# SpreadNet<sup>®</sup> Model SN914-SZR **RF Single Zone Receiver**

# Installation Instructions

The SpreadNet® Model SN914-SZR is a Single Zone Receiver in the C&K family of Spread Spectrum RF products. The SN914-SZR is a stand-alone product which supports up to 32 SpreadNet transmitters. The SN914-SZR provides both a Form "C" Alarm Relay output and a Form "A" Trouble Relay output. The SN914-SZR is not suitable for use with smoke detectors.

Special features include an alarm and trouble event memory. The SN914-SZR Single Zone Receiver detects alarms, tamper, low battery, and no check-in from the various transmitters (sensors).

#### Features

- Easy Installation
- Up to 32 Devices
- Form "C" Alarm Relay Form "A" Trouble Relay
- EEPROM Memory
- Uses Spacial Diversity Antennas for Improved Reception
- 900 MHz Spread Spectrum
- Noise & RF Immunity

- Individual Device Alarm/ **Trouble Indication Using** SN900 Programmer
- Alarm/Trouble Memory
- · No Check-In and Low Battery Supervision
- Wall/Cover Tamper
  - · Suitable for UL Grade B Service

# **Mounting Location**

The RF Receiver may either be mounted on the wall or on the control panel housing. For optimum performance, the Receiver should be mounted on the wall. The distance between the Receiver and Control Panel must not exceed 500 ft. (152.4 m).

Receiver orientation is not a problem, as the unique antenna design of the SpreadNet RF Receiver automatically compensates for variations in signal direction. Two antennas orientated at right angles virtually eliminate problems associated with noise and signal fading.

When choosing a location to install the SN914-SZR RF Receiver. you should avoid areas near screens, metal window frames, circuit breaker boxes, metal air conditioner and heater ducts. These areas interfere with the receiver's ability to pick up signals or are sources of high noise and radio frequency interference.

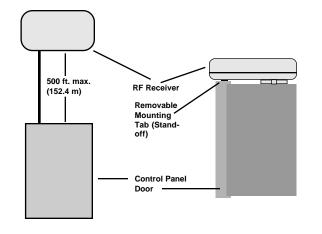


Figure 1 - Mounting Location

# **Mounting Procedure**

To mount the SN914-SZR, orient the unit as shown in Figure 2. Loosen the cover retaining screw on the front of the Receiver and open the front panel. The front and rear housings may be separated for easier installation. Remove the knock-outs for wiring the Receiver to the control panel.

Use the rear cover as a template to mark the mounting holes (see Figure 2). Drill the holes as necessary. The hole at the top center of the rear housing is designed for mounting the Receiver to the wall. The tab also serves as a removable stand-off when mounting the Receiver to the top of the Control Panel housing (see Figure 1). The plastic tab should be removed as it will interfere with the proper closing of the control panel door.

# **Receiver Wall Tamper**

Both a cover and a wall tamper are provided with a single tamper switch. To activate the wall tamper, remove the knock-out in the rear housing and install a screw in the wall, leav-

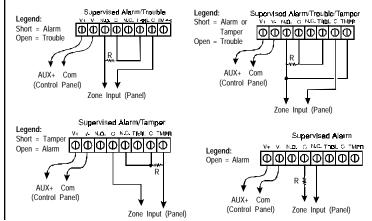
ing enough of the screw head exposed to depress the tamper switch when the cover is closed.

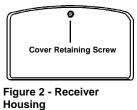
#### Wiring the Receiver

Pull the 6-wire cable (common, power, alarm, and trouble) and the 2-wire cable (tamper) through the rear cover. Mount the Receiver in the desired location as shown in Figure 1. Connect the SN914-SZR Receiver to the Control Panel as shown in Figure 3. Be sure to observe polarity. The SN914-SZR derives its power from the Control Panel via the V+ (to panel AUX+) and V- (to panel C or GND) terminals. The SN914-SZR Receiver is electronically protected against reverse polarity.

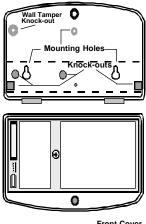


When wiring the SN914-SZR, a number of configurations are available for connecting and monitoring for Alarm, Tamper, and Trouble conditions. The diagrams below illustrate the proper method of connecting the Receiver to the Control Panel. In each diagram, R represents the End of Line Resistor.

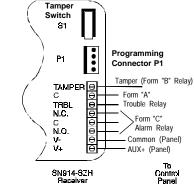




Mounting Wall Rear Cover



Front Cover





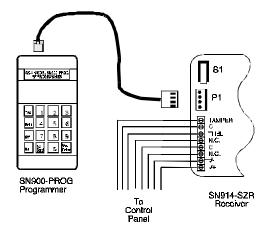


Figure 4 - Connecting the RF Programmer

#### Programming and Set-Up

The SN914-SZR Receiver is programmed using the SN900-PROG Handheld Programmer. Connect the SN900-PROG Programmer to connector P1 on the Receiver, as shown above, using the interconnect cable supplied with the Programmer. In order to determine the Channel # and Property Code to be used, the Programmer must be connected to the Receiver prior to programming any of the system's transmitters.

When selection of the Channel and Property Codes has been successfully completed, the system transmitters may be programmed. Refer to the Installation Instructions included with each Transmitter for proper setup.

#### Programming the Receiver

Program the SN914-SZR Receiver following the instructions outlined in the SN900-PROG RF Programmer Programming Manual.

#### Testing the Transmitter and Receiver

After the individual transmitters have been installed and programmed, the RF Programmer can be used with the RF Receiver to measure transmitter reception characteristics. For additional details, refer to the SN900-PROG RF Programmer Programming Manual (P/N 5-051-136-00).

#### **Termination Summary Label**

After the system has been installed, programmed and tested, the installer should complete the Termination Summary Label, included with the installation kit. A partial sample of the Termination Label is shown below with an assortment of zones filled out.

**Property Code:** Identifies the Transmitter and Receiver as belonging to a particular system.

PROPE	BITY CODE:_	_ CHE	ECK IN:						
DEVICE	TRANSMITTER. Location	Ň	DATERY	<b>31</b> 7	DEVICE	TRANSMITTER LOCATION	ъ¥.		<b>ŞN</b> R
1	Pront Door		420M		9				
2	Beak Door	렮	4082AM		10				
3	Living Room	麗	422.04		11				
4	Mester Bdm	₹	422/04		12				
5					13				
8					14				
7					15				
8					16				

Transmitter Location: The physical location of the Transmitter within the premises.

**TX (Transmitter) Type:** Which of the various SpreadNet Transmitters is used in that particular location. (i.e. Door, PIR, Smoke, etc.)

**Check-In Interval:** The Supervisory Rate for all Transmitters (in seconds). May range from 30 to 300 seconds in 10 second intervals, or 0 for unsupervised.

**SNR:** The Signal-to-Noise Ratio of the Transmitter showing Signal strength and Noise level in decibels (dB).

Battery Date: The date the batteries were installed or last replaced.

Upon completion, the label may then be placed inside the rear cover of the RF Receiver or inside the Control Panel for future reference.

**NOTE:** The SN914-SZR Receiver is suitable for UL Grade B service.

#### Specifications

Power Requirements: 210 mA at 9.5 - 14 VDC

Dimensions: 7.875" x 4.125" x 1.75" (20 cm x 10.5 cm x 4.5 cm)

Weight: 11 oz. (311 g)

Trouble Relay: Form A, Energized (NC) 250 mA, 24 VDC

Approvals: FCC certified UL listed IC **Operating Frequency:** 902 - 928 MHz Spread Spectrum

#### Operating Environment:

32° to 140° F (0° to 60° C) Up to 95% relative humidity (non-condensing)

Alarm Relay: Form C, Energized (NC/C/NO) 125 mA, 24 VDC

Tamper Relay:

Form B, Energized (NO) 50 mA, 30 VDC

# FCC NOTICE

The Model SN914-SZR generates and uses radio frequency energy. If not installed and used in accordance with the manufacturer's instructions, it may cause interference to radio and television reception. The Receiver has been tested and found to comply with the specifications in Part 15 of FCC Rules for Class B Computing Devices and FCC Part 15 Subpart C, Specifications for Intentional Spread Spectrum Radiators.

If this equipment causes interference to radio or television reception - which can be determined by turning the equipment on and off - the installer is encouraged to correct the interference by one or more of the following measures: 1) Reorient the antenna of the radio/television. 2) Connect the AC transformer to a different outlet so the control panel and radio/television are on different branch circuits. 3) Relocate the control panel with respect to the radio/television.

If necessary, the installer should consult an experienced radio/television technician for additional suggestions, or send for the "Interference Handbook" prepared by the Federal Communications Commission. This booklet is available from the U.S. Government Printing Office, Washington D.C., 20402, stock number 004-000-00450-7.

**CAUTION:** C&K does not support field changes or modifications to any of the SpreadNet RF equipment unless they are specifically covered in this manual. All adjustments must be made at the factory under the specific guidelines set forth in our manufacturing processes. Any modification to the equipment could void the user's authority to operate the equipment and render the equipment in violation of FCC Part 15, Subpart C, 15.247.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### **INDUSTRY CANADA**

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérque n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numérique de Classe B prescrites dans le règlement sur le brouillage radioélectrique edicte par le Ministere des Communications du Canada.

#### LIMITED WARRANTY

Seller warrants its products to be in conformance with its own plans and specifications and to be free from defects in materials and workmanship under normal use and service for 18 months from the date stamp control on the product or for products not having a C&K Systems date stamp, for 12 months from the date of original purchase, unless the installation instructions or catalogue sets forth a shorter period, in which case the shorter period shall apply. Seller's obligation shall be limited to repairing or replacing, at its option, free of charge for materials or labor, any part which is proved not in compliance with Seller's specifications or proves defective in materials or workmanship under normal use and service. This warranty is void if the product is altered or improperly repaired or serviced by anyone other than C&K Systems factory service. For warranty service, return the product transportation prepaid to C&K Factory Service, 107 Woodmere Road, Folsom, CA, 95630.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIP-TION ON THE FACE HEREOF. In no case shall Seller be liable to anyone for any consequential or incidental damages for breach of this or any other warranty, express or implied, or upon any other basis of liability whatsoever, even if the loss or damage is caused by Seller's own negligence or fault.

Seller does not represent that its product may not be compromised or circumvented; that the product will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the product will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of burglary, robbery, or fire without warning, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss as a result. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR OTHER LOSS BASED ON A CLAIM THAT THE PRODUCT FAILED TO GIVE WARNING. However, if Seller be held liable, whether directly or indirectly, for any loss or damage arising under this Limited Warranty or otherwise, regardless of cause or origin, Seller's maximum liability shall not in any case exceed the purchase price of the product, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive remedy against Seller.

This warranty replaces all previous warranties and is the only warranty made by C&K Systems on this product. No increase or alteration, written or verbal, of the obligation of this warranty is authorized.

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