

**SCS 30/60**  
**SENTRY**  
**COMMUNICATION**  
**SYSTEMS**  
**ZONE COMMUNICATOR**

**MUX-100**

- **TRANSPONDER**
- **LOCAL ALARM**
- **SENSOR RESET**

**GENERAL DESCRIPTION**

The MUX-100 is a microprocessor controlled zone communicator (transponder). It processes a momentary or latched contact closure and transmits that information to the master control and annunciator unit, MPA 30 or MPA 60, where the alarm is latched. It also provides a latched 24 VDC local alarm output. Multiple duress alarm receivers or other sensors with contact output may be wired to the sensor power output. This output goes low for 1/2 second on Reset. The system communications and power lines are transient and short circuit protected.

**COMMUNICATION**

Communication is via a RS485 two conductor shielded #20 cable at 19,200 BAUD. Each MUX-100 is polled a minimum of four times per second. The actual polling rate is directly related to the number of zones.

**PROGRAMMING**

Programming is accomplished by setting a six position dipswitch to the unique address of each MUX-100. Fig. 1, for example, shows the BCD code setting of the dipswitch for zone number 22.

**ELECTRICAL**

The MUX-100 operates at 24 VDC and requires 15 milliamperes quiescent current. The MUX-100 can supply a total of 0.5 Ampere divided between the sensor output and local alarm output. The power and communication lines are transient protected.

**MECHANICAL**

The unit is 2.75x2.75x1.25 inches. The MUX-100 can be mounted piggyback on the back of a standard SCAN ultrasonic duress alarm receiver (see fig. 2).

**SYSTEM CONNECTIONS**

The connections are by a seven terminal pluggable block. The connections are shown in Fig.2. These lines have both TransZorbs<sup>®</sup> and PolySwitches<sup>®</sup> for transient protection.

**LOCAL CONNECTIONS**

The connections to alarm receivers or other sensors with contact closure are by a six terminal pluggable block. The connections are shown in Fig.2. Supervision is accomplished by terminating the supervision line to the +24 VDC line. These outputs are all short circuit protected. A latched local alarm output is available on a two terminal pluggable block, Fig.2. This output is 24 VDC and is reset when the the master control and annunciator panel, MPA 30/60, is reset. This output is short circuit protected.

**TROUBLESHOOTING**

Three LED's allow local monitoring of the operation of the MUX-100. The green LED monitors communication with the master control and annunciation panel, MPA 30/60. If it is on, the MUX-100 is properly communicating. The yellow LED indicates a fault condition in the wiring to the sensors. The red LED is on when ever there is an alarm event.

**SENTRY PRODUCTS, INC.**

2225 MARTIN AVE. #J SANTA CLARA, CA 95050 (408) 727-1866 FAX (408) 727-2129

## ENGINEERING SPECIFICATION

The zone communicator must be capable of monitoring either momentary contact closures greater than 0.25 second or latched contact closures. Communication must be by a RS485 two conductor shielded cable at 19,200 BAUD. It must have a latched local alarm output of 24 VDC. It must have the ability to reset the local alarm output and duress alarm receivers by command. The dimensions shall not exceed 2.75x2.75x1.25 inches. All connections shall be by pluggable terminal blocks. One of 60 addresses must be selectable.

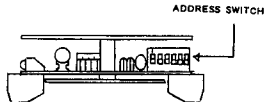


FIG-1



1 2 3 4 5 6 SWITCH NUMBER

1 2 4 8 16 32 DECIMAL NUMBER

EXAMPLE ADDRESS #22

2+4+16=22

## SYSTEM CONNECTION

### COMMUNICATION LINE TO ANNUNCIATOR

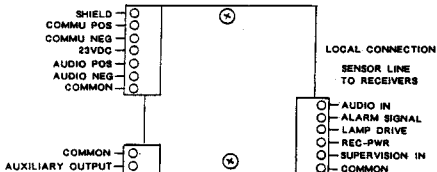


FIG-2

