

# 7101 Zone Expander Installation Guide

## Specifications

Temperature	+32°F. to +120°F. (0°C. to +49°C.)
Aux Power Required	+12Vdc at 20ma.
Burglar Zone Inputs (adds "keypad" zones to a 7100 system)	
Number of circuits	6 Circuits
End of line resistors (supplied)	2210 ohms
Lightning Protection	
MOVs and spark gaps provide protection to lightning surges and static discharges.	

## Caution

Handle this and all other circuit boards with care and caution. Rough handling and static discharge can damage this and other circuits. Always ground yourself before handling any circuit board.

## Installation

Mount the supplied "snap track" in a 7100 enclosure (standard or attack) using screws or double sided tape. Screws are the preferred method of mounting and they are required on UL certificated installations. If only one battery is used in the system the preferred mounting position is in the lower right corner of the enclosure.

The zone expander will then snap into the two slots provided, on the two ends of the U shaped "snap track", that stick out towards you. The circuit board should be placed in the end with the beveled edge last, so that it can slide into the slot with moderate pressure.

## Programming

This zone expander uses zones 9 through 14 which are "keypad" zones in a 7100 system, they are programmed in lines 24 through 29 (see the 7100 installation guide).

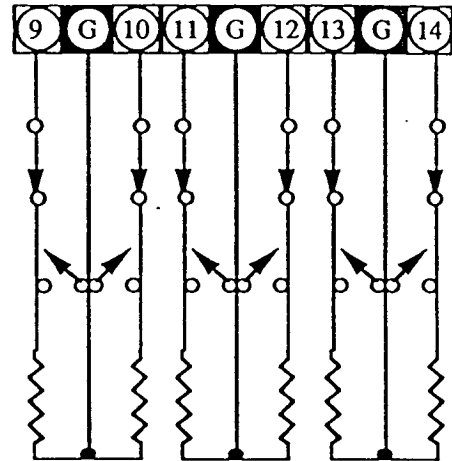
When one of the six zones on this zone expander is used, that zone must be terminated with a supplied end-of-line resistor and that zone must be enabled in lines 24 through 29 of the 7100 installation guide. NEVER place an end-of-line resistor across zone inputs of this zone expander that correspond to zones that are used on keypads in the system. Unused zones on this zone expander do not need end-of-line resistors across them if they are disabled in 7100 programming.

Each "keypad" zone may be used on only one keypad or zone expander in the system. For example enabling zone 9 on both a keypad and a zone expander would require that both be faulted at the same time before an alarm would be reported, therefore zone alarms would be missed! Zones may be used in any order or any number on keypads and zone expanders as long as no two keypads or zone expanders use the same zone.

The keypad zones work exactly the same as zones that connect to the panel except if they are programmed for trouble. When programmed for trouble a zone trouble report will be generated only if the panel loses communication with the keypad or zone expander, that the zone is connected to, while that zone is disarmed. If that zone is armed when communication is lost, then an alarm will be generated. Keypad zones do not distinguish between open and short.

## Terminal Functions

Zone 9 Input  
Common Ground  
Zone 10 Input  
Zone 11 Input  
Common Ground  
Zone 12 Input  
Zone 13 Input  
Common Ground  
Zone 14 Input



All End of Line Resistors 2.2K

## Programmable Zone Inputs

There are six (6) programmable zone inputs on this zone expander for the connection of "dry" contact N/C and N/O protective device loops. Do not apply voltage to these terminals. Each zone is permitted a maximum of 300 ohms of resistance in the wiring loop, and requires the supplied 2.21K ohm EOL resistor for supervision. Note that a common ground terminal is shared by two (2) loops. A normal (non faulted) loop will measure between 2 and 3 VDC from the loop input to ground. A loop is considered shorted if it measures 1.5 VDC or less and it is open if the voltage is 3.8 VDC or greater. See the control installation guide for zone programming information.

## Keypad Terminal Connection

Connect the red wire to the control's keypad power (R) terminal, connect the black wire to the control's keypad ground (B) terminal, connect the green wire to the control's keypad data out (G) terminal and connect the yellow wire to the control's keypad data in (Y) terminal.

If the 7101 zone expander module is not mounted in the control's enclosure, a maximum of 500 feet (150 m) of #22 AWG, non-shielded, 4-conductor cable is permitted in the wiring from the 7101 to the control. Each keypad (zone expander) should be home run separately.