

24

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RENAULT

## CONTENTS

**A**

APPLICATIONS

**B**

GENERAL OPERATION

**C**

SPECIAL FUNCTIONS

**D**

TIPS AND HINTS

**E**

REMOTE CONTROL PROGRAMMING

# APPLICATIONS

# A

VEHICLE	MODEL YEAR	PIN CODE REQUIRED	CABLE
CLIO 1	ALL MODELS	YES (4 PIN)	ADC110-B
CLIO II	2002 >	YES (12 PIN)	ADC110-B
ESPACE	2002 >	YES (12 PIN)	ADC110-B
KANGOO 1	ALL MODELS	YES (4 PIN)	ADC110-B
KANGOO II	2002 >	YES (12 PIN)	ADC110-B
MASTER 1	ALL MODELS	YES (4 PIN)	ADC110-B
MASTER II	2005 >	YES (12 PIN)	ADC110-B
MEGANE	99 > ON	YES (8 PIN)	ADC110-B
MEGANE SCENIC	99 > ON	YES (8 PIN)	ADC110-B
MEGANE II	ALL MODELS	YES (12 PIN)	ADC110-B
MODUS	ALL MODELS	YES (12 PIN)	ADC110-B (CAN)
SCENIC II	ALL MODELS	YES (12 PIN)	ADC110-B
LAGUNA I	ALL MODELS	YES (8 PIN)	ADC110-B
LAGUNA II	2002 >	YES (12 PIN)	ADC110-B
TRAFFIC II	2002 >	YES (12 PIN)	ADC110-B
VEL SATIS	ALL MODELS	YES (12 PIN)	ADC110-B

## INTRODUCTION

The Renault Immobiliser system uses either Infra Red or Radio Frequency for Plip key operation and transponder key technology for key entry and starting. The Infra Red and RF systems use a rolling code system to ensure the vehicle system cannot be breached.

Activation of the Immobiliser system is indicated by the LED indicator in the Instrument cluster. If there is a fault in the system, an emergency access code can be used to disable the system using the central door locking button or key and the LED to enter the code.

On petrol vehicles the immobiliser is carried out by the Fuel Injection system and on Diesel systems it is carried out by the coded solenoid valve.

The immobiliser system automatically sets itself after 10 minutes if both doors are closed, this can be 30 minutes in other countries. If the ignition is switched OFF and one of the front doors is opened, then the immobiliser sets itself after 1 minute, in other countries it can be 10 minutes.

To disarm the system the doors must be locked and unlocked using the plip key functions. Only 2 plips can be operated on this system.

The immobiliser key system operates independently of the Plip system. When the key is turned to the Ignition OFF position the immobiliser activates after 10 seconds. This system used 2 special matched keys with coded transponders.

The system comprises of Receiver aerial around the ignition lock, a decoder unit located under the dashboard, which sends the decoding signal to the Fuel Injection computer or coded solenoid valve, and the RED warning light.

Key programming and Plip programming can be performed using the TESTER if the relevant security code for the vehicle is available. The security code is normally displayed in the front of the service book, if not, it can only be obtained from a Renault dealer.

## Decoder Unit (BII)

This system is similar to many other immobiliser systems as it uses a transponder within the head of the key to send its code to the immobiliser when interrogated via the immobiliser ignition key barrel antenna. The code from the key is transferred to the Decoder Unit which has the following functions:

- Decoding the key transponder signal, via the antenna coil
- Management of the engine immobiliser system by sending the received code to either the EMS-ECM (Petrol engine) or the Coded Solenoid Valve (Fuel Cut-off valve for diesel engines) to authorize the vehicle to be started
- Control of the immobiliser LED
- Central door locking functions (if fitted)
- Courtesy light control (part of central locking if fitted)

## Multi Timer Unit (BMT)

The Multi Timer Unit has the same immobiliser function as the Decoder Unit above using an ignition key with a transponder and an ignition key barrel antenna. The Multi Timer Unit has the following functions (amongst others):

- Decoding the key transponder signal, via the antenna coil
- Management of the engine immobiliser system by sending the received code to either the EMS-ECM (Petrol engine) or the Coded Solenoid Valve (Fuel Cut-off valve for diesel engines) to authorize the vehicle to be started
- Control of the immobiliser LED
- Central door locking functions (if fitted)
- Courtesy light control (part of central locking if fitted)

Type 'I' Key Recognition Optional IR Rolling Code - Petrol/Diesel

This system can be used with or without an Infrared Remote Control, which would require a separate control unit.

Type 'J' Coded Card instead of Key

This system is an immobiliser only, a separate system must be used to operate the central locking, however, a Coded Card may contain a remote control transmitter for gaining entry to the vehicle.



## Coded Card

The coded card system was introduced for the latest Laguna models and eliminates the use of 'ignition keys' and, optionally, 'door locking keys'. Instead of a key the driver has a coded card that, optionally, unlocks the door and after insertion into a card reader, sets self-retaining relays to supply the various systems/circuit in the vehicle (equivalent to the ignition switch), deactivates the immobiliser to allow the vehicle to be started and unlocks the electric steering lock. The code is a random rolling code to reduce the chances of simulation.

The engine is started via an engine start/stop push switch, which when pushed will energize the starter. If pressed again the switch will stop the engine and removing the card will break the retaining circuit to the main relay and the vehicle will shut down all systems and circuits except any required to remain on, e.g. lighting circuits, hazard lights etc. The following are the immobiliser functions:

- Decodes the signal from the card via the card reader
- Sends a signal to the electric steering column lock
- Communicates with the EMS-ECM
- Controls the immobiliser LED and the card reader light
- Communicates with the immobiliser

This system uses a multiplexing system to send data to peripheral devices, namely the electric steering lock, diagnostic socket, EMS-ECM and the LED in the instrument pack.

## All Systems

- Each system has a visual indication of the immobiliser status but whether or not it has a separate red LED to that of the EMS-ECM is dependent upon the system. If it shares an LED with the EMS-ECM this will flash regularly when the immobiliser is active and is also used to indicate acceptance of the security code numbers manually entered using the door locking button. In general the following functions are indicated by the LED:
  - Activation of the immobiliser
  - Non recognition of the Coded Card or Coded Keys
  - System fault
  - Fault with the EMS-ECM immobiliser function
  - Fault with the Electric Steering Lock (Coded Card only)
  - Signal of entry into door locking remote control resynchronization mode (Decoder/Multi Timer systems only)
  - If a fault with the EMS-ECM immobiliser circuit occurs whilst the vehicle is in motion the immobiliser LED will flash during deceleration and when at idle spd.

# GENERAL OPERATION

# B

Model	Year	Immobiliser Type	Version
Kangoo	10/97	D	V2
	10/97	F	V2
	10/97	H	V2
Master (XD0)	10/97	D	V2
	10/97	F	V2
	10/97	H	V2
Clio I	07/94	A	V1
	04/95	C	V1
	04/95	D	V1 & V2
	12/95	F	V2
	12/96	E	V2
Clio II	03/98	H	V2
	06/01	J	V3
Safrane	01/93	A	V1
	05/93	B	V1
	02/95	C	V1
	10/95	E	V2
	09/96	G	V2
	01/97	H	V2
Laguna I	02/94	A	V1
	07/94	B	V1
	01/95	C	V1
	11/95	D	V1 & V2
	09/95	E	V2
	11/95	F	V2
	01/97	H	V2
	01/00	J	V3
Express	04/95	C	V1
	01/96	E	V2
Megane	11/95	C	V1
	11/95	D	V2
	01/96	E	V2
	01/96	F	V2
	09/98	I	V2
Espace (J63)	04/95	C	V1
	09/95	E	V2
Espace (JE0)	09/96	G	V2
	01/97	H	V2
Trafic I	10/95	C	V1
	01/96	E	V2
Trafic II	06/01	J	V3
Twingo	01/95	C	V1
	01/95	D	V2
	12/99	H	V2
R19	05/93	A	V1
	03/95	C	V1
R21	01/92	A	V1

All systems have the same end function, immobilising the vehicle until the correct code is presented to the immobiliser unit.

## Type 'A' Infrared Remote Control Fixed Code - Petrol

This system uses a combined immobiliser and central door locking control unit with a remote infrared transmitter contained in the plastic keyhead. The transmitted code is fixed and when received by the control unit receiver it will generate a door open signal and simultaneously pass the code to the EMS-ECM. The EMS-ECM compares the received code against a stored code and if verified it will allow the engine to be started. This type is for petrol only vehicles and will allow up to seven keys to be used.

## Type 'B' Infrared Remote Control Fixed Code - Diesel

This system uses a combined immobiliser and central door locking control unit with a remote infrared transmitter contained in the plastic keyhead. The transmitted code is fixed and when received by the control unit receiver it will generate a door open signal and simultaneously pass the code to the Coded Solenoid Valve. The Coded Solenoid Valve compares the received code against a stored code and if verified it will allow the fuel to the engine. This type is for diesel only vehicles and will allow up to four keys to be used.

## Type 'C' Infrared Remote Control Rolling Code - Petrol

This system uses a combined immobiliser and central door locking control unit with a remote infrared transmitter contained in the plastic keyhead. The transmitted code is rolling to reduce the chances of the code being captured and used to enter the vehicle. The code when received by the control unit receiver will generate a door open signal and simultaneously pass the code to the EMS-ECM. The EMS-ECM compares the received code against a stored code and if verified it will allow the fuel to the engine. This type is for petrol only vehicles and will allow up to seven keys to be used.

## Type 'D' Key Recognition - No Infrared Remote - Petrol

This system uses key recognition only with no remote control of entry. A transponder in the keyhead reacts to a transmitted signal from a coil wrapped around the ignition key barrel. If the transponder code is the same as the stored code the EMS-ECM receives a signal to allow the engine to run. This type is for petrol only vehicles and will allow up to seven keys to be used.



## Type 'E' Infrared Remote Control Rolling Code - Diesel

This system uses a combined immobiliser and central door locking control unit with a remote infrared transmitter contained in the plastic keyhead. The transmitted code is rolling to reduce the chances of the code being captured and used to enter the vehicle. The code when received by the control unit receiver, will generate a door open signal and simultaneously pass the code to the Coded Solenoid Valve. The Coded Solenoid Valve compares the received code against a stored code and if verified it will allow the fuel to the engine. This type is for diesel only vehicles and will allow up to four or seven keys to be used dependent upon the type of shielding on the Coded Solenoid Valve.

## Type 'F' Key Recognition - No Infrared Remote - Diesel

This system uses key recognition only with no remote control of entry. A transponder in the keyhead reacts to a transmitted signal from a coil wrapped around the ignition key barrel. If the transponder code is the same as the stored code the Coded Solenoid Valve receives a signal to allow the engine to run. This type is for diesel only vehicles and will allow up to four or seven keys to be used depending upon the type of shielding on the Coded Solenoid Valve.

## Type 'G' Key Recognition + IR Rolling Code - 2 ECMs - Petrol/Diesel

This system has both Infrared Remote Control and Key Recognition but have a separate control for each function. There is no interaction between the two controllers except that they share common 'K' & 'L' diagnostic lines to the DLC and the Electric Door Button has an input to both to allow the code to be entered manually. This systems appears in both petrol and diesel vehicles and up to seven keys can be used.

## Type 'H' Key Recognition + IR Rolling Code - 2 ECMs - Petrol/Diesel

Types 'H' and 'G' are similar in their functionality but Type 'H' has a single integrated control unit.

Note: Aerial is not coded.

# SPECIAL FUNCTIONS

# C

## KEY PROGRAMMING—SYSTEM 1 ( 4 pin codes)

### DIAGNOSTIC MENU

CLIO 1  
**KANGOO 1**  
MASTER 1

From the main DIAGNOSTIC MENU  
select the require vehicle.

**PRESS ENTER KEY**

SWITCH IGNITION ON

Switch IGNITION ON and Press the  
ENTER button.

**PRESS ENTER KEY**

PLEASE WAIT  
TRYING TO COMMUNICATE

ECU IDENTIFICATION

CLIO PLIPS

The ECU Identification.

**PRESS ENTER KEY**

### DIAGNOSTIC MENU

ECU IDENTIFICATION  
**SPECIAL FUNCTIONS**

Select SPECIAL FUNCTIONS

**PRESS ENTER KEY**

### DIAGNOSTIC MENU

PROGRAM IMMOBILISER

Select PROGRAM IMMOBILISER

# GENERAL OPERATION

# B

## KEY PROGRAMMING—SYSTEM 1 ( 4 pin codes)

### PROGRAM REMOTE

ONLY KEY IN IGN  
WILL BE PROGRAMMED  
CONTINUE

YES=ENTER NO=BACK

Press YES to continue.

### PROGRAM REMOTES

ACTIVATING FORCED  
PROTECT  
SWITCH IGN OFF

Switch IGNITION OFF and press the  
ENTER KEY.

**PRESS ENTER KEY**

### PROGRAM REMOTES

SWITCH IGN ON

Switch IGNITION ON and press the  
ENTER key.

**PRESS ENTER KEY**

### SECURITY CODE

1234

IS CODE CORRECT  
OK=ENTER CLEAR=BACK

Insert the 4 pin security code and press  
the ENTER key.

### PROGRAM REMOTES

SWITCH IGN OFF

Switch IGNITION off.

**PRESS ENTER KEY**

# SPECIAL FUNCTIONS

# C

## KEY PROGRAMMING—SYSTEM 1 ( 4 pin codes)

PROGRAM REMOTE

COMMS WILL BE  
STOPPED, THEN  
RESTARTED  
THIS MAY TAKE  
30 SECONDS  
PRESS ENTER KEY

The communication to the vehicle will STOP and then restart automatically.

This will take 30 seconds.

PLEASE WAIT  
TRYING TO COMMUNICATE

PROGRAM REMOTE

SUCCESSFUL  
LOCKS SHOULD CYCLE

If successful the locks should cycle.

After this follow the following procedure :

**PRESS ENTER KEY**

1. Lock car with the key.
2. Wait for 1 minute
3. Press the remote control button a few times until the central locking operates.

NOTE : If it is an INFRA RED remote control please make sure you point it towards the receiver.

# SPECIAL FUNCTIONS

# C

## KEY PROGRAMMING—ALL SYSTEMS (8 and 12 pin codes)

### DIAGNOSTIC MENU

ECU IDENTIFICATION  
FAULT CODES  
SPECIAL FUNCTIONS

From the main DIAGNOSTIC MENU select SPECIAL FUNCTIONS.

PRESS ENTER KEY

### DIAGNOSTIC MENU

> PROGRAM KEYS

Select PROGRAM KEYS.

PRESS ENTER KEY

SWITCH IGNITION OFF

To enter the security code use the following procedure :-

SECURITY CODE

Press **↑** **↓** , to select Number & Letter

-----

Press **←** To Erase the previous selection

SWITCH IGNITION ON

Press **↵** To ENTER selection.

BACK TO EXIT

ENTER TO PROGRAMME  
NEXT KEY

Press **↵** To Finish PIN selection.

NOTE : RENAULT MEGANE USES 8  
DIGIT SECURITY CODE, OTHER VEHICLES  
USE 12 DIGIT.

INSERT NEXT KEY

THEN PRESS ENTER

If only one key is required press the  
**BACK** key.

Further keys can be added by pressing  
the **ENTER** key.

PROCEDURE COMPLETE

Follow on screen instructions and repeat  
for up to 4 keys.

## Remotes

If the remote doesn't work, check to make sure the LED works when the button is depressed and a signal is being sent - this can be tested with a remote signal tester or the camera on a mobile phone (look for infra red light glowing on the camera). If this is not ok, strip the remote and check the battery and soldered joints, particularly in the area of the transmitting diode.



## RENAULT

### **CLIO II, KANGOO & MASTER INFRA RED RESYNCHRONISING**

1. Turn Ignition OFF.
2. Press the central door locking button for more than 5 seconds. Note : the door should lock then unlock.
3. When this happens, 10 seconds is allowed and the immobiliser warning light illuminates.
4. Point the 1st key at the receiver and press the button twice, the doors should lock and unlock. Repeat for other remotes as required.
5. Check the remote control unlocks and locks the doors.

### **LAGUNA II & SAFRANE II INFRA RED RESYNCHRONISING**

1. Turn Ignition OFF.
2. Press the central door locking button for more than 5 seconds. Note : the door should lock then unlock.
3. When this happens, 15 seconds is allowed and the immobiliser warning light illuminates.
4. Point the 1st key at the receiver and press the button once, the doors should lock and unlock.
5. Point the 2nd key at the receiver and press the button once, the doors should lock and unlock.
6. Check the remote control unlocks and locks the doors.

### **CLIO II, KANGOO & MASTER RF RESYNCHRONISING**

1. Turn Ignition OFF.
2. Press the central door locking button for more than 5 seconds. Note : the door should lock then unlock.
3. When this happens, 10 seconds is allowed and the immobiliser warning light illuminates.
4. Press the remote control once, the doors should lock and unlock.
5. Repeat for second remote if required.
6. Check the remote control unlocks and locks the doors.

### **LAGUNA II & SAFRANE II RF RESYNCHRONISING**

1. Turn Ignition OFF.
2. Press the central door locking button for more than 5 seconds. Note : the door should lock then unlock.
3. When this happens, 15 seconds is allowed and the immobiliser warning light illuminates.
4. Press the remote control once, the doors should lock and unlock.
5. Press the second remote control once, the doors should lock and unlock.
6. Check the remote control unlocks and locks the doors.



## CLIO RE-SYNCHRONISING

1. Lock Car manually
2. Unlock Car manually
3. Insert key into ignition within 30 seconds.
4. Turn Ignition and start vehicle.

## MEGANE RF RESYNCHRONISING

Hold the remote control button down for longer than 10 seconds (until the red tell-tale light on the key extinguishes) then press it again 3 times.

Check that the doors lock and unlock correctly.

## MEGANE WITH EARLY REMOTE (LED SWITCHES OFF WHEN HOLDING BUTTON DEPRESSED)

1. Ignition ON
2. Press and hold the central locking button for 5 seconds
3. LED on the dash board will go off, come back on and begin to flash. The flashes correspond to the first digit of the 4 PIN security code- release the button when the first digit has been "flashed" and then press the button again.
4. Wait for the second digit to be "flashed" then release and re-press the button- continue until all digits have been entered.
5. If you have entered the code correctly the LED will then go out and the car can be started- to code the remote, switch off the ignition and press the central locking button again.
6. Press remote button 2 times within the immediate vicinity of the pick up (in the roof) On some vehicles you may need to switch the ignition back on to achieve this however.

## MEGANE RF RESYNCHRONISING

Hold the remote control button down for longer than 10 seconds (until the red tell-tale light on the key extinguishes) then press it again 3 times.

Check that the doors lock and unlock correctly.