



# CP-Z12

CP-Z8

CP-Z4

## ANNUNCIATOR PANEL

The CPZ4, 8 and 12 Annunciator panels have 4, 8 and 12 alarm zones with individual zone; supervised by-pass switches, loop status indicators, alarm and by-pass indicators, and alarm output voltages. In addition, there is a; 24 hr. supervisory or low circuit with indicator and voltage output, common alarm relay output, 'any zone by-passed' voltage output and day alarm voltage output.

The instructions refer to the 12 zone annunciator (CP-Z12) but apply as well to the 4 and 8 zone annunciators.

Before attempting to install the annunciator, read the complete instructions. Do not connect power until all other wiring is connected and checked. Connect 12V filtered DC to positive and negative terminals (POS.&NEG.). DO NOT REVERSE CONNECTIONS.

### ALARM LOOPS

There are 12 zone circuits and a supervisory circuit on the CPZ12. There are two input terminal blocks for each alarm loop Z1 to Z12 and for the supervisory circuit as shown in the connection diagram. The zone circuits are normally (in the restored or non-alarm state) at a positive voltage and the supervisory circuit at a low voltage. An alarm is created on a zone by causing an open circuit on the alarm loop or by shorting the loop to the supervisory or low loop. An alarm is created on the supervisory circuit by an open circuit between the two supervisory circuit terminals. The supervisory circuit may be used in combination with the zone circuits to form 4 wire supervised circuits. Unsupervised normally open alarm circuits may be created by connecting jumpers across the zone loop terminals and connecting normally open contacts between the zone loop and the supervisory circuit. Zone loops may be by-passed or removed from operation by moving the zone by-pass switch away from the zone indicators. All unused zone circuits, including the supervisory circuit if unused, must be jumpered out so that they are in the non-alarm state. The maximum recommended normally closed zone loop resistance is 1500 Ohms. The maximum supervisory loop resistance is 100 Ohms.

### ALARM LOOP INDICATORS

Each zone alarm loop, Z1 through Z12, has a separate red and green indicator. The green LED is a loop status indicator which is off when the alarm loop is in the alarm condition (open circuit or shorted to the supervisory loop) and on when the alarm loop is restored (loop closed circuit and not shorted to the supervisory circuit). A zone alarm indicator (red LED) comes on when the alarm loop goes into the alarm condition and stays on when the loop is restored to indicate which zone went into alarm. When a zone is by-passed, the red LED will flash. With the exception of the SYSTEM ARMED indicator, all

indicators will go out during the armed period. This is done to conserve power in the case of an A.C. power failure and for additional security. When the CPZ12 is disarmed, the indicators come back on showing the present loop status (green LED's) and alarm conditions (red LED's) on those zones which went into alarm during the previous armed period. Zone alarm indicators (red LED's) are reset when a momentary positive voltage is applied to the day reset (DAY RST) terminal or the CPZ12 is armed (applying a positive voltage to the ARM terminal). Indicators in the top 4 positions of the left column correspond to zones 1 and 4. Indicators in the top 4 positions of the right column correspond to zones 5 to 8. The bottom two positions in the right and left columns correspond to zones 9 to 12.

#### DAY ALARM OUTPUT

A positive voltage to drive a sonalert or buzzer, appears at the DAY ALM terminal if there is a zone alarm, a supervisory circuit alarm or a by-pass switch is moved. The day alarm output is reset by applying a momentary positive voltage to the DAY RST terminal. The DAY ALM voltage also appears if the CPZ12 is armed with zones in the alarm condition. This output will give the operator a chance to disarm the panel and correct the zone faults or by-pass a defective zone without causing an alarm output since there is a delay of 10 seconds from the moment of arming until the alarm outputs are active.

#### ALARM OUTPUT VOLTAGES

The CPZ12 has a number of other output alarm voltages; terminals numbered 1 to 12 are for zone alarms on Z1 to Z12, the S OUT terminal is for the supervisory (SUPV.) circuit and the B.P.OUT terminal indicates when one or more zones are by-passed. With the exception of the S OUT voltage output all voltage outputs are active only when the CPZ12 is armed and the display has gone out (10 seconds after arming). The S OUT voltage output is always active. All alarm outputs are positive on alarm. Available current draw is approximately 25 ma. (limited internally by 100 Ohm resistor). Output voltages can be connected together for a common output Voltage.

#### COMMON ALARM RELAY

In addition to the alarm voltage outputs, there is a common alarm relay output. These contacts are SPDT and rated at 3 amps. If the CPZ12 has been armed for more than 10 seconds, the alarm relay will energize for 3 seconds and reset when a zone goes into alarm or a by-pass switch is moved. The alarm relay will energize for 3 seconds each time an alarm is created on a zone that has not been previously tripped and each time a bypass switch is moved. The 3 second time may be increased to 15 minutes by cutting a green jumper located on the CPZ12 printed circuit board. Access to the jumper is obtained by removing the faceplate channel. The faceplate channel is removed by removing 2 screws on the top of the channel and 2 screws on the bottom of the channel which fasten it to the cabinet.

## ARMING

To arm the annunciator, apply a positive voltage to the ARM TERMINAL from the remote arming indicator of the main control panel or by using a maintained key switch between the ARM and POS terminals. With a 12 VDC input to the POS & NEG terminals, a minimum of 7 VDC is required to arm the panel. The current required to arm the panel is about 2ma.

## VOLTAGE & CURRENT REQUIRMENTS

Voltage input to POS & NEG terminals should be filtered 12v DC.

### Current Requirement:

Minimum - 35ma. - panel armed but not in alarm condition

Maximum - 160ma. - panel unarmed and all zones in alarm

Add to this current requirement the total of all currents which will be taken from the alarm voltage outputs.

## MARKING ZONES

The description of each zone can be typed or printed on the zone identification card located behind the plastic panel faceplate. The zone identification card is removed by opening the cabinet door and pulling down on the exposed card edge at the bottom of the plastic faceplate. The plastic faceplate has a clear window area for each zone through which the zone description will show. Type the information for each zone in the center of the areas marked on the card. Stay 1/8" away from the lines and the edge of the card so that the information will show clearly through the display windows when the card is re-inserted behind the plastic faceplate.

## WARRANTY

Digital Security Controls Ltd. warrants that for a period of twelve months from the date of purchase, the product shall be free of defects in materials and workmanship under normal use and that in fulfillment of any breach of such warranty, Digital Security Controls Ltd. shall repair or replace the defective equipment upon return of the equipment to its factory. The foregoing warranty shall apply only to the original buyer, and shall be in lieu of all other warranties whether expressed or implied and of all other obligations or liabilities on the part of Digital Security Controls Ltd. and in no event shall Digital Security Controls Ltd. be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by buyer in connection with the purchase, installation or operation of this product. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse or improper application of the equipment.

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