PVX 100M
Mass Notification System

The PVX 100M Mass Notification System is functionally identical to the PVX 100 with the exception of an Intelligent Interface for an LOC.

The PVX 100M may be used as an ACU and combined with accessory modules to meet the requirements of UL2572. The system system provides a Physical and Communication Security Level 1, Audit Control Level 2, Stored Data and Access Control Security Level 0 per UL 2572 Mass Notification Standard. The system is designed to be used in conjunction with a UL listed Fire Alarm Control Panel (FACP) to provide a Listed Voice Evacuation Alarm System with Mass Notification capabilities.
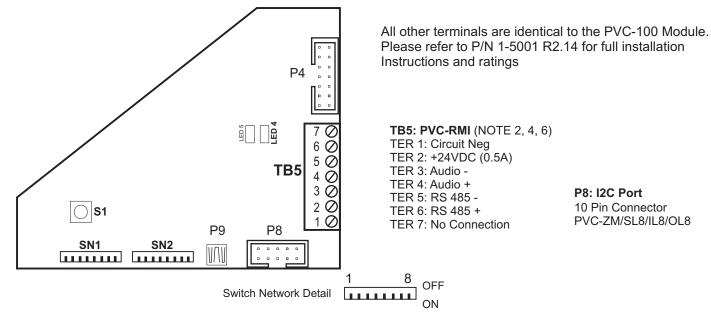
The FACP provides all Fire initiating circuitry and a signaling circuit to the PVX 100M. The PVX 100M provides its own internal supervision as well as supervision for its speaker lines and accessories. Any fault is reported back to the FACP. In normal standby the supervisory circuit from the panel is connected to a matching EOLR. Should the PVX 100M suffer an internal failure or should there be any fault on the speaker line or accessory a contact would open and the FACP would report it as an open fault for that circuit.

The PVX 100M is designed to be powered from 120 VAC at 60 Hz and will provide 100W of audio. Speakers may be 25 or 70 Vrms (jumper selected, 25V is factory set). See Installation Instruction P/N PVX 25-50-100 R2.14 for all Electrical Specifications, Standard Terminal Designations and Wiring Diagrams.

MODELS: The PVC-100M is a complete Voice Evac/MNS Module, it is complete with built-in tones and messages for Fire and MNS. The PVC-100M may be coupled with additional PVC-100E Expander modules for systems requiring greater power.

The PVX 100M and PVX 200M are complete Voice Evacuation Panels. Where greater Audio power is required they meay be combined with Expander panels, PVX 100E/200E/300E/400E/500E/600E. When using any EVX Expander Module, refer to installation instructions P/N 1-5002 R2.14.

PVX 100M   Contains 1) PVC-100M   1) Speaker Circuits
PVX 200M   Contains 1) PVC-100M   and 1) PVC-100E   2) Speaker Circuits

All other terminals are identical to the PVC-100 Module. Please refer to P/N 1-5001 R2.14 for full installation Instructions and ratings

TB5: PVC-RMI (NOTE 2, 4, 6)
TER 1: Circuit Neg
TER 2: +24VDC (0.5A)
TER 3: Audio -
TER 4: Audio +
TER 5: RS 485 -
TER 6: RS 485 +
TER 7: No Connection

P8: I2C Port
10 Pin Connector
PVC-ZM/SL8/IL8/OL8

Switch Network Detail

FACTORY DEFAULT SWITCH SETTINGS:

SN1
1 = OFF Temporal Whoop Signal
2 = X Do not use
3 = X Do not use
4 = Fault Code Lock
5 = X Do not use
6 = AC Fault Delay
7 = ON   Battery connected
8 = ON   Mic connected

SN2
1 = OFF   8 sec. initial delay
2 = ON
3 = OFF
4 = ON   8 sec. repeat delay
5 = OFF
6 = ON   Message On
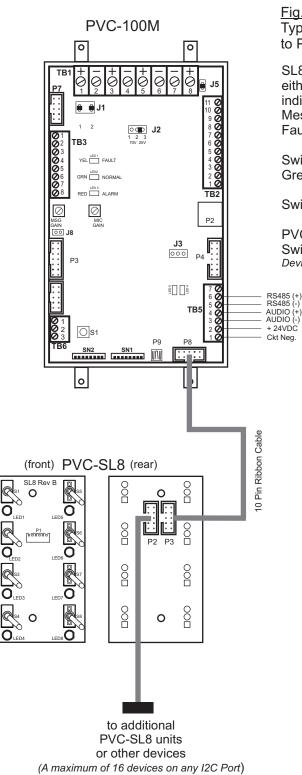7 = OFF 3 Repeats
8 = ON

**Note: All Switch settings refer to Fire Tone/Message only.
All MNS Tone/Messages must be Pre-Configured for System.**

MNS Tone/Messages will play continuous until reset.

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P/N 1-5001M R3.14

PVC-100M

Fig. 3
Typical connection from PVC-100M
to PVC-SL8 and PVC-RM8

SL8 LEDs: On the Switch/LED card which may be utilized with either the PVC-100M or the PVC-RMI, Page Switch LEDs will indicate steady Red for Paging, flashing Red for Alarm. MNS Messages will indicate Green on any associated Zone. Any Zone in Fault will indicate Amber.

Switches used for Message activation will indicate Red for Alarm or Green for MNS Messages.

Switches used for Output activation will indicate Red.

PVC-IL8 inputs may also be used for MNS Message activation. Switch or Contact device must be Listed to UL2572/UL2017.
Device must be in the same room, within 20' and piped to PVX 100M cabinet

TB1
P7
J1
J2
1 2 3
70V 25V
TB3
LED 1
YEL — FAULT
LED2
GRN — NORMAL
LED 3
RED — ALARM
MSG GAIN
MIC GAIN
J8
J3
P3
P4
TB5
7 — RS485 (+)
6 — RS485 (-)
5 — AUDIO (+)
4 — AUDIO (-)
3
2 — + 24VDC
1 — Ckt Neg.
TB6
S1
SN2 SN1 P9 P8
J5
11 10 9 8 7 6 5 4 3 2 1
TB2
P2

10 Pin Ribbon Cable

Connection to PVC-RM8 *(PVC-RMI / SL8 combinations)*

6 conductors (Three pairs)

Refer to Installation Instruction PVC-RMI R11.13 for full installation and ratings.

WIRING GUIDE

WIRE TYPE	MAX WIRE RESISTANCE	MAX WIRE CAPACITANCE	MAX WIRE LENGTH
22 AWG min. Twisted Pair	120 Ohms	.5uf	4000'

Wire for 24 VDC pair must be sized to insure no more than a 20% drop in voltage at the last device

(front) **PVC-SL8** (rear)

SL8 Rev B
S1 S5
LED1 LED5
P1
S2 S6
LED2 LED6
S3 S7
LED3 LED7
S4 S8
LED4 LED8

P2 P3

to additional
PVC-SL8 units
or other devices
(A maximum of 16 devices on any I2C Port)
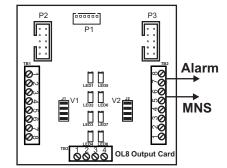
Mass Notification Operational Guidelines

The PVX 100M is capable of operating In conjunction with a Listed FACP or stand alone for MNS applications.

When used with a Listed FACP, any condition where the MNS signal may override the FACP Alarm will require an PVC-OL8 with an output point programmed for MNS. This point will activate on any MNS signal activation as long as there is no overriding FACP Alarm condition. When the FACP is in Alarm, if it is overridden by an MNS event, the FACP must pick up this Contact closure and report the condition as a Supervisory event.

In stand alone mode, no FACP, the PVX100M/200M must utilize an PVC-SL8 with its first position Switch/LED programmed for Power/Fault reporting. In this mode the LED will be Steady Green for Normal operating conditions. The LED will flash Amber for all Fault conditions except loss of AC Power. In that event the LED will remain steady On regardless of any other existing Fault.
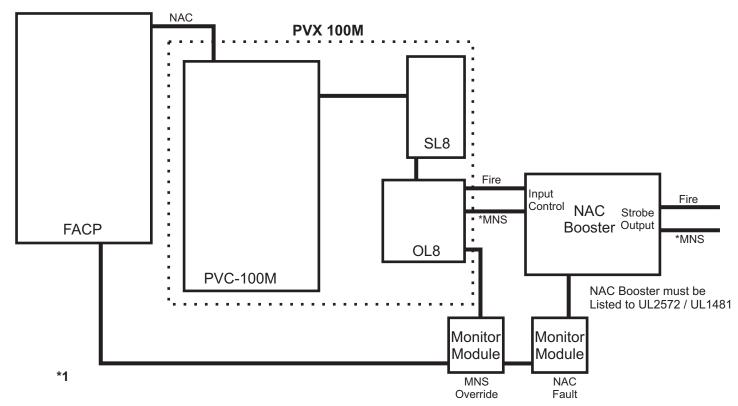
If Amber Strobes are used those circuits must be monitored and reported separately from the Alarm/White Strobe circuits. A PVC-IL8 input may be programmed for Fault to meet this requirement.

The Alarm and MNS control points of the PVC-OL8 may also be used to trip control points for Amber or White Strobes as requirements may demand.

Zoning

When required, the PVX 100M may use a PVC-ZM for separate speaker circuits. These may be activated All Call or by manual selection utilizing the PVC-SL8. Default operation is All Call on any Alarm/MNS Event.

Separate Switch or Contacts may also be employed. Any external control input must be Listed to UL2572/UL2017.
Device must be in the same room, within 20' and piped to PVX 100M cabinet

Refer to Installation Instructions P/N 1-5022 E2.14 for full installation and ratings.

P2
P1
P3
TB1
LED1 LED5
J1 V1 LED2 LED6 V2 J2
LED3 LED7
TB3
1 2 3 4
LED4 LED8
OL8 Output Card
TB2
Alarm
MNS
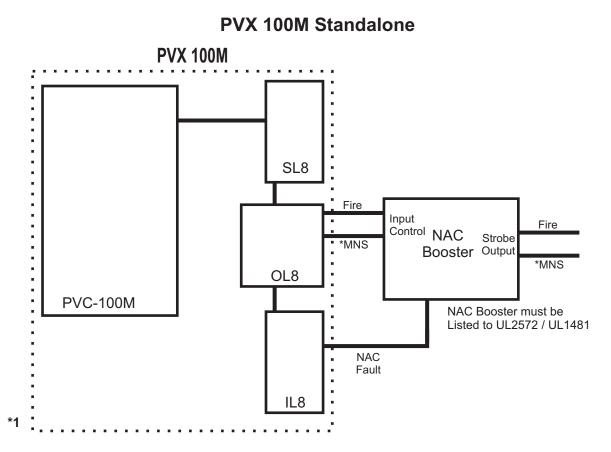
Refer to Installation Instruction PVC-SL8-IL8-OL8 R2.14 for full installation and ratings.

PVX 100M w/FACP

PVX 100M

NAC

FACP

PVC-100M

SL8

OL8

Fire

*MNS

Input Control

NAC Booster

Strobe Output

Fire

*MNS

NAC Booster must be Listed to UL2572 / UL1481

Monitor Module

Monitor Module

MNS Override

NAC Fault

*1

The PVX 100M may be used in conjunction with a UL Listed FACP. The FACP must be capable of monitoring contacts for Fault conditions and Supervisory conditions in order to report a MNS override.

PVX 100M Standalone

PVX 100M

PVC-100M

SL8

OL8

IL8

Fire

*MNS

Input Control

NAC Booster

Strobe Output

Fire

*MNS

NAC Booster must be Listed to UL2572 / UL1481

NAC Fault

*1

In applications where no automatic Fire Alarm initiation or notification is required, the PVX 100M may be used as a Standalone system. The PVC-IL8 will provide input points to monitor the Fault status of the NAC Booster.

*1 Note: Connecting equipment must be in the same room within 20' and piped together

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For technical assistance please call:
866-956-1211
5757 Phantom Dr. St. Louis, Missouri 63042
www.pottersignal.com