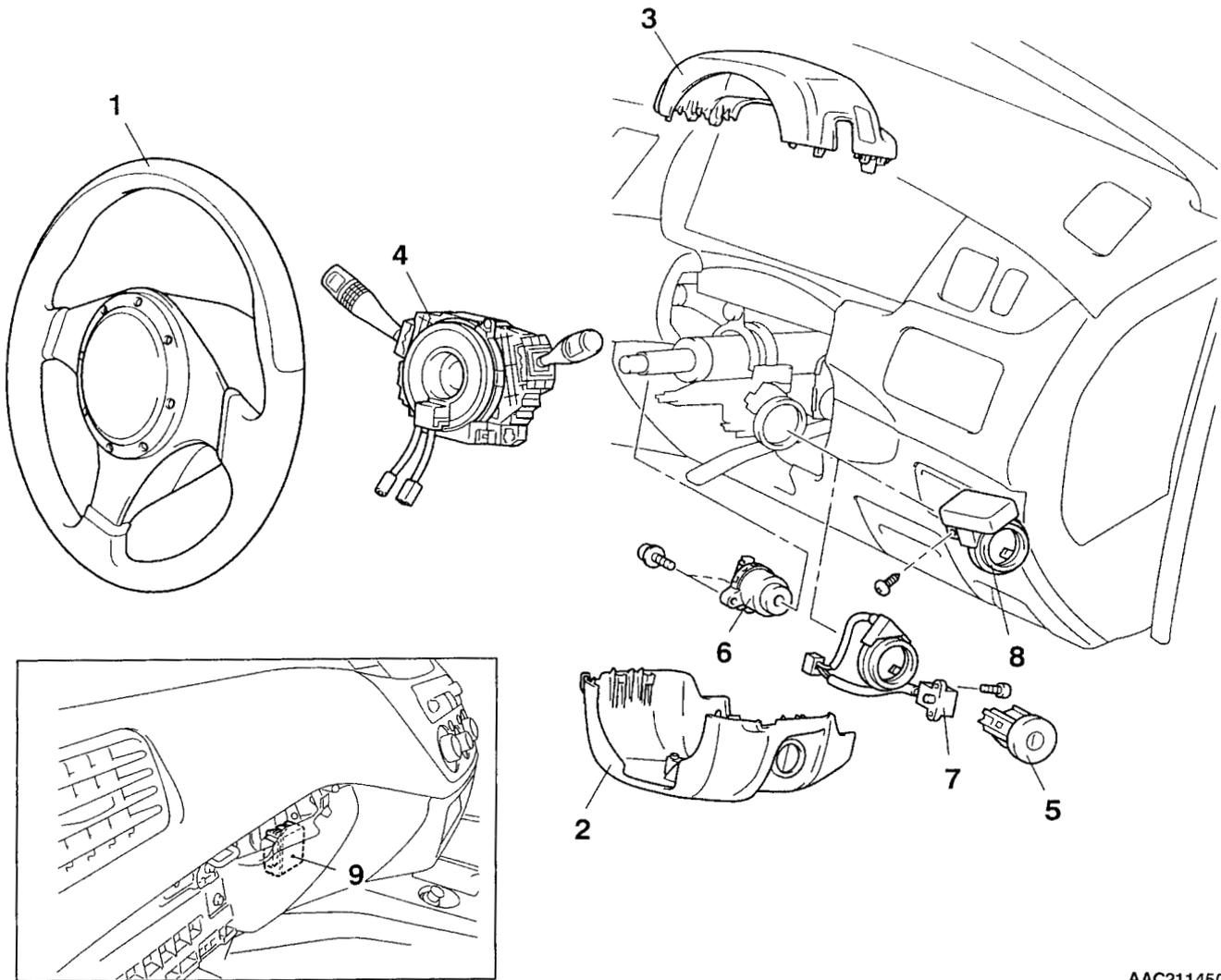


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Terminal No.	Signal	Check conditions	Terminal voltage
3	Immobiliser ECU earth	At all times	0V
5	Engine ECU	-	-
7	Immobiliser ECU power supply	At all times	Battery voltage
10	Ignition key ring aerial input	-	-
11	Ignition key ring aerial output	-	-

## Ignition switch and Immobiliser ECU

### Removal and Installation



AAC211450

#### Removal Procedure

1. Steering wheel (See Chapter 37A)\*
2. Power column cover (See Chapter 52A, Instrument Panel)\*
3. Upper column cover (See Chapter 52A, Instrument Panel)\*

◀ A ▶

4. Column switch
5. Steering lock cylinder
6. Ignition switch
7. Key reminder switch
8. Key ring aerial
9. Immobiliser ECU

#### Remarks

\* : See '00-5 Lancer Sedia Servicing Manual (No. 1036K00)