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### Description

Series M500 multiple input and output modules are designed to meet a range of applications in which numerous single modules are used. This design allows for installation ease and time savings. The monitor and control modules can be used to supervise and activate sounders, strobes, door closers, pull stations, waterflow switches, conventional smoke detectors and more. The conventional zone interface module is ideal for retrofit applications to monitor zones of conventional two-wire detectors.

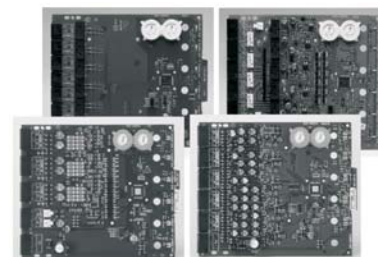
Each module has its own address. Modules are addressed with easy-to-use rotary code switches. Provisions are included for disabling unused addresses. Up to two modules mount in a BB-2 enclosure with built-in chassis and up to six modules mount in a BB-6 enclosure with the CH-6 chassis. Wiring terminals are easily accessible for trouble-shooting purposes.

### CR-6 SIX RELAY CONTROL MODULE

The CR-6 Six Relay Control Module consists of six Form-C relays. The first address is set from 01 to 94, while the remaining modules are automatically assigned to the next five higher addresses. Provisions are included for disabling a maximum of three unused addresses. A single isolated set of dry relay contacts is provided for each module address which is capable of being wired for either a normally open or normally closed operation. The module allows the control panel to switch these contacts on command. No supervision is provided for the controlled circuit.

### SC-6 SIX SUPERVISED CONTROL MODULE

The SC-6 Six Supervised Control module provides supervised monitoring of wiring to load devices that require an external power supply or amplifier to operate, such as horns, strobes, speakers or bells. Upon command from control panel,



The SC-6 will disconnect the supervision and connect the external power supply across the load device. The first module is addressed from 01 to 94, while the remaining modules are assigned to the next five higher addresses. Provisions are included for disabling a maximum of three unused modules. Each module has terminals for connection to an external supply circuit for powering devices on its notification appliance circuit. One or multiple power supplies or amplifiers may be used.

There is a short circuit protection monitor for each module. This is provided to protect the external power supply against short circuit conditions on the NAC.

### Ordering Information

Model Number	Part Number	Description
CR-6	349-1066	Six Relay Control Module
SC-6	349-1067	Six Supervised Control Module
CZ-6	349-1069	Six Conventional Zone Interface Module
IM-10	349-1068	Ten Input Monitor Module
BB-2	349-1075	Module enclosure with built-in chassis; holds maximum of two modules
BB-6	349-1072	Module enclosure, chassis sold separately; holds maximum of six modules
CH-6	349-1073	Mounting chassis for BB-6 enclosure

When an alarm condition occurs, the relay which connects the external supply to the NAC will not be allowed to close if a short circuit condition currently exists on the NAC. In addition, an algorithm is incorporated to find a short when the module is active. The module will close all circuits that are not shorted to find the NAC with the problem.

#### CZ-6 SIX ZONE INTERFACE MODULE

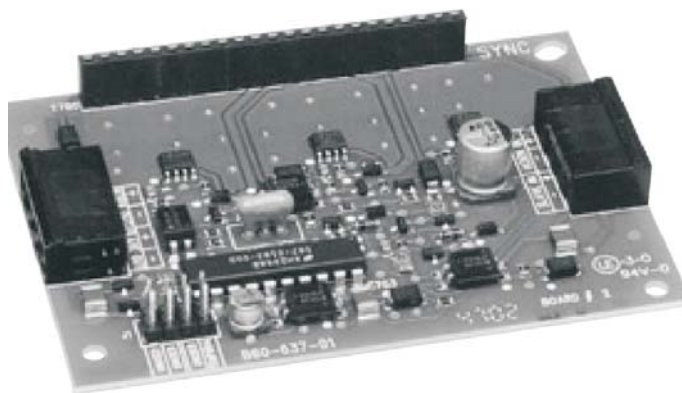
The CZ-6 Six Zone Interface module provides an interface between the intelligent alarm system and a two-wire conventional detection zone. A common SLC input is used for all modules, and the initiating device circuits share a common external supply. Otherwise, each module operates independently from the others. The first module is addressed from 01 to 94 while the remaining modules are assigned to the next fire higher addresses. Provisions are included for disabling a maximum of two unused modules. All two-wire compatibility listed with the modules. The CZ-6 transmits the status of a zone of two-wire detectors to the fire alarm control panel. Status conditions are reported as normal, open or alarm. The interface module supervises the zone of detectors and the connection of the external power supply.

#### IM-10 TEN INPUT MONITOR MODULE

The IM-10 Ten Input Monitor module provides an interface between a control panel and normally open contact devices such as pull stations, security contacts, or flow switches. The first address is set from 01 to 90 and the remaining modules are automatically assigned to the next nine higher addresses. Provisions are included for disabling a maximum of two unused addresses. The supervised state (normal, open or short) of the monitored device is sent back to the panel.

#### FEATURES

- Removable 12 to 18 AWG plug-in terminal blocks
- Individual LED indicators
- Unused addresses may be disabled
- Rotary address switches
- Class A or B operation
- Mount up to two modules in BB-2 enclosure (optional)
- Mount up to six modules in BB-6 enclosure with CH-6 chassis (optional)
- Mounting hardware included



NOTICE: The information contained in this document is intended only as a summary and is subject to change without notice. The devices described in this document have specific instruction sheets which cover various technical, limitation and liability information. Copies of these instruction sheets and the General Product Warning and Limitations Document, which also contains important information are provided with the product and are available from Harrington Signal Inc. Fire Alarm. Information contained in these Documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact Harrington Signal Inc. Harrington Signal Inc. Fire Alarm reserves the right to change specifications without notice. Quality manufactured for Harrington Signal Inc. By System Sensor.

**General Specifications**

Operating Voltage  
15-32 VDC

Maximum SLC Wiring Resistance  
40 Ohms

Temperature Range  
32° to 120°F (0° to 49°C)

Relative Humidity  
10% to 85% noncondensing

Wire Gauge  
12-18 AWG

Dimensions  
6.8"H x 5.8"W x 1.25"D

**Specifications: CZ-6**

Standby Current  
2 mA maximum

Alarm Current  
40 mA maximum (assumes all six LEDs solid on)

Maximum IDC Wiring Resistance  
25 Ohms

External Supply Voltage  
DC Voltage: 18-28 volts power limited  
Ripple Voltage: 0.1 volts RMS maximum  
Current: 90 mA per module

Compatible Detectors  
Contact System Sensor for a current list

**Specifications: IM-10**

Standby Current  
3.5 mA maximum

Alarm Current  
60 mA maximum (assumes all ten LEDs solid on)

Maximum IDC Wiring Resistance  
40 Ohms

Maximum IDC Voltage  
12 VDC

Maximum IDC Current  
1 mA

**Specifications: CR-6**

Standby Current  
1.45 mA maximum

Alarm Current  
32 mA maximum (assumes all six relays have been switched once and all six LEDs solid on)

Maximum IDC Wiring Resistance  
40 Ohms

Relay Current  
30 mA/Relay Pulse (15.6 mS pulse duration) pulse under panel control  
Relay Contact Ratings  
30 VDC; 70.7 VAC

**Specifications: SYNC-1**

Operating Voltage  
11-30 VDC

Maximum Load on a Loop  
Class A/Style Z: 3A  
Class A/Style Y: 3A per pair

Standby Current  
(+0 Position): 15 mA  
(+2 or +4 Position if connected to supply): 2.5 mA

**Specifications: SC-6**

Standby Current  
2.25 mA maximum

Alarm Current  
35 mA maximum (assumes all six relays have been switched once and all six LEDs solid on)

Maximum NAC Circuit Wiring Resistance  
40 Ohms

Power Rating Per Circuit  
63W @ 70.7 VAC

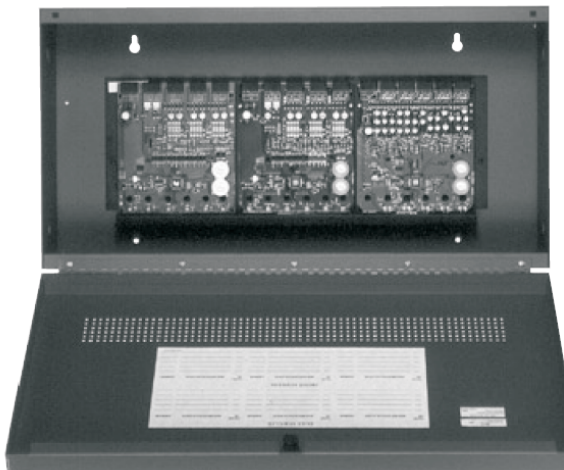
Relay Contact Ratings  
30 VDC; 110 VAC

**Specifications: BB-2 Enclosure**

Dimensions  
12"H x 9"W x 3.67"D

**Specifications: BB-6 Enclosure**

Dimensions  
24"H x 12.55"W x 6.47"D



BB-6 Enclosure with CH-6 Chassis