

# ENFORCER®

## SK-910RAQ Series

### Miniature RF Receivers

### Manual



SK-910RAQ shown

Model	Voltage	Channels	Output	Frequency
SK-910RAQ*	11~24 VAC/VDC	1	3A Form "C" relay output	315MHz
SK-910RA-4Q	11~24 VAC/VDC	1	3A Form "C" relay output	433.92MHz
SK-910RAVQ*	3~13.8 VDC	1	5A Transistor ground output	315MHz
SK-910RAV-4Q	3~13.8 VDC	1	5A Transistor ground output	433.92MHz
SK-910RAV2Q*	3~13.8 VDC	2	3A Transistor ground outputs x2	315MHz
SK-910RAV2-4Q	3~13.8 VDC	2	3A Transistor ground outputs x2	433.92MHz

\*Only 315MHz models are FCC compliant

### 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

For a full and up-to-date listing of compatible transmitters, visit [www.seco-larm.com](http://www.seco-larm.com)

# ENFORCER Miniature RF Receivers

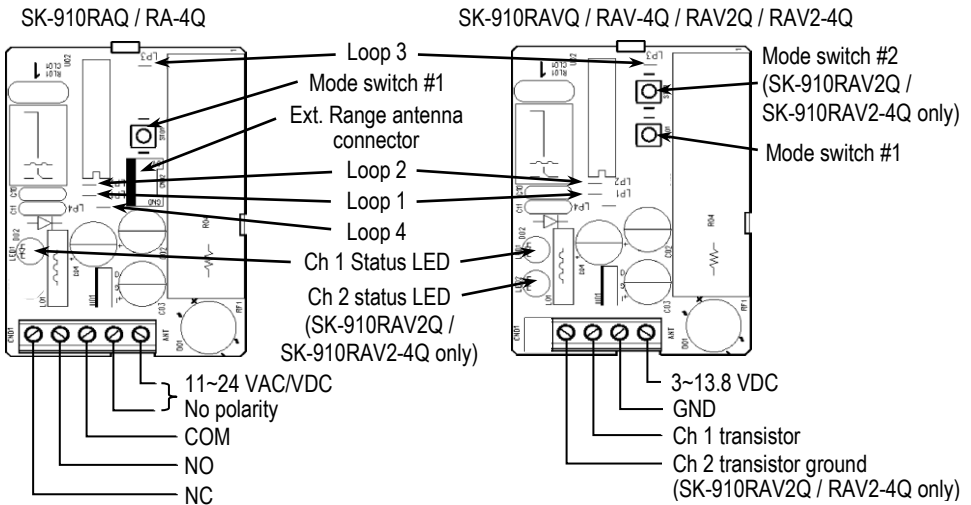
## Introduction:

These mini RF receivers are compatible with both code-hopping and fixed-code transmitters (see pg. 1 or visit [www.seco-larm.com](http://www.seco-larm.com) for a complete, up-to-date listing). They can be used for a variety of applications, such as allowing the same transmitter to arm/disarm a vehicle alarm and open/close a garage door opener. The receivers come in one- or two-channel versions. Each channel can learn the codes of up to 15 different transmitter buttons on a first-in, first-out basis.

## Specifications:

Model	SK-910RAQ	SK-910RA-4Q	SK-910RAVQ	SK-910RAV-4Q	SK-910RAV2Q	SK-910RAV2-4Q
Operating voltage	11~24 VAC/VDC		3~13.8 VAC/VDC			
Current draw	5mA@12VDC standby, 50mA@12VDC LED flashing		5mA@12VDC standby, 15mA@12VDC LED flashing			
Memory capacity	15 Transmitter button codes per channel					
Output mode	Programmable 4s momentary (default), 1s momentary, toggle (ON/OFF), or validity					
Output type	3A Form "C" relay		5A Transistor ground		3A Transistor ground x2	
Frequency	315MHz	433.92MHz	315MHz	433.92MHz	315MHz	433.92MHz
Operating temperature	-40°~167° F (-40°~75° C)					
Dimensions	3 <sup>3</sup> / <sub>16</sub> "x2 <sup>9</sup> / <sub>16</sub> "x3 <sup>1</sup> / <sub>4</sub> " (80x60x19 mm)					

## Overview:



**Table 1:** To program outputs, open case and find the jumpers marked LP1, LP2, LP3, and LP4. Cut these jumpers, if needed, as follows:

	4s Momentary	1s Momentary	Toggle	Validity
LP1	Uncut	Uncut	Cut	Cut
LP2	Uncut	Cut	Uncut	Cut
LP3	Cut LP3 to use external antenna (SK-910RAQ / RA-4Q only)			
LP4	Cut LP4 for 16~24 VAC/VDC power input (SK-910RAQ / RA-4Q only)			

**NOTE:** For the 2-channel models, the mode of both outputs is the same. In other words, you cannot have 4-second momentary output for channel 1 and a validity output for channel 2.

## Installation Notes:

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

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

## Code Learning a New Transmitter Button:

### Learning a New Button Code (Channel 1)

1. Press the mode switch which is located at the top of the receiver case for three seconds. The green LED will start to flash quickly.
2. While the green LED is flashing quickly, press a button on a compatible transmitter. The green LED will flash once and then turn off to show that button was learned.
3. Repeat steps 1 and 2 to learn more buttons into channel 1.

**NOTE:** The green 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 green LED will turn off

### Learning a New Button Code (Channel 2, SK-910RAV2Q / SK-910RAV2-4Q only)

The procedure is the same as for channel 1, except mode switch #2 (black switch) initiates the code-learning process, and the red LED shows status. For two channel receivers, **red** color push-button represent mode switch #1 and **black** color push-button represent mode switch #2.

#### NOTES:

1. The receiver will only learn the code of a particular button once. Once a button's code is learned, if you try to code-learn that button again, whether it is for the same channel or not, the receiver will remain in the code learning mode. The LED will turn steady ON (1-sec.) to show the code is already in memory.
2. Each channel can learn the codes of a maximum of 15 transmitter buttons. If you attempt to learn a sixteenth button, the earliest code learned will be deleted and replaced by the new code (first-in, first out).
3. To clear all codes in the channel's memory, press the appropriate mode switch (#1 or #2) for three seconds. When the LED starts flashing, press that switch again for three seconds. The LED flashes twice to indicate that all codes associated with that channel are now deleted.

## Programming Output Modes (See Table 1, pg. 2):

4-Second momentary	Press the transmitter button once. The output turns on for 4 seconds, and then off. (This is the DEFAULT mode).
1-Second momentary	Press the transmitter button once. The output turns on for 1 second, and then off.
Toggle	Press the transmitter button once, and the output turns on. Press a compatible transmitter button again, and the output turns off.
Validity	The relay turns on for as long as the transmitter button is pressed.

## Mode Switch Operation (One per Channel):

Learn mode	Press and hold the channel mode switch for three seconds. The appropriate LED will flash quickly to show that it is ready to learn a transmitter code.
Clear memory	Press three seconds. When the appropriate LED starts flashing, press again for three seconds to delete all previously learned codes. The LED will flash twice to confirm codes deleted.
Memory display	Press and immediately release the mode switch to show number of codes stored. The appropriate LED will flash a number of times corresponding to the number of codes stored.

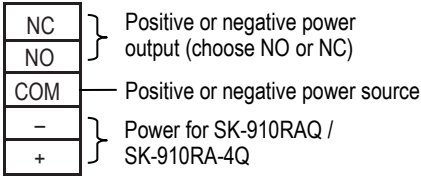
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## LED Indicators (One per Channel):

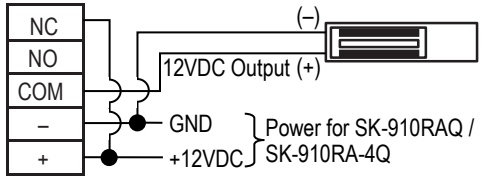
Steady ON	Senses signal from a transmitter button whose code was already learned.
Fast flash	In the code-learning mode.
One flash	A transmitter button code was learned.
Two flashes	All previously learned transmitter buttons codes were deleted.

## Sample Applications:

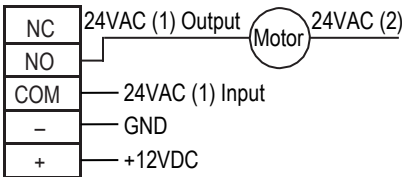
### Positive or negative output



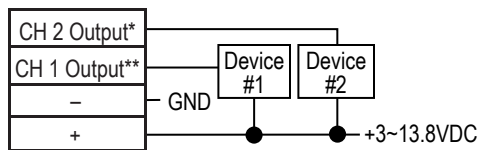
### 12VDC receiver power driving a 12VDC appliance



### 12VDC Receiver power input 24VDC Output driving a motor



### For SK-910RAVQ / SK-910RAV-4Q and SK-910RAV2Q / SK-910RAV2-4Q



\* For SK-910RAV2Q / SK-910RAV2-4Q

\*\* For SK-910RAVQ / SK-910RAV-4Q

## Extended Range Antenna (SK-910RAQ / SK-910RA-4Q only):

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.
- The SK-9xERSD is not weatherproof. For outdoor use, seal the case seams and connections with silicone sealant.

**WARRANTY:** This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for one (1) year from the date of sale to the original customer. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM. This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship. The sole obligation of SECO-LARM and the purchaser's exclusive remedy, shall be limited to the replacement or repair only, at SECO-LARM's option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damage of any kind to the purchaser or anyone else.

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