Introduction
Cerberus Pyrotronics TRI-B6M Intelligent interface module is designed to provide the means of interfacing direct shorting devices to the MXL system’s ALD loop circuit or the IXL system’s ICon loop circuit.

Cerberus Pyrotronics TRI-B6M Intelligent interface module provides the market’s most advanced method of address programming and supervision, combined with sophisticated control panel communication. Each TRI-B6M interface module incorporates microcomputer chip technology and its sophisticated bi-directional communication capabilities with the control panel.

Description
The TRI-B6M is designed to monitor a normally open or closed dry contact and reports the contact’s status to the control panel.

The device’s microcomputer chip has the capacity of storing, in memory, identification information as well as important operating status information.

Cerberus Pyrotronics’ innovative technology allows all TRI-B6M intelligent interface modules to be programmed by using the SensorLINK model FPI-32 Programmer/Tester. The FPI-32 Programmer/Tester is a compact, portable, menu driven accessory that makes programming and testing an interface device faster, easier and more dependable than previous methods. The FPI-32 eliminates the need for mechanical addressing mechanisms, such as program jumpers, DIP switches or rotary dials, because it electronically sets the TRI-B6M interface’s address into the interface’s microcomputer chip non-volatile memory. Vibration, corrosion and other conditions that deteriorate mechanical addressing mechanisms are no longer a cause for concern. This TRI-B6M is connected to the programmer/tester with the programming cable provided with the tester. This cable utilizes two (2) alligator clip connectors, to attach to the TRI-B6M. (P/N 110-694927)

The TRI-B6 Series has five leads, one for grounding, which are wired to the system with user supplied wire nuts.

The TRI-B6M is fully compatible on the same MXL circuit with all intelligent IL and ID-60 Series detectors, MSI Series addressable manual stations or any other addressable.
intelligent modules, such as the CZM or ICP. The TRI-B6M is also fully compatible on the IXL (ICon) circuit with all intelligent IL and ID-60 detectors and MSI manual stations. All TRI-B6M intelligent interface modules are UL and ULC listed.

Environmental operating conditions for all TRI-B6M modules are 32°F (0°C) to 120°F (49°C) with a relative humidity of not greater than 93% non-condensating.

**Engineer and Architect Specifications**

The addressable interface module shall incorporate a custom microprocessor based integrated circuit that shall provide communication with its compatible control panel. The addressable interface module shall be a Cerberus Pyrotronics TRI-B6M that shall be compatible with a Cerberus Pyrotronics IXL or MXL control panel.

Cerberus Pyrotronics TRI-B6M intelligent interface modules shall provide the means of interfacing direct shorting devices to the control panel’s addressable circuits. The interface module shall report the contact’s status to the control panel.

The TRI Series devices shall be capable of and listed for interfacing normally closed security switches to the MXL (per UL 1076).

The addressable interface module shall be UL and ULC listed.

The addressable interface module shall be dynamically supervised and uniquely identifiable by the control panel.

The addressable interface module’s address shall be programmed with the use of a portable programming accessory. The programming accessory shall be a Cerberus Pyrotronics FPI-32 Programmer/Tester. The portable programmer shall be menu driven. Once the desired address is entered the programmer shall set and verify the address. The programming accessory shall also be capable of testing the interface’s functionality. The addressable interface module’s address shall be set by electronic means only. No mechanical means such as programming pins, DIP switches or rotary dials shall be required.

The TRI-B6M shall be compatible on the same MXL circuit with other Cerberus Pyrotronics intelligent IL and ID-60 Series detectors, TRI Series addressable interfaces, MSI Series addressable manual stations or any other Cerberus Pyrotronics MXL addressable intelligent module. The TRI-B6M shall be compatible on the same IXL (ICon) circuit as other intelligent IL and ID-60 Series detectors, MSI Series manual stations and TRI Series interfaces.

### Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Shipping Wt. oz.</th>
<th>Kg.</th>
</tr>
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<tbody>
<tr>
<td>TRI-B6M</td>
<td>Single Input</td>
<td>3.5</td>
<td>.1</td>
</tr>
<tr>
<td>TRI-B6M-C</td>
<td>ULC Model for Canada</td>
<td>3.5</td>
<td>.1</td>
</tr>
</tbody>
</table>

### Typical Wiring

(Refer to Figures 1, 2, 3 or 4) Refer to the appropriate wiring diagram below and wire the addressable interface module accordingly.

**Note:** Recommended wire size:
- 18 AWG minimum
- 14 AWG maximum
Typical Wiring

**Figure 1**
Wiring Normally Open Switches

**Figure 2**
Wiring Normally Closed Switches

**Figure 3**

Notes:
1. All supervised switches must be held closed and/or open for at least a quarter of a second to guarantee detection.
2. End of line device: 3.6K, ¼W resistor, P/N 140-820185
3. The supervised switches have the following ratings:
   - Voltage maximum: 27 VDC
   - Current maximum: 3.5mA during polling
   - Contact resistance maximum: 10 ohms
   - Maximum cable length: 200 feet (18 AWG)
   - $C_{line to line} = 0.02 \mu F$
   - $C_{line to shield} = 0.04 \mu F$
   - Max line size: 14 AWG
   - Min line size: 18 AWG

**Caution**
Ground Shield ONLY at the specified location on the Control Panel.

4. If Earth Ground is Available:
   - a. The green wire must be connected to earth ground.
   - b. Use wire nuts to pass the shield wire through the electrical box with NO connection to the device green wire.
   - c. Use shielded wire to connect the switch wiring.
   - d. Tie the switch wiring shield to the Addressable Loop Driver circuit wiring shield. Do not connect Addressable Loop Driver circuit shield to earth ground.

5. If Earth Ground is NOT Available:
   - Connect the green wire to the Addressable Loop Driver circuit shield wire.
   - If the Addressable Loop Driver circuit wiring is not shielded, the switch wiring and the Addressable Loop Driver circuit wiring must be in conduit.

6. For proprietary burglary application:
   - a. Use a TSW-1 tamper switch to monitor the main enclosure.
   - b. Monitor each TRI-B6/B6R/B6D related to this application continuously by using a listed motion detector (to prevent tampering.)

7. In supervisory:
   - TRI-B6M draws 1.5mA

8. All circuits are power limited
Installing A Security Point

WARNING: These circuits intended for 24 hour alarm monitoring only.

UL 1076 requires a TSW-1 tamper switch as well as a TSP-40 printer. A COMMUNICATION FAILURE with a TRI device configured for SECURITY results in a SECURITY ALARM as well as a communication trouble.

When installing a TRI device in the CSG-M, be sure to set the device usage to security. When setting the device address using the FPI-32, select the normally closed alarm causing input.

Connect only one switch per TRI input.

Reminder: Proper installation procedure for TRI Devices

As part of the normal installation practice each TRI device must be functionally tested. This includes testing the supervision through the end of the line resistor. The following steps must be followed for each TRI device installed:

1. Open the end of line resistor.
2. Check that the system annunciates the programmed trouble message.
3. Return the resistor to its proper connection.
4. Change the state of the switch to confirm that the system’s programmed response is executed.
5. Return the switch to its normal state.

Mounting Diagram

Figure 4