ALCN-240ISO
Single Loop Adder Module
Installation Instructions

The ALCN-240ISO single loop adder module is a component of the FleX-Net™ FX-4000 series system and MMX™-4000 series system that provides one addressable loop capable of monitoring 240 MGC MIX-4000 series and MRI-4000 series devices. The ALCN-240ISO can be configured for class A, class B, or class X wiring. See manuals LT-894MP for FleX-Net™ FX-4000 series and LT-894MPSEC for MMX™-4000 series.

The ALCN-240ISO may be mounted over the main chassis of the fire alarm panel or on any chassis that supports adder boards. This module is mounted using four #6 screws and (if necessary) four 1 1/2" spacers.
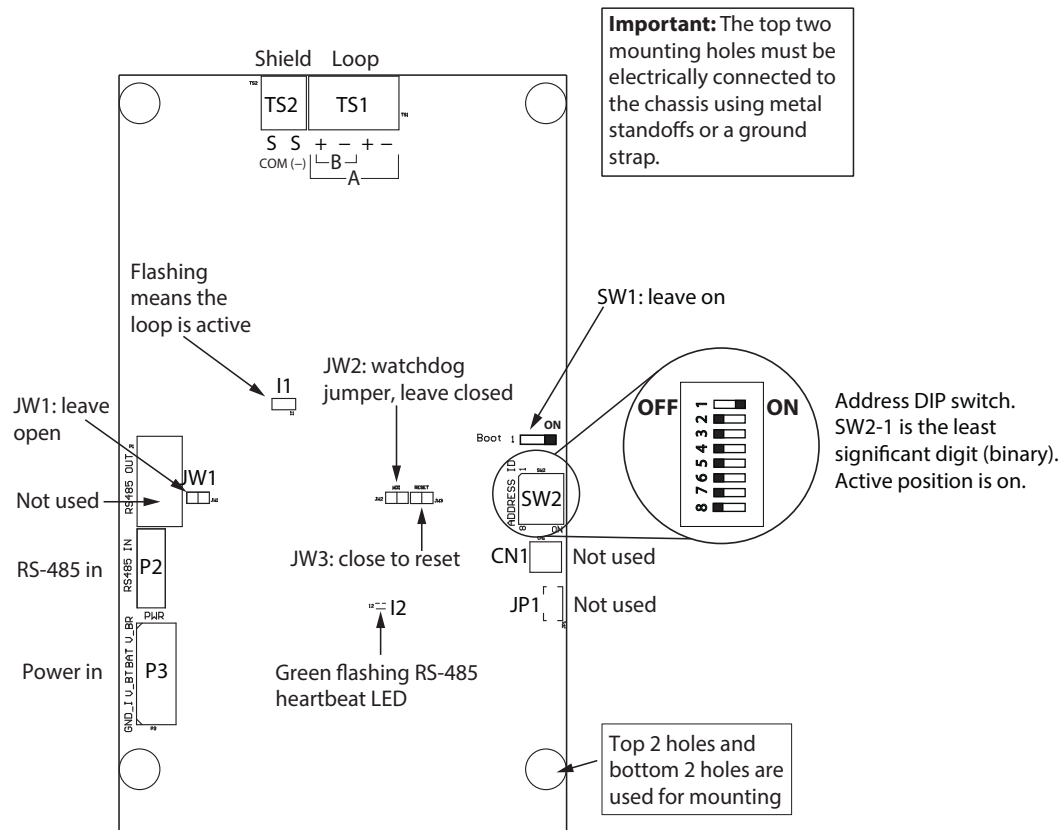
Power	The power is supplied to the board through a cable from the main chassis board or from the previous loop controller module into the P3 POWER IN connector. One power cable is supplied with this module.
RS-485	The RS-485 cable comes attached at P2 on ALCN-240ISO and is either connected to P3 of the main fire alarm controller module or connected from the previous loop controller module or other adder board.
Switch SW1	Leave on.
DIP Switches SW2	Use the DIP switches to set the binary address of the board. SW2-1 is the lowest significant digit and ON is active. For example, to set an address of two, turn SW2-1 OFF, SW2-2 ON and DIP switches SW2-3 to SW2-8 OFF. Refer to the DIP switch settings in the table below.
Loop	These are the terminals for the SLC loop addressable devices. Wire the loop as shown in the Network Fire Alarm Manual.
Shield	If the SLC loop is shielded, connect the shield to the terminals marked COM(−). To prevent the board reporting a ground fault, do not connect shields on SLC lines to earth ground. Note: Unshielded wiring is preferred.
Jumpers	• JW1: Leave off (open) • JW2: watchdog jumper, leave on (closed) • JW3: Close to reset
CN1	Not used.
JP1	Not used.

ALCN-240ISO DIP Switch Setting

Set the DIP switches on SW2 starting at address 1 for the first ALCN-240ISO adder and consecutively up to seven for the next six loop adder modules. Refer to the Network Fire Alarm Manual for the maximum number of loop adders allowed per node.

	ADDR	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
ALCN-240ISO	1	ON	OFF	OFF	OFF	OFF	OFF	OFF	**NOTE:** Put in "ON" position for firmware restore to defaults during power up. At all other times put in "OFF" state.
	2	OFF	ON	OFF	OFF	OFF	OFF	OFF	
	3	ON	ON	OFF	OFF	OFF	OFF	OFF	
	4	OFF	OFF	ON	OFF	OFF	OFF	OFF	
	5	ON	OFF	ON	OFF	OFF	OFF	OFF	
	6	OFF	ON	ON	OFF	OFF	OFF	OFF	
	7	ON	ON	ON	OFF	OFF	OFF	OFF	

ALCN-240ISO Module Layout

Important: The top two mounting holes must be electrically connected to the chassis using metal standoffs or a ground strap.

Notes:

- All circuits are power limited and must use type FPL, FPLR, or FPLP power limited cable.
- Loop wiring: maximum loop resistance is 40 ohms total. These lines are power-limited and fully supervised.
- SLC wiring is the same as the wiring for the ALCN-960MISO. For more information, refer to wiring instructions in the fire alarm panel manual.

Wire Gauge (use twisted pair)	Loop Total (Out and In) Maximum Twisted Pair Wire Run		Max Loop Resistance
AWG	ft.	m	Ohms
12	10,000	3049	31.7
14	7950	2423	40.0
16	4980	1518	39.9
18	3132	955	39.9

Electrical Specifications:

Single loop adder capable of monitoring 240 MGC sensors and modules.

Power limited: 24 VDC, normal standby: 200 mA max., alarm: 400 mA max.

Max. loop resistance 40 ohms

Impedance value for testing for ground fault 3.3 kiloohms

Current Consumption: standby: 59.3 mA

alarm: 80.3 mA