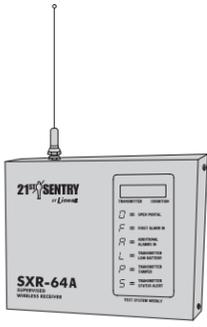


SXR-64A

Supervised Wireless Receiver and Zone Expander



Installation Instructions

Linear

(760) 438-7000 • FAX (760) 438-7043
USA & Canada (800) 421-1587 & (800) 392-0123
Toll Free FAX (800) 468-1340
www.linearcorp.com

INTRODUCTION

The Model SXR-64A is a 64-channel, 12-zone, supervised wireless receiver/annunciator designed for use in residential or commercial security systems. Housed in a rugged metal enclosure, the SXR-64A connects to a hardwired alarm control panel adding wireless capability to the panel.

The SXR-64A receives signals from a variety of security transmitters then processes, displays and transfers the signal to the hardwired alarm control panel. Six unique conditions for each transmitter channel can be shown on the unit's display. Conditions such as "Open Portal", "Transmitter Low Battery", "Transmitter Tamper" and "First Alarm In" show the status of each transmitter in the system. Valuable features such as *Alarm Memory* and *Transmitter Status* allow for quick system diagnosis and troubleshooting.

The receiver's eight alarm zones and four supervisory zones provide a flexible interface to the alarm control panel. Any or all of the zones can be used. All of the solid state zone outputs can be either normally open or normally closed electrical configuration and can switch up to 100 mA @ 24 VDC.

An easy programming interface using four pushbuttons lets the installer quickly setup the system. The UP, DOWN, ADVANCE and MEMORY buttons are located inside the receiver case and are used for transmitter and system programming.

An on-board, high-gain, superheterodyne radio receiver gives the SXR-64A excellent reception. The MODE indicator shows RF activity. The local whip antenna (supplied) or remote external antenna (Model EXA-1000) connects to the receiver through a standard type "F" connector.

The SXR-64A decodes Linear's SX, S1, and MegaCode™ format transmitters. The SXR-64A can be used as a direct replacement for Linear's SS-32, SSR-32, & SXR-64 receivers with an installation bonus of being able to use up to 64 transmitters in the system.

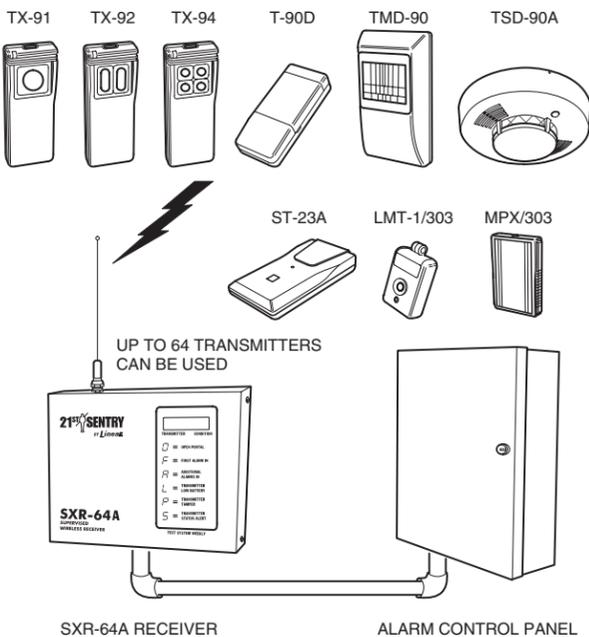
Power for the SXR-64A is provided from the alarm control panel. To control the alarm memory, reset tamper and status alert conditions, an armed input on the receiver connects to an armed output from the control panel.

FEATURES

- * 64 Programmable Transmitter Channels
- * 8 Alarm Zones
- * 4 Supervisory Zones
- * Rugged Metal Enclosure
- * Six Condition Displays for Each Transmitter
- * Alarm Memory with First-Alarm-In
- * Automatic Supervised Operation
- * Transmitter Contact State Monitoring
- * Transmitter Tamper Monitoring
- * Transmitter Low Battery Monitoring
- * Transmitter Status Report Monitoring
- * Easy Installer Programming Interface
- * High-gain Superheterodyne Receiver
- * Receiver Automatic Gain Control
- * Antenna Connector
- * Decodes 303.875 MHz SX, S1, & MegaCode™ Format Transmitters
- * Optional Display Blanking while Armed
- * RF Activity Indicator
- * Positive or Negative Armed Input

SYSTEM OVERVIEW

TYPICAL TRANSMITTERS

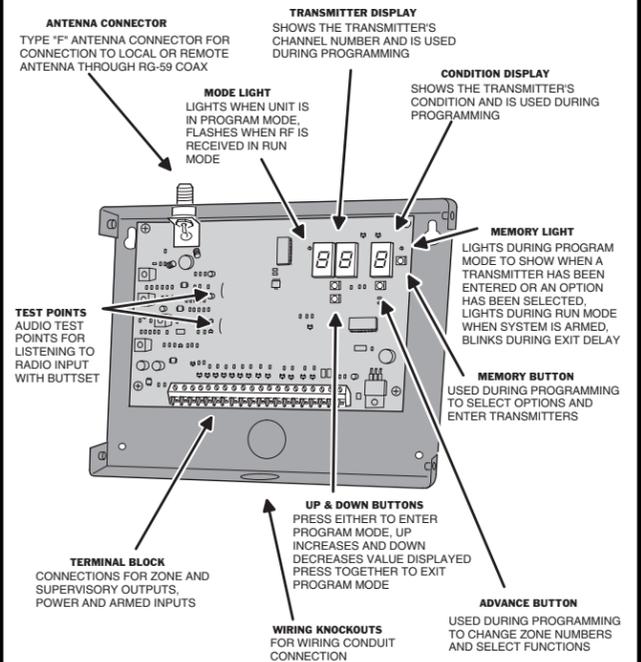


CONDITION DISPLAYS

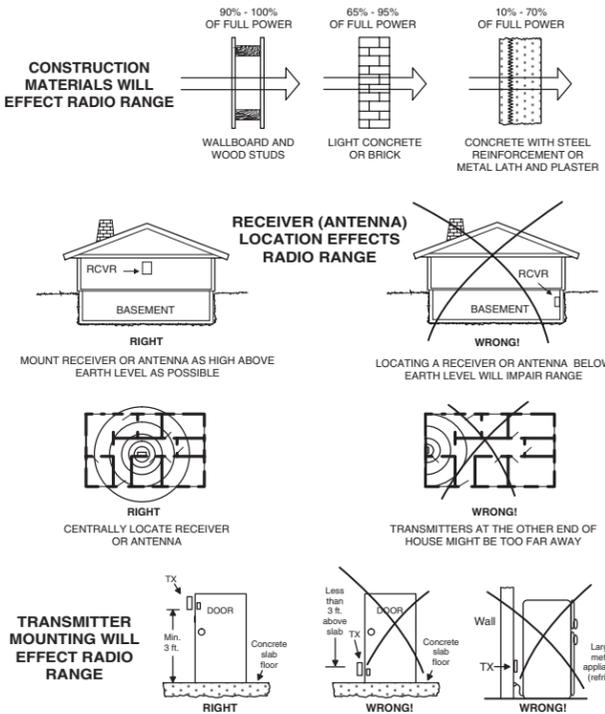
CONDITIONS FOR ALL TRANSMITTERS ROTATE ON THE DISPLAY

- O = OPEN PORTAL**
ALL TRANSMITTERS WILL CAUSE THIS CONDITION WHEN AN ALARM SIGNAL IS SENT. THE CONDITION WILL REMAIN UNTIL A RESTORE SIGNAL IS SENT, UNLESS THE TRANSMITTER IS SET AS "AUTO RESTORE". THE CHANNEL'S ZONE OUTPUT WILL BE FAULTED WHEN THIS CONDITION IS DISPLAYED.
- F = FIRST ALARM IN**
WHEN THE PANEL IS ARMED, THE FIRST ALARM SIGNAL SENT WILL CAUSE THIS CONDITION. IF THE CHANNEL IS SET AS "DELAYED", THIS CONDITION WILL OCCUR AFTER ANY DELAYS IF THE PANEL IS NOT DISARMED. DISPLAY WILL CLEAR THE NEXT TIME THE PANEL IS RE-ARMED.
- A = ADDITIONAL ALARMS IN**
WHEN THE PANEL IS ARMED, ADDITIONAL ALARM SIGNALS SENT WILL CAUSE THIS CONDITION. IF THE CHANNEL IS SET AS "DELAYED", THIS CONDITION WILL OCCUR AFTER ANY DELAYS IF THE PANEL IS NOT DISARMED. DISPLAY WILL CLEAR THE NEXT TIME THE PANEL IS RE-ARMED.
- L = TRANSMITTER LOW BATTERY**
ANY TRANSMITTER THAT CAN SEND A LOW BATTERY SIGNAL WILL CAUSE THIS CONDITION WHEN ITS BATTERY IS LOW. DISPLAY WILL REMAIN UNTIL A SIGNAL FROM THE SAME TRANSMITTER WITH A GOOD BATTERY IS SENT.
- T = TRANSMITTER TAMPER**
ANY TRANSMITTER THAT CAN SEND A TAMPER SIGNAL WILL CAUSE THIS CONDITION WHEN IT IS TAMPERED. DISPLAY WILL CLEAR THE NEXT TIME THE PANEL IS ARMED.
- S = TRANSMITTER STATUS ALERT**
IF THE RECEIVER DOES NOT RECEIVE STATUS SIGNALS FROM A TRANSMITTER THAT IS SET AS SUPERVISED, THIS CONDITION WILL BE DISPLAYED. THE RECEIVER CAN BE SET FOR TWO OR EIGHT HOURS OF MISSING STATUS TRANSMISSIONS BEFORE THE CONDITION OCCURS. DISPLAY WILL CLEAR THE NEXT TIME THE PANEL IS ARMED.

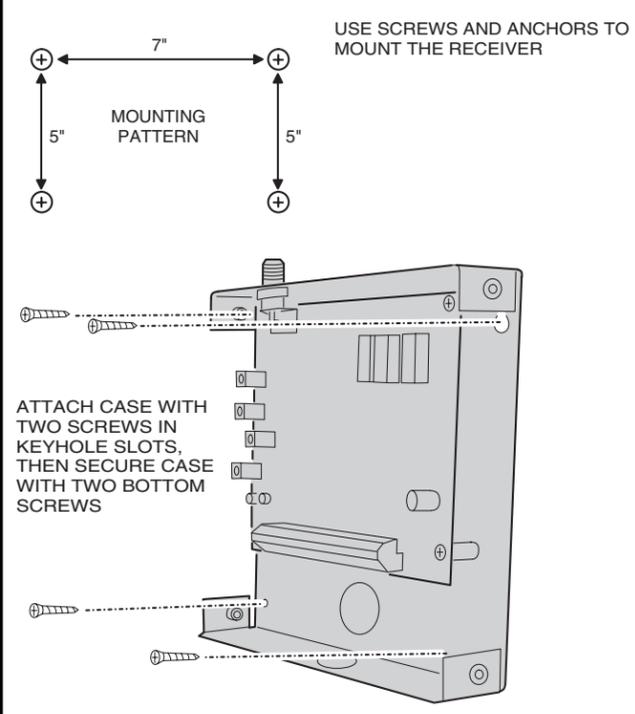
COMPONENT LOCATIONS



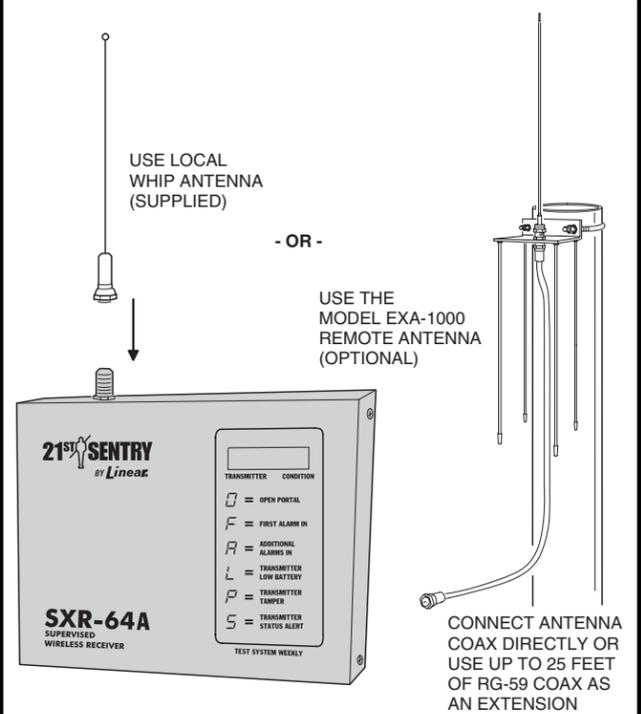
INSTALLATION TIPS



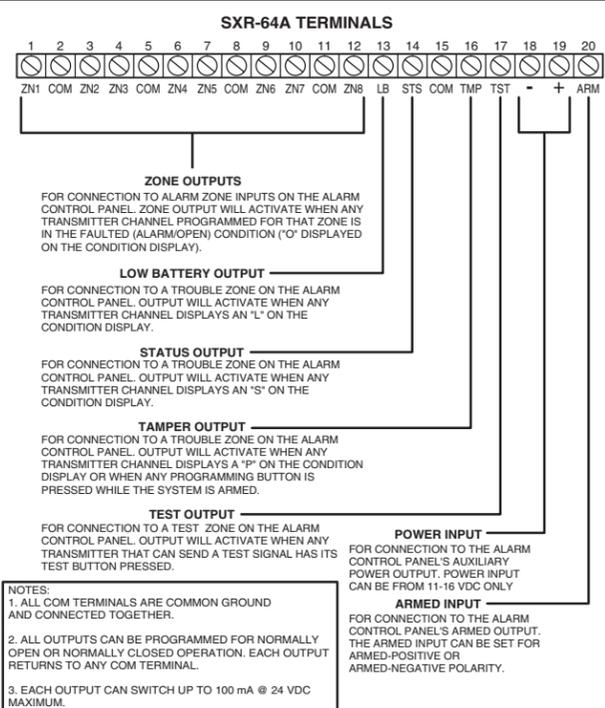
MOUNTING UNIT



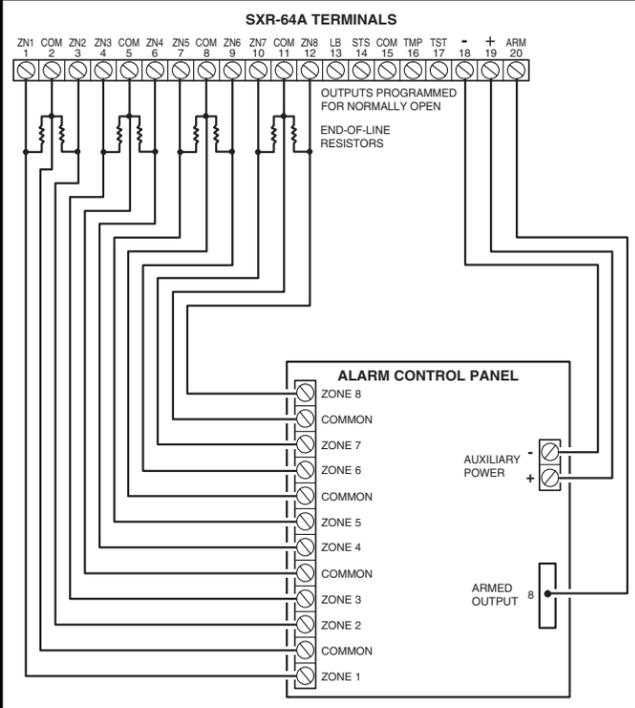
ANTENNA INSTALLATION



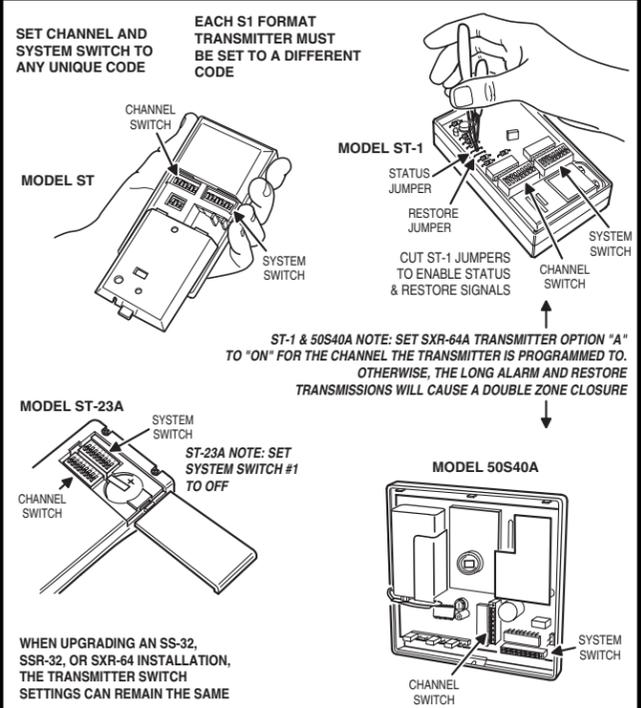
TERMINAL BLOCK DETAILS



TYPICAL CONTROL PANEL CONNECTION



S1 FORMAT TRANSMITTER DETAILS



ENTERING SINGLE-CHANNEL TRANSMITTERS

NOTE: ARMING THE CONTROL PANEL ANYTIME DURING PROGRAMMING WILL CAUSE THE SXR-64A TO EXIT PROGRAM MODE AND RETURN TO RUN MODE

WITH THE PANEL DISARMED, PRESS [UP] OR [DOWN] UNTIL THE DESIRED RECEIVER CHANNEL NUMBER (1-64) IS DISPLAYED

RECEIVER CHANNEL NUMBER (64 SHOWN)
ZONE NUMBER (1 SHOWN)

MEMORY LIGHT WILL BE OFF IF THE RECEIVER CHANNEL IS VACANT (ONLY A VACANT RECEIVER CHANNEL CAN ACCEPT A TRANSMITTER)

PRESS [ADVANCE] TO SELECT THE OUTPUT ZONE NUMBER (1-8) FOR THE DISPLAYED RECEIVER CHANNEL NUMBER

RECEIVER CHANNEL NUMBER (64 SHOWN)
ZONE NUMBER (3 SHOWN)

PRESS [MEMORY]

MEMORY LIGHT WILL BLINK, SHOWING THAT THE RECEIVER IS READY TO ACCEPT A TRANSMITTER

ACTIVATE THE TRANSMITTER

THE MEMORY LIGHT WILL GO ON, SHOWING THAT THE TRANSMITTER WAS ENTERED AND THE RECEIVER'S DISPLAYED CHANNEL IS OCCUPIED

ENTERING MULTI-BUTTON TRANSMITTERS

NOTE: EACH MULTI-BUTTON TRANSMITTER USES ONE RECEIVER CHANNEL AND A DIFFERENT OUTPUT ZONE FOR EACH BUTTON WITH THE PANEL DISARMED, PRESS [UP] OR [DOWN] UNTIL THE DESIRED RECEIVER CHANNEL NUMBER FOR THE MULTI-BUTTON TRANSMITTER IS DISPLAYED

RECEIVER CHANNEL NUMBER (40 SHOWN)
ZONE NUMBER (1 SHOWN)

MEMORY LIGHT WILL BE OFF IF THE RECEIVER CHANNEL IS VACANT (ONLY A VACANT RECEIVER CHANNEL CAN ACCEPT A TRANSMITTER)

PRESS [ADVANCE] UNTIL THE DESIRED OUTPUT ZONE NUMBER (1-8) FOR A TRANSMITTER BUTTON IS DISPLAYED

RECEIVER CHANNEL NUMBER (40 SHOWN)
ZONE NUMBER (5 SHOWN)

PRESS [MEMORY]

MEMORY LIGHT WILL BLINK, SHOWING THAT THE RECEIVER IS READY TO ACCEPT THE TRANSMITTER BUTTON

PRESS THE DESIRED TRANSMITTER BUTTON (TO CREATE A DOUBLE-BUTTON LOCKOUT TRANSMITTER, PRESS TWO BUTTONS AT THE SAME TIME)

MEMORY LIGHT WILL GO ON, SHOWING THAT THE BUTTON WAS PROGRAMMED

REPEAT ZONE SELECTION TO PROGRAM ADDITIONAL BUTTONS ON THE TRANSMITTER

SETTING TRANSMITTER OPTIONS

WITH THE PANEL DISARMED, PRESS [UP] OR [DOWN] UNTIL THE DESIRED RECEIVER CHANNEL NUMBER IS DISPLAYED

RECEIVER CHANNEL NUMBER (64 SHOWN)
ZONE NUMBER (8 SHOWN)
(FOR MULTI-BUTTON TRANSMITTERS, THE FIRST ZONE NUMBER ENTERED IS DISPLAYED)

PRESS [ADVANCE] UNTIL THE DESIRED OPTION LETTER (A-d) IS DISPLAYED
(LETTERS ARE DISPLAYED BETWEEN "8" AND "1")

CONFIGURATION OPTION DISPLAYED
(CHANNEL 64, OPTION "b" SHOWN)

FOLLOW THE TABLE BELOW AND USE THE [MEMORY] BUTTON AND MEMORY LIGHT TO SELECT OPTIONS

FACTORY DEFAULT SETTINGS ★

| OPTION | MEMORY LIGHT OFF | MEMORY LIGHT ON |
|--------|-----------------------------------|-------------------------------------|
| A | AUTO-RESTORE TX (PIR & PORTABLES) | SELF-RESTORE TX (DOORS & WINDOWS) ★ |
| B | NO TX STATUS REPORTS | TX MAKES STATUS REPORTS ★ |
| C | TX USES ENTRY & EXIT DELAYS | TRANSMITTER IS INSTANT ★ |
| D | UNARMED ALARM MEMORY FOR TX | ALARM MEMORY ONLY WHEN ARMED ★ |

ERASING SINGLE-CHANNEL TRANSMITTERS

WITH THE PANEL DISARMED, PRESS [UP] OR [DOWN] TO DISPLAY THE RECEIVER CHANNEL NUMBER WITH THE SINGLE-CHANNEL TRANSMITTER TO ERASE

RECEIVER CHANNEL NUMBER (64 SHOWN)
IGNORE ZONE NUMBER (3 SHOWN)

MEMORY LIGHT WILL BE ON, SHOWING THAT THE RECEIVER CHANNEL IS OCCUPIED

PRESS [MEMORY]

MEMORY LIGHT WILL BLINK, SHOWING THAT THE RECEIVER IS READY TO ERASE A TRANSMITTER FROM THE DISPLAYED RECEIVER CHANNEL

PRESS [MEMORY] AGAIN

MEMORY LIGHT WILL GO OFF, SHOWING THAT THE TRANSMITTER HAS BEEN ERASED AND THAT THE RECEIVER'S CHANNEL IS VACANT

ERASING MULTI-BUTTON TRANSMITTERS

WITH THE PANEL DISARMED, PRESS [UP] OR [DOWN] TO DISPLAY THE RECEIVER CHANNEL NUMBER WITH THE MULTI-BUTTON TRANSMITTER TO ERASE

RECEIVER CHANNEL NUMBER (40 SHOWN)
ZONE NUMBER (5 SHOWN)
(THE FIRST ZONE NUMBER ENTERED FOR THE MULTI-BUTTON TRANSMITTER IS DISPLAYED)

MEMORY LIGHT WILL BE ON, SHOWING THAT THE RECEIVER CHANNEL IS OCCUPIED WITH A TRANSMITTER BUTTON LINKED TO THAT ZONE

PRESS [MEMORY]

MEMORY LIGHT WILL BLINK, SHOWING THAT THE RECEIVER IS READY TO ERASE THE TRANSMITTER BUTTON FROM THE RECEIVER'S CHANNEL AND ZONE

PRESS [MEMORY] AGAIN

MEMORY LIGHT WILL GO OFF, SHOWING THAT THE TRANSMITTER BUTTON HAS BEEN ERASED

PRESS [ADVANCE] UNTIL THE NEXT ZONE NUMBER USED WITH THE SAME MULTI-BUTTON TRANSMITTER IS DISPLAYED

RECEIVER CHANNEL NUMBER (40 SHOWN)
ZONE NUMBER (6 SHOWN)

REPEAT TO ERASE ANY ADDITIONAL BUTTONS THAT WERE ENTERED FOR THAT TRANSMITTER

SETTING RECEIVER OPTIONS

WITH THE PANEL DISARMED, PRESS [UP] OR [DOWN] UNTIL "Fn" IS DISPLAYED ("Fn" IS BETWEEN "1" AND "64")

"Fn" DISPLAYED (RECEIVER OPTIONS FUNCTIONS)

PRESS [ADVANCE] UNTIL THE DESIRED FUNCTION LETTER (1-1) IS DISPLAYED

CONFIGURATION OPTION DISPLAYED
(FUNCTION "b" SHOWN)

FOLLOW THE TABLE AND USE THE [MEMORY] BUTTON AND MEMORY LIGHT TO SELECT FUNCTION OPTIONS

FACTORY DEFAULT SETTINGS ★

| Fn # | MEMORY LIGHT OFF | MEMORY LIGHT ON | Fn # | MEMORY LIGHT OFF | MEMORY LIGHT ON |
|------|-----------------------------|-------------------------------|------|-------------------------|---|
| 1 | ARMED WHEN ARM=GROUND | ARMED WHEN ARM-VOLTAGE ★ | 8 | ONE OF THE OTHER DELAYS | ENTRY DELAY 40 SECONDS |
| 2 | TBD | TBD ★ | 9 | ONE OF THE OTHER DELAYS | ENTRY DELAY 60 SECONDS |
| 3 | DISPLAY BLANK WHEN ARMED | DISPLAY ON AT ALL TIMES ★ | A | ONE OF THE OTHER DELAYS | EXIT DELAY 0 SECONDS ★ |
| 4 | STATUS ALERTS AFTER 2 HOURS | STATUS ALERTS AFTER 8 HOURS ★ | B | ONE OF THE OTHER DELAYS | EXIT DELAY 20 SECONDS |
| 5 | OUTPUTS NORM. CLOSED | OUTPUTS NORMALLY OPEN ★ | C | ONE OF THE OTHER DELAYS | EXIT DELAY 40 SECONDS |
| 6 | ONE OF THE OTHER DELAYS | ENTRY DELAY 0 SECONDS ★ | D | ONE OF THE OTHER DELAYS | EXIT DELAY 60 SECONDS |
| 7 | ONE OF THE OTHER DELAYS | ENTRY DELAY 20 SECONDS ★ | | | SET EXIT AND ENTRY DELAYS A LITTLE LONGER THAN THE CONTROL PANEL'S DELAYS |

TRANSMITTER COUNT

WITH THE PANEL DISARMED, PRESS [UP] OR [DOWN] UNTIL "Fn" IS DISPLAYED ("Fn" IS BETWEEN "1" AND "64")

"Fn" DISPLAYED (RECEIVER OPTIONS FUNCTION)

PRESS [ADVANCE] UNTIL THE DISPLAY SHOWS THE OPTION "0"

RECEIVER OPTION "FUNCTION 0"

PRESS [MEMORY]

DISPLAY SHOWS TOTAL NUMBER OF TRANSMITTERS IN MEMORY FOR 10 SECONDS

VERIFYING TRANSMITTERS

WITH THE PANEL DISARMED, PRESS [UP] OR [DOWN] UNTIL "Fn" IS DISPLAYED ("Fn" IS BETWEEN "1" AND "64")

"Fn" DISPLAYED (RECEIVER OPTIONS FUNCTION)

PRESS [ADVANCE] UNTIL THE DISPLAY SHOWS THE OPTION "E"

RECEIVER OPTION "FUNCTION E"

PRESS AND RELEASE [MEMORY] THEN WAIT 5 SECONDS

DISPLAY SCROLLS THROUGH EACH CHANNEL AND LINKED ZONE. VERIFY THAT EACH CHANNEL IS LINKED TO THE CORRECT ZONE. (THE FIRST ZONE NUMBER ENTERED FOR A MULTI-BUTTON TRANSMITTER IS DISPLAYED)

ACTIVATE EACH TRANSMITTER. WHEN THE RECEIVER DECODES THE TRANSMITTER, IT WILL BE REMOVED FROM THE DISPLAY. CONTINUE TESTING UNTIL NO TRANSMITTERS REMAIN ON THE DISPLAY. PRESS THE [MEMORY] BUTTON OR WAIT 10 MINUTES TO END THE TEST.

SYSTEM TESTING

WITH THE PANEL DISARMED, OPEN A PROTECTED DOOR OR WINDOW

THE CHANNEL NUMBER AND "0" SHOULD BE DISPLAYED (CHANNEL 64, OPEN CONDITION SHOWN)

CLOSE THE PROTECTED DOOR OR WINDOW

THE "0" SHOULD DISAPPEAR WHEN THE TRANSMITTER RESTORES. DASHES WILL SHOW IF ALL PORTALS ARE CLOSED.

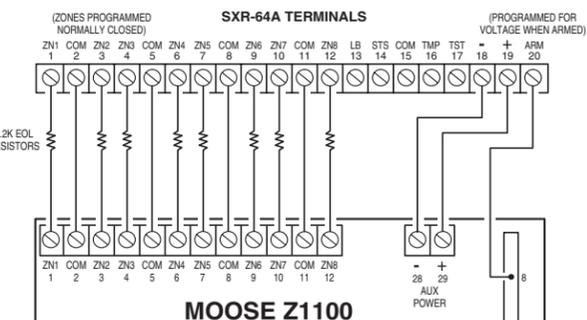
ARM THE CONTROL PANEL THEN OPEN A PROTECTED DOOR OR WINDOW (AFTER ANY DELAYS)

DISPLAY SHOULD SHOW AN "F" CONDITION FOR THE FIRST ALARM IN

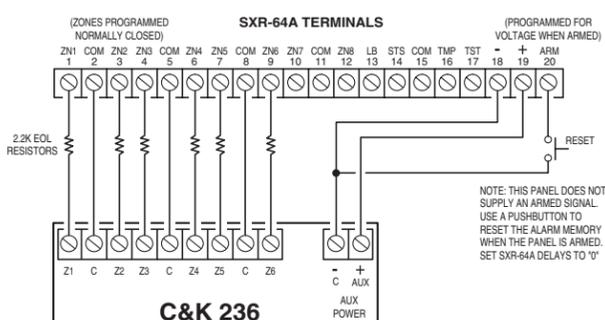
OPEN ADDITIONAL PROTECTED PORTALS. DISPLAY SHOULD SHOW AN "A" FOR EACH ADDITIONAL ALARM SIGNAL SENT. ALARM MEMORY WILL CLEAR WHEN THE CONTROL PANEL IS DISARMED AND REARMED.

NOTE: PRESSING [UP] AND [DOWN] TOGETHER ANYTIME DURING PROGRAMMING WILL CAUSE THE SXR-64A TO EXIT PROGRAM MODE AND RETURN TO RUN MODE

HOOKUP: MOOSE Z1100 & CADDX RANGER 9000



HOOKUP: C&K 236 & NAPCO MA1000



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 Corporation 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 Corporation 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.

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.