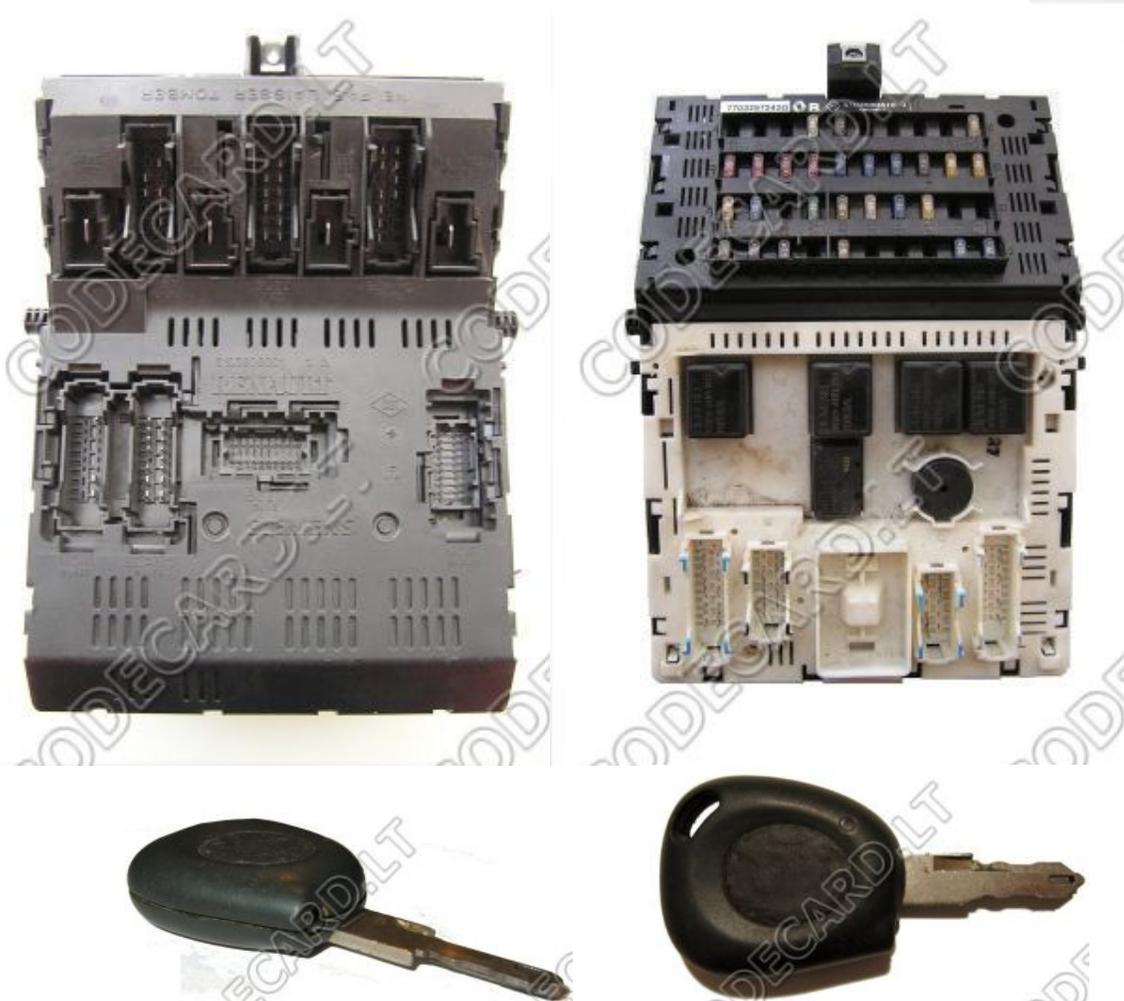


S4.6 CarProg RENAULT Megane/Scenic infrared key programmer manual

System description:

RENAULT Megane/Scenic infrared key programmer is CarProg software, designed to repair existing and make additional keys for Megane/Scenic cars, produced in a range of year 1995-1998. Immobilizer function is based on infrared remote door central locking and is incorporated into fascia fuse box (UCBIC) on a driver side under steering wheel.



Supported systems:

Programmer supports '95-'98 Megane/Scenic immobilizer system with infrared remote central door locking. This system can be identified by presence of infrared receiver near to inner rear-view mirror and a key with infrared transmitter.



Functions:

- Reading and writing key data using CarProg **Motorola MCU cable A10**;
- Generate 2 different key data from label inside the key;
- Generate 2 different key data from UCBIC file;
- Security code calculation from label inside the key.

How to connect CarProg to the key:

Megane/Scenic keys were manufactured in two different printed circuit board versions.



What is the Key Label:

Key label is an alphanumerical data for spare key ordering and security code calculation with length of 5 characters. First character of the label is always letter **S**. This label is laser-burned on an inner surface of the plastic key head or printer in black on white paper tape.

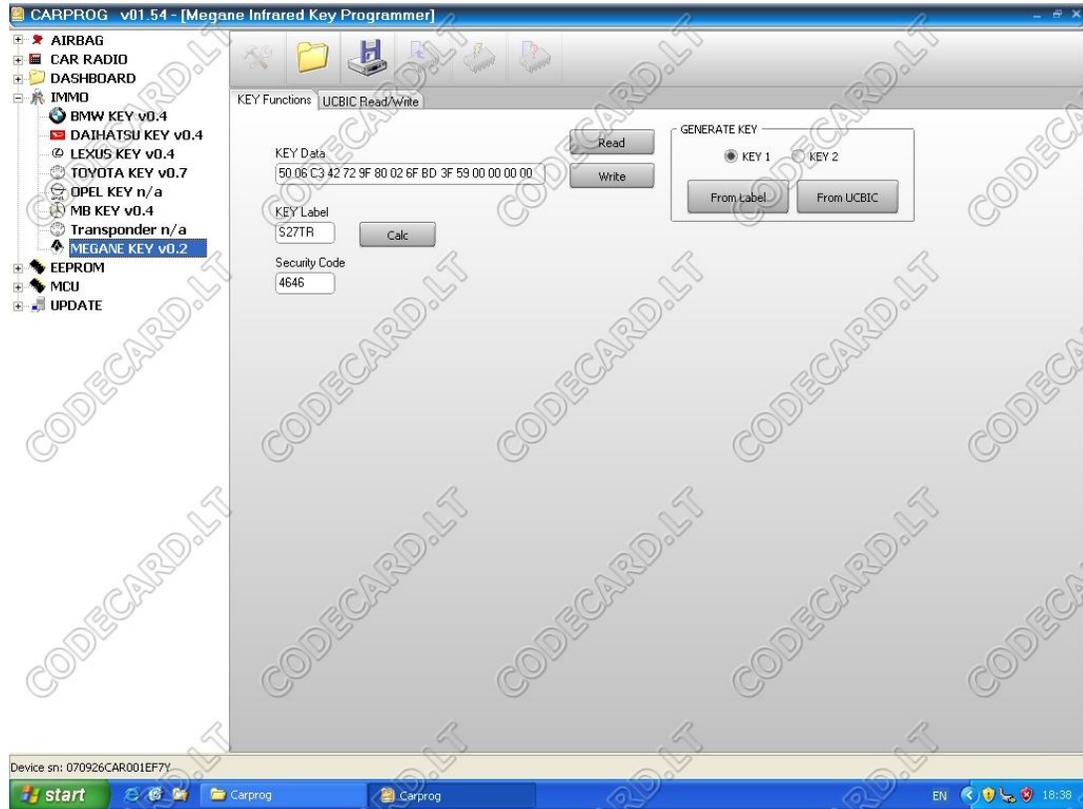


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Software:



Item description:

- | | | |
|----------------------|---|--|
| KEY Data | - | 16 bytes of key memory |
| KEY Label | - | laser-burned or printed label inside the key |
| Security Code | - | calculated security code |
| Read | - | read data from the key memory |
| Write | - | write data to the key memory |
| Calc | - | calculate security code |
| KEY1 | - | generate key #1 |
| KEY2 | - | generate key #2 |
| From Label | - | generate key data from label |
| From UCBIC | - | generate key data from UCBIC file |

Key programming procedures:

Note. After key has been repaired or new key data has been generated and programmed, resynchronization procedure must be carried out. The key will be inoperative until its rolling code is not matched to immobilizer module. See detailed instructions on the page 8.

1. If key (or both keys) does not work and resynchronization had no success:

- Open the key and connect CarProg cable **A10** (see pictures on the page 3);
- Type key label from the inside of the key into field **KEY Label**;
- Press **From Label** button. **KEY Data** field will display key data, generated from the key label;
- Press **Write** button and data will be transferred to the key;
- If two keys are being repaired, connect cable to the second key and click on **KEY 2**. Data for second key will be generated. Press **Write** button and data will be transferred to the second key;
- Press **Calc** button to calculate security code;
- Disconnect cable, assemble key and perform resynchronization procedure (see page 8). If two keys present, carry on resynchronization procedure on both keys even if only one of them has been repaired.

2. If you have only one key (second key is lost) and you would like to have a duplicate key:

- Take any used Megane/Scenic infrared key and connect CarProg cable **A10** (see pictures on the page 3);
- Type key label from the inside of existing key into field **KEY Label**;
- Press **From Label** button. **KEY Data** field will display key data, generated from the key label;
- Press **Write** button and data will be transferred to the key;
- Press **Calc** button to calculate security code;
- Disconnect cable, assemble key and perform resynchronization procedure (see page 8) on both keys, using security code from field **Security Code**.

3. If both keys are lost:

- Take UCBIC module/fuse box (see pictures on page 1) out from the car and dismantle it. Find 52 pin Motorola MCU inside and desolder it. This MCU is secured and cannot be read in-circuit. Use programmer with skip-security capability to read its internal EEPROM; use *XProg-m* from www.tmt.lt or *MC68HC05B6/8/16/32 Smart EEPROM Programming Tool* from www.etlweb.com. File size must be 256 bytes (address range 0100-01FF);
- Take any used Megane/Scenic infrared key and connect CarProg cable **A10** (see pictures on the page 3);
- Click on Open File pictogram and open UCBIC file;
- Press **From UCBIC** button. **KEY Data** field will display key data, generated from UCBIC file. Security code and key label will be generated as well. Write key label on a small piece of paper and stick it inside the key instead of old label. This will be useful for further security code calculations;
- Press **Write** button and data will be transferred to the key. If two keys are required, connect cable to the second key and click on **KEY 2**. Data for second key will be generated. Press **Write** button to transfer data to the second key;
- Press **Calc** button to calculate security code;
- Disconnect cable, assemble the key(s) and perform resynchronization procedure (see page 8), using security code from field **Security Code**.

Key resynchronization procedure:

After key data has been generated and key is programmed, it must be resynchronized with UCBIC module in the car. Only after rolling code resynchronization, key becomes operational. Four-digit security code is required to do this.

If you have two keys and one of them is operational, resynchronization procedure anyway must be performed on both keys. If this procedure is carried out only with one key, second one became inoperative.

Engine immobilizer must be active before this procedure – it is indicated by blinking red LED in the instrument panel. If one working key is available activate immobilizer using this key, otherwise pull out 5A fuse, marked as ALIM UCBIC for several seconds or disconnect and reconnect battery. Components to enter security code are immobilizer status LED and central locking button near to car radio (see pictures below).



1. Turn on the ignition. Red LED flashes more quickly;
2. Press and hold central locking button
(the side is not important), the red LED extinguishes.
3. Without releasing the button, the LED will flash very slowly
(every 1.5 seconds) to generate a counting sequence. Count the
number of times the LED illuminates and release the button
when the value of 1st digit of security code is reached.
4. Press the door locking button again. Count the number of times
the LED illuminates and release the button when the value of 2nd
digit of security code is reached.
5. Repeat operation 5 for to enter two remaining digits (3rd and 4th)
of the security code.

After entering last digit:

If code is correct, LED must illuminate for 3 seconds, extinguish and
illuminate again for 30 seconds;

If code is incorrect, the LED will flash rapidly.

After correct code was entered, turn ignition off. Within 10 seconds
after turn off the ignition, press and hold central door locking
button (the same button, you had been entering the code) for more
than 2 seconds. The doors will lock and unlock, the red LED will
illuminate. Now you have 15 seconds (shown by the permanent
illumination of the LED) to perform following two operations:

1. Point first key to the receiver and make 3 quick presses (press it
3 times within 1.5 seconds). The doors will lock and unlock after
3rd press.
2. Point second key to the receiver and make 3 quick presses
(press it 3 times within 1.5 seconds). The doors will lock and
unlock after 3rd press. The red LED will extinguish.

If you have only one key, repeat operation 1 two times with the
same key.

You may make 3 attempts to enter security code. If, after the
third attempt, the code is invalid, you must wait for approximately
15 minutes before making another attempt (the LED will flash at a
different speed than normal, when ignition is on).

Troubleshooting:

- If attempt to resynchronize key has failed, the reason for this can be defective infrared receiver. Very common problem is caused by water leak on to receiver through radio aerial or sunroof. Would be good to have spare IR receiver for testing purposes.
- Non-OEM (**O**riginal **E**quipment **M**anufacturer) radio can also cause infrared key immobilizer system problem. Sometimes key stops to lock or unlock car after this kind of radio has been installation to the car. Problem is caused by connecting both battery (red) and accessory (yellow) supply leads together. Immobilizer system "things", that key is left in ignition lock and prevents doors from being locked. This problem is easy to check: remove key from ignition lock and turn blower control handle from 0 to any position. If it blows – that's the case (normally blower only works in ACC and IGN key position). Remove radio and fix the problem.