

# T-90

## SUPERVISED DIGITAL SECURITY TRANSMITTER



### Installation Instructions

## Linear

(760) 438-7000 • FAX (760) 438-7043  
USA & Canada (800) 421-1587 & (800) 392-0123  
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### DESCRIPTION

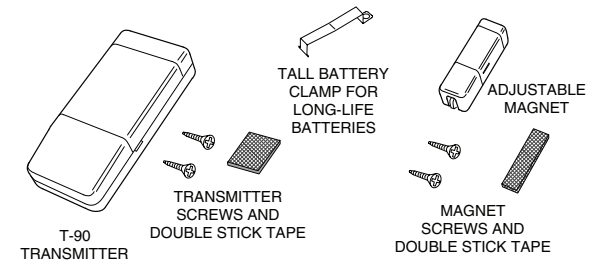
The T-90 is a supervised, digitally-coded radio transmitter designed for applications such as door/window security. The T-90 is supervised for alarms and restorals, low battery, status, tamper, and test. **The T-90 transmitter is compatible with any Linear SX format supervised security receiver.**

Coding switches are not required or used in the T-90. Each transmitter is pre-coded at the factory to a unique code. With the SX format, there are more than sixteen million codes possible.

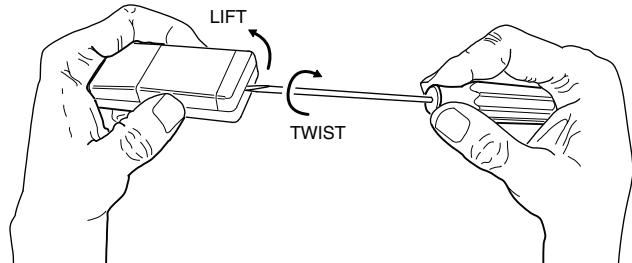
The T-90 can be triggered with the built-in internal magnetic contacts, with various types of external contacts, or both. When using one of the internal contacts and the external input, both sensors must be secured for a restore transmission, faulting either sensor will cause an alarm transmission. External inputs can be either normally open or normally closed.

Switch selected options are included for glass break sensors, built-in pulse stretcher, battery saver, and external input type.

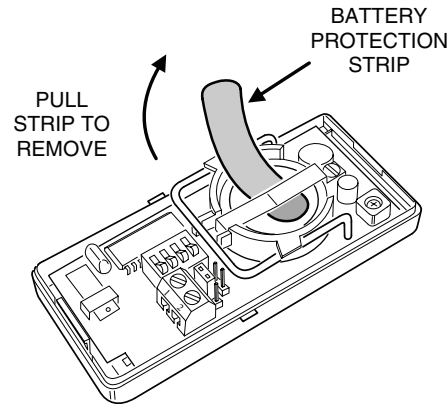
The transmitter is powered by two self-contained type 2032 3-volt batteries. These batteries are supplied with the transmitter and have sufficient life for most installations. Larger, type 2450 batteries can be used to power the transmitter longer in high traffic installations. When the battery voltage gets low, a low battery report is sent with any status, alarm, tamper or test report to the receiver. Use only DL2450, or CR2032 batteries.



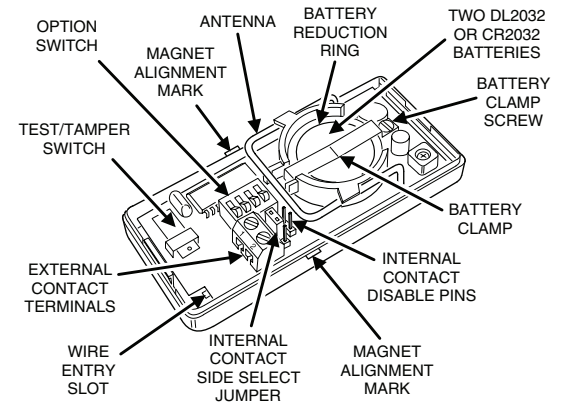
**STEP 1 Remove cover.** Remove the T-90 transmitter cover by twisting a small screwdriver in the top slot (the fat end of the transmitter).



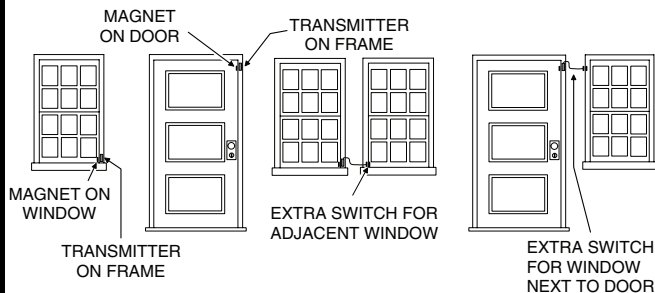
**STEP 2 Remove battery protection strip.** Pull the battery protection strip out from underneath the battery clamp.



**STEP 3 Identify transmitter components.** Examine the transmitter to identify the component locations.

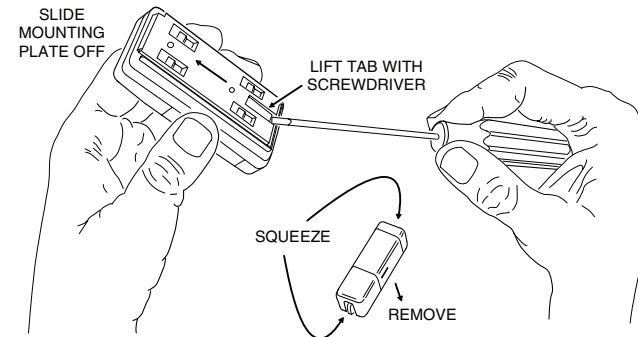


**STEP 4 Pick transmitter location.** Select a location for the transmitter. Avoid mounting the transmitter near the floor. Low level mounting can reduce transmission range and may subject the transmitter to damage. **Mounting the transmitter on metal frame doors and windows is not recommended because the radio range will be reduced.**

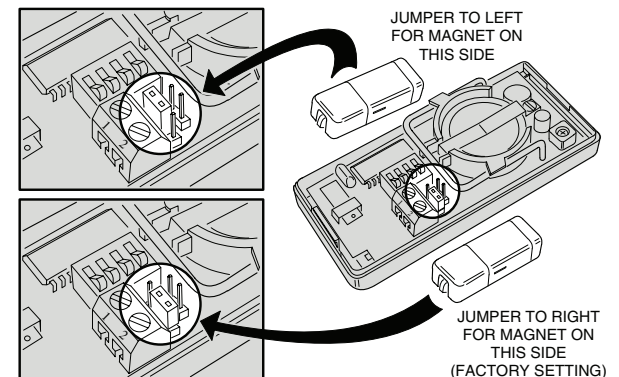


**STEP 5 Remove mounting plates.** Use a small screwdriver to remove the transmitter's mounting plate. Squeeze the magnet's tabs to remove its mounting plate.

**IF USING EXTERNAL CONTACTS, SKIP TO STEP 8**



**STEP 6 Select switch side.** Place the internal contact jumper on the pins closest to the transmitter side on which the magnet will be.

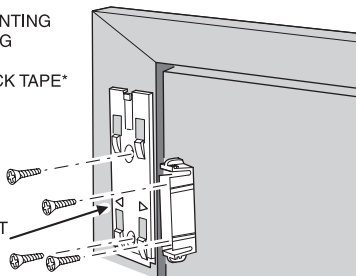


**STEP 7 Attach mounting plates.** Use the screws or double-stick tape provided to affix the mounting plates. Be sure the magnet will be adjacent to the magnet alignment marks. Mount the magnet no further than 1/2 inch from the transmitter. Snap transmitter and magnet onto mounting plates.

**FOR INTERNAL CONTACTS, SKIP TO STEP 11**

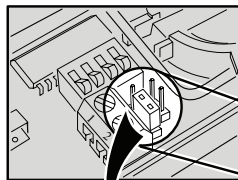
ATTACH MOUNTING PLATES USING SCREWS OR DOUBLE STICK TAPE\*

ALIGNMENT ARROWS

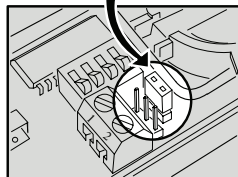


**\*\*\* FOR EXTERNAL CONTACTS ONLY \*\*\***

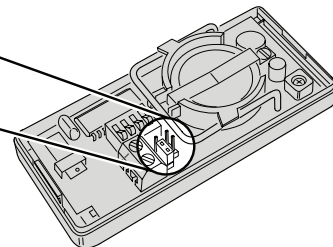
**STEP 8 Change contact jumper.** Remove the side select jumper and place it on the internal contact disable pins.



MOVE JUMPER FROM HERE (3-PIN SIDE SELECT POSTS)

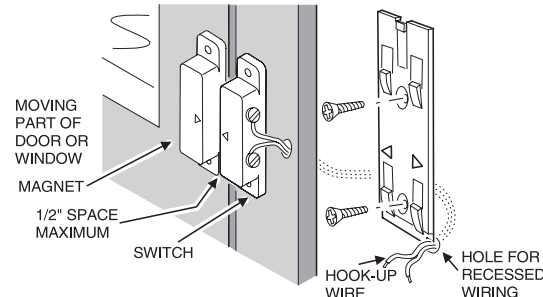


TO HERE (2-PIN INTERNAL CONTACT DISABLE POSTS)



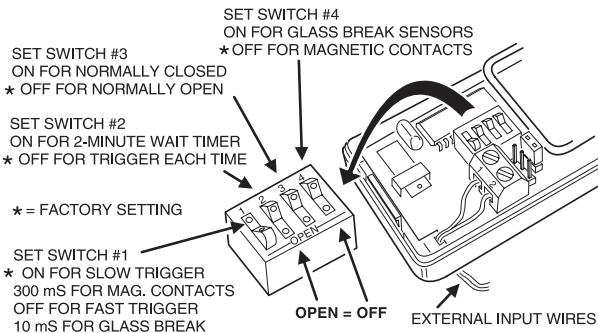
**\*\*\* FOR EXTERNAL CONTACTS ONLY \*\*\***

**STEP 9 Install contact or sensor and transmitter mounting plate.** Mount the external contact or sensor as described in its instructions. For recessed wiring, drill an access hole for the wire.



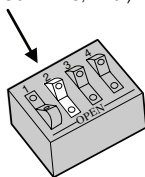
**\*\*\* FOR EXTERNAL CONTACTS ONLY \*\*\***

**STEP 10 Connect to terminals and set option switch.** Connect two wires from the external sensor to the external contact terminals. Set the option switches for the type of sensor.



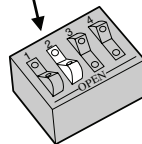
**STEP 11 Complete transmitter setup.** Set option switch #2 to enable or disable the 2-minute wait timer. Setting switch #2 ON enables 2-minute wait timer (after triggering, unit waits 2 minutes before re-triggering). **Switch #3 must be off when only using the internal contacts.**

SET SWITCH #2 OFF (OPEN) FOR LOW ACTIVITY DEVICES (DOOR SWITCHES, WATER SENSORS, WINDOW SCREENS, ETC.)



TRANSMITTER WILL ACTIVATE EACH TIME IT IS TRIGGERED

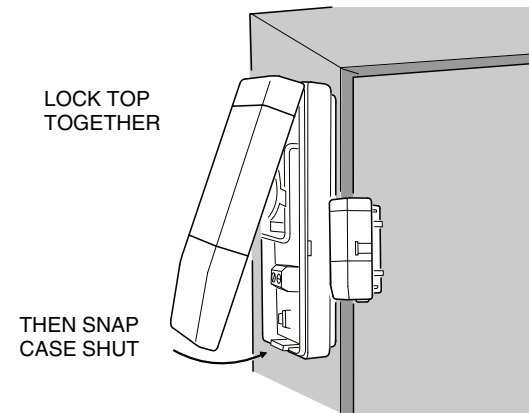
SET SWITCH #2 ON FOR HIGH ACTIVITY DEVICES (MAT SWITCHES, PIR'S, ETC.)



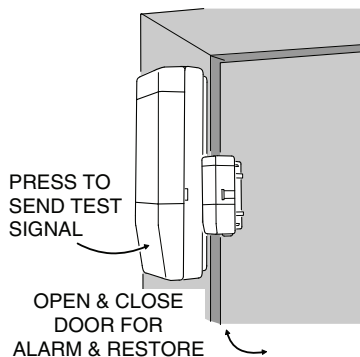
TRANSMITTER CAN ACTIVATE ONLY ONCE EVERY TWO MINUTES

OPEN = OFF

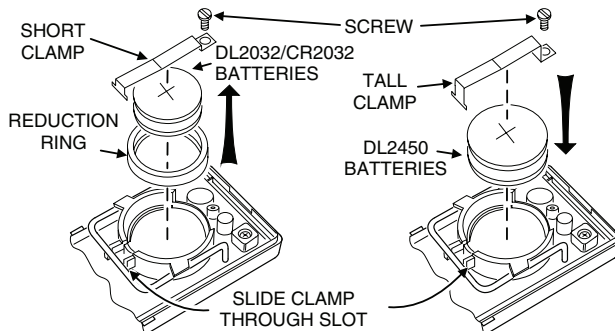
**STEP 12 Close transmitter case.** Close the case by locking the top together first, then snap the bottom together.



**STEP 13 Program transmitter into receiver and test.** Follow the receiver's instructions to set it in a program or learn mode. Press the bottom of the transmitter case to send a test signal. Verify that the signal was received and that the transmitter was properly entered into the receiver's memory. Set the receiver into a monitor or chime mode. Open the door or window monitored by the transmitter and verify that the receiver accepts the alarm transmission. Close the door or window and verify that the restore signal was accepted.



**OPTIONAL LONG LIFE BATTERIES** To increase the battery life of the unit in high traffic uses, replace the two type CR2032 with two DL2450 batteries. Exchange the battery clamp for the taller one provided, and remove the battery reduction ring.



**LINEAR LIMITED WARRANTY**

This Linear product is warranted against defects in material and workmanship for twelve (12) months. The Warranty Expiration Date is labeled on the product. **This warranty extends only to wholesale customers** who buy direct from Linear or through Linear's normal distribution channels. **Linear does not warrant this product to consumers.** Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. **There are no obligations or liabilities on the part of Linear LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.** All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until Warranty Expiration Date as labeled on the product. **This Linear LLC Warranty is in lieu of all other warranties express or implied.**

All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-421-1587 for an RPA# and other important details.

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signalling. However, there are some limitations which must be observed.

**IMPORTANT !!!**

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signalling. However, there are some limitations which must be observed.

- \* For U.S. installations only: The radios are required to comply with FCC Rules and Regulations as Part 15 devices. As such, they have limited transmitter power and therefore limited range.
- \* A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- \* Changes or modifications to the device may void FCC compliance.
- \* Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- \* A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.