SpreadNet®

Model SN930-DOOR

RF Universal/Door Transmitter Installation Instructions

The SpreadNet Model SN930-DOOR Universal/Door Transmitter is a truly versatile wireless RF transmitter.

Using Spread Spectrum technology, the SN930-DOOR provides higher power, lower noise levels, less interference, and longer range than obtainable with most single-frequency RF transmitters, resulting in increased reliability.

The unit is equipped with one internal reed switch (S1) mounted on the printed circuit board (see Figure 2) and a magnet assembly. The transmitter is also equipped with a set of terminals to allow the use of an external device.

Special alignment marks built in to both the transmitter and the magnet assembly housings aid in correctly aligning the magnet assembly with the magnetic contact (reed switch). The magnet is properly centered when both marks are aligned.

The internal contact has a maximum break gap of 2-1/4". The magnet assembly is mounted on the right hand side as shown in Figure 1. When positioned correctly (within 1" of the transmitter housing), the reed switch will remain closed. Moving the magnet (mounted on a door or window) more than 2" from the transmitter housing will cause the reed switch to open, indicating an alarm condition.

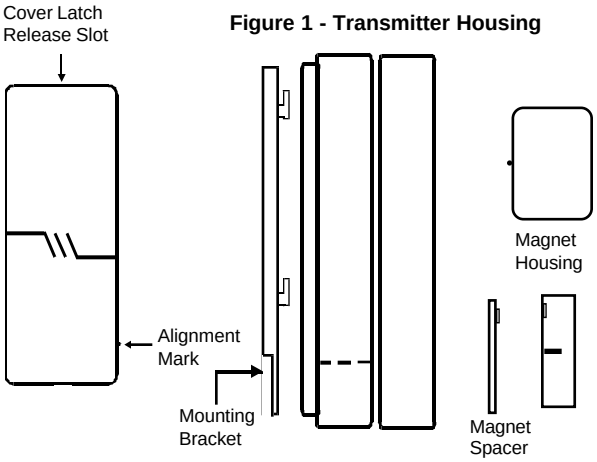
Features:

- Spread Spectrum Technology
- 2-1/4" Break Gap (Maximum)
- Simple Installation
- Programmable Check-In Rate
- EEPROM Memory
- Cover Tamper Switch
- Up to 5-year Battery Life
- Lithium Batteries (Included)
- Internal or External Contacts, Jumper Selectable

Mounting Location

The Universal Door Transmitter may be mounted directly on any door/window frame or on the wall. The transmitter may also be installed on the removable bracket provided with the transmitter. (See Figure 1 below.) If the transmitter is mounted using the removable bracket, the spacer should also be used with the magnet assembly. Alternately, the transmitter may be mounted up to 25 feet away from an external device. Do NOT mount the transmitter near screens or large metal objects. The transmitter may be mounted in either a vertical or horizontal position; orientation is not critical. When mounting the transmitter, select a location and temporarily mount the unit while verifying reception of the RF signal. (See "Scan for One Transmitter" in the SN900-PROG RF Programming Manual P/N 5-051-136-00.)

Figure 1 - Transmitter Housing



Mounting Procedure

The Universal/Door Transmitter comes supplied with a convenient mounting bracket (see Figure 1) for easy installation of the transmitter. The bracket may be used as a template for marking the mounting holes.

If more security is required, the transmitter may be mounted directly to the door or wall without using the mounting bracket. When mounting the transmitter directly on the wall, the cover and the printed circuit board must be removed from the housing. To open the transmitter housing, orient the unit as shown in Figure 1. Insert a small screwdriver or pen point into the slot opening at the top of the transmitter housing and gently push in, releasing the tab holding the cover in place. Remove the cover and release the tab near the top of the transmitter housing which holds the circuit board in place. Remove the printed circuit board and mount the transmitter housing in its desired location.

Warning: When removing the PCB, do **NOT** use the antenna to remove the board. Handling or bending the antenna could damage the transmitter or reduce range.

Reinstall the circuit board with the orientation shown in Figure 2 (batteries toward the bottom of the housing).

To mount the magnet assembly, open the magnet housing by placing a small screwdriver in the gap between the housing and the magnet assembly. Gently lift the magnet assembly out of the housing. A spacer is also provided with the magnet assembly, in case the transmitter mounting bracket is used. When mounting the magnet assembly with the spacer(s), be sure to use screws which are long enough to go through both the spacer(s) and the magnet holder. Additional spacers (P/N 5-532-212-01) may be ordered from your C&K distributor.

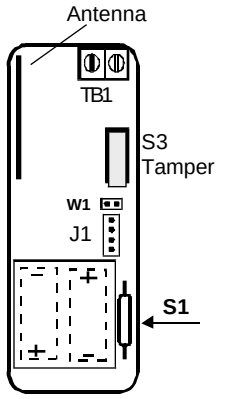


Figure 2 - PCB Layout

Setup and Wiring

The only procedure required to set up the Universal/Door Transmitter is to determine whether to use the internal contact or external device and set the jumper, as required. Refer to Figure 2 (above) for the location of the jumper W1. Table 1 below shows how to select the desired set of contacts.

To prevent loss, the unused jumper should be moved to the side so that it covers only one of the pins.

To Select:	Install Jumper
Internal contact S1	W1
External device TB1	None

Table 1- Jumper Selection

When selecting an external device, the maximum distance wire length to the transmitter is 25 feet using 18 - 22 AWG solid or stranded wire. Connect the device to TB1 on the circuit board. (Refer to Figure 2, above.)

The final step prior to programming and testing the transmitter is to activate the batteries. This is accomplished by removing the Battery Activator Tab. See Figure 3 for location of the Tab.

To program the Universal/Door Transmitter, refer to the SN 900-PROG Programming Manual (P/N 5-051-136-00).

For continued reliability, the SN930-DOOR transmitter should be tested at least once per year.

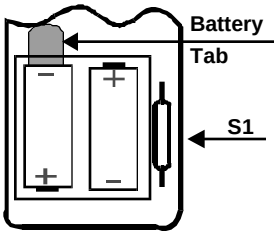


Figure 3 - Battery Tab Location

U.L. Compliance

For Grade A household burglar alarm and household fire warning system applications using the C&K System 2316 Control Panel:

All transmitters must be supervised.

Only one transmitter may be installed per zone.

The SN930-DOOR is not approved for use with smoke or heat detector type devices.

Transmitter Device ID

After the SN930-DOOR has been programmed and tested, fill out the Transmitter Device I.D. Label (included in the installation package) and mount the label inside the transmitter.

The following procedure is recommended for mounting the label:

1. Open the front cover of the transmitter.
2. Remove the PCB from the housing.
3. Remove the adhesive backing from the label and place the label at the bottom of the housing.
4. Replace the PCB and close the cover.

A sample of a completed Transmitter Device ID Label is shown below:

P. CODE	0253
CHANNEL	2
ZONE	01
DEVICE	01
CHECK-IN	30
BATTERY	4/27/93

P. CODE - The System Property Code.
CHANNEL - Spread Spectrum selected by the system.
ZONE - Control panel zone number associated with the transmitter.
DEVICE - The number of the device associated with the zone.*
CHECK-IN - Supervisory interval (in seconds)
BATTERY - Date batteries are installed

* All transmitters used with the SN912-RCV and SN913-I/O, must be programmed as Device #1.

FCC Notice

The Model SN930-DOOR Universal/Door Transmitter 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 Universal/Door Transmitter 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.

Specifications

- **Dimensions:**
  Transmitter w/o spacer:
  4.5" l x 1.56" w x 1.125" d
  (11.5 cm x 4 cm x 2.86 cm)

  Magnet w/o spacer:
  1" l x 1.5" w x 0.4" d
  (2.54 cm x 3.8 cm x 1 cm)

  Spacer thickness: 0.1" (0.25 cm)
- **Input Power:**
  Two 3.6VDC 1/2AA lithium batteries
- **Weight:**
  4 oz. (113 g)
- **Replace Batteries only with**
  C&K Model # SN31L-BAT
  SAFT Model # LS3 or LS14250
  Tadiran Model # TL-2150 /S

Note: Batteries should be replaced following a Low Battery indication or every 5 years, whichever occurs first.

- **Operating Environment:**
  32° to 140° F (0° to 60° C);
  up to 95% relative humidity
  (non-condensing)
- **Operating Frequency:**
  902 - 928 MHz Spread Spectrum
- **RF Emission standards:**
  USA: FCC Part 15
  CANADA: DOC
- **Supervisory Rate:**
  30 - 300 sec (10 sec intervals)
  0 is unsupervised
- **Magnet Assembly**
  P/N 1-000-931-01
- **Magnet Spacer**
  P/N 5-532-212-01
- **Transmitter Spacer**
  P/N 5-532-511-01

Limited Warranty

Seller warrants its products to be in accordance 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 an authorized C&K factory service center. Contact your local C&K distributor for the service center location nearest you.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE DESCRIPTION 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 system may only reduce the risk of burglary, robbery, or fire without warning, but it is not insurance or 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 on this product. No increase or alteration, written or verbal, of the obligation of this warranty is authorized.

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C&K SYSTEMS, Inc.
GLOBAL SECURITY TECHNOLOGY