

SIEMENS

Installation Instructions

Model TRI-B6M Addressable Interface Module

The Model TRI-B6M Series Addressable interface module from Siemens Industry, Inc., interfaces direct shorting devices to the MXL System's Addressable Loop Driver circuit or the IXL System's ICON-1 Addressable Loop Driver circuit. When the TRI-B6M is used with the MXL, the System is also approved for 1076, Proprietary Burglary.

The TRI-B6M can monitor a normally open or closed dry contact and it can report the status of the contact. The use of the relay is programmable.

PROGRAMMING INSTRUCTIONS

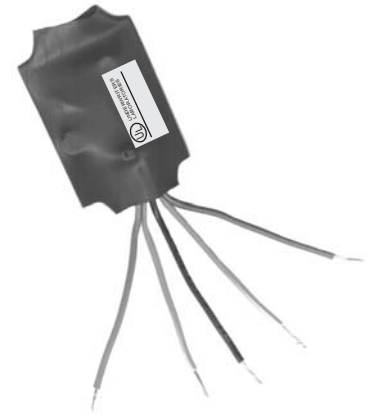
1. Refer to Figure 1 to locate the red and black ALD loop circuit wires of the TRI-B6M.
2. Connect the Addressable Loop Driver circuit wires of the TRI-B6M to the DPU Device Programming Unit or FPI-32 Programmer/Tester. Use the cable provided with the programmer and the 2 alligator clip to banana plug adapters provided.

CAUTION: TO PREVENT DAMAGE TO THE programmer, DO NOT connect a TRI-B6M to the programmer until all field wiring is removed from the red and black ALD loop circuit wires of the TRI-B6M.

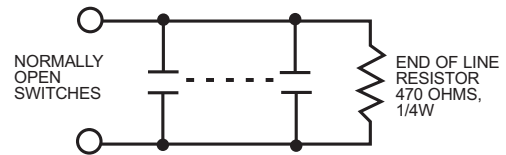
Note: Connection from the programmer to the TRI-B6M is not polarity sensitive. Refer to Figure 4 for the proper connections to the control panel.

3. (Refer to Figures 2 and 3.) Follow the instructions in the DPU User's Manual (P/N 315-033260) or the FPI-32 Programmer/Tester Manual (P/N 315-090077) to program the TRI-B6M for the following:
 - a. Desired address
 - b. Desired application for fire or proprietary burglary (security)
 - c. Normally open or normally closed switch

4. Record the device address on the label located on the TRI-B6M. The TRI-B6M can now be installed and wired to the system.



**Figure 1
TRI-B6M Module**

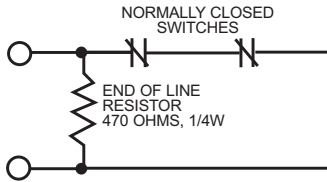


NOTES:

1. There can be any number of normally open switches.
2. The end of line resistor must be located at the last switch.
3. **Do not** wire a normally closed switch across the end of line resistor.
4. In security applications, an open or short causes a security alarm.

Application	FPI-32 / DPU	
	Switch	Device Use
Fire Alarm	Normally Open	Alarm
Fire Trouble	Normally Open	Trouble
Fire Supervisory	Normally Open	Trouble
Security	Normally Open	Alarm

**Figure 2
Wiring Normally Open Switches**



NOTES:

1. There can be any number of normally closed switches.
2. The end of line resistor must be located at the TRI.
3. An open causes a security alarm.

Application	FPI-32 / DPU	
	Switch	Device Use
Security	Normally Closed	Alarm

Figure 3

Wiring Normally Closed Switches (Security Only)

ELECTRICAL RATINGS

Active 5VDC Module Current	0mA
Active 24VDC Module Current	6mA
Standby 24VDC Module Current	6mA

WIRING (Refer to Figure 4)

Refer to the wiring diagram and wire the addressable interface module accordingly.

Note: Recommended wire size:
18 AWG minimum, 14 AWG maximum

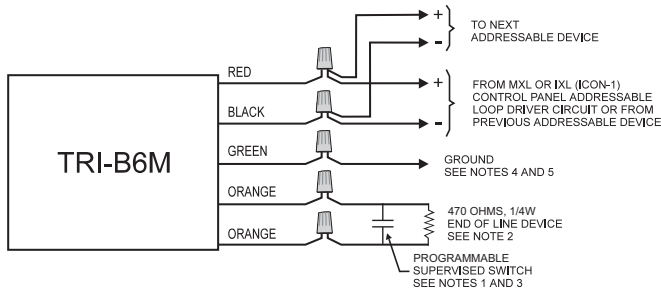


Figure 4
TRI-B6M Wiring

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: 470 ohms, 1/4W resistor, P/N 140-820164.
 3. The supervised switches have the following ratings:

Voltage maximum:	27 VDC
Current maximum:	6mA during polling
Contact resistance maximum:	10 ohms
Maximum cable length:	200 feet (18 AWG) max or 2.8 ohms max
- $C_{Line\ to\ line}$: 0.02uF
 $C_{Line\ to\ shield}$: 0.04uF
 Max line size: 14 AWG
 Min line size: 18 AWG



EOL device must be a 470 ohm, 1/4 W resistor. When replacing an existing TRI on a device loop, you must also replace the EOL resistor if it is not 470 ohms, 1/4W.

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 (Refer to Figure 4):
 - a. Use a TSW-1/2 tamper switch to monitor the main enclosure.
 - b. Monitor each TRI-B6M related to this application continuously by using a listed motion detector (to prevent tampering).
 7. In supervisory:
TRI-B6M draws 1.8mA
 8. All circuits are power limited.
 9. Positive and negative ground fault detected at <40K ohms for orange terminals.

MOUNTING (Refer to Figure 5)

The Model TRI-B6M mounts directly into a single gang switchbox (user supplied).

Connect the appropriate wires (See Figure 4) using wire nuts. Tuck the TRI-B6M module inside the electrical box and dress the wiring as required.

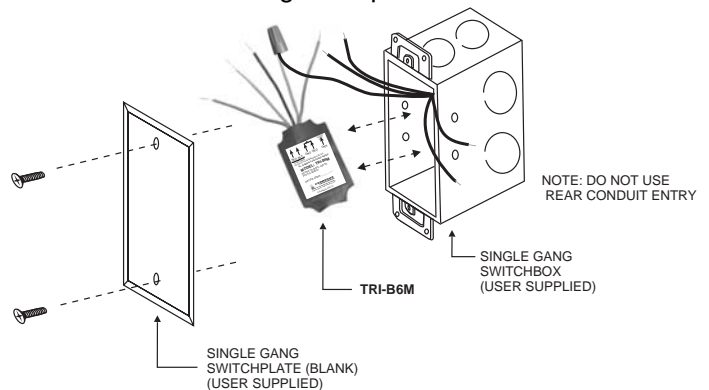


Figure 5
Mounting the TRI-B6M