

# Router MRCS V 2.0

MERCEDES-BENZ REMOTE CONTROL SCANNER



FOR ALL MODELS MY2009 - MY2023



## ➤ PURPOSE OF THE DEVICE

Router MRCS 2.0 hijacks data from the Keyless Go keys, keeps it in the memory, and sends it back to the car to disarm alarm system and open the doors.

The device works with all cars 2009-2023 with Keyless Go, KeylessStart systems, and key frequencies **433 Mhz** and **315 Mhz**.

Number of stored codes – **10** (5 times to open and 5 times to close).

FBS4 car system – device emulates remote control.

FBS3 car system – device emulates Keyless Go system (need to touch/pull door handle).

## ➤ SUPPORTED MODELS

**Mercedes-Benz:** All models 2009-2023 with the Keyless Go, Keyless Start systems, and key radio channel frequencies of **433 Mhz** and **315 Mhz**.

✚ **NOTE!!!** When the original key was used to open/close the car after his scanning by the device, all stored codes in the device became old and will not works. Need to scan key again.

**Attention !!! Router MRCS V 2.0 is not intended for permanent use, only for a temporary solution in an emergency!**

## ➤ MAIN WORK

### Main work consist of 3 steps:

- **mode "I"** - scanning the car and storing car (ID)
- **mode "S"** - searching and scanning the key
- **mode "E"** - key emulation

### ❖ **MODE "I" – SCANNING THE CAR**

- 1) Press and hold the **RED** button and simultaneously turn power ON.
- 2) When the Red **LED** near the **RED** button lights up release the **RED** button.
- 3) On the display you will see the next info (see fig.1).



fig. 1

In this mode device waits touching of the car's door handle for car waking-up and receiving car ID. As soon the car ID will be received and stored, device automatically switches into the Mode "S" - key searching.

When a Keyless Start system, but not a Keyless Go system is using on the car, it's possible only to start the engine of the car with Start/Stop button. **Unock the doors and disarm the alarm is possible only by pressing buttons on the Smart Key. Keyless Go antennas are not installed in the car doors. Door handles don't have buttons for keyless system (common on W213 models).**

In this case, the car ID can be obtained as follows:

Place **Router MRCS** near the car and wait when the owner will press a button on the key to LOCK the car. Distance between **Router MRCS** and owner's Key can be upto **40m**.

**Router MRCS** will grab and store Identification Code of the car (Car\_ID) in the memory and will go into the key searching mode – mode "S".

### ❖ **MODE "S" – SEARCHING AND SCANNING THE KEY**

- 1) **Green** LED near **GREEN** button will light.
- 2) On the display you will see the next info (Fig.2).  
FBS 3 or FBS 4 - type of the Keyless Go system of the car.

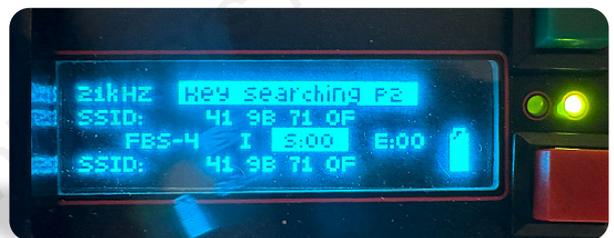


Fig.2

As soon the key with ID like in the device memory appears in the emitting antenna field, device starts to catch key codes and store them into the internal memory. Counter **S:00** shows number of the stored codes of the key (*should be 20*). When this amount of the codes is reached, device stops the scanning and switches into the Mode "E" – key emulation.

✚ **NOTE:** *If a key go out from the emitting antenna field while scanning mode but amount of the stored codes is less than 10, this codes can be used too. In this case an amount of attempts to open/close the car will be less than 5. If amount of stored codes is enough for emulation, Green LED starts to flash.*

To go out from the Mode "S" to the Key emulation mode "E" you have **simultaneously press RED Button + GREEN Button for a time approx. 1 sec till beep will sound.** Green LED and Red LED will lights.

#### ❖ **MODE "E" - KEY EMULATION**

Red LED near RED button will light.  
Green LED near GREEN button will light.

**For FBS4 system** on display you will see the next info (see. Fig.3).



Fig.3

**GREEN** button - open the car ( or F2 button ), **RED** button - close the car ( or F1 button ).

Counter **E:20** shows number of the codes for opening/closing the car. Each opening or closing the car decrement this counter.

When codes are ended counter will show **E:00** , Green LED and Red LED starts to flash.

**For FBS3 system** display and LED indication will be the same, but **GREEN** button and **RED** button **not works!** To open/close the car use door handle.

#### ➤ **SWITCHING THE MODES**

Device remembers the current mode and always returns into this mode after power on.

Modes can be changed

- from Mode "E" -> to Mode "S" or Mode "I";
- from Mode "S" -> to Mode "I".

Reasons for switching modes:

- 1) Scanned codes are over and need to catch new codes, but the car with the same car ID.

##### **Switching to mode "S"**

Turn power OFF then press and hold the **GREEN** button and turn power ON. Hold the button as long as it takes until the **Green** LED is on steady.

- 2) Need to scan new car (new car ID).

##### **Switching to mode "I"**

Turn power OFF then **press and hold the RED button and turn power ON.** Hold the button as long as it takes until the **Red** LED is on steady.

## ➤ MODE INDICATION

**Mode "I"** - Red LED is on steady \_\_\_\_\_ ( headset: 1 short beep );

**Mode "S"** - Green LED is on steady \_\_\_\_\_ ( headset: 2 short beeps );

**Mode "E"** - Red LED + Green LED is on steady \_\_\_\_\_ ( headset: 3 short beeps );

**Scanned codes are ended** - Red LED is flashing + Green LED is flashing \_\_\_\_\_ ( headset: 1 long beep ).

## ➤ MEMORY CELLS

The device has 10 memory cells, that can store any condition of the device.  
( for example - mode "E" with scanned codes and ID of the car ),

This stored condition can be called out in any time.

Write to the memory: press buttons "MODE" – "N of the cell" – "Enter"

Read from the memory: press buttons "N of the cell" – "Enter"

## ➤ BLUETOOTH

Device transmits to the headset the sounds that are copy of the LED indication. Establishing of the communication between headset and the device takes a time and can be up to 60 sec.

### Mode indication

**Mode "I"** - Red LED is on steady \_\_\_\_\_ ( headset: 1 short beep );

**Mode "S"** - Green LED is on steady \_\_\_\_\_ ( headset: 2 short beeps );

**Mode "E"** - Red LED + Green LED is on steady \_\_\_\_\_ ( headset: 3 short beeps );

**Scanned codes are ended** - Red LED is flashing + Green LED is flashing \_\_\_\_\_ ( headset: 1 long beep ).

## ➤ BATTERY CHARGER CONNECTION

- **3 LEDs** - charging in progress;
- **GREEN** indicators - charging complete;
- Charging 3-cells battery ( **11.2v Li-Pol 3S** ).



## ➤ SERVICE MENU

**To enter the service menu, perform the following steps:**

- 1) Power should be OFF;
- 2) Press and hold the arrow key “▲” then turn Power ON;
- 3) Hold the arrow key “▲” until screen displays the following message “Release the button”;
- 4) Now release the button and use the arrow keys “▲”, “▼” to select one of the following options and press “ENTER”.

- Admin Settings (Factory Menu - restricted access);
- Display brightness;
- Bluetooth pairing;
- Change PIN Code.



\* To Exit from Service Menu turn OFF the power of the device.

## ➤ DISPLAY BRIGHTNESS

- Use the “◀” and “▶” arrows on the keypad to adjust the brightness in 10% increment;
- Use the digit buttons of the keypad to adjust the brightness quickly  
“0”- 0% (minimum), “1”- 10%, “2”- 20%, “3”- 30% ... “9”- 90%,;
- Press “ENTER” to confirm the selection.

## ➤ CHANGE PIN CODE

Device has preloaded Pin Code: **5577**. **Change this PIN-code to a new one!**

This PIN Code can be changed in this menu . Screen displays the following messages:

**Old PIN: XXXX**

**Enter New PIN: \_ \_ \_ \_**

Input 4-digit PIN number and press the “ENTER”. Arrow button “◀” is an erasing button.

**A message “DONE” will appear to confirm that your PIN code has been changed.**

## ➤ LOCK THE DEVICE (ENABLING PIN CODE PROTECTION)

Device can be protected from Unauthorized access by PIN-Code protection Enabling

Actions to activate the lock:

- 1) Turn OFF the Power.
- 2) Press and hold the arrow key “▼” and turn the Power ON.
- 3) Hold the arrow key “▼” until the screen will displays the following message “PIN Code protection is Enabled”.
- 4) Turn off and on the device power. Check the lock state.

Once device is LOCKED, it remains in Locked state even after Power OFF / Power ON cycle.  
To Unlock the device enter 4-digit PIN Code.

### ➤ **UNLOCK THE DEVICE**

When device is in the locked state the screen displays some information message and running arrows. The device remains in the locked state until the correct PIN Code is entered.

Input a 4-digit PIN code and press "ENTER"

- ✓ Screen will displays the entered digits.
- ✓ The first 4 digits are the PIN Code although you can enter more than 4 digits.
- ✓ If you typed a wrong PIN Code numbers but not pressed the "Enter", turn Power OFF then ON, input PIN Code again and press the "Enter".

*If you enter an incorrect PIN Code 10 times, then PIN Code entry will be locked for 30 minutes.  
Don't turn off the power of the device, otherwise the delay time will be counted again.*

- ✓ The input delay is indicated by a small asterisk in the bottom right corner of the display.
- ✓ Also there placed a **Recovery\_Code**.
- ✓ After 30-min delay these symbols are disappears and you have 10 attempts again to enter the PIN Code.
- ✓ If you forgot your PIN Code send a **Recovery\_Code** from the bottom right corner of the display to the customer support for PIN Code recovering.

*Once device is UNLOCKED, it remains in Unlocked state even after Power\_OFF / Power\_ON cycle.  
To lock the device again, use keyboard shortcut (Power ON + pressed arrow key "▼").*

### ➤ **DEVICE APPEARANCE**

