

SLC-PM/SLC95-PM

Signaling Line Circuits-Personality Modules

Product Installation Document



CAUTION 1: STATIC SENSITIVE EQUIPMENT:

THIS EQUIPMENT IS SENSITIVE TO STATIC ELECTRICITY. IT MAY BE DAMAGED IF NOT PROPERLY HANDLED. TRANSPORT AND STORE THIS UNIT IN A STATIC-SHIELDING BAG.

FAILURE TO OBSERVE THIS REQUIREMENT COULD CAUSE LATENT DAMAGE TO THE EQUIPMENT WHICH MIGHT NOT MANIFEST ITSELF UNTIL AFTER THE EQUIPMENT IS PLACED IN SERVICE.



CAUTION 2: DISCONNECT ALL POWER:

REMOVE ALL SOURCES OF POWER BEFORE SERVICING, REMOVING OR INSTALLING ANY UNITS.

Section 1: Description

In the S3 Series (Small Addressable Fire Alarm Control Panel) System, the signaling line circuits (SLC) provide the communication between the Fire Alarm Control Panel and the SLC devices. Each SLP-E3 (Smart Loop Panel) main board supports either one or two SLC-Personality Modules in a Class A or a Class B configuration.

- **SLC-PM Signaling Line Circuit-Personality Module**
Each SLC-PM supports up to 318 devices per loop using the System Sensor® Velociti® protocol. If you add a second loop, the SLC-E3 can support up to a maximum of 636 devices.
- **SLC95-PM Signaling Line Circuit 95-Personality Module**
Each SLC95-PM supports up to 126 devices per loop using the Apollo protocol. If a second loop is added, the SLP-E3 can support up to a maximum of 252 devices.



NOTE 1: The (Class X) wiring requires the use of an M500X Isolator Module (SLC-PM), or an XP95-LI Line Isolator or XP95-LIB Line Isolator Base (SLC95-PM) on both sides of a device.



NOTE 2: Do not combine the SLC-PM and the SLC95-PM on the same SLP-E3 main board. If you use System Sensor devices, use only the SLC-PM. If you use Apollo devices, use only the SLC95-PM.

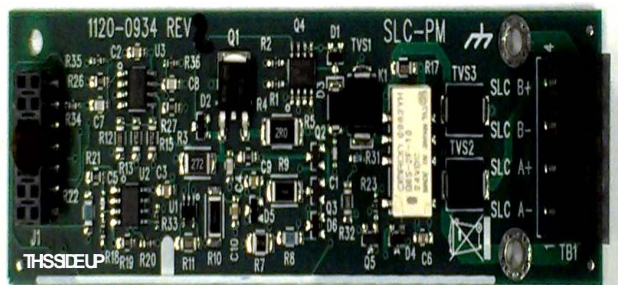


Figure 1.1 SLC-PM

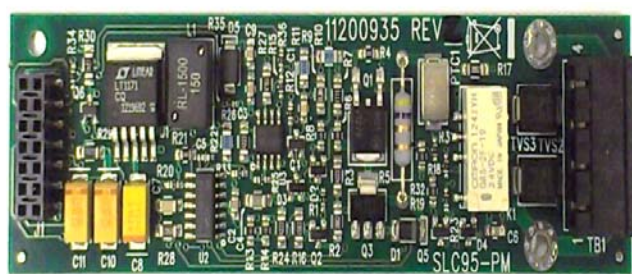


Figure 1.2 SLC95-PM

Section 2: Installation

2.1 Standards

The SLC-PM/SLC95-PM modules comply with the following Standards:

National Fire Protection Association

- | | | | |
|-----------|-------------------------------|------------|--------------------------|
| • AHJ | Authority Having Jurisdiction | • NFPA 72 | National Fire Alarm Code |
| • NFPA 70 | National Electrical Code | • NFPA 101 | Life Safety Code |

UL Standards UL 864 9th and 10th Edition

- Per the UL Continuing Certification Program, UL 864 9th edition fire alarm control equipment will retain certification after the rollout of UL 10th edition (12/2/2018).
- Installations of UL 864 10th Edition certified equipment are permitted to use UL864 9th Edition certified equipment when approved by the local Authority Having Jurisdiction (AHJ).

For product compliance, refer to the UL listing cards located on the UL online certification directory.
<https://iq.ulprospector.com>

2.2 Installation Requirements

All components of the S3 Series System should be located per the following requirements:

- Installations are to be indoors only, in dry locations, protected from rain, water, and rapid changes in temperature that could cause condensation. Equipment must be securely mounted on rigid, permanent walls.
- Operating temperature shall not exceed the range of 32° to 120° F (0 to 49° C).
- Operating humidity not to exceed 93% non-condensing at 90° F (32° C).
- There should be adequate space around the installation to allow easy access for operation and servicing.
- All sub-assemblies and components are to be located in compliance with the local, the national codes and the manufacturer's recommendations.
- All installation field wiring shall be in compliance with local and national codes.
- Use the Architects and Engineering Specifications for detailed information on your Facility's Configuration.
- Installers must be Gamewell-FCI Factory Certified to program this product. For additional information on this product, contact the Gamewell-FCI Customer Support to schedule the Factory Certified Training.



NOTE: COLD WATER/EARTH GROUND STANDARD:

Terminal TB3-3 on the SLP-E3 terminal blocks must be connected to an earth ground connection per Article 760 of the National Electrical Code. Failure to make a proper earth ground connection from a metallic cold water pipe or driven ground rod to this terminal will result in loss of lightning protection, reduce the tolerance of the system to transients, and will adversely affect the operation of the system. Panel neutral or conduit ground is not acceptable; minimum wire size is 14 AWG.

2.3 SLC-PM/SLC95-PM Installation

1. Remove the unit from its static-shield bag, observing proper static protection measures.
2. Visually inspect the unit for damage.
If any components are damaged, notify the shipping carrier immediately. Report missing components to the Gamewell-FCI Customer Service.
3. Use the Hardware Kit provided with the unit.
4. Locate the connector pins extending from J5 and J6 on the upper right side of the SLP-E3 board. J5 and J6 appear below the diagnostic LEDs.
5. Use the two standoffs (4-40 x 3/8") contained in the Hardware Kit. For each SLC-PM or SLC95-PM module, insert and secure the two standoffs to the upper right side of the SLP-E3 board.
6. Plug-in the J1 connectors from each of the SLC-PM or the SLC95-PM modules to the clearly marked sites of J5 and J6 connector pins on the SLP-E3 main board. (See Locations 1 and 2 in Figure 2.2.1 and the white arrows in Figure 2.2.2). Do not combine the SLC-PM and the SLC95-PM modules on the same SLP-E3 board.
Use J5 for the SLC Loop 1 and use J6 for the SLC Loop 2.



WARNING: SLC-PM OR SLC95-PM INSTALLATION TO SLP-E3 REQUIREMENT:

MOUNT THE SLC-PM OR SLC95-PM BOARDS COMPONENT SIDE UP!
INSERT THE SLP-E3, J5 AND J6 CONNECTOR PINS TO THE J1 CONNECTORS UNDERNEATH EACH OF THE SLC-PM OR THE SLC95-PM BOARDS. TO VIEW THE ILLUSTRATION OF THE J1 CONNECTOR, PLUG-IN ORIENTATION, REFER TO FIGURE 2.2.2.

6A. SLC-PM to SLP-E3 Installation:

To connect the SLC-PM modules to the SLP-E3, plug-in the connector pins extending from J5 and J6 on the SLP-E3 board to the J1 connectors underneath each of the SLC-PM boards.

(To view the J5 and J6 connector pins plug-in orientation to the J1 connectors, refer to the white arrow lines in Figure 2.2.2).

6B. SLC95-PM to SLP-E3 Installation:

To connect the SLC95-PM modules to the SLP-E3, plug-in the connector pins extending from J5 and J6 on the SLP-E3 board to the J1 connectors underneath each of the SLC95-PM boards.

(To view the J5 and J6 connector pins plug-in orientation to the J1 connectors, refer to the white arrow lines in Figure 2.2.2).

Figure 2.2.1 illustrates the SLC-PM modules mounted onto the SLP-E3 panel. Figure 2.2.2 shows the J5 and J6 connector pins, plug-in orientation to the J1 connectors underneath each of the SLC-PM boards.

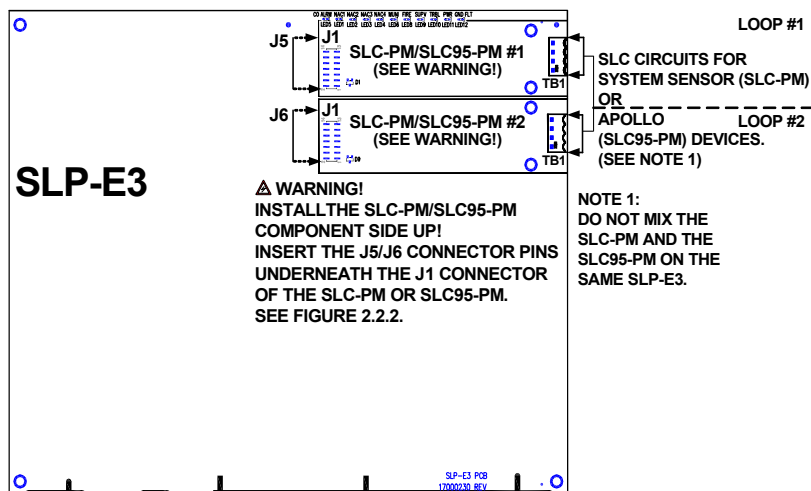


Figure 2.2.1 SLC-PM OR SLC95-PM Mounted to the SLP-E3

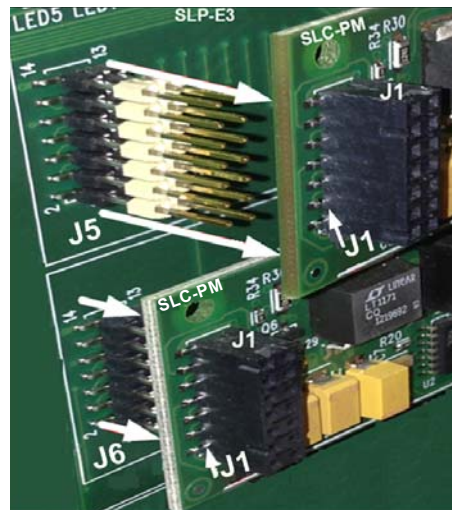


Figure 2.2.2 SLC-PM OR SLC95-PM J1 Connector, Plug-in Orientation

7. To connect each of the SLC-PM or SLC95-PM modules to the SLP-E3, insert two screws (#4-40 1/4") to the SLC-PM or SLC95-PM modules and secure the screws to the SLP-E3 board.



NOTE: For information on the compatible System Sensor or Apollo devices, refer the *Compatibility Addendum for the Gamewell-FCI Manuals*, P/N: 9000-0427-L8.

Figure 2.2.3 illustrates the SLC-PM or SLC95-PM modules installed in the SLP-BB cabinet.

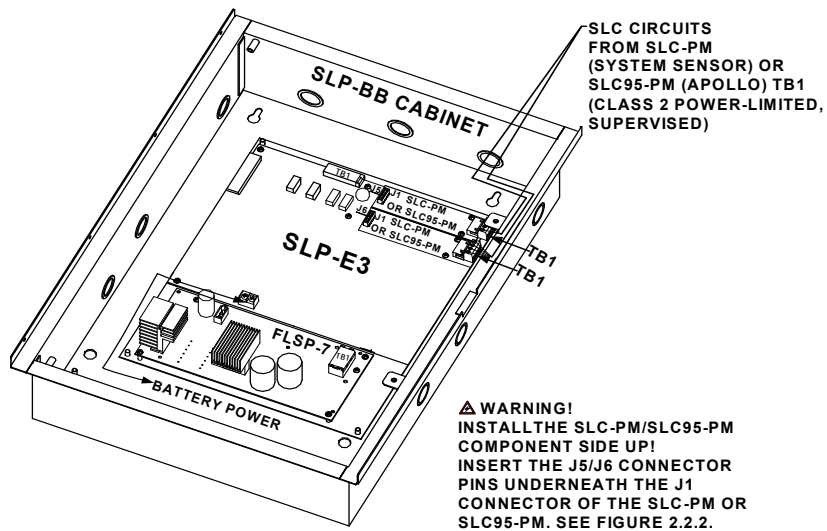


Figure 2.2.3 SLC-PM/SLC-95-PM Installed in the SLP-BB Cabinet

Section 3: Wiring

3.1 SLC-PM Wiring Connections - System Sensor

The SLC-PM uses 18 AWG minimum, twisted-pair unshielded wiring. Use the SLC-PM with the System Sensor protocol.

Figure 3.1.1 illustrates the SLC-PM wiring diagram.

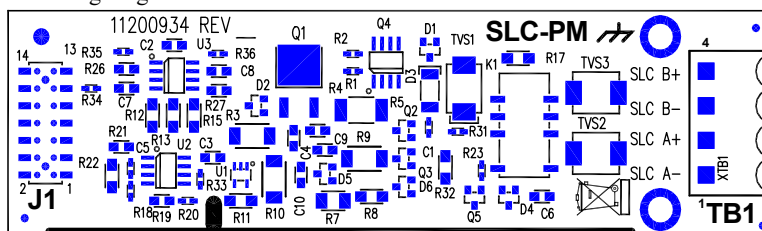


Figure 3.1.1 SLC-PM Signaling Line Circuit

Table 3.1.1 lists the SLC-PM terminal wiring designations.

Designation	Description	Comments
TB1-1	SLC A-	Class A and Class X RETURN (See Note 1)
TB1-2	SLC A+	Class A and Class X RETURN (See Note 1)
TB1-3	SLC B-	Class B, Class A and Class X OUT (See Note 1)
TB1-4	SLC B+	Class B, Class A and Class X OUT (See Note 1)
J1	SLC-PM Connector	Connects to J5 and J6 connector pins of the SLP-E3 (See Figure 2.2.2)

NOTE 1: For Class B, use Terminals B+ and B- only. For Class A, use terminals B+ and B- and connect RETURN wiring to A+ and A-. For (Class X), wire the same as Class A and use the M500X Isolator Modules per the recommendations as required.

Table 3.1.1 SLC-PM Terminal Wiring Designations

3.2 SLC95-PM Wiring Connections - Apollo

The SLC95-PM uses 18 AWG minimum, twisted-pair unshielded wiring. Use the SLC95-PM with the Apollo protocol.

Figure 3.2.1 illustrates the SLC95-PM wiring diagram.

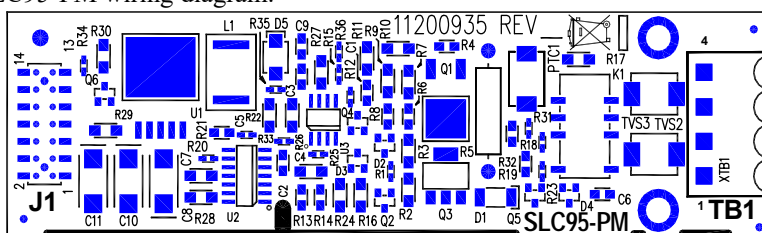


Figure 3.2.1 SLC95-PM Signaling Line Circuit

Table 3.2.1 lists the SLC95-PM terminal wiring connections.

Designation	Description	Comments
TB1-1	SLC A-	Class A and Class X RETURN (See Note 1)
TB1-2	SLC A+	Class A and Class X RETURN (See Note 1)
TB1-3	SLC B-	Class B, Class A and Class X OUT (See Note 1)
TB1-4	SLC B+	Class B, Class A and Class X OUT (See Note 1)
J1	SLC95-PM Connector	Connects to J5 and J6 connector pins of the SLP-E3 (See Figure 2.2.2)

NOTE 1: For Class B, use Terminals B+ and B- only. For Class A, use terminals B+ and B- and connect RETURN wiring to A+ and A-. For (Class X), wire the same as Class A and use the M500X Isolator Modules per the recommendations as required.

Table 3.2.1 SLC95-PM Terminal Wiring Designations

Section 4: Circuit Ratings and Specifications

Table 4.1 lists the SLC-PM and SLC95-PM circuit ratings and specifications.

Specifications	SLC-PM	SLC95-PM
Operating Voltage:	24 VDC (from FLPS-7 power supply)	
Operating Supervisory Standby Current:	0.014 amp	0.016 amp
Alarm Current:	0.014 amp	0.016 amp
Maximum Line Impedance:	40 Ohms and .5 μ F line capacitance	
Ground Fault Test Impedance:	Zero Ohms	
Impedance values and ground faults are annunciated:	GND FAULT LED or LCD-SLP	
Relative Humidity:	0 to 93%, non-condensing at 90° F (30° C)	
Operating Temperature:	32° to 120° F (0° to 49° C)	
Class:	One Class A, Class X or Class B, signaling line circuit	One Class A, Class X or Class B, signaling line circuit
Circuit Supervision:	Supervised	
Circuit Power-Limited:	Class 2 Power-Limited	

Table 4.1 Circuit Ratings and Specifications

Section 5: Reference Documentation

Table 5.1 lists the UL-Controlled documentation assigned to the S3/E3 Series Systems. If you require detailed installation instructions on cabinetry, wiring and specifications, you can download the following UL-Controlled documents from the ESD site on the Gamewell-FCI Website (www.gamewell-fci-esd.com).

Part Number	Title
UL Listing Document	
LS10005-051GF-E	S3 Series (Small Addressable Fire Alarm Control Panel) UL Listing Document
LS10080-051GF-E	E3 Series Fire System (Expandable Emergency Evacuation System) UL Listing Document
Manuals	
9000-0575	E3 Series Broadband Installation/Operation Manual
9000-0577	E3 Series Classic Installation/Operation Manual
LS10013-000GF-E	E3 Series Combined Fire and MNS Installation/Operation Manual
LS10138-151GF-E	E3 Series Releasing System Manual
Installation Instructions	
9000-0491	LCD-7100 (Remote Serial Annunciator) Installation Instructions
9000-0544	AM-50 Series (50 Watt Amplifier) Installation Instructions
9000-0545	INX, INX CAB-B, INX CAB-C and INX CAB-D Installation Instructions
9000-0546	INCC Intelligent Network Interface Installation Instructions
9000-0548	PM-9 Power Supply Installation Instructions
9000-0549	INI-VG Series (Intelligent Network Transponder-Voice Gateway-First/Second Generation) Instructions
9000-0550	ASM-16 (Addressable Switch Module) Installation Instructions
9000-0564	ANU-48 (Remote LED Driver Annunciator) Installation Instructions
9000-0568	NGA (Network Graphic Annunciator) Installation Instructions
9000-0569	ILI-S-E3 (Intelligent Loop Interface - Expansion Board) Installation Instructions
9000-0579	ILI-MB-E3 (Intelligent Loop Interface - Main Board) Installation Instructions
9000-0580	RPT-E3-UTP (Repeater-E3 Unshielded Twisted-Pair) Installation Instructions
9000-0581	DACT-E3 (Digital Alarm Communicator Transmitter) Installation Instructions
9001-0017	ILI95-MB-E3 (Intelligent Loop Interface-95 - Main Board) Installation Instructions
9001-0018	ILI95-S-E3 (Intelligent Loop Interface-95 - Expansion Board) Installation Instructions
9001-0055	PM-9G Power Supply Installation Instructions
9001-0064	ANX (Addressable Node Expander) Installation Instructions
9001-0065	E3BB-FLUSH-LCD-CAB A2 Remote Flush Annunciator Installation Instructions
9001-0066	RAN-7100 (Remote Alphanumeric Annunciator) Installation Instructions
LS10044-000GF-E	SLC-PM/SLC95-PM (Signaling Line Circuit-Personality/95-Personality Modules) Installation Instructions
LS10045-000GF-E	LCD-SLP (Liquid Crystal Display-SLP) Installation Instructions
LS10046-000GF-E	FML-E3/FSL-E3 (Fiber-Optic Multi-Mode/Fiber-Optic Single-Mode) Installation Instructions
LS10058-000GF-E	FLPS-7 (Power Supply) Installation Instructions
LS10082-000GF-E	E3 Series Cabinets B, C, D, Retrofit, DR-C4/DR-D4 and EQ Cabinets Installation Instructions
LS10083-000GF-E	E3 Series, Remote Annunciator Display and Retrofit Cabinets Installation Instructions
LS10218-000GF-E	INI-VG Series (Intelligent Network Transponder-Voice Gateway-Third Generation) Instructions
LS10222-000GF-E	NGA (Network Graphic Annunciator-Second Generation) Installation Instructions
Addendum	
9000-0427-L8	Compatibility Addendum to Gamewell-FCI Installation/Operation Manuals UL File S1869 Vol. 8C
Frame and Post	
9000-0583	E3 Series for the LCD-E3 Operating Instructions
LS10121-000GF-E	E3 Series for the LCD-SLP Operating Instructions

Table 5.1 Reference Documentation

Honeywell Gamewell-FCI

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Northford, CT 06472-1610
203.484.7161
www.gamewell-fci.com

LS10044-000GF-E | D | 06/20
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