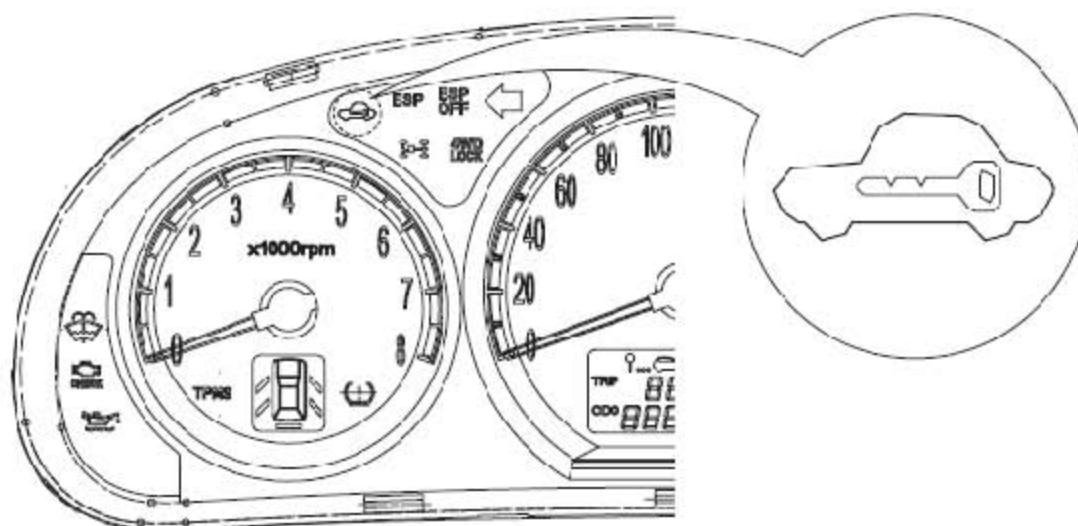


## P1692 IMMOBILIZER LAMP ERROR

### COMPONENT LOCATION



### GENERAL DESCRIPTION

When driver inserts key and IGN "ON", Immobilizer informs status of system and result of Authentication by blinking of immobilizer lamp on instrument cluster. through Authentication procedure immobilizer lamp keep lighting up till engine starts. In normal status, Immobilizer lamp lights up for 30sec Right after ignition "ON". If there's any fault in immobilizer system or in Authentication, lamp blinks 5 times after ignition "ON".

### DTC DESCRIPTION

The ECM sets DTC P1692 if there's short circuit in immobilizer lamp circuit.

### DTC DETECTING CONDITION

Item	Detecting Condition	Possible cause
<b>DTC Strategy</b>		<ul style="list-style-type: none"> <li>• Short Circuit in immobilizer lamp circuit.</li> <li>• Open/Short in control harness</li> <li>• Faulty ECM</li> </ul>
<b>Enable Conditions</b>	• IG ON (On Registering TP Procedure)	
<b>Threshold value</b>		
<b>Diagnostic Time</b>		
<b>Fail Safe</b>		



## MONITOR DTC STATUS

- 1). Connect scantool to Data Link Connector(DLC).
- 2). Ignition "ON" & engine "OFF".
- 3). Selet "Diagnostic Trouble Codes(DTCs)"mode and monitor "DTC Status" parameter.
- 4). Is the DTC B1692 present?

### **YES**

Go to "Inspection & Repair" procedure.

### **NO**

Fault is intermittent caused by poor contact in SMARTRA's and/or ECM's connector or was repaired and ECMmemory was not cleared. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage. Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

## TERMINAL AND CONNECTOR INSPECTION

- 1). Many malfunctions in the electrical system are caused by poor harness and terminals. Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
- 2). Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

### **YES**

Repair as necessary and go to "Verification Vehicle Repair" procedure.

### **NO**

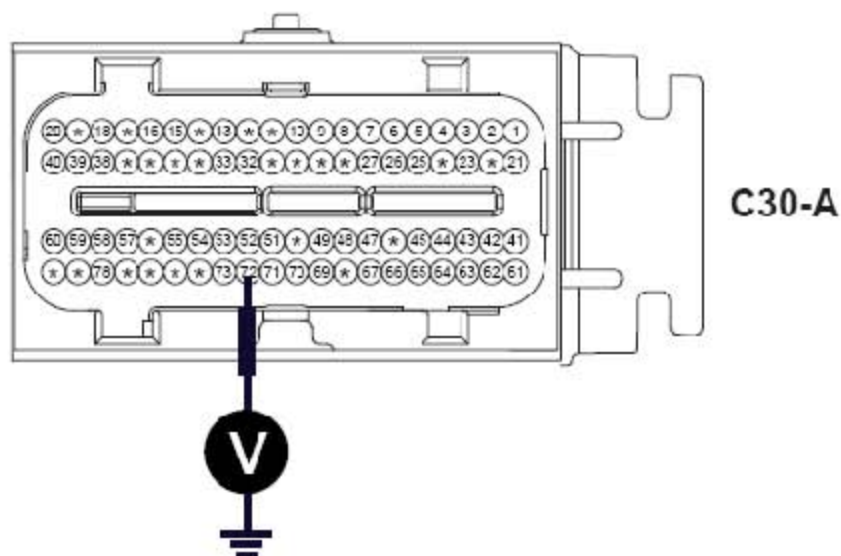
Go to "W/Harness Inspection" procedure.

## CONTROL CIRCUIT INSPECTION

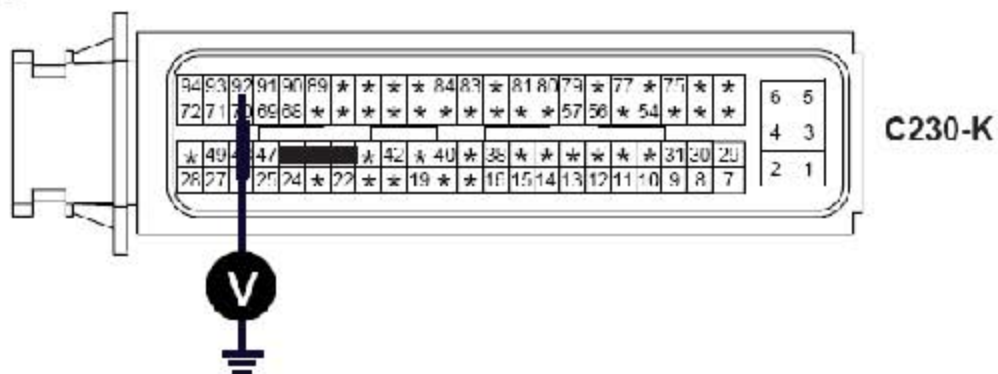
- 1). Check for open in harness
  - A) Ignition "OFF"
  - B) Disconnect SMARTRA.
  - C) Ignition "ON" & Engine "OFF"
  - D) Measure voltage value between terminal C30-A-72(Gasoline) or C230-K-92 (Diesel) and chassis ground.

<b>Specification</b> : Approx. 11V
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[Gasoline]



[Diesel]



E) Is the measured voltage within specifications?

**YES**

Go to "Component Inspection" procedure.

**NO**

Check for open or short in harness. Repair as necessary and go to "Verification of Vehicle Repair" procedure.

**VISUAL / PHYSICAL INSPECTION**

- 1). Check immobilizer lamp circuit.
  - A) Ignition "ON" & Engine "OFF"
  - B) Check if immobilizer lamp operates properly.

**NOTE**

Right after ignition "ON", Immobilizer lamp lights up for 30sec.

If lamp blinks 5 times after ignition "ON", there's any fault in immobilizer system.

C) Is immobilizer lamp operates properly?

**YES**

Check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage. Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

**NO**

Go to "Component Inspection" procedure

## COMPONENT INSPECTION

1). Check immobilizer lamp.

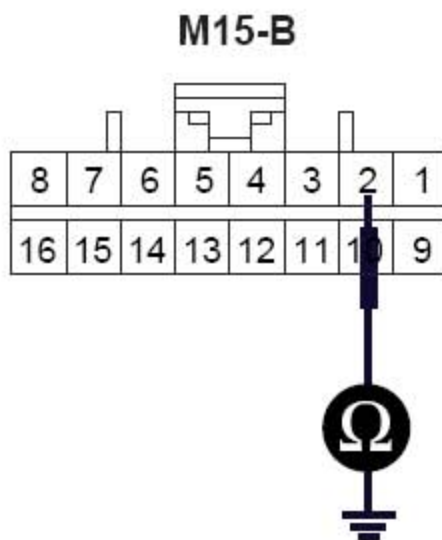
A) Ignition "OFF"

B) Disconnect ECM.

C) Ground terminal "B2" of immobilizer lamp.

D) Ignition "ON" and Monitor operation of immobilizer lamp.

**Specification** : Immobilizer lamp "ON"



E) Is the Immobilizer lamp "ON"?

**YES**

Substitute with a known-good ECM and check for proper operation.

If the problem is corrected, replace ECM and then go to "Verification of Vehicle Repair" procedure.

**NOTE**

ECM substituted for old one must be in "Virgin" or "Neutral" status and Pin code is required to Neutralize ECM and to Register transponder key.

**NO**

Check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage. Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

**VERIFICATION OF VEHICLE REPAIR**

After a repair, it is essential to verify that the fault has been corrected.

- 1). Connect scantool and select "Diagnostic Trouble Codes(DTCs)" mode and then clear DTC.
- 2). Operate the vehicle and monitor the DTC on the scantool.
- 3). Are any DTCs present?

**YES**

Go to the applicable troubleshooting procedure.

**NO**

System is performing to specification at this time.