

SEL2641R433-IP

Thank you for choosing this Transmitter Solutions product.
Please read this manual carefully
before installing the product.

1A- INTRODUCTION

The receiver type SEL2641 R433-IP (Fig. 1) is a superheterodyne single conversion receiver with integrated rolling-code decoding. The demodulation is AM/ASK. A special algorithm allows for the keeping synchronized both transmitter and receiver. The receiver which makes the activation, once having received the transmitter code, has to be connected during the installation to the device to be controlled (gate, garage door, rolling shutters, awnings, anti-burglar appliance, lighting, etc.). The transmitter memorization can be carried out either with 2 push-buttons of the receiver or far from the receiver with the keys of the transmitter. All the receivers of the range 433 can store into the EEPROM a serial number, a manufacturer key and a synchronization algorithm of more transmitters. This product fully complies with the European Directives: 73/23/CEE, 89/336/CEE and with the Regulation EN 60065.

1B- USABLE TRANSMITTERS

- Series Monarch 433
 - Transmitter 2/4 buttons/Master
- Series Stingray 433
 - Transmitter mini 2 buttons

1C- TECHNICAL SPECIFICATIONS

Receiver type:	Superheterodyne
Demodulation:	AM/ASK
Operating frequency:	433.92 MHz
Local oscillator frequency:	6,6128 MHz
Intermediate frequency:	10.7 MHz
Sensitivity (for good signal):	-115 dBm
Input impedance:	50 Ohm
Supply voltage:	12 or 24 VAC/DC
Current consumption:	
at rest:	25 mA
with relay excited:	55 mA
Number of relays:	2 (1NO, 1NO or NC)
Commutable max power:	24W or 24 VA
Max codes number:	85
Operating temperature:	from -20°C to +70°C
Dimensions (Fig. 1):	105 x 45 x 28 mm
Weight:	65 g

1D- MAIN FEATURES

- Memory for 85 transmitter keys;
- Self-learning and erasing of the transmitter code simply using the transmitters, without accessing the receiver board;
- Display of the transmitter number;
- Display of the memory position for the last memorized transmitter;
- Overwrite of a transmitter code;
- Programmable operation of the relays: pulsing, latching and timed;
- Programmable delay of release for the relays from 1 sec. to 10 hours;
- Full memory cancellation.

1E- RECEIVER DETAIL (Fig. 2)

LR:	Red LED	LV:	Green LED
PR:	Red push-button	PV:	Green button
RR:	Red relay	RV:	Green relay

1F- CONNECTIONS (Fig. 2)

Power supply:	terminals 1, 2 : 12 VAC/DC terminals 1, 3 : 24 VAC/DC
Relay outputs:	terminals 4, 5 : NO contact (red relay) terminals 6, 7 : NO contact (green relay) terminals 6, 8 : NC contact (green relay)
Antenna:	terminal 9: shield terminal 10: core (RG 58)

2A- TRANSMITTER MEMORIZING

The code of each transmitter can be memorized into the receiver in 2 different ways:
A-Directly on the receiver, by using the receiver push-buttons PR or PV;
B-Far from the receiver, by using the transmitter.
A) Direct memorization - To program a transmitter at the receiver
1-Select the relay to be programmed Green (PV) or Red (PR);
2-Push desired relay key for 2 seconds or until LED comes on;
3-Within 2 seconds press desired transmitter button to store in receiver memory. LED should blink and relay should cycle.
B) Remote Programming Mode - To program a transmitter at the receiver
Note: To utilize this mode the receiver must first have at last one transmitter programmed into the receiver.
1-Programming request - push both buttons of the transmitter that is already stored in the receiver until the receiver beeps;
2-Programming entry - Release both keys and immediately press A or B button to select the corresponding relay to be programmed and hold button for 4 seconds; The LED light of corresponding relay will turn on and beep will be continuous;
3-Memorization - Within 2 seconds press new transmitter button to be memorized.
Example: Memorization of a second transmitter (TX2) with button A on relay red RR and button B on relay green RV into a receiver with a transmitter (TX1) already stored:
Push buttons A+B of TX1 (beep); Push button A of TX1 for 4 sec. (Beep); Push button A of TX2 within 2 sec.
Push buttons A+B of TX1 (beep); Push button B of TX1 for 4 sec. (Beep, beep, beep); Push button B of TX2 within 2 sec.
NOTE: The memory capacity is of 85 transmitters. That means that a 4 button transmitter needs 4 memory positions. It is possible to display the memory position by following the procedure 2B. A transmitter button can be memorized on each relay RR or RV **but not on both**.
2B- DISPLAY OF THE TRANSMITTER MEMORY POSITION
By following this procedure it is possible to display the position occupied by a given transmitter.
1) Push the button on the transmitter you need to know the position of and verify the activation of the relay and the LED.
2) Push the button PR of the receiver for 1 sec.
This begins a sequence of 7 total blinks of the two LED lights (LR and LV). Take note of the blinking lights.
3) After you have the sequence of colors, assign a numeric value to each according to the table below. Then add the number together.

LED blinks	#1	#2	#3	#4	#5	#6	#7
Green LED	1	2	4	8	16	32	64
Red LED	0	0	0	0	0	0	0

Example: Red - Red - Green - Green - Red - Red - Red
This corresponds to the 12th position.
Clarification: Red and Red are zero. Green in the 3rd position is a value of 4. Green in the 4th position if a value of 8, Red and red are all zero. So, 4 plus 8 is 12.
2C- OVERWRITE OF AN ALREADY STORED TRANSMITTER CODE
1 - Determine transmitter button memory position (See Section 2B)
2 - Press corresponding relay programming button on transmitter for 4 seconds.
3 - Within 2 seconds press (PV).
4 - Within 2 seconds enter the transmitter memory position of existing transmitter by using (PR red) and (PV green) accordingly. There must be a total combination of seven buttons pushed (PV or PR) to match the memory position of an existing transmitter.
5 - Within 1 second press the new transmitter button to be programmed.
The previous transmitter button will be removed and replaced by the transmitter pressed in step 5.

3A- MEMORY CAPACITY DISPLAY

This procedure allows you to display the number of occupied memory positions.
1) Push the button PV of the receiver for 1 second.
At this point the receiver begins a sequence of 7 lightings of the LEDs LR and LV.
From this lighting count of the LEDs, one can determine the number of occupied memory positions as in section 2B (See the table).

3B- MEMORY FULL

When the receiver memory is full and a memorization procedure is attempted, both the LEDs LV and LR blink three times.

3C- FULL MEMORY ERASE

This operation is possible for both the transmitters (1) and with the receiver push buttons (2).
1) Push and hold simultaneously the buttons A and B of a TX whose codes are present in the memory of the RX; the buzzer emits a beep and the LEDs turn on for a while; within 2 seconds push and hold the button A of the same TX for 4 seconds; the LED LR is turned on and the buzzer sounds a long beep.
Within 4 seconds (before the end of the long beep – push again simultaneously A and B for another 4 seconds; At this point 3 blinks of LR and LV will occur and 3 longs beeps will sound.
2) Push and hold PR of the receiver until the red LED (LR) is turned on.
Afterward, push and hold simultaneously PV and PR for 4 seconds. The receiver will confirm the operation with 3 blinks of the LEDs and 3 long beeps.

4A- RELAY CONFIGURATION DISPLAY

Push and hold PR (or PV) of the receiver for 4 seconds. The configuration of the relay is displayed by the corresponding LED according to the following table:

Relay operating mode (RR or RV)	LED light type (LR or LV)
Pulse relay	Continuous light
Latching relay	Slow blinking
Timed relay	Fast blinking

4B- RELAY PROGRAMMING

The receivers are factory set to Pulse mode. To change the mode follow these steps (Fig. 4):
1. Press desired relay button on receiver to be programmed (PV or PR) for 4 seconds. LED will illuminate displaying relay status. Use the following table to determine the status.
2. Within 1 second press PR to change the relay mode.
The relay mode will change according to the diagram of Fig. 4.

	Red relay RR	Green relay RV
Configuratoinns not allowed	latching timed	timed timed (with different relay times)

4C- RELAY RR (RV) CONFIGURATION (Fig. 4)

The operating mode of the relay is cyclic, with the possibility of changing the mode according to the following rules:

- If the relay is set as pulse:	it becomes latching and after timed
- If the relay is set as latching:	it becomes pulse
- If the relay is set as timed:	it becomes pulse

4D- RELAY RR (RV) TIMING SETTINGS (Fig. 4)

The modification for the relay setting, with the timing, can be done only if the relay has been set as pulse. Push the button PR (PV) of the receiver for 4 sec.; the LED LR (LV) will turn on and will display the operating mode set for the relay RR (RV). If the LED blinks slow or fast, push PR again for 1 sec. and the relay will be set as pulse. Then push PR for 1 sec. and the LED LR (LV) switches off. Within 2 sec. begin to insert the selected relay time, by pushing the buttons PR and PV according to Table 12 (to right), considering that PR has the weight of "0" while PV has the weight of "1".
NOTE: The last pressing of PR in the sequence is not necessary.
Example 1: 8 sec. delay: input the sequence: PR-PR-PR-PV-PR-PR-PR
Example 2: 2 min delay: Input the sequence: PV-PR-PR-PR-PR-PR-PV

WARRANTY

The warranty period of this product is 24 months, beginning from the manufacturing date. During this period, if the product does not operate correctly, due to a defective component, the product will be repaired or replaced at the sole discretion of the producer. This warranty does not extend to the receiver case which can be damaged by conditions outside the control of the producer.
NOTE: This product belongs to the electrical and electronic appliances within the Annexed 1A of the European Directive 2002/96/CE (RAEE). Do not discard with household refuse. Use the disposal methods in compliance with local regulations.

