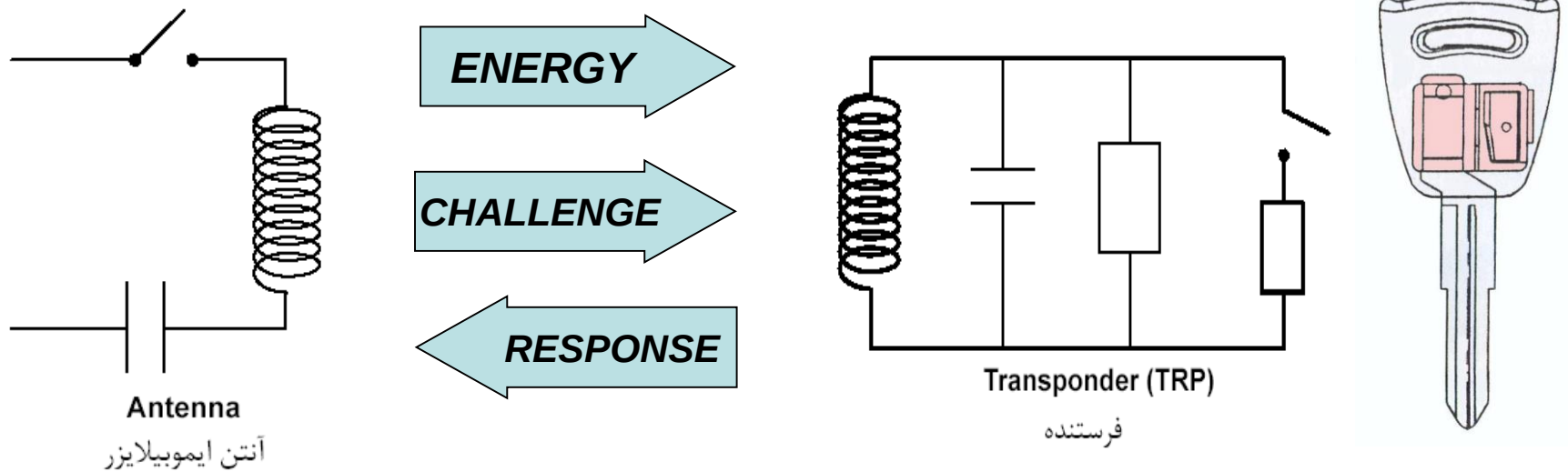


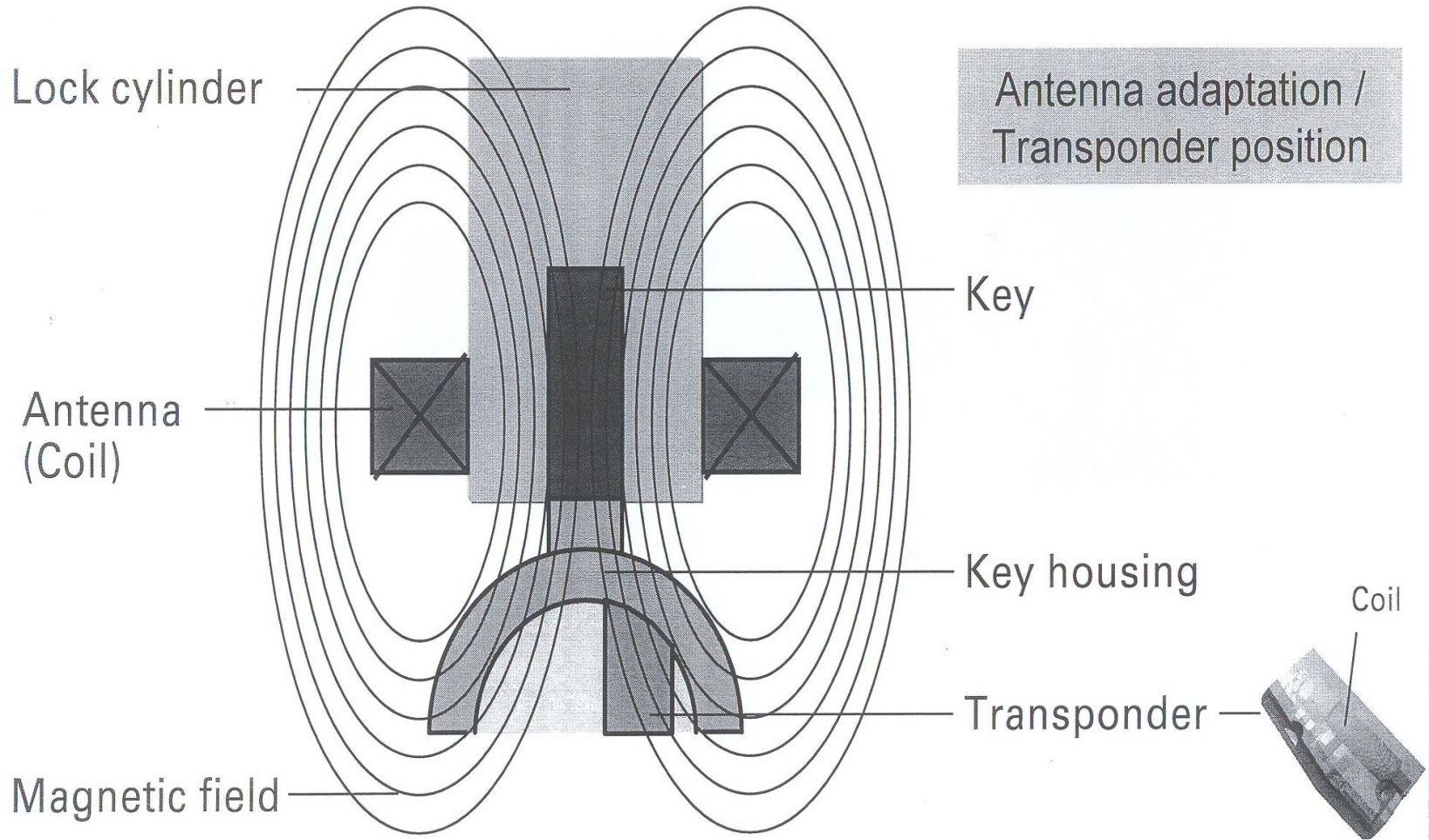
# ***IMMOBILIZER***

**Pride**

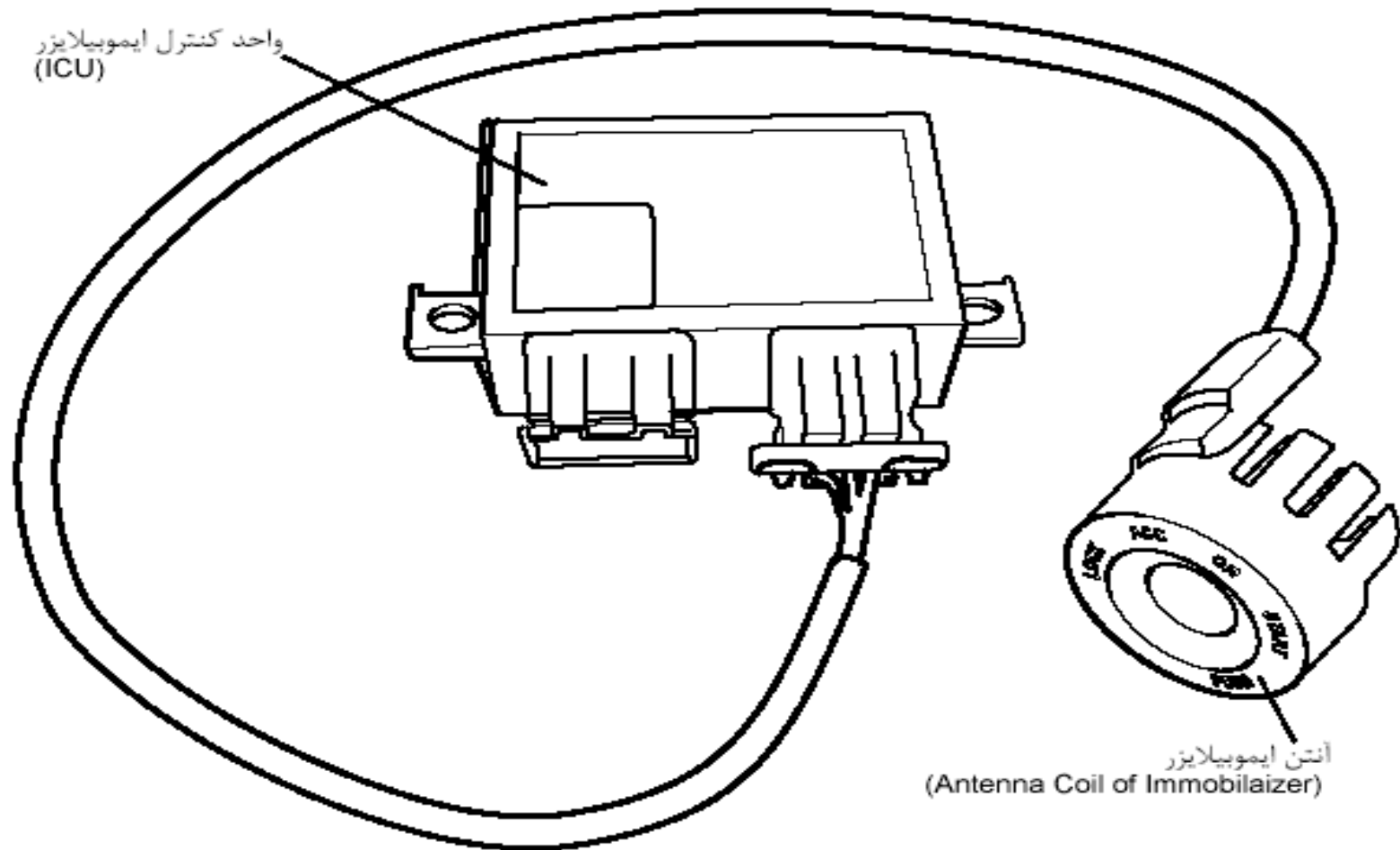
# Operation Immobilizer System:



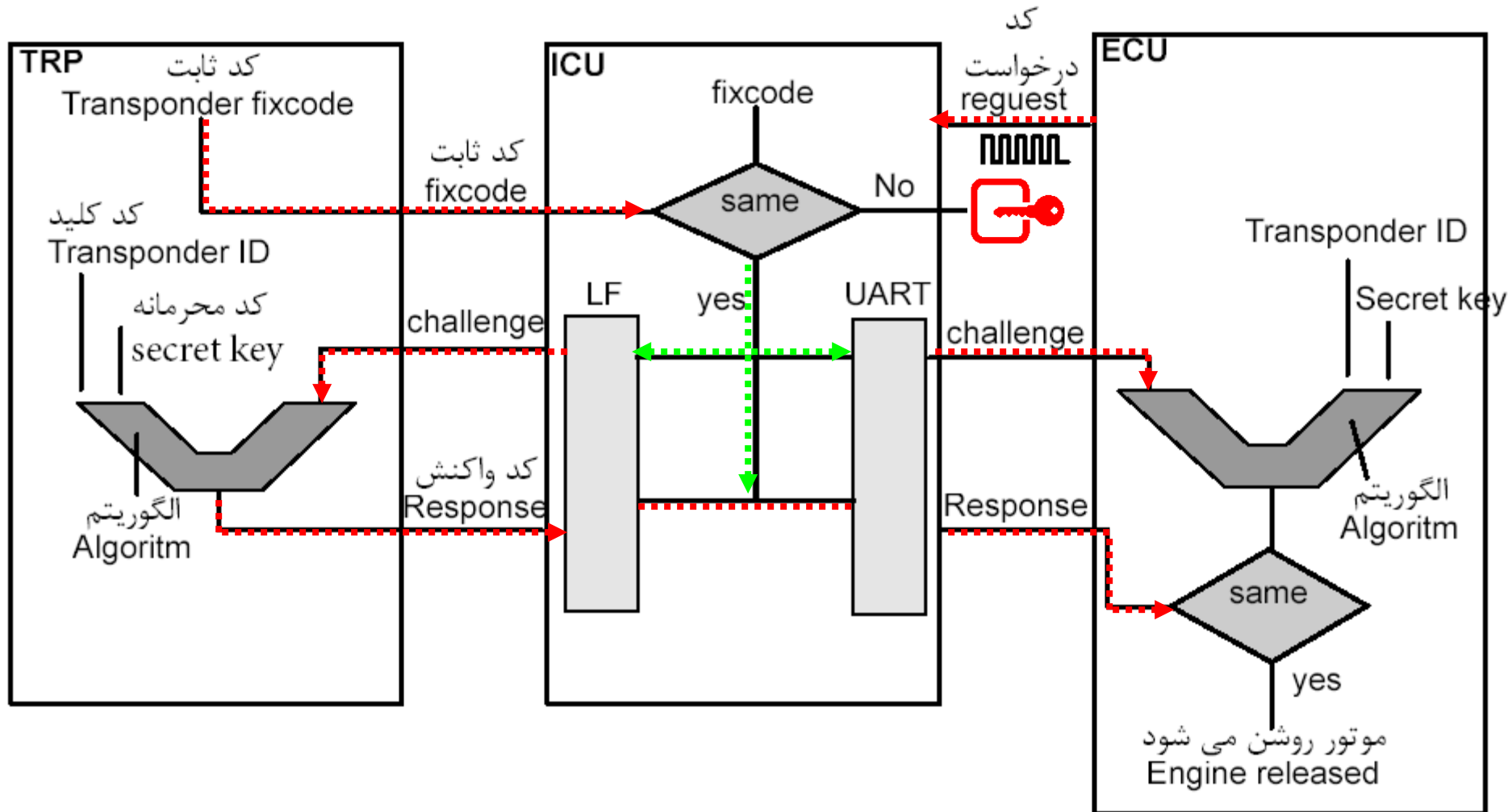
# Operation Immobilizer System:



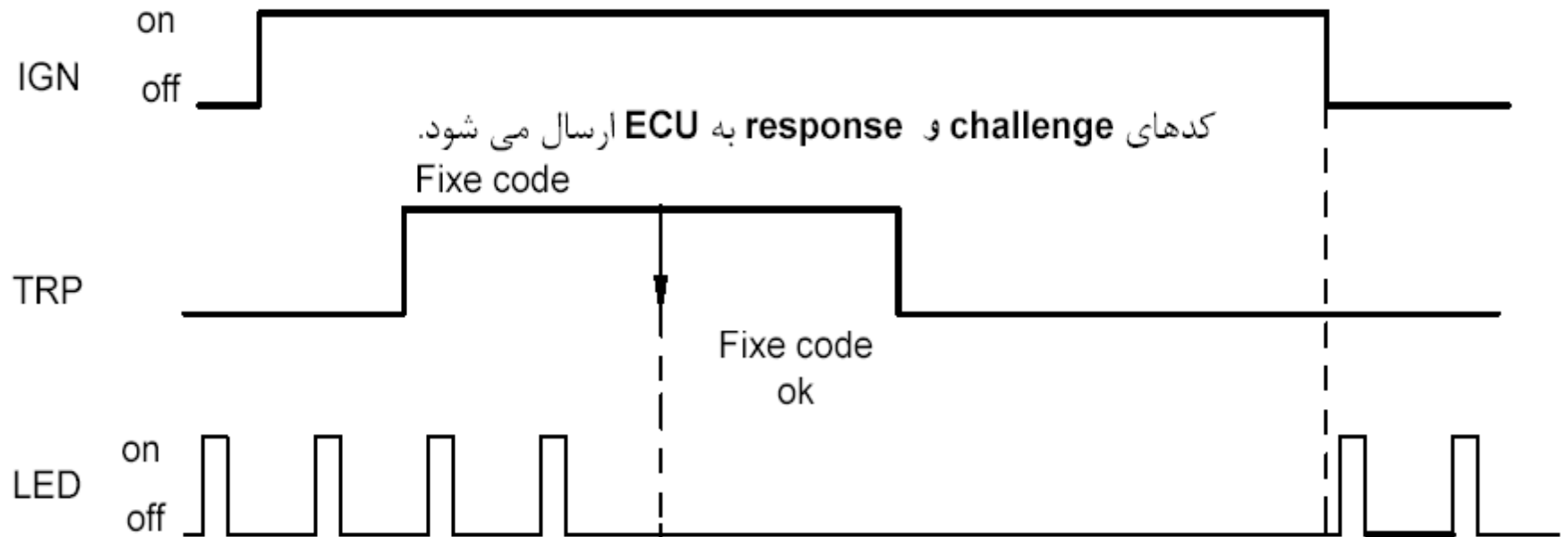
# Operation Immobilizer System:



## MAIN FUNCTIONS OF IMMOBILIZER



## MAIN FUNCTIONS OF IMMOBILIZER



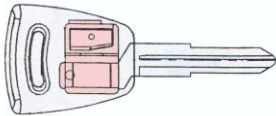


DIAG

ACCESS CODE

TRP

TRANSPONDER ID  
TRANSPONDER FIX CODE  
SECRET KEY



ICU

TRANSPONDER FIX CODE  
SECRET KEY  
ACCESS CODE



ECU

TRANSPONDER ID  
SECRET KEY  
ACCESS CODE

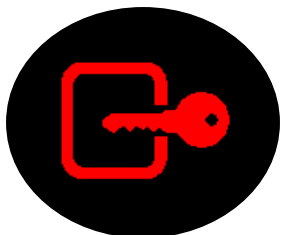


SECRET KEY      کد  
برروی TRP برنامه ریزی می شود.

FIX CODE      کدهای  
ACCESS CODE و  
برروی ICU برنامه ریزی می شود.

SECRET KEY      کد  
بر اساس الگوریتمی در ICU تولید  
و برروی قطعات دیگر برنامه ریزی  
می شود.

TRANSPONDER ID      کدهای  
ACCESS CODE و  
SECRET KEY و  
برروی ECU برنامه ریزی می شود.



# ***Introduce Immobilizer System***



***VALEO SYSTEM***

**SIEMENS VDO**

***SIEMENS SYSTEM***

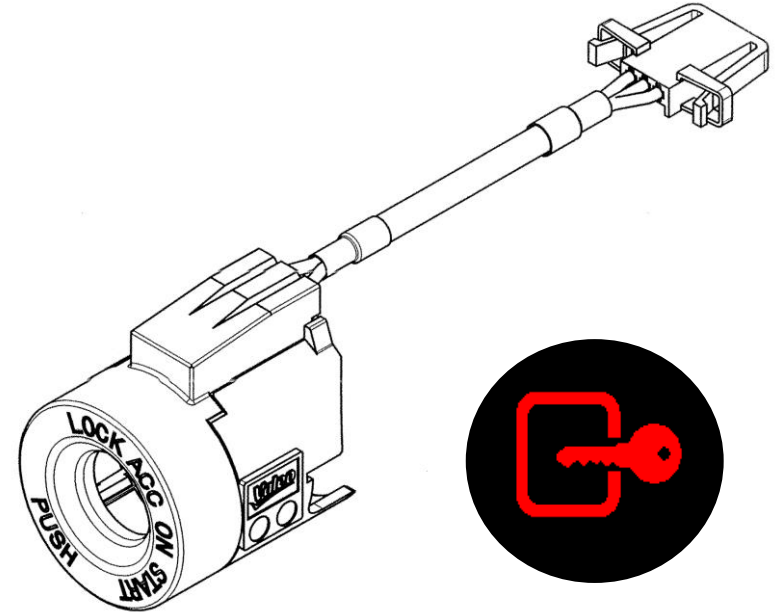
***NOTE:***

***GARANTY***



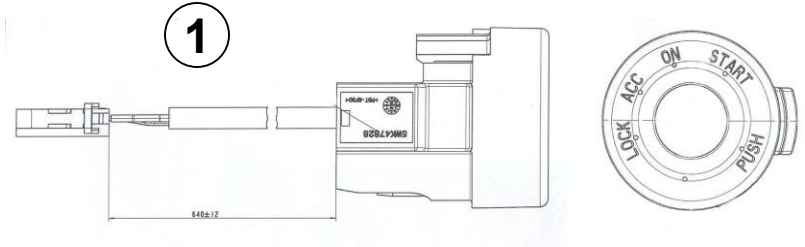
# Component

- 1- ANTENNA COIL OF IMMOBILIZER
- 2- TRANSPONDER
- 3- IMMOBILIZER CONTROL UNIT (ICU)
- 4- ELECTRONIC CONTROL UNIT (ECU)
- 5- ACCESS CODE



5

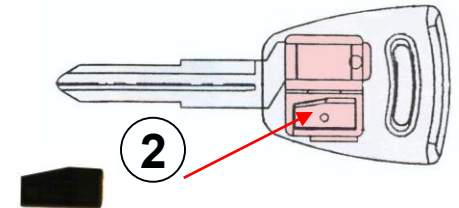
4



1

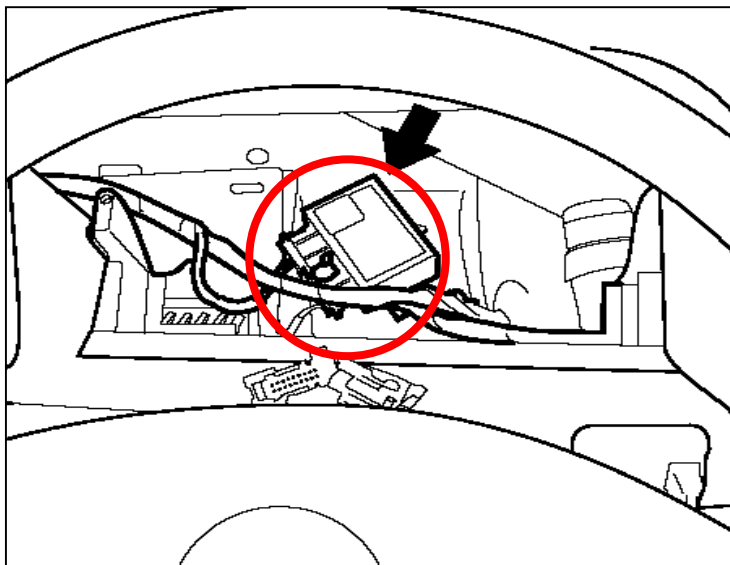
3

2

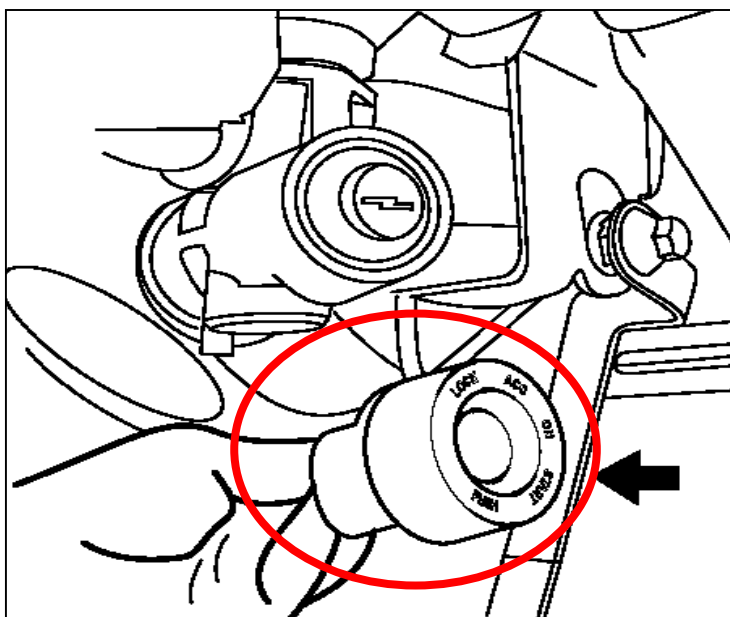


ELECTRONIC CHIP

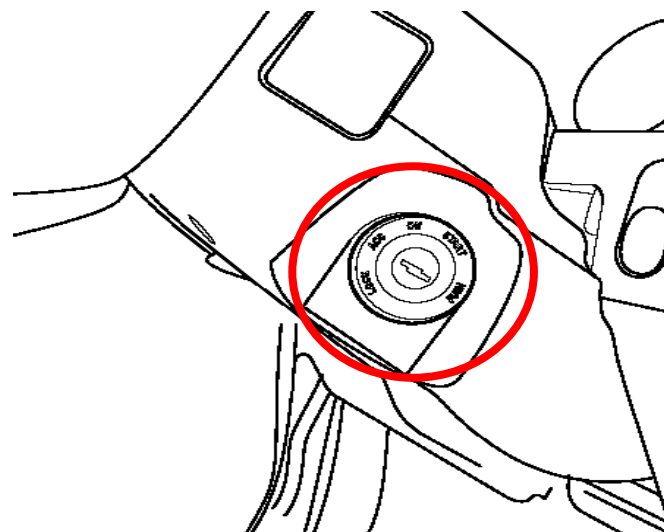




***Position of The ICU In Pride***

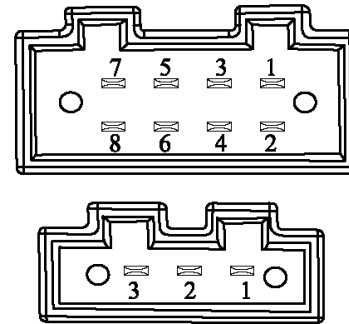


***Position Of The Transponder in Pride***





## Spec. Connector Socket:



| شماره پین ICU | توضیحات               | به پین شماره                     |
|---------------|-----------------------|----------------------------------|
| B1            | مثبت باطری            | ---                              |
| B2            | منفی GND              | ---                              |
| B3            | منفی چراغ ایموبیلایزر | ۲ کانکتور مشکی صفحه کیلومتر شمار |
| B4            | (در حالت ACC)         | B 29 (ECU)                       |
| B5            | ECU (R- LINE)         | A6 (ECU)                         |
| B6            | ---                   | ---                              |
| B7            | DIAG CONECTOR         | پایه ۱۱ کانکتور عیب یاب          |
| B8            | ECU (W-LINE)          | B56 (ECU)                        |
| A1            | COIL OF ANTENA        | ---                              |
| A2            | COIL OF ANTENA        | ---                              |
| A3            | GND                   | ---                              |

# ***IMMOBILIZER DTC :***

***B3060: UNPROGRAMED TRANSPONDER***

***B3061: DISTURBED OR NO CHALLENGE***

***B3055: NO TRANSPONDER MODULATOR***

***B3056: NO TRANSPONDER FIX CODE PROGRAMMED***

***B3057: NO SECURITY CODE PROGRAMMED***

***B3059: NO REQUEST FROM ECU RECEIVE***

***B3045: LED LINE CIRCUIT SHORT TO GND***

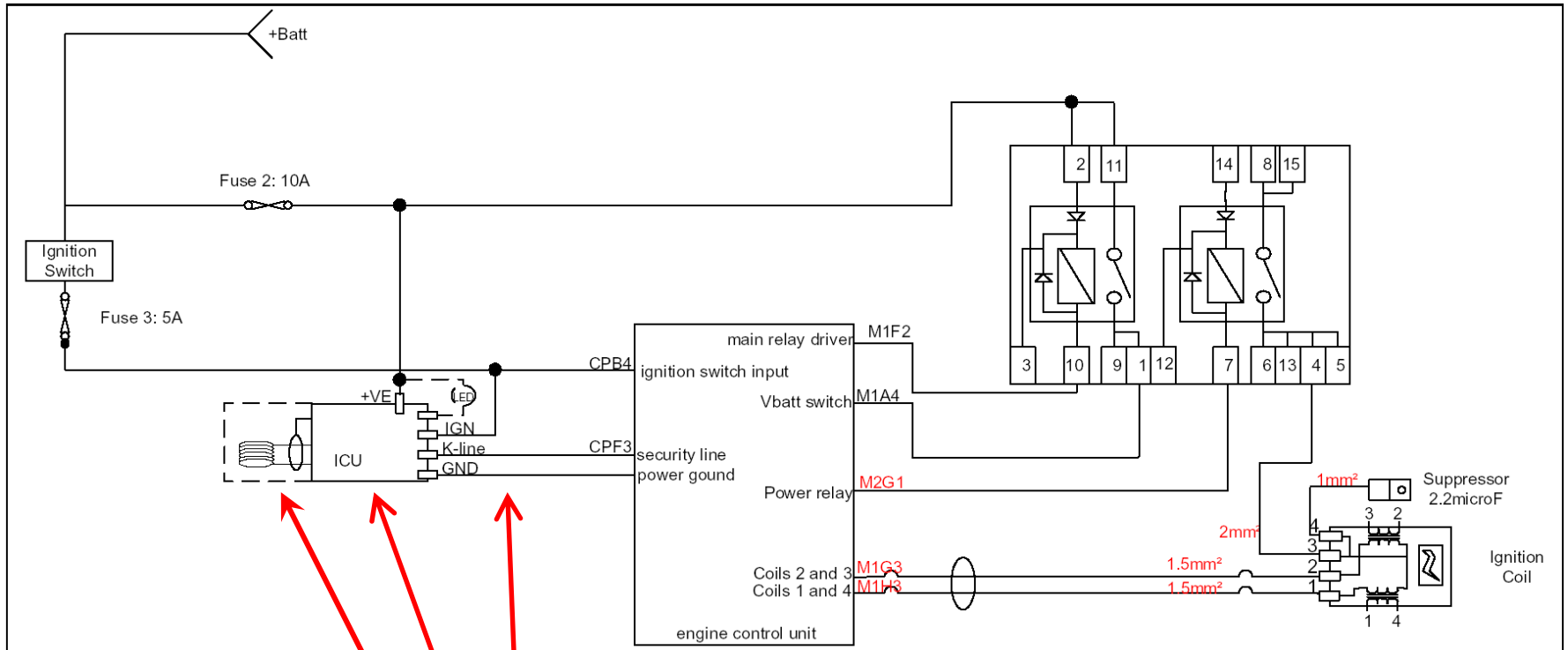
***B3048: LED LINE SHORT CIRCUIT TO BATTERY***

***B3040: COMMUNICATION ERROR ON W-LINE , ECM DOESN'T ANSWER ON CHALLENGE / RESPONSE REQUESTS.***

***B3042: W-LINE SHORTE CIRCUIT TO GROUND***

***B3043: W-LINE SHORT CIRCUIT TO BATTERY***

# Electrical Circuit



DTC OF IMMO:

U0167 : ECU – ICU communication troubles

P1641 : Immobilizer Control Unit internal failure

P1640 : Antenna efficiency

# **WORKSHOPS**

## ***Working with Diagnostic Tools***

**SIEMENS VDO**

| <b><i>Number of Fault<br/>code entered</i></b> | <b><i>ECU Locked Time<br/>before enter right code</i></b> |
|------------------------------------------------|-----------------------------------------------------------|
| <b><i>1</i></b>                                | <b><i>10S</i></b>                                         |
| <b><i>2</i></b>                                | <b><i>10S</i></b>                                         |
| <b><i>3</i></b>                                | <b><i>10MIN</i></b>                                       |
| <b><i>4</i></b>                                | <b><i>20MIN</i></b>                                       |
| <b><i>5</i></b>                                | <b><i>40MIN</i></b>                                       |
| <b><i>6</i></b>                                | <b><i>80MIN</i></b>                                       |
| <b><i>7</i></b>                                | <b><i>160MIN</i></b>                                      |
| <b><i>8</i></b>                                | <b><i>320MIN</i></b>                                      |
| <b><i>9</i></b>                                | <b><i>640MIN</i></b>                                      |
| <b><i>10 or more</i></b>                       | <b><i>1280MIN</i></b>                                     |

***\* If you entered wrong code to Immobilizer system, system is locked according the timetable.***



| NO | ECU    | ICU      | TRP     | EXPECT      | DTC            | NO          | ECU            | ICU            | TRP         | EXPECT         | DTC            |                |             |                |                |                |                |
|----|--------|----------|---------|-------------|----------------|-------------|----------------|----------------|-------------|----------------|----------------|----------------|-------------|----------------|----------------|----------------|----------------|
| 1  | LEARNT | LEARNT   | LEARNT  | ENGINE RUN  |                | 27          | NEUTRAL        | INVALID        | LEARNT      | ENGINE LOCK    | P1656<br>P1661 |                |             |                |                |                |                |
| 2  |        |          | INVALID |             | 28             | INVALID     |                |                |             |                |                |                |             |                |                |                |                |
| 3  |        |          | VIRGIN  |             | 29             | VIRGIN      |                |                |             |                |                |                |             |                |                |                |                |
| 4  |        |          | NOTP    |             | 30             | NOTP        |                |                |             |                |                |                |             |                |                |                |                |
| 5  |        | INVALID  | LEARNT  | ENGINE LOCK | P1656          | 31          |                | NONE           |             |                | P1656<br>P1662 |                |             |                |                |                |                |
| 6  |        |          | INVALID |             |                |             |                | 32             | INVALID     |                | ENGINE LOCK    | P1656<br>P1661 |             |                |                |                |                |
| 7  |        |          | VIRGIN  |             |                |             |                | 33             | VIRGIN      |                |                |                |             |                |                |                |                |
| 8  |        |          | NOTP    |             |                |             |                | 34             | NOTP        |                |                |                |             |                |                |                |                |
| 9  |        | NONE     |         |             |                | 35          |                | INVALID        |             |                |                |                |             |                |                |                |                |
| 10 |        | VIRGIN   | INVALID |             |                |             |                | 36             | NEUTTRAL    |                |                | VIRGIN         | ENGINE LOCK | P1656<br>P1661 |                |                |                |
| 11 |        |          | VIRGIN  |             |                |             |                | 37             | NOTP        |                |                |                |             |                |                |                |                |
| 12 |        |          | NOTP    |             |                |             |                | 38             | LEARNT      |                |                |                |             |                |                |                |                |
| 13 |        | NEUTTRAL | INVALID |             |                |             |                | 39             | INVALID     |                |                | ENGINE LOCK    |             |                | P1656<br>P1661 |                |                |
| 14 |        |          | VIRGIN  |             |                |             |                | 40             | VIRGIN      |                |                |                |             |                |                |                |                |
| 15 |        |          | NOTP    |             |                |             |                | 41             | NOTP        |                |                |                |             |                |                |                |                |
| 16 | VIRGIN | INVALID  | LEARNT  |             |                | ENGINE LOCK | P1656<br>P1661 | NO IMMO<br>ECU | VIRGIN      | INVALID        |                |                |             | ENGINE LOCK    |                | P1656<br>P1661 |                |
| 17 |        |          | INVALID |             |                |             |                |                |             |                |                |                |             |                | 42             |                | INVALID        |
| 18 |        |          | VIRGIN  |             |                |             |                |                |             |                |                |                |             |                | 43             |                | VIRGIN         |
| 19 |        |          | NOTP    |             |                |             |                |                |             |                |                |                |             |                | 44             |                | NOTP           |
| 20 |        | NONE     |         | 45          | INVALID        |             |                |                | ENGINE LOCK | P1656<br>P1661 |                |                |             |                |                |                |                |
| 21 |        | VIRGIN   | INVALID | VIRGIN      |                |             |                |                |             |                | 46             |                |             |                | NEUTTRAL       | VIRGIN         |                |
| 22 |        |          |         |             | VIRGIN         |             |                |                |             |                |                |                |             |                | 47             | NOTP           |                |
| 23 |        |          |         |             | NOTP           |             |                |                |             |                |                |                |             |                | 48             | NONE           |                |
| 24 |        | NEUTTRAL | INVALID | ENGINE LOCK | P1656<br>P1661 |             |                |                |             | NO IMMO<br>ECU | NONE           |                |             |                |                | ENGINE RUN     | P1656<br>P1661 |
| 25 |        |          | VIRGIN  |             |                |             |                |                |             |                |                |                |             |                |                |                |                |
| 26 |        |          | NOTP    |             |                |             |                |                |             |                |                |                |             |                |                |                |                |

ICU, ECU به یکدیگر معرفی شدند و TRP نیز برنامه ریزی شده است.  
ICU, ECU به یکدیگر معرفی شدند ولی TRP برنامه ریزی نشده است.  
خام است.  
با هم همخوانی ندارند  
از سیستم جدا می باشد

:LEARNT  
:NEUTRAL  
:VIRGIN  
:INVALID  
:NONE

*Learning in*  
**SIMMENS**  
*by Diagnostic Tools*

## Diag Menu.

F1 – DAEWOO.

**F2 – Saipa Group.**

F3 – Iran khodro Group.

F4 – Volkswagen.

F5 – NISSAN & RENAULT Group.

F6 – OBD Scan Tools.

F7 – HYUNDAI Diagnostic Program.

F8 – Conventional Engine Analyzer.

F9 – Exhaust Gas analyzer. (4Gas , 5 Gas)

F10– Connect To RAYAN KHODRO Via Modem.

F11 Upgrade Program.

F12– Restore Program Backup.

Shift F1 – User 's Manuals.

Shift F11 –Make Program Backup.

Shift F10 – Make a Report Floppy.

Shift F12 – Restart Windows XP

Diag Menu.

**F1 – Pride Siemens & Johnson control.**

F2 – CITROEN (Xantia) 1.8L & 2.0L

F3 – Rio (KIA)

Car Select Menu:

**F1 - DIAGNOESTIC**

F2 - Combustible Meter

F3 - Volt Meter + Live Scope

F4 - Resistor , Capacitor Meter

F6 - Instrument Self

F10 - Calibration

Select your choice:

Car Select Menu:

- |           |              |                      |
|-----------|--------------|----------------------|
| F1        | Pride        | (Siemens)            |
| F2        | Pride        | (Jonson control)     |
| <b>F3</b> | <b>Pride</b> | <b>(New Siemens)</b> |

Select your choice:

Online / Offline

- F1 Engine (Siemens , New ECU) (V 1.05)
- F2 Engine Immobilizer (Siemens)
- F3 Review Restored Data

Select your choice:

**Main Menu**

- F1 - Computer Identification**
- F2 - Parameter Measurement**
- F3 - Fault Codes**
- F4 - Fault Codes Clear**
- F5 - Key Learning**

**Select your choice:**



**Main Menu**

- F1 - Computer Identification**
- F2 - Parameter Measurement**
- F3 - Fault Codes**
- F4 - Fault Codes Clear**
- F5 - Key Learning**

**Do you want to save information in file (for future)? ([Y]=Yes)**

**Main Menu**

- F1 - Computer Identification
- F2 - Parameter Measurement
- F3 - Fault Codes
- F4 - Fault Codes Clear
- F5 - Key Learning**

Select your choice:

## Key Learning

Required Card Number:

Select your choice:

Key Learning

IG KEY : ON  
TRANSPONDER : DETECTED  
CUSTOMIZED TRANSPONDER : DETECTED  
KEYPTO TRANSPONDER : DETECTED  
  
CONDITION : OK  
PRESS ANY KEY . . .

# **WORKSHOPE**

## ***Removing and Refitting of*** **SIMENSE** ***Immobilizer System***

**SIEMENS VDO**

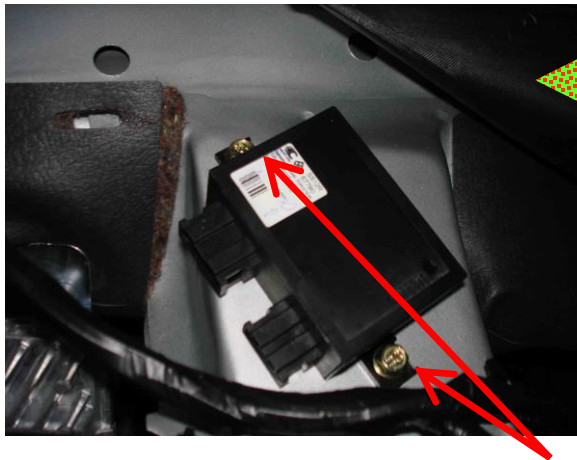
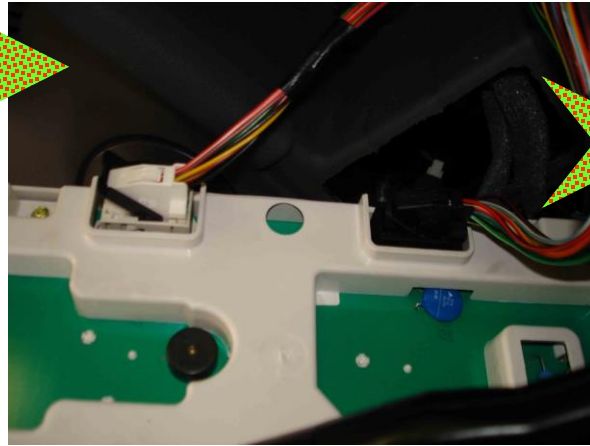
*Removing  
the  
ICU  
Internal computer unit*

SIEMENS VDO







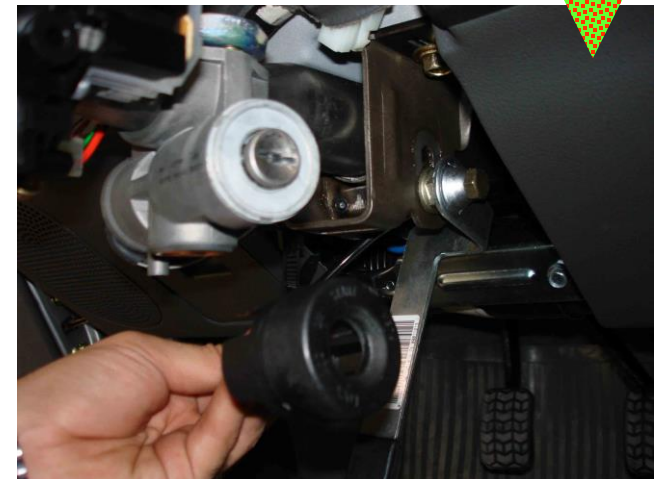


# *Removing the Transponder*

**SIEMENS VDO**







# *Removing the ENGINE ECU*

**SIEMENS VDO**

