

1. GENERAL DESCRIPTION

The **MR2E+/MR4E+** handle standard, rolling code and encrypted transmitter. It has a storage capacity of 1000 users. There are two programming mode available: « Free » and « Direct »:

The free mode allows to pair a chosen channel to a chosen relay.

The direct mode locks the channel/relay pairing following this scheme: channel 1 (CH1) → relay 1 (R1), channel 2 (CH2) → relay 2 (R2) etc...

Product use: door and opening system's radio receiver

2. ROLLING CODIFICATION

The purpose of this codification is to prevent the code from being cloned. Rolling code involves the transmission of a batch of bits with an ID part (different for each transmitter), plus a part that changes at each transmission (rolling code), in accordance with a proprietary Prastel algorithm.

The receiver memorises by self-learning the ID part of the code of each transmitter plus the appropriate rolling code. It updates the latter at each transmission. The transmitter is recognised only if it sends corresponding rolling code.

3. TECHNICAL FEATURES

Power supply	12 - 24 VAC/DC
Average Work/Rest consumption	90 mA / 50 mA (MR2E+) 130 mA / 50 mA (MR4E+)
Receiving frequency	433.92 MHz
Number of codes memorisable	1000
Number of channels	2 or 4
Types of output	Monostable Bistable Timed
Output	Relay N.O.
Contacts capacity	0,5 A @ 24 VAC/DC
Working temperature	-20/+55 °C
Storage temperature	-40/+85 °C
Size / Weight	77 x 110 x 45 mm, 110 g.

4. PROGRAMMING MODE

Press button **SET** for approx. 3 seconds, relay led will flash 3 times:

Flashing type	Programming mode
3 fast flashes	FREE
3 slow flashes	DIRECT (default)

5. RADIO LED'S FONCTIONNING MODE

Attention: The first registered transmitter in the receiver memory defines the type of accepted transmitter for the receiver. If the first registered transmitter is encrypted one: the receiver will only accept encrypted transmitter.

RADIO LED state:

	4 short pulses	Wait for configuration
Blue	2 short pulses	Receiving encrypted transmitters only
	1 short pulse	Receiving all transmitters
Red	ON	Receiving non-encrypted radio batch
Green	ON	Receiving encrypted radio batch

6. CODES PROGRAMMING

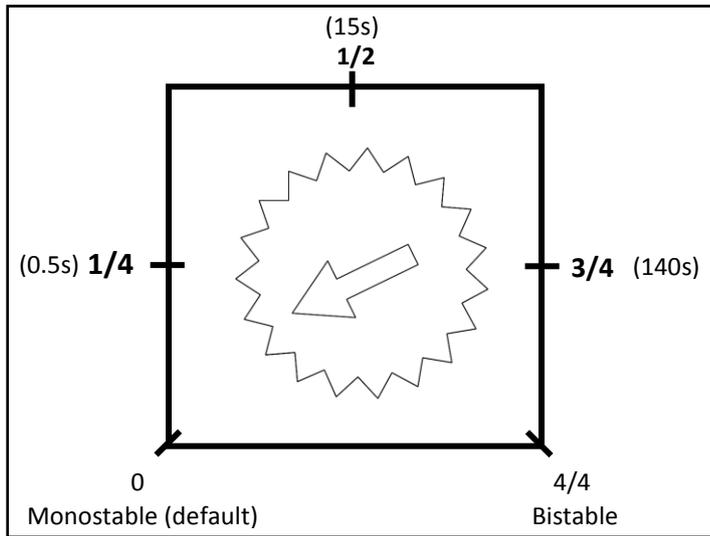
“DIRECT“ programming mode (default)	“FREE“ programming mode
<ul style="list-style-type: none"> Power up the receiver. Press button “ENTER RADIO”. All red relay leds lights up. Carry out a transmission pressing a transmitter button. <ul style="list-style-type: none"> During memorisation, the first relay led flashes slowly. Once memorisation done, it returns in non-flashing state. If all relay red leds flash quickly, the code has already been memorised. If all relay red leds flash at the same time, memory is full. The transmitter is not inserted. Repeat the procedure for all transmitter you want to insert in the receiver memory. To exit programming mode, again press button “ENTER RADIO”: the relay leds turn off. The exit comes about 10 seconds automatically after the last operation. 	<ul style="list-style-type: none"> Power up the receiver. Press button “ENTER RADIO”. All red relay leds light up during 2 seconds, then only the first led remains on. Select the relay you wish to link to the transmitter pressing “SET” button repeatedly. Carry out a transmission pressing the desired button. Each button (channel) corresponds to a different transmission. <ul style="list-style-type: none"> During insertion, relay led flashes slowly. When done it returns in non-flashing state. If a relay led begins flashing quickly, the code has already been inserted and associated to the flashing relay led. Repeat the transmission to update associated relay. If all relay red leds flash at the same time, memory is full. The transmitter is not inserted. Repeat the procedure for all transmitter you want to insert in the receiver memory, each time selecting the desired associated relay. To exit programming mode, again press button “ENTER RADIO”: the relay leds turn off. The exit comes about 10 seconds automatically after the last operation.

7. TOTAL CANCELLATION OF CODES

- Power up the receiver.
- Hold button “ENTER RADIO” pressed until relay red leds start flashing. Release the button and press again to confirm cancellation. Relay leds stay fixed during the procedure. Once the procedure done/ended they start flashing faster to confirm the total cancellation of memorised codes.

8. SELECTION OF RELAY OUTPUT OPERATING MODE

- Power up the receiver.
- Select the relay you wish to set pressing "SET" button repeatedly: each led corresponds to a relay.
- Press button "SET" : the selected relay led begins to flash corresponding to its switching mode:
 - 3 flash : Timed mode
 - 2 flash : Bistable mode
 - 1 flash : Monostable (~1.5s)
- To change the selected relay switching mode :
 - Turn the trimmer wheel according to the arrow printed on the board: left end stroke select monostable function, right end stroke bistable output. Midway positions to select timed output as shown in figure below.
 - Press "ENTER" button to save new setting into the selected relay.
- To set other relays press "SET".
 - To exit programming mode, select the last relay and again press button "SET": the relay leds turn off. The exit comes about 10 seconds automatically after the last operation.



Trimmer position (from left to right) and corresponding relay switching time

9. PASSWORD PROTECTION

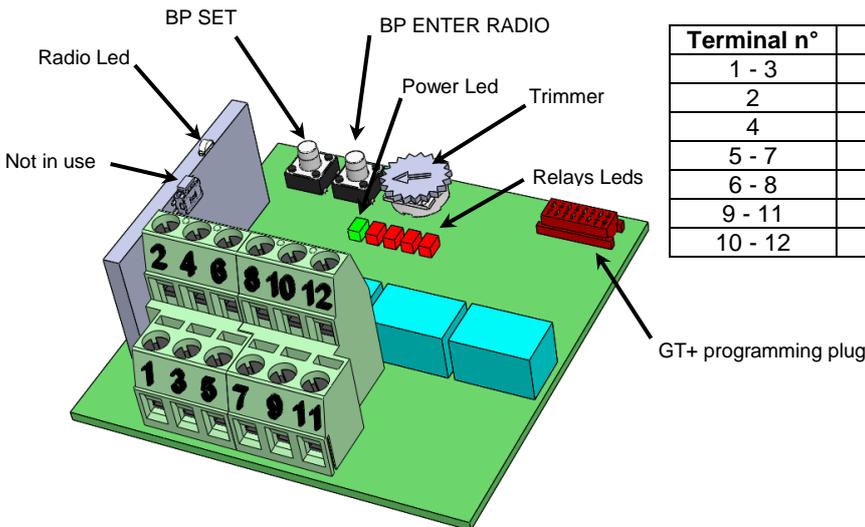
On board memory can be protected with a numeric password via PC link and WinAccess software.

Password must be a number in the range from 1 to 65534.

If Password is from 1 to 32767 only programming / deletion of user data through "ENTER RADIO" button is disabled.

If Password is from 32768 to 65535 either programming / deletion of user data and programming of relays through "SET" button are disabled.

10. LAYOUT OF TERMINALS AND LEDS



Terminal n°	Designation
1 - 3	Power supply – 12/24V AC/DC
2	Antenna
4	Antenna shield
5 - 7	Contact NO relay 1
6 - 8	Contact NO relay 2
9 - 11	Contact NO relay 3 (MR4E+ only)
10 - 12	Contact NO relay 4 (MR4E+ only)

DECLARATION OF CONFORMITY

Prastel declares that the following radio electric equipment type: receiver **MR2E+/MR4E+** complies with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.prastel.com