

RECEIVER SEL2641R433-IP

1A - Introduction

The receiver Erone 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 to keep synchronized transmitter and receiver.

The receiver which makes the activation, once received the transmitter code, has to be connected during the installation to the device to control (gate, garage door, rolling shutters, awnings, anti-burglar appliances, 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 Erone 433 can store into the EEPROM a serial number, a manufacturer key and a synchronism algorithm of more transmitters.

The product fully complies with the European Directives 73/23/CEE, 89/336/CEE and with the Regulation EN 60065.

1B - Usable transmitters

- Erone 024A type S2TR 2641 E2-E4-E2M : Transmitter 2/4 buttons/ Master
- Erone 433 type SETR 2641 AM2: : Transmitter mini 2 buttons
- Erone 433 type SETR 2641 TM: : Wall Transmitter

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 V ac/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 24VA.
Max codes number:	85.
Operating temperature:	from -20 to + 70 °C.
Dimensions (Fig. 1):	105 x 45 x 28 mm.
Weight:	65 gr.

1D - Main features

- Memory for 85 transmitter keys;
- Self-learning and erasing of the transmitter code simply using the transmitter keys, without accessing to the receiver board;
- Display of the transmitter key 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	Antenna : terminal 9 : shield
	terminals 1 , 3 : 24 Vac/dc	terminal 10 : core. (RG 58)
Relay Outputs:	terminals 4,5 : NO contact (red relay)	
	terminals 6,7: NO contact green relay)	
	terminals 6,8: NC contact green relay)	

2A - Transmitter memorizing

The code of each transmitter key 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 keys.

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 key to store in receiver memory. LED light should blink and relay should cycle.

B) Remote programming mode : To program transmitters thru the use of a transmitter

Note: To utilize this mode the receiver must first have at least one transmitter programmed into the receiver.

- 1 - Programming request - Push both keys 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 key to select the corresponding relay to be programmed and hold key 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 key A on relay red RR and key B on relay green RV into a receiver with a transmitter (TX1) already stored:

Push keys A+B of TX1 (bip); Push key A of TX1 for 4 sec.(Biiiiiiip); push key A of TX2 within 2 sec.

Push keys A+B of TX1 (bip); Push key B of TX1 for 4 sec.(Bip, Bip, ...Bip); push key B of TX2 within 2 sec.

NOTE : The memory capacity is of 85 transmitter keys. That means that a 4 keys transmitter needs 4 memory positions. It is possible to display the memory position by following the procedure 2B.
A transmitter key can be memorized on each relay RR or RV but not on both.

2B - Display of the transmitter memory position

By following the present procedure it is possible to display the position occupied by a given transmitter key.

- 1) Push the transmitter key for which it is necessary to know the memory position and verify the activation of the relay and the led.
 - 2) Push the button PR of the receiver for 1 second.
- At this point begins a sequence of 7 total blinks of the two led lights LR and LV: by taking a note of what color light blinks, it is possible to obtain the memory position, according to the table 4:

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

Tab. 4

Example: Transmitter blinks the following seven times after pushing the red relay (PR) key: RED - RED - GREEN - GREEN - RED - RED - RED
This corresponds to the 12th position.

2C - Overwrite of an already stored Transmitter code

- 1 - Determine transmitter key memory position (see section 2B)
- 2 - Press corresponding relay programming key 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 button pushed (PV or PR) to match the memory position of existing transmitter.
- 5 - Within 1 second press the new transmitter key to be programmed.
The previous transmitter key will be removed and replaced by the key pressed in step 5.

3A - Memory capacity display

This procedure allows 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.

Referring to that it is possible to obtain the number of the occupied memory positions, according to tab. 4.

3B - Memory full

When the receiver memory is full and a memorization procedure is started, both the leds LV and LR blink 3 times.

3C - Full memory erase

This operation is possible both **with the transmitter keys (1)** and **with the receiver push buttons (2).**

- 1) Keep on pushed simultaneously the keys A and B of a TX whose codes are presents in the memory of the RX; the buzzer emits a bip and the leds turns on for a while; within 2 sec. keep on pushed the key A of the same TX for 4 sec.: the led LR is turned on and the buzzer sounds a long bip ("biiiiiiip").
Within 4 sec. (before the end of the long bip) push again simultaneously A and B for other 4 sec.; at this point will occur 3 blinks of LR and LV and 3 long bips of the buzzer (biiiiip - biiiiip - biiiiip).
At the end of this operation all the codes TX present in the memory are erased.
- 2) Keep on pushed PR of the receiver until the red led LR is turned on.
Afterwards, keep on pushed simultaneously PV and PR for 4 sec. The receiver will give the operation confirmation with 3 blinks of the leds and 3 long bips of the buzzer ("Biiiiip - Biiiiip - Biiiiip").

4A - Relay configuration display

Keep on pushed PR (or PV) of the receiver for 4 sec. The configuration of the relay is displayed by the corresponding led according 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

Tab. 5

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 Table 5 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

Not allowed configurations	Red relay RR	Green relay RV
	latching timed	timed timed (with different delay times)

Tab. 6

4C - Relay RR (RV) configuration - Fig. 4

The operating mode of the relay is cyclic, with the possibility to change the mode according 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.

4E - Relay RR (RV) timing settings - Fig. 5

The modification for the relay settings, 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 again PR for 1 second and the relay will be set as pulse. Then push PR for 1 second and the led LR (LV) switches off. Afterwards, within 2 seconds, begin to insert the selected relay time, by pushing on the buttons PR and PV according to Table 12 and considering that PR has weight of "0" while PV has weight "1".

NOTE: The last pressures on PR of the sequence are not necessaryes.

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.

GUARANTEE

The guarantee period of the product is 24 months, beginning from the manufacturer date. During this period, if the product does not work correctly, due to a defective component, the product will be repaired or substituted at the discretion of the producer. The guarantee does not cover the plastic container integrity. After-sale service is supplied at the producer's factory.

For more information:
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RECEIVER SEL2641R433-IP

Pressioni tasti / Button act / Tastenbetätigung/ Presion botones	1°	2°	3°	4°	5°	6°	7°
sec./sec./sek./seg.	1	2	4	8	16	R	R
sec./sec./sek./seg.	10	20	40	80	160	V	R
Min/min/min/min	2	4	8	16	32	R	V
Min/min/min/min	20	40	80	160	320	V	V

Tab 12

Dimensioni d'ingombro / Overall dimensions / Abmessung / Dimensiones

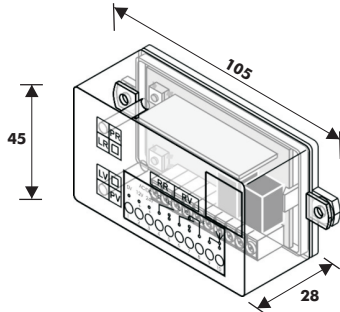


Fig. 1

Connessioni / Connections / Anschlüsse / Conexiones

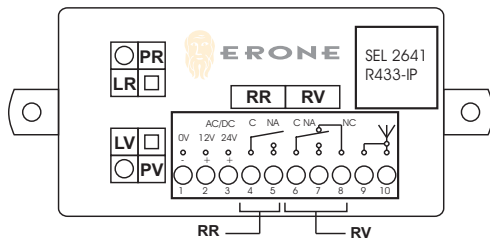


Fig. 2

LEGENDA

- Pressione di 4 sec. sul tasto;**
Keep on button pressed for 4 sec.;
Taste für 4 Sek drücken;
Pulsar el botón durante 4 segundos.
- Pressione di 1 sec. sul tasto**
Keep on button pressed for 1 sec.;
Taste für 1 Sek drücken;
Pulsar el botón durante 1 segundo.
- Rilasciare il tasto;**
Release the button;
Taste loslassen;
Relajar el botón.
- LED spento/off/aus/apagado**
- LED acceso/on/ein/encendido**
- LED lampeggio lento/slow blinking**
LED blinkt /intermittente
- LED lampeggio veloce/fast blinking**
LED blinkt schnell / intermittente rapida

Fig. 3

Impostazione relè / Relay configuration / Programmierung des relais / Programación de relés

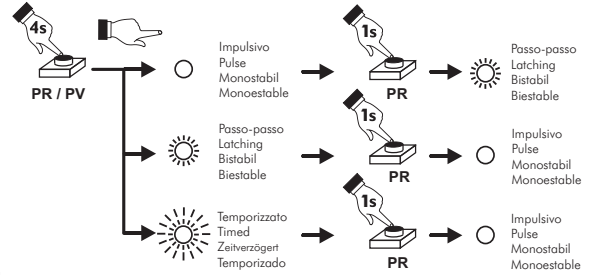


Fig. 4

Temporizzazione relè / Relay timing settings / Timerprogrammierung Relais / Temporización relé

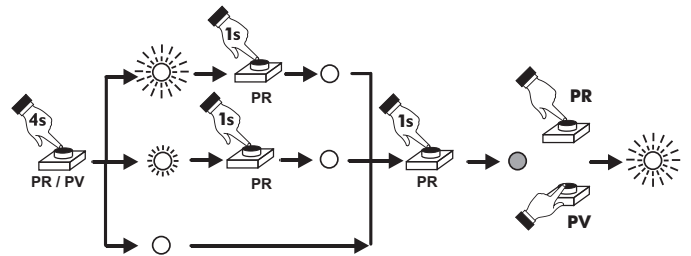


Fig. 5