Installation Manual: EVAX EVX-RM Remote Microphone

NOTICE TO THE INSTALLER

This manual provides an overview and the installation instructions for the EVAX EVX-RM Remote Microphone.

All terminals are power limited and should be wired in accordance with the requirements of NFPA 70 (NEC), NFPA 101 (Life Safety Code) and NFPA 72 (National Fire Alarm Code). Failure to follow the wiring diagrams in the following pages will cause the system to not operate as intended. For further information, refer to the control panel installation instructions.

The module shall only be installed with listed control panels. Refer to the control panel installation manual for proper system operation.

Description

The EVX-RM is a supervised remote microphone panel for use with the EVAX 25/50/100 voice evacuation system and Evax HMX systems. The purpose is to allow emergency voice messages to be made over the system speakers from another location remote from the EVAX 25/50/100 or HMX panels.

The EVX-RM connects via 3 pair shielded cable to the EVX-SC supervisory card, which is mounted within the EVAX 25/50/100 or HMX Master panels. Fault conditions in the wiring or in the remote microphone circuitry are reported to the FACP through the same supervisory path as the EVAX 25/50/100 or HMX Master.

When the EVX-RM microphone is keyed during an alarm condition, the alarm signal and digital message will be interrupted and live voice messages can be broadcast. In normal standby the microphone can be keyed to make announcements at any time. Any time an EVX-RM is keyed the In-Use LED will light on all other EVX-RMs, the other units will bedisabled. This is to insure that only one operator is able to page over the system. If the master microphone in the EVAX 25/50/100 or HMX Master panel is keyed it will override any remote microphone.

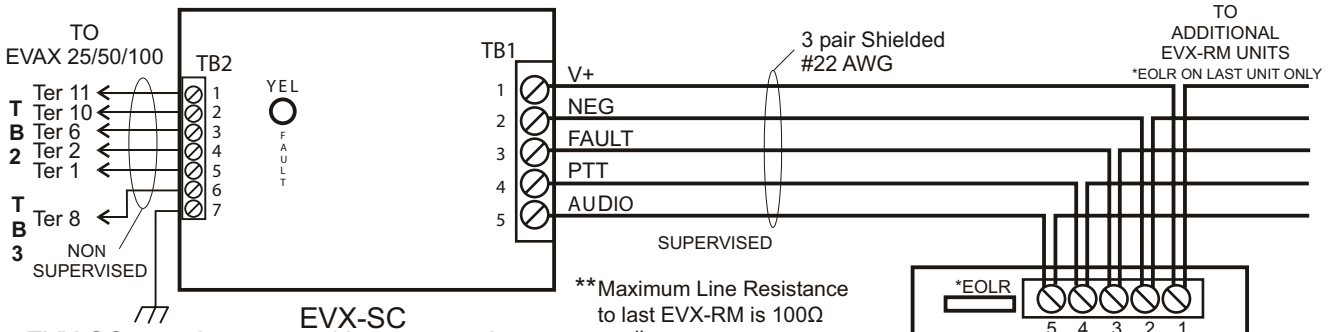
Installation and Wiring

Install equipment in a clean, dry environment, avoid installation where equipment could be subjected to vibration. Remove electronic assemblies from the enclosure prior to any drilling or punching of the enclosure. Where possible, make all cable entries from the rear or sides. Before making any modifications to the enclosure, be certain that they will not interfere with assemblies or batteries.

Ensure all power is off before making any wire connections.

1. Use 3-pair shielded wire (#22 AWG min.) from the EVAX 25/50/100 or HMX Master panel to the EVX-RM remote microphone location.
2. Attach snap-track to the EVAX 25/50/100 HMX Master cabinet. Mount EVX-SC Supervisory Card to snap-track. (May be factory mounted and wired)
3. Make wiring connections as shown on WD-1. Where multiple EVX-RM units are used, insure that EOLR is used on last unit only. Apply power to test.
4. Test systems primary microphone. Test the EVX-RM remote microphone. Activate an Alarm. Retest EVAX 25/50/100 or HMX Master to ensure that tone and message are broadcast.

5. Terminal Designations



EVX-SC must be mounted in same enclosure as the EVAX 25/50/100 or in another UL Listed cabinet within 20' in conduit.

* EVX-SC must be mounted using metal standoffs or an Earth ground connection must be made to TB2-7. Ground faults are indicated at 10K impedance or less.

**Maximum Line Resistance to last EVX-RM is 100Ω per line.
Approx. 5000' of #22AWG

All wiring is Power-Limited

*EOLR is a 6/3 SIP 10K Resistor Network to be installed on last EVX-RM only. Wiring Detail Fig.1
**Maximum line resistance is dependent on # of devices loading the line.

2 EVX-RM - 100W Max. Line Resistance
3 EVX-RM - 80W Max. Line Resistance
4 EVX-RM - 65W Max. Line Resistance
5 EVX-RM - 50W Max. Line Resistance
More than 5 EVX-RMs is not recommended

Terminal Designations

EVX-SC

TB2
Ter. 1 - MIC PTT +24 10mA
Ter. 2 - V+ 24 VDC 0.10A
Ter. 3 - PTT +24V 10mA
Ter. 4 - Audio 1Vrms 10mA
Ter. 5 - Ckt Neg.
Ter. 6 - Fault +24V 10mA
Ter. 7 - Earth Ground

TB1
Ter. 1 - V+ 24 VDC
Ter. 2 - Ckt Neg.
Ter, 3 - Fault
Ter. 4 - PTT
Ter. 5 - Audio 1Vrms

LED1
Fault (Yellow)

EVX-RM

TB1
Ter. 1 - V+ 24 VDC 0.04A
Ter. 2 - Ckt. Neg.
Ter. 3 - Fault +24V (Pull down 10mA)
Ter. 4 - PTT +24V 10mA
Ter. 5 - Audio 1Vrms

LED1
Fault (Yellow)

LED2
In Use (Red)

VR1
Mic Gain (clockwise to increase)

P1
6 position modular jack
(connect to microphone)

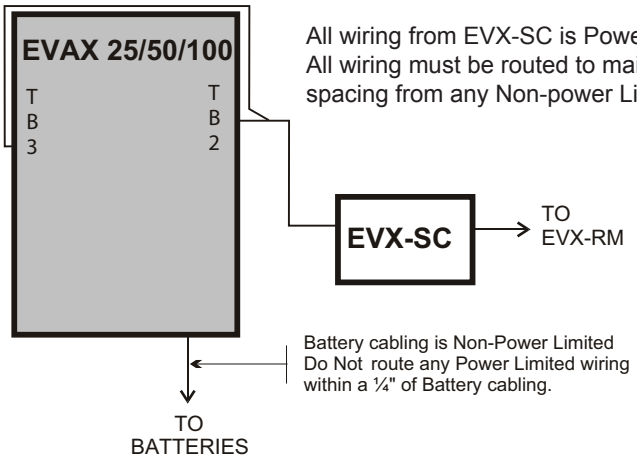
Specifications

EVX-SC

Input Voltage - 24 VDC
Input Current - 0.030A DC Standby
- 0.050A DC Active

EVX-RM

Input Voltage - 24 VDC
Input Current - 0.020A DC Standby
- 0.040A DC Active

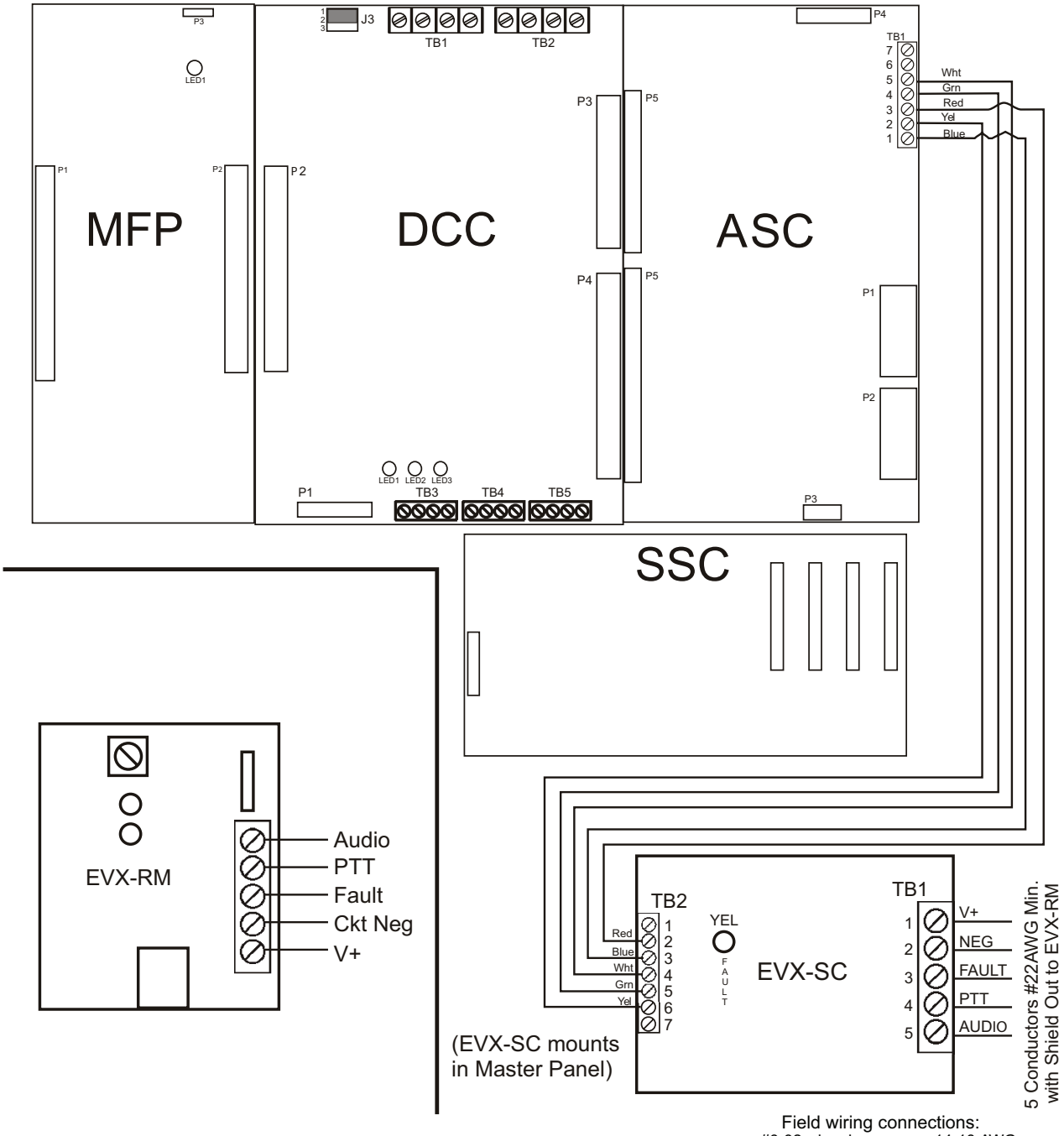


All wiring from EVX-SC is Power Limited.
All wiring must be routed to maintain minimum spacing from any Non-power Limited wiring.

NOTE: When circuits are Power Limited, use Power Limited cable as detailed in the National Electrical Code, Article 760, such as FPL or FPLP type cabling.

Field wiring connections:
#6-32 wire clamp screw 14-18 AWG
#8-32 wire clamp screw 12-18 AWG
Horizontal wire entry terminal 18-26 AWG
Wire gauge determined by circuit load

ASC to EVX-SC
Wiring Detail



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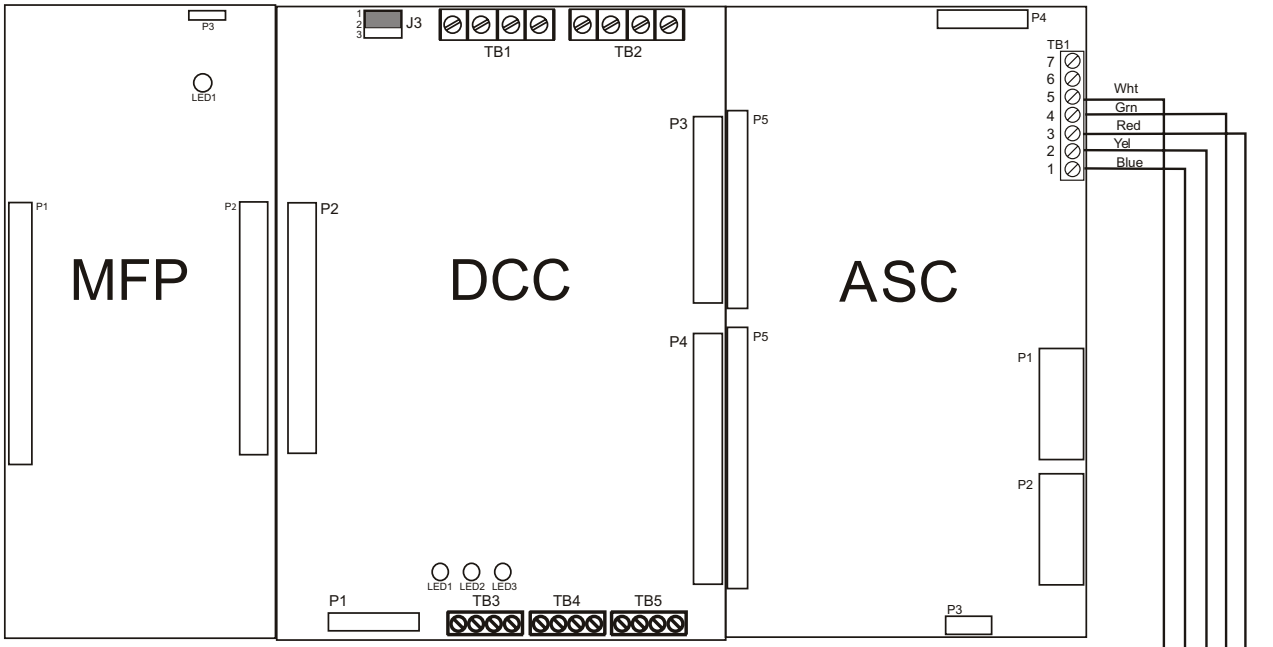
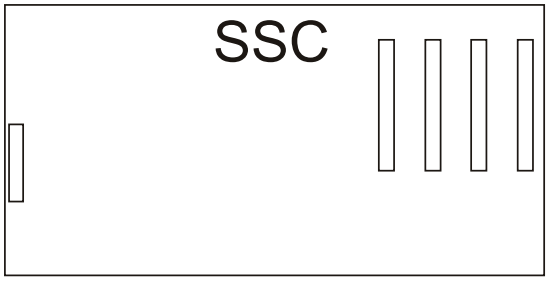
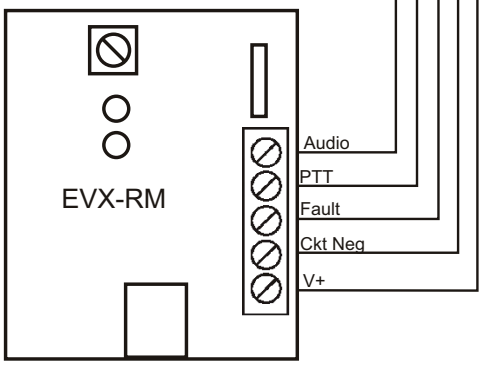
Wire gauge determined by circuit load
Note: Wire colors are for factory
wired systems and user reference.

ASC to EVX-SC
Wiring Detail





(EVX-RM mounts
in separate cabinet)



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