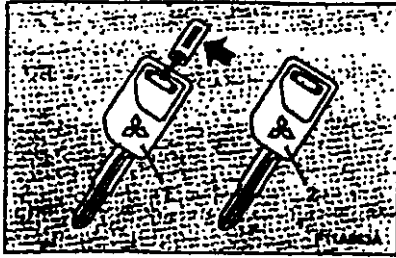


Locking and unlocking



Keys

EP12AA0

- 1- Master key (Black)
- 2- Sub key (Grey)

Three keys are provided. Two of them are master keys and the third is a sub key.

The master keys fit all locks. Keep one in a safe place as a spare key. The sub key fits all locks except for the glove box.

NOTE

- (1) The key number is stamped on the tag as indicated in the illustration. Make a record of the key number and store the key and key number tag in separate places, so that you can order a key from your authorized MITSUBISHI dealer in the event the original keys being lost.
- (2) The engine is designed so that it will not turn over if the ID code registered in the immobilizer computer and the key's ID code do not match. Refer to the section entitled "Electronic Immobilizer" for details and key usage.
- (3) Keys should never be placed in areas which contain magnetic or metal objects as this may interfere with the transponder.

Electronic immobilizer (Anti-theft starting system)

EP12C10

The electronic immobilizer is designed to reduce significantly the possibility of vehicle theft. The purpose of the system is to immobilize the vehicle if an invalid start is attempted. A valid start attempt can only be achieved (subject to certain conditions), using a key "registered" to the ignition lock.

Locking and unlocking

⚠ CAUTION

- (1) Keep a spare key or pieces of magnet/metal away when the key is turned to the "ON" position.
- (2) Be careful not to damage the key with a cutter etc. since there is a transponder inside the key.
- (3) Don't make any alterations or additions to the immobilizer system; any alterations or additions could cause failure of the immobilizer.
- (4) Three keys are provided. If you lose one of them, order a key from your authorized MITSUBISHI dealer as soon as possible.

To make a key, take your vehicle and the remaining key to your authorized MITSUBISHI dealer. If you need an extra spare key, take your vehicle and ALL the keys to your authorized MITSUBISHI dealer. Because all the keys have to be re-registered in the immobilizer computer unit.

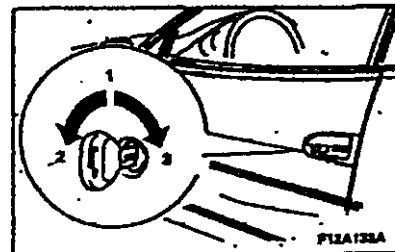
NOTE

- (1) The immobilizer allows up to 8 different ID codes to be registered; you can possess a maximum of 8 spare keys.
- (2) A system failure is suspected if turning the ignition key to START position does not cause the engine to start. In such a case, consult an authorized MITSUBISHI dealer.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NO USER SERVICEABLE PARTS INSIDE. DO NOT ATTEMPT TO MODIFY THIS EQUIPMENT. IF MODIFIED, YOUR AUTHORITY TO OPERATE THIS EQUIPMENT MIGHT BE VOIDED BY FCC.



F12A123A

Doors

EP12A-FE

Operation from outside the vehicle

- 1- Insert or remove the key
- 2- Lock
- 3- Unlock

Immobilizer ECU Test Operation Method

1. Initial set up (key position : OFF)

- Have the transponder key removed from the steering handle lock.
- Connect the immobilizer ECU to the connector at the steering handle lock.
- Connect the power supply (DC12V) to the connection terminal of the steering handle lock.

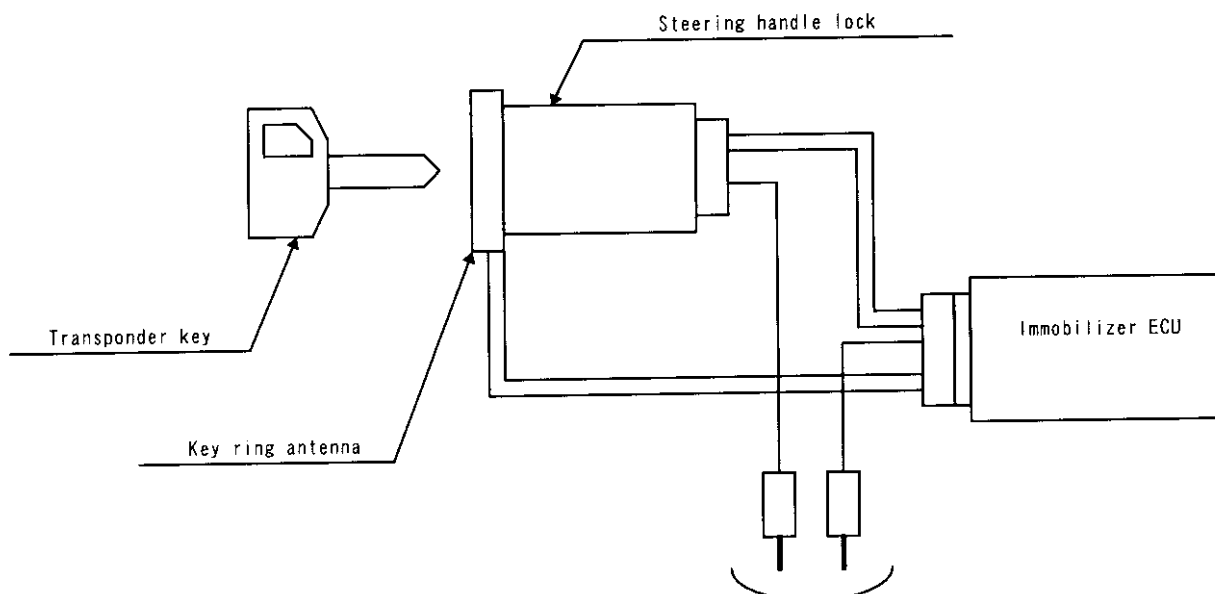
2. Power supply / communication start (key position : ON)

- Insert the transponder key to the steering handle lock. (Lock position)
- Turn the transponder key from Lock to the ON position.
- When the transponder key position is changed to the ON position, IG SW starts working (contact closed) and power is supplied to the immobilizer ECU, the immobilizer ECU starts communication with the transponder key.
- The immobilizer sends signal (134.2 KHz) for approx. 80 ms to the transponder for power supply and data sending.

3. System OFF (Key position : OFF)

- Turn the transponder key from ON to Lock position.
- When the transponder key position is at Lock position, all switches are turned off, stopping power supply to the immobilizer ECU.

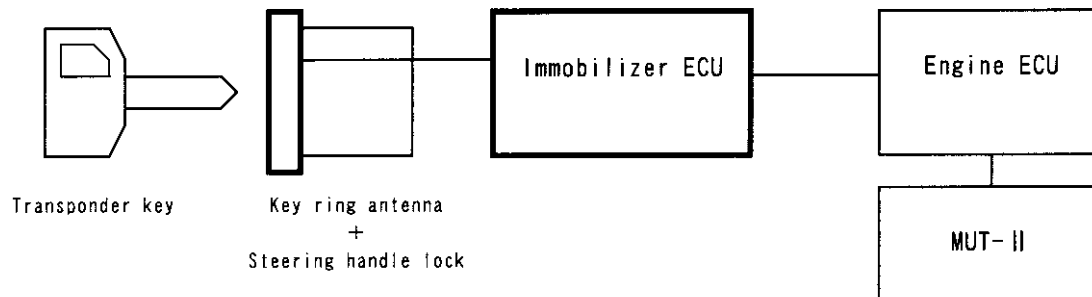
<Block diagram>



Immobilizer System User's Manual

1. General

The immobilizer system is an electronic anti-theft system. This system prevents the engine from unauthorized starting such as hot-wiring, etc. The engine would not start until the ID code registered in the ignition key coincides with the code registered in the immobilizer ECU on the vehicle.



Major components and functions

Name	Function
Transponder	• Sends ID code to the immobilizer ECU via key ring antenna.
Key ring antenna	• Supplies power and sends / receives data to and from the transponder by means of electromagnetic coupling
Immobilizer ECU	• Receives the ID code from the transponder and compares it with the code registered in the immobilizer ECU. • Sends the condition code to the engine ECU.
Engine ECU	[Functions related to the immobilizer system] • Receives the condition code from the immobilizer ECU and operates to prepare / prohibit the start of the engine.

Handling precaution

- (1) When starting the engine, keep metal objects (iron, etc.), electric equipment (cellular phone, electric razor, etc.) and other immobilizer keys away from the ignition key cylinder.
- (2) Never damage the plastic key bow with a knife or fill transponder or similar articles inside.

2. System operation

- (1) Operation start
When the ignition key is turned to the ON position, battery power is supplied to the immobilizer ECU. And at this time, the engine ECU sends request code to the immobilizer ECU.
 - (2) Sending to the transponder (Immobilizer ECU to Transponder)
When the request code is received from the engine ECU, the immobilizer ECU sends electromagnetic wave to the transponder via key ring antenna to supply power and send data to the transponder by means of electromagnetic coupling.
 - (3) Sending ID code (Transponder to Immobilizer ECU)
The transponder sends the ID code to the immobilizer ECU via the key ring antenna.
 - (4) Comparison of ID code
The ID code sent from the transponder is compared with the ID code registered in the immobilizer ECU.
 - (5) Sending condition code (Immobilizer ECU to Engine ECU)
After ID code comparison, the immobilizer ECU sends the condition code to the engine ECU. This condition code is comprised of the comparison result of ID code (ID code coincident / not coincident, no ID code receiving).
 - (6) Receiving condition code
When the engine ECU receives the normal code which contains "ID code coincident", it becomes ready for start. In the case a code different from this is received, it prohibits engine start.
 - (7) Engine start
After receiving the normal condition code, the engine can be started by turning the ignition key to the START position.
- Note:
- (1) Transponder ID code registration to the immobilizer ECU is performed using the MUT-II. The transponder key has individual ID code and a maximum of 8 types of codes (8 keys) can be registered to the immobilizer ECU.
 - (2) The immobilizer ECU is provided with a self-diagnosis function, which enables condition checking by the use of MUT-II.

<Timing chart>

- This describes the action of immobilizer ECU used for radio wave confirmation.
- When the IG-SW is turned ON, signal sending of approx. 80 ms (charge) takes place for one time.

