Installation Instructions
MODEL LWZE-8A
Zone/Output Expander Module

OPERATION

The Zone/Output Expander Module is used with the LW-401 to convert the four Class B (Style B) Initiating Device Circuits and the two Class B (Style Y) Notification Appliance Circuits to Class A (Style D) and Class A (Style Z) respectively, and to provide four additional Class A (Style D) Initiating Device Circuits. All these circuits are user programmable. Each Inititiating Device Circuit can drive up to 30 conventional type detectors and an unlimited number of shorting type devices.

ELECTRICAL CHARACTERISTICS

Supervisory: 42mA at 24 VDC

Alarm: 486mA at 24 VDC
Each IDC: 120mA at 24 VDC

INITIATING DEVICES

Each LWZE-8A IDC Zone can connect to the initiating devices indicated below:

1. Up to 30 smoke detectors may be used on an LWZE-8A zone. Compatible detectors are listed in Table 1. Detectors of different models are not to be mixed or matched on a system.
2. Any number of shorting type devices can be used on an LWZE-8A zone.

Refer to Figures 2 and 3 for the wiring of the detectors and the shorting type devices.

INSTALLATION

Remove all system power before installation, first battery and then AC.
(To power up, connect the AC first, then the battery.)

TABLE 1
COMPATIBLE DETECTORS

Detector	Quantity per Loop	Base	Installation Instructions Part No.
8900/8901	30	8914	315-081943FA-15
8902/8903	30	8914	315-081943FA-15
8904/8905	30	8930	315-093234FA-4
8842	30	8853 8914 with 8851	315-095429FA-1 315-095429FA-1
8854/8843	30	8853 8914 with 8851	315-094198FA-6 315-094198FA-6

Mounting the LWZE-8A (*Refer to Figure 1)*:

Install the Main Board of the LW-401 (See the *LW-401 Operation, Installation, and Maintenance Manual,* P/N 315-095997FA). Then install the LWZE-8A in the lower portion of the LW41-EN enclosure by following the steps listed below.

1. Screw the four standoffs onto the four studs located in the lower portion of the LW-401 enclosure.
2. Place the LWZE-8A over the four standoffs. Using the four screws provided, fasten the LWZE-8A board to the standoffs.

Wiring

See Figure 2 for wiring connections from the LWZE-8A to the LW-401 Main Board.

PROGRAMMING

Refer to the *LW-401 Operation, Installation, and Maintenance Manual* (P/N 315-095997FA), Program Level 9, for programming instructions to enable the LWZE-8A related to IDC Zones and Notification Appliance Circuits. The LWZE-8A must be enabled to operate.

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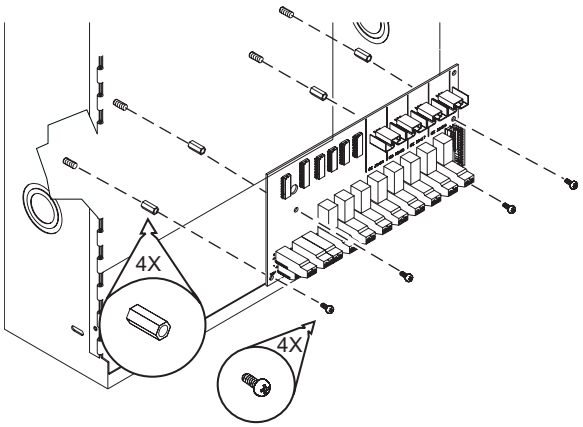


Figure 1
Mounting the LWZE-8A

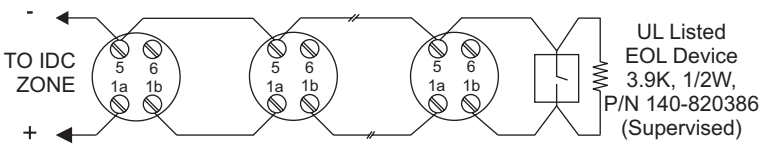
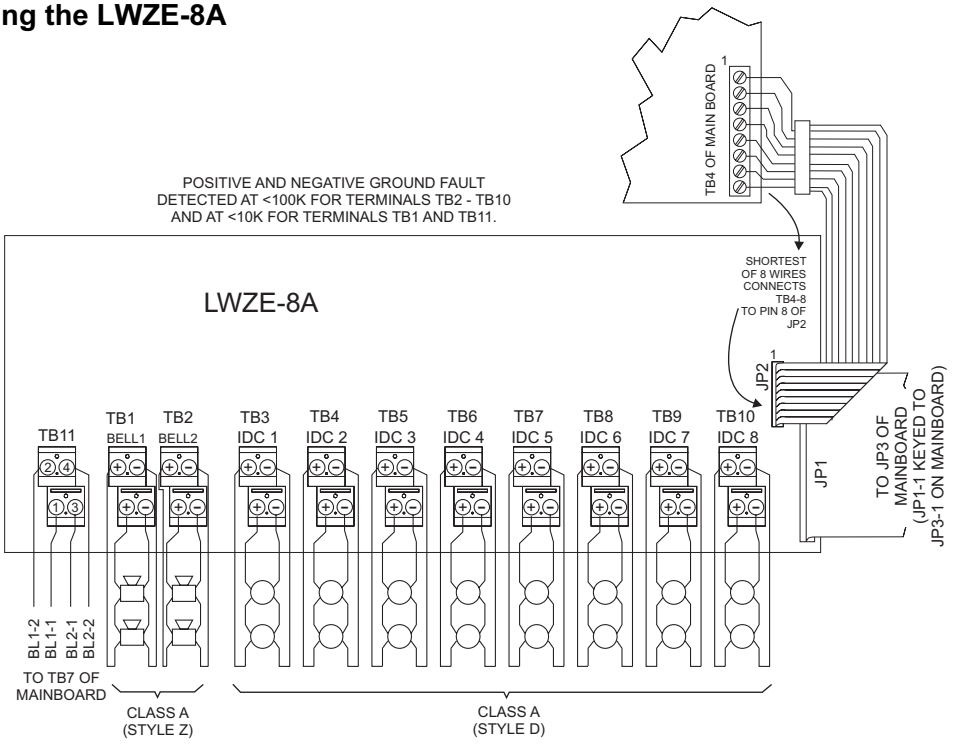


Figure 3
Smoke Detector and Shorting Type Device Wiring Diagram



INITIATING DEVICE CIRCUIT Electrical Ratings
Voltage range: 18.2-26.8 VDC filtered Supervisory current: 6mA Alarm current: 120mA (max)
1. Maximum line impedance of 25 ohms per IDC zone. 2. All IDC zones are supervised and power limited per NFPA 70, Article 760. 3. Each IDC zone must use at least 18 AWG, 300V insulation, color-coded wire for low voltage circuits where local codes require conduit. Where local codes permit, use limited energy shielded cable rated at 300V. 4. Each IDC zone supports one initiating device in alarm. 5. Maximum line capacitance is 10uF per zone.

NOTES:

1. The LW-401 Control Panel meets NFPA 72 Local requirements.
2. All field wiring must be in accordance with NFPA 70, Article 760.
3. Do not make any wiring connections while the System is powered.
4. In all cases the Farady model number is the compatibility identifier, including the Control Panel, modules(s), and all compatible initiating devices.
5. Refer to P/N 315-096363FA for the compatible notification appliances and maximum number allowed per circuit.

NOTIFICATION APPLIANCE CIRCUIT Electrical Ratings
Special Application: 16V-32 VDC filtered Supervisory current: 1.5mA (max) Alarm current: 1.5A (max)
1. Each NAC rated at 1.5A, 16-32 VDC filtered. Maximum loop resistance is 1.5 ohms at 1.5A, 2.0 ohms at 1.0A, 3.0 ohms at 0.75A. 2. All NACs must use at least 14 AWG, 300V insulation, color-coded wire for low voltage circuits where local codes require conduit. Where local codes permit, use limited energy cable rated at 300V. 3. All NACs are power limited per NFPA 70, Article 760. 4. For synchronized notification appliances, use of either a 5406 or RSE-300 is required.

Figure 2
LWZE-8A Wiring Diagram