

## SC-770 System controller



## SCA-775

Amplifier / Single channel analyzer

### Description

System controller model SC-770 is a general purpose controller which is used in the master pillar of most TSA portal monitors.

A four line, sixteen character LCD display is used to monitor system status and setup information. Setup is accomplished using the twelve key keypad on the front of the unit. All of the settings and system status are stored in flash memory internal to the unit. The status information can be downloaded using TSA software.

**OPERATION:** The SC-770 is programmed with default values before being shipped from the factory. Final setup is necessarily site specific, and should be optimized to meet local requirements.

The unit has a base time interval of 200ms. All internal timing is based on this interval. The number of base intervals used in the moving average may be programmed. The alarm comparisons are performed every 200ms when the system is occupied.

The system also logs system activity to flash memory. Each entry is time and date stamped. Events that are logged to flash memory include: hourly background updates, tamper alarms, background faults and radiation alarms. The flash memory may be downloaded to a PC via the RS-232 port.

Amplifier/single channel analyzer model SCA-775 is a self-contained amplifier/SCA module designed for use in most TSA portal monitors. The SCA-775 is designed to be used in conjunction with an SC-770. It supplies high voltage to the detectors, amplifies the nuclear pulses from the photomultiplier tubes and provides lower and upper level discrimination.

**OPERATION:** The SC-770 controls the discriminator settings via a serial link. The SCA-775 outputs are sent to the SC-770 as differential signals to reduce interference and crosstalk.

### Specifications

#### Model SC-770 SPECIFICATIONS

- DISPLAY: Alphanumeric LCD, 4 lines x 16 characters
- COMMUNICATIONS: DB-9F connector for interface to a PC  
Ethernet communications connectivity
- POWER REQUIREMENTS: 9 - 15 Vdc, @ 200ma
- DIMENSIONS: 9.5" h x 6.3" w x 3.6" d (24 x 16 x 9cm)
- WEIGHT: 3 lb (1.3kg)

Special Features:

- KEYPAD: Twelve key
- COUNTER CHANNELS : Eight digital counter channels

#### Model SCA-775 SPECIFICATIONS

- POWER REQUIREMENTS: 9 - 15 Vdc, @ 75ma
- DIMENSIONS: 9.5" h x 6.3" w x 3.6" d (24 x 16 x 9cm)
- WEIGHT: 3 lb (1.3kg)

Special Features:

- AMPLIFIERS: Four nuclear pulse amplifiers with discriminators and SCA outputs
- INPUT CONNECTORS: Four BNC connectors for detector signal inputs
- OUTPUT CONNECTORS: Four MHV connectors for detector high voltage
- HIGH VOLTAGE POWER SUPPLY: 500 to 1,500 Vdc, @ 50µA

### Applications

System controller model SC-770 and single channel analyzer model SCA-775 are designed as essential components located in the pillars of TSA's portal monitors.