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INSTALLATION INSTRUCTIONS
FOUR ZONE SPLITTER
(FOR MULTI CIRCUIT SAFEPATH PANELS)

Use this product according to this instruction manual. Please keep this instruction manual for future reference.

MODEL NUMBER: SPL   Four Zone Splitter

GENERAL:

The Four Zone Splitter is designed to be used with Wheelock's multi circuit SAFEPATH panels and it provides a means for expanding a supervised audio output zone from one to four sub zones. The Four Zone Splitters are UL Listed under Standard 864, Control Units for Fire Protective Signaling Systems. They are listed for indoor use only. Only 1 Four Zone Splitter can be connected to each SAFEPATH channel. They are to be mounted inside the SAFEPATH panel enclosure onto the power supply printed circuit board (PCB) cover. The splitter works with all of the Wheelock amplifier modules. If the splitter is used with a power amplifier, the maximum power per sub zone cannot exceed what is listed in Table 1.

NOTE: All **CAUTIONS** and **WARNINGS** are identified by the symbol ⚠. All warnings are printed in bold capital letters.

SPECIFICATIONS: (Per UL 864)

Table 1:			
	SAA-40S/80S/80SE		SALL-15S
Audio Output Voltage	25.0V	70.7V	100.0V	0.5V
Maximum Output Power Per Sub Zone	25.0W	70.0W	100.0W	30 Speaker Inputs

Power Input Voltage: 24VDC
Audio Input/Output Voltage: 25.0VRMS, 70.7VRMS, 100.0VRMS, or 0.5VRMS
Input Current: 40mA Standby with no zones selected
                                     190mA with all zones selected
Audio Power In: 100.0 Watts Maximum
Audio Power Out: 100.0 Watts Maximum (See Table 1 for maximum watts per zone)

MOUNTING INSTRUCTIONS:

<u>Four Circuit SAFEPATH</u>

1. Attach the 4 PCB standoffs to the 4 mounting holes in the SAFEPATH Power Supply PCB cover (see Figure 1) by pushing standoff into the hole until it locks into place as shown in Figure 2.

2. Attach the Four Zone Splitter PCB on to the PCB standoffs so that the standoffs mate with the mounting holes on the PCB as shown in Figure 2. Push the PCB until the board locks into the 4 standoffs

3. Remove the old hole cover on the SAFEPATH Panel's Dead Front Panel that corresponds to the location of the new splitter module by removing the 4 hole plugs on the cover. Save the 4 plugs to attach the new cover. (See Figure 3)

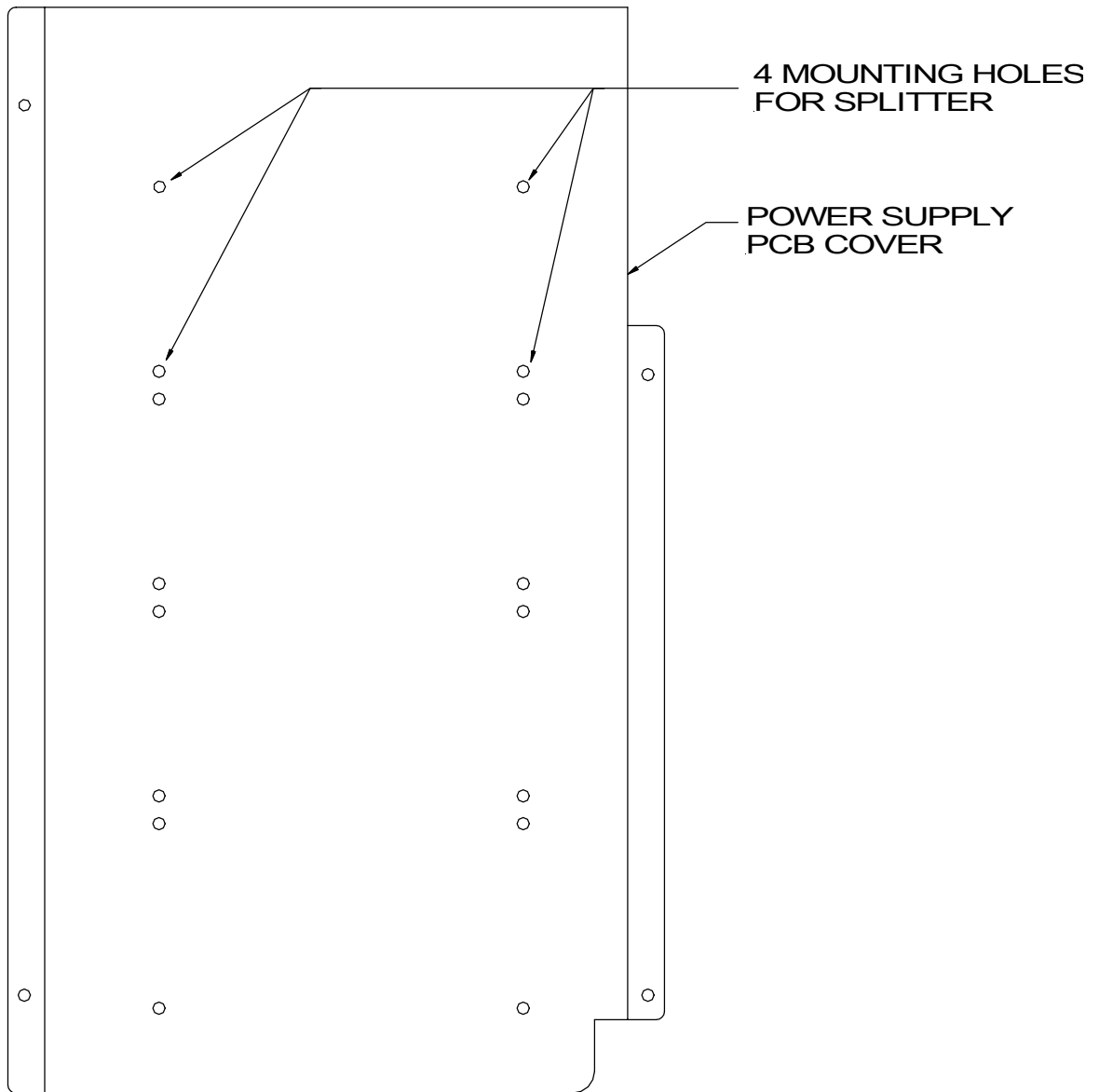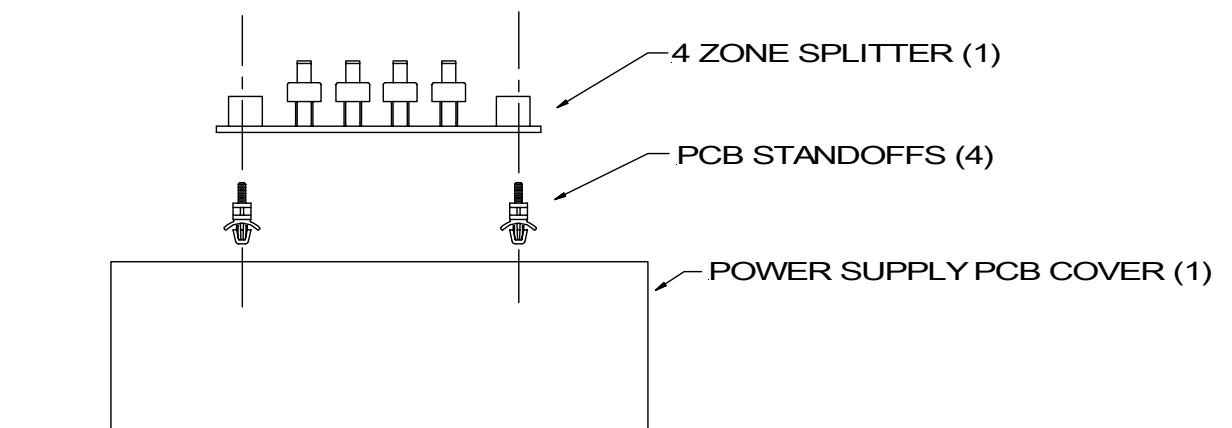4. Attach the Four Zone Splitter cover to the Dead Front Panel using the 4 hole plugs.

4 MOUNTING HOLES
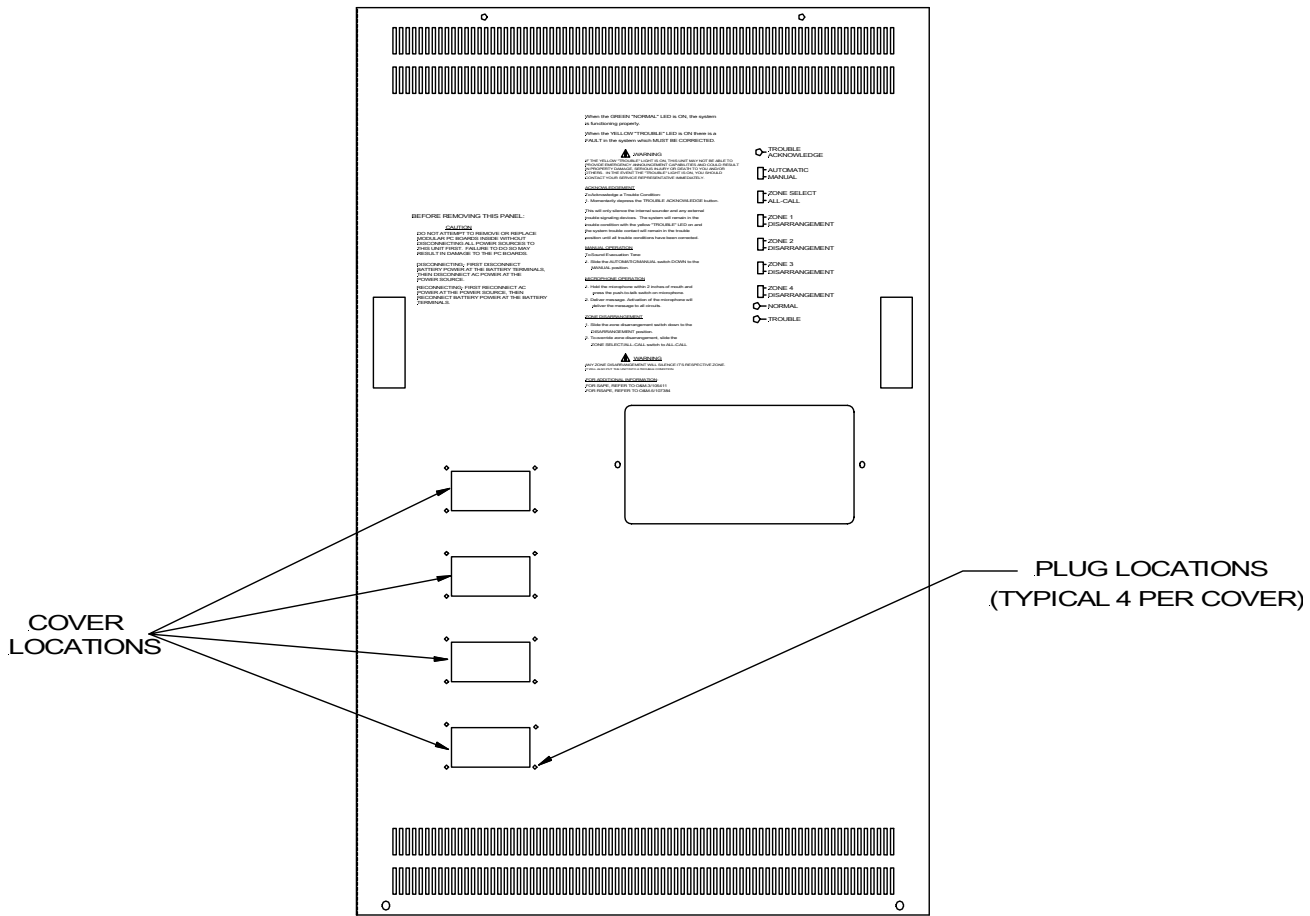FOR SPLITTER

POWER SUPPLY
PCB COVER

Figure 1:

4 ZONE SPLITTER (1)

PCB STANDOFFS (4)

POWER SUPPLY PCB COVER (1)

Figure 2:

Figure 3:

Labels in Figure 3:
- COVER LOCATIONS
- PLUG LOCATIONS (TYPICAL 4 PER COVER)
- TROUBLE ACKNOWLEDGE
- AUTOMATIC / MANUAL
- ZONE SELECT / ALL-CALL
- ZONE 1 DISARRANGEMENT
- ZONE 2 DISARRANGEMENT
- ZONE 3 DISARRANGEMENT
- ZONE 4 DISARRANGEMENT
- NORMAL
- TROUBLE

WIRING DIAGRAM:

1. See Figure 4 for wiring diagram.
2. See Figure 5 for terminal block wiring designations.

Labels in Figure 4:
- MOTHER BOARD (SAMB)
- ZONE 1 AUDIO
- ZONE 2 AUDIO
- ALL CALL
- 24V COM
- AUDIO IN, SPL, PWR IN, ALL CALL IN — Z1, Z2, Z3, Z4
- SPL
- AUDIO IN, SPL, PWR IN, ALL CALL IN — Z1, Z2, Z3, Z4
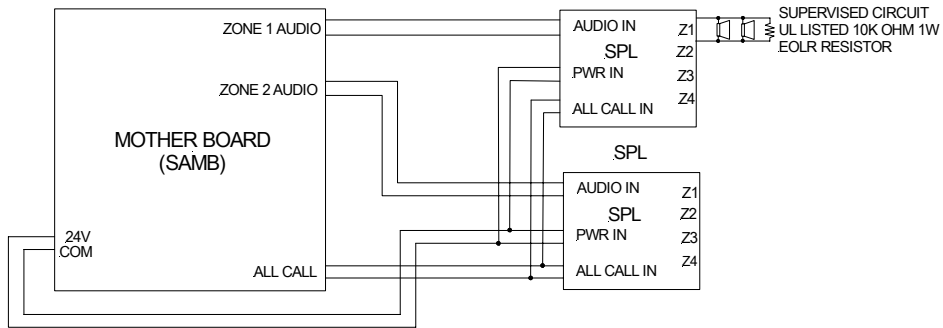- SUPERVISED CIRCUIT UL LISTED 10K OHM 1W EOLR RESISTOR

Figure 4:

⚠ **CAUTION**: "POWER IN" terminals should be connected to the system power on the left side of the motherboard. Do no connect to Remote Mic Power above "ALL CALL" terminals.
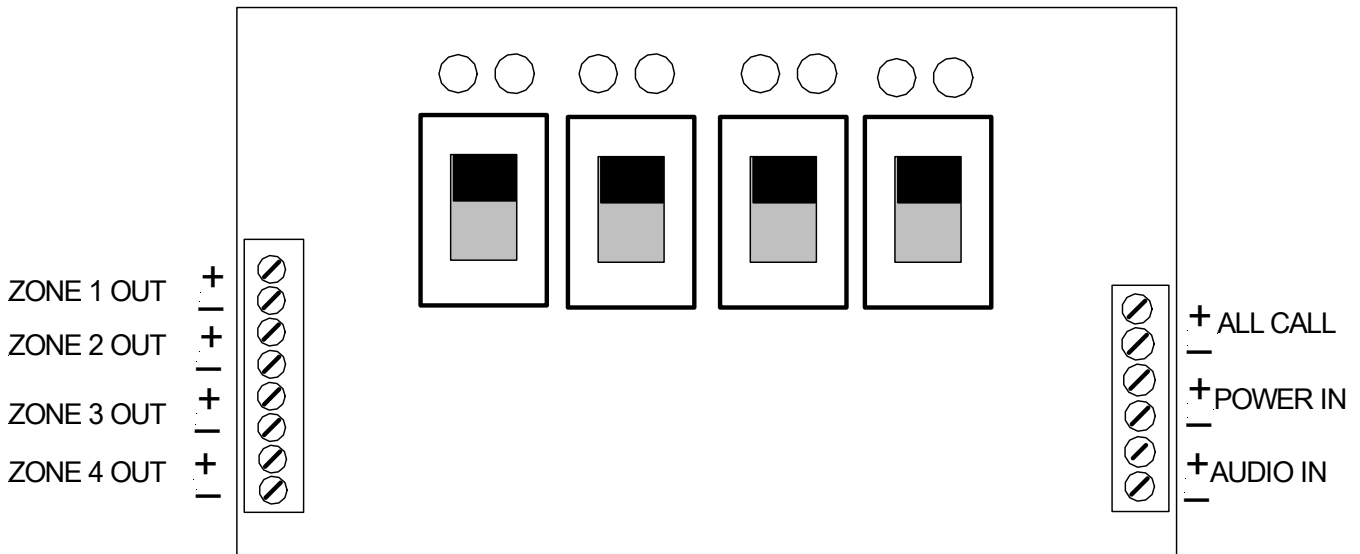
Figure 5:

WIRING SPECIFICATIONS:

Cable Size: 14-22 AWG

OPERATING INSTRUCTIONS:

When making a live emergency announcement from the SAFEPATH panel, use the Four Zone Splitter's four zone ON/OFF switches to select the zones to which the audio will be broadcast or use the panel's ALL CALL switch to select all of the zones. To select a zone, slide the zone ON/OFF switch up to the on position (Figure 6). The ZONE SELECT LED associated with the zone switch will be lit if the zone is selected. The ZONE ALARM LED's indicate to which zones audio is currently being broadcast. ***The splitter will allow zone selection of live announcements only.*** Automatic or manual alarm operation will be through all zones.

The splitter detects audio wiring faults (opens and shorts) in the non-alarm mode only. During alarm paging the splitter allows the selection of any or all zone outputs. The ALL CALL switch overrides all zone selections. To initiate ALL CALL, slide the ALL CALL switch up to the on position. If there is a trouble in the output wiring or a trouble in the four zone splitter circuit, the trouble condition will be reported to the respective amplifier card as a speaker wiring trouble and the SPK LED will be lit.
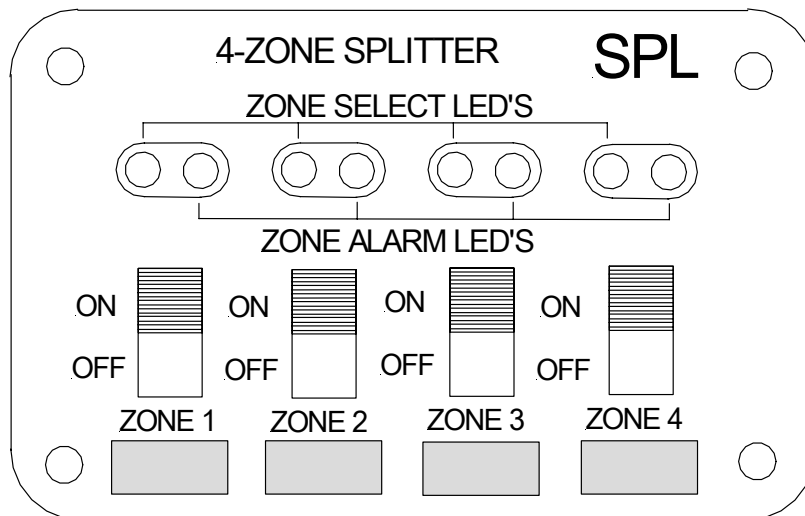

Figure 6:

TROUBLE SHOOTING PROCEDURES:

1. Be sure the unit is in the standby (non-alarm) mode.

2. Verify all wiring is correct.

3. To verify the system trouble is caused by the splitter or output audio wiring:
Measure the DC voltage at audio ±. If it is -12VDC ±1V, the trouble is caused by something else in the system. (See appropriate SAFEPATH instruction manual for additional troubleshooting procedures.) If it is -4VDC ±1V, the trouble is caused by the audio output wiring from the splitter.

4. Measure the DC voltage at the zone outputs ± of the four zones of the splitter. If it is -12VDC ±1V, the zone does not have a wiring fault. If it is -24VDC ±1V, the trouble is an open in the audio wiring or a missing end-of-line resistor. If it is 0VDC, the trouble is a short in the audio wiring.

MEA INFORMATION:

Recommendations - That the above units be accepted on condition that all uses, configurations, arrangements and functions, locations and installations comply with the New York City Building Code, specifically Subchapter 17 and with the Referenced Standard RS 17-3 through 17-3C including the NFPA as appropriate, the UL Listing, the manufacturer's instructions, the Fire Department Rules and the Electrical Code of the City of New York, and on further condition that:

(a) The use, installation and application of the SAFEPATH System shall be restricted exclusively to connection with a BSA/MEA approved compatible Class E, Class J or Class C Fire Command Station.

(b) The Fire Command Station shall have the capability of overriding any function of the SAFEPATH system.

(c) Prior to the installation of any SAFEPATH System, a specific approval for a specific installation must be obtained from the Fire Department.

(d) A priority voice message matrix must be submitted to the Fire Department for approval before the installation is performed and shall include the following information:

    1. The duration of each message.
    2. The content of each message.
    3. The duration of the audible and visual alarm signals prior to the initiation of the subsequent prerecorded message transmission.
    4. The interval between the cessation of the audible and visual alarm signals and the generation of prerecorded message.

(e) The SAFEPATH panel must be located in the room as, and within 20 feet of a BSA/MEA approved Fire Command Station. The wiring between the SAFEPATH Control Unit and the Fire Command Station must be enclosed in conduit.

(f) Power supply wiring to the SAFEPATH Control Unit shall be installed in the same conduit containing the input and output wiring.

(g) When used with central office communicator or transmitter, the installation and operation of the equipment and devices listed herein shall comply with Fire Department Rule #3 - RCNY 17-01, NFPA 71, and shall have the capability of transmitting separate and distinct signals to indicate manual pull station alarm, automatic smoke/heat detection alarm, sprinkler waterflow alarm, supervisory signal indications and trouble indications.

(h) The connection of security/burglar devices and equipment to that submitted for acceptance for fire alarm usage under this MEA application is prohibited within New York City and such equipment and devices shall be so permanently labeled.

All shipments and deliveries of such equipment shall be provided with a metal tag suitably placed, certifying that the equipment shipped or delivered is equivalent to that tested and accepted for use, as provided for in Section 27-131 of the Building Code.

Limited Warranty

Wheelock products must be used within their published specifications and must be PROPERLY specified, applied, installed, operated, maintained and operationally tested in accordance with these instructions at the time of installation and at least twice a year or more often and in accordance with local, state and federal codes, regulations and laws. Specification, application, installation, operation, maintenance and testing must be performed by qualified personnel for proper operation in accordance with all of the latest National Fire Protection Association (NFPA), Underwriters' Laboratories (UL), Underwriters' Laboratories of Canada (ULC), National Electrical Code (NEC), Occupational Safety and Health Administration (OSHA), local, state, county, province, district, federal and other applicable building and fire standards, guidelines, regulations, laws and codes including, but not limited to, all appendices and amendments and the requirements of the local authority having jurisdiction (AHJ). Wheelock products when properly specified, applied, installed, operated, maintained and operationally tested as provided above are warranted against mechanical and electrical defects for a period of three years from date of manufacture (as determined by date code). Correction of defects by repair or replacement shall be at Wheelock's sole discretion and shall constitute fulfillment of all obligations under this warranty. THE FOREGOING LIMITED WARRANTY SHALL IMMEDIATELY TERMINATE IN THE EVENT ANY PART NOT FURNISHED BY WHEELOCK IS INSTALLED IN THE PRODUCT. THE FOREGOING LIMITED WARRANTY SPECIFICALLY EXCLUDES ANY SOFTWARE REQUIRED FOR THE OPERATION OF OR INCLUDED IN A PRODUCT. WHEELOCK MAKES NO REPRESENTATION OR WARRANTY OF ANY OTHER KIND, EXPRESS, IMPLIED OR STATUTORY WHETHER AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER MATTER.

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