

# Installation Manual



- SK-910RBQ (315MHz)
- SK-910RB-4Q (433.92MHz)
- SK-910RB2Q (315MHz)
- SK-910RB2-4Q (433.92MHz)



SK-910RB2Q shown

## One- and Two-Channel RF Receivers

- Flexible operating voltage: 11~24 VAC/VDC
- Independently programmable channels
- Compatible with all SECO-LARM transmitters

Now with  
5 Relay Output  
Functions

Note: Operating range will vary greatly depending on the installation and operating environment.



### Also Available from SECO-LARM:

- SK-910RLQ ..... Low-voltage, one-channel receiver, 315MHz \*
- SK-910RVQ ..... Low-voltage, one-channel receiver,  
transistor ground output 315MHz
- SK-910RL-4Q ..... Low-voltage, one-channel receiver, 433.92MHz \*
- SK-910RV-4Q ..... Low-voltage, one-channel receiver,  
transistor ground output, 433.92MHz

This manual covers only one- and two-channel receivers. For information on all other receivers, please contact SECO-LARM.

### Introduction:

The SK-910RBQ and SK-910RB2Q are wireless receivers that meets the growing demand for receivers with multiple and independently controlled output functions. These RF receivers are compatible with both code hopping and fixed code transmitters (see page 4 of this manual for a list of compatible transmitters). The receivers can be used to control a variety of home automation devices such as garage door openers, lights, motorized gates, lifts, or other devices remotely.

### Installation Notes:

1. Mount the receiver out of sight in a location where it is not exposed to weather or moisture, and where it is not surrounded by metal. Metal will block the RF signal, resulting in a reduced range.
2. For best range, pull the antenna wire as long and straight as possible. If the receiver receives interference from local RF activity (e.g., an airport or military base), the antenna wire can be folded.

**IMPORTANT: DO NOT CUT THE ANTENNA WIRE.**

## Code Learning a New Transmitter Button:

Each receiver channel can learn the codes of up to 15 different transmitters on a first-in, first-out basis. Below is the procedure for code learning a new transmitter button.

1. Press the channel mode switch of the desired channel for 3 seconds or more. The channel's LED will start to flash quickly to indicate that it is in learning mode.
2. While the LED is flashing, press the button of the transmitter to be learned one time. The receiver's channel indicator LED will flash once to indicate the transmitter button has been successfully learned. After the button has been learned, the receiver will automatically exit learning mode. To learn further codes, repeat step 1 to re-enter learning mode.

### NOTES:

- The channel mode switch(es) can be found at the rear of the receiver's case.
- The channel's indicator LED will flash a maximum of 15 seconds. If no transmitter button is pressed during this time, the receiver will exit code learning mode, and the LED will turn off.
- If the code being learned has already been learned, the channel indicator LED will turn steady ON and then start flashing again. The code will not be learned a second time.
- One channel can learn the codes of a maximum of 15 transmitter buttons. If you attempt to learn a sixteenth transmitter code, the earliest code learned will be deleted and the new code will be learned.

## Clear Channel Memory:

To clear all codes from a channel's memory, press the channel's mode switch for 3 seconds or more until the channel indicator LED flashes. Release, and then press the switch again for 3 seconds or more until the LED stops flashing. The LED will then flash twice to indicate that all codes associated with that channel have been deleted.

## Display Channel Memory:

To see how many codes have been learned by a channel, press that channel's mode switch once. The number of codes stored in the channel's memory is equal to the number of times the channel indicator LED flashes.

## Programming Channel Relay Output Function:

Each channel relay can be programmed for one of five output functions. **SK-910RB2Q only:** Each channel can be independently programmed to operate in a different function, depending on the user's application. The five functions are:

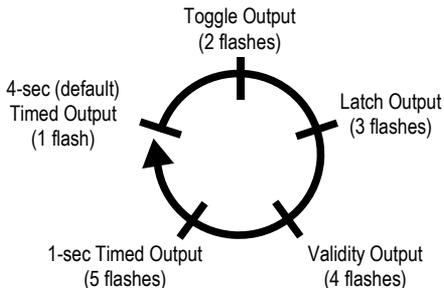
1. **4-Second Timed Output** (default) – When the transmitter button is pressed, the relay will turn ON for 4 seconds.
2. **Toggle Output** – Works much like a toggle switch to turn a device ON & OFF alternately. Press the transmitter button once, and the relay turns ON. Press the transmitter button again, and the relay turns OFF.
3. **Latch Output** – Press the transmitter button once, and the relay turns ON and stays ON. The channel relay will remain ON regardless of whether a compatible transmitter button is pressed again or not. To turn the relay OFF, press the channel's mode switch on the receiver once to reset.
4. **Validity Output** – The channel will turn the relay ON for as long as the transmitter button is pressed.

Note: Due to possible interference or drops in transmitter battery power while the transmitter button is continuously pressed (even for short periods of time), the receiver may lose the transmitter's signal and turn the relay OFF.

5. **1-Second Timed Output** – When the transmitter button is pressed, the relay will turn ON for 1 second.

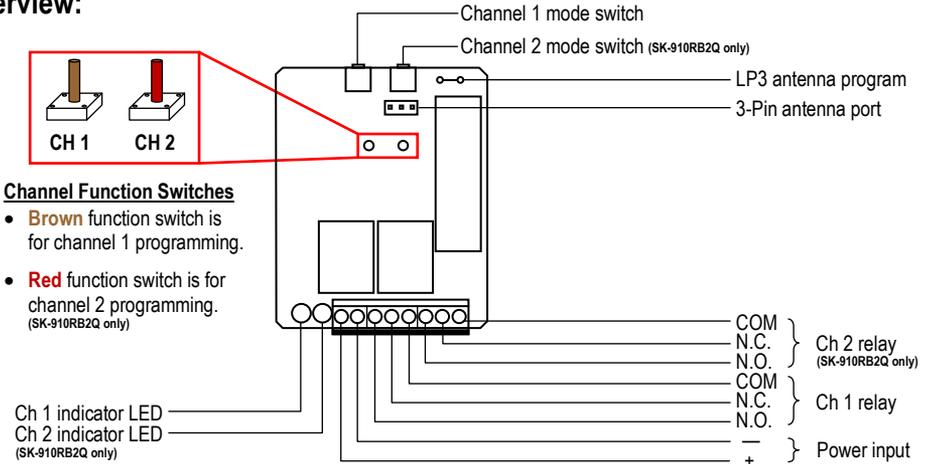
### Selecting the relay output function:

- Hold down the channel function switch for 3 or more seconds. The channel's LED will flash a number of times equal to the output mode that it is in.
- To change a channel's function, press the channel's function switch. Each press moves to the next function in the sequence as shown in the diagram to the right.
- After changing functions, count the number of times the channel LED flashes to verify the channel is set to the correct function.
- To exit function programming, hold the appropriate function switch for 3 seconds, or wait 15 seconds.



Note: For a diagram of the PC board, including the location of the function switch(es), please see *Overview*, page 3.

## Overview:



(PC board shown. Remove the front cover of the receiver to access the function switch(es) and terminal block.)

## Channel Mode Switch Operation (One per Channel):

|                      |  |
|----------------------|--|
| Learn mode           | Press and hold the channel mode switch for three seconds or more.  |
| Clear memory         | Press and hold the channel mode switch for three seconds or more, then when the LED starts flashing, press again for three seconds to delete all previously learned codes.       |
| Reset latched output | If the channel was programmed for latch output, once the relay is turned ON with a transmitter button, press the channel mode switch of that channel once to turn the relay OFF. |
| Memory Display       | Press and release the channel mode switch to show the number of codes stored. The LED will flash a number of times corresponding to the number of codes stored.                  |

## LED Indication (One per Channel):

|               |  |
|---------------|--|
| Steady ON     | Receiving signal from a transmitter button during normal operation, or indicates a transmitter button's code already exists in the receiver's memory during code learning.             |
| Fast flash    | Receiver is in code-learning mode or channel memory display mode, or during the programming channel output mode.   |
| One flash     | A transmitter button code was learned, or receiver channel is in 4-second timed output mode.   |
| Two flashes   | All previously learned transmitter buttons were deleted, or receiver channel is in toggle output mode.   |
| Three flashes | Receiver channel is in latched output mode.  |
| Four flashes  | Receiver channel is in validity output mode.   |
| Five flashes  | Receiver channel is in 1-second timed output mode.   |
| 0-15 flashes  | During normal operation, pressing a channel mode switch will cause the channel indicator LED to flash. Number of flashes indicates the number of transmitter buttons currently stored. |

## Extended Range Antenna (Optional):



The SECO-LARM SK-91ERSD/ SK-93ERSD significantly extends RF receiver range with existing remotes. It comes with a 9ft (2.7m) cable that easily plugs into the 3-pin antenna port located on the RF receiver.

**SK-91ERSD (315MHz)**  
**SK-93ERSD (433.92MHz)**

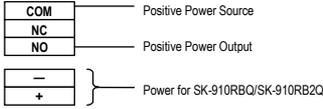
### NOTES:

- Antenna range will vary greatly depending on the installation and operating environment.
- To use an extended range antenna, the loop marked "LP3" on the receiver PC board must be cut.
- To protect the antenna components and the RF receiver circuits, please turn off power to the RF receiver before cutting the loop "LP3" on the PC board and before connecting or disconnecting an external antenna.

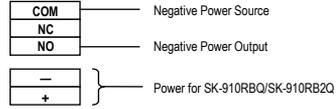
# ENFORCER One- and Two-Channel RF Receivers

## Sample Applications:

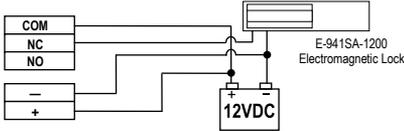
### Positive Output



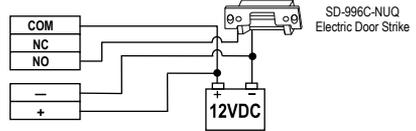
### Negative Output



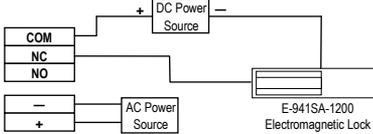
### Typical N.C. Application



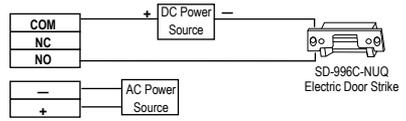
### Typical N.O. Application



### N.C. Application with Independent Power Sources



### N.O. Application with Independent Power Sources



## Specifications:

| Model                | SK-910RBQ / SK-910RB2Q                            | SK-910RB-4Q / SK-910RB2-4Q |
|----------------------|---|----------------------------|
| Operating frequency  | 315MHz  | 433.92MHz                  |
| Memory capacity      | 15 transmitter button codes per channel           |                            |
| Operating voltage    | 11-24 VAC/VDC                                     |                            |
| Operating current    | Standby   | 8mA@12VDC                  |
|                      | Active  | 30mA@12VDC per channel     |
| Relay contact rating | Form C 10A@24VDC or 120VAC per channel            |                            |
| Connectors           | Screw terminals, +, -, with NO/NC/COM per channel |                            |
| Dimensions           | 3 1/8" x 2 9/16" x 1" (80x65x25 mm)               |                            |

## Compatible Transmitters:

|   | 315MHz                   | 433.92MHz                |
|---|--------------------------|--------------------------|
| Fixed Code: 68 billion codes                            | SK-919 Series Fixed Code | SK-939 Series Fixed Code |
| CODEBUMP™: 18 quintillion (1.8x10 <sup>19</sup> ) codes | SK-917 Series CODEBUMP   | SK-937 Series CODEBUMP   |

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