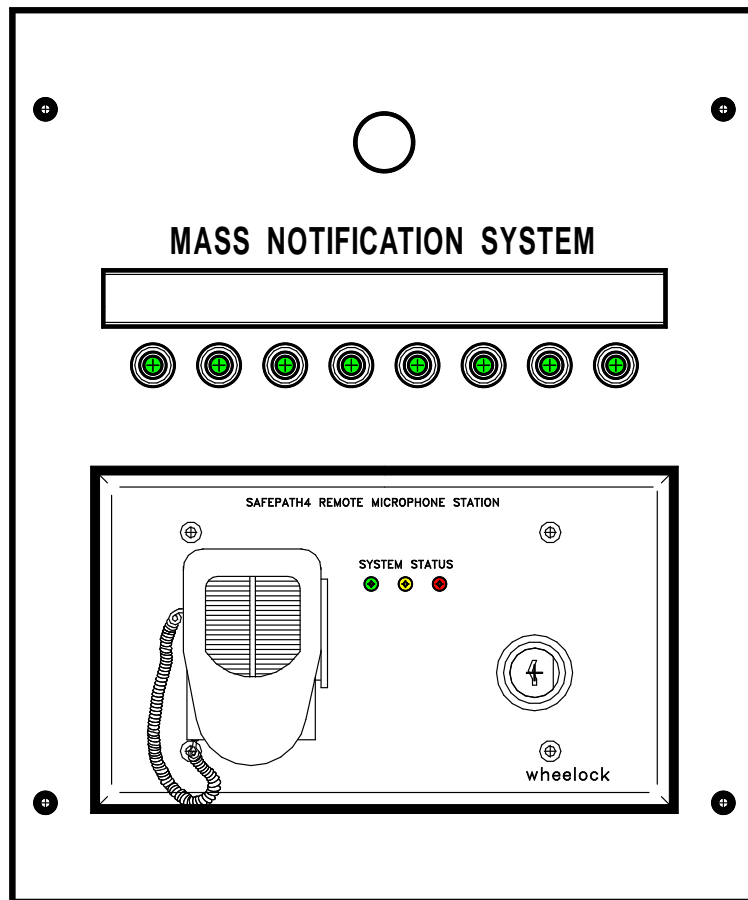


SP4-LOC

SAFEPTH4

REMOTE MICROPHONE AND LOCAL OPERATOR CONSOLE

INSTALLATION AND OPERATION MANUAL



Introduction

Thank you for using our products. Use this product according to this instruction manual. Please keep this instruction manual for future reference.

The SP4 –LOC Remote Microphone and Local Operator Console is designed to be used with the Facility Communications System using the *SafePath4* SP40/2 and the SP40S panels. It contains the *SafePath4* SPRM Remote Microphone Module and eight black Push On /Push Off buttons which provide a contact closure to activate the SP40/2 or the SP40S digital messages in the Push On position. These buttons change color from black in the OFF position to green in the ON position. A message name plate holder is located above the pushbuttons. An optional red mushroom type, cutoff pushbutton is available for HVAC emergency shutoff.

The Remote Microphone (SPRM) incorporates a Push-To-Talk (PTT) microphone and system status LED indicators. The SPRM provides a microphone override for any tone generation, digital voice module prerecorded message, background music, or telephone paging. It is equipped with a keyed lock that, when activated allows the use of the module. The key can not be removable in the ON position. The SPRM is fully supervised from the SP40/2 or SP40S panel and contains front panel LED's for remote indications of System Normal, System Trouble and Alarm conditions. Voice frequency response shall be 275 Hz - 6.5 kHz +/- 2.4 dB. Power requirements shall be 24VDC and will be supplied by the SP40/2 or SP40S. Input current for standby mode shall be 26mA and 38mA in the alarm mode. Shielded 6-wire cable shall be used. Approvals for the system shall include; UL Standard 864, UL Standard 1711, FCC Part 15, and CSFM. The panel shall be OSHA 1910.165 and ADA compliant

The SP4-LOC is available in two models. The flush mount model has a 1/2 inch skirt around the door section, while the surface mount model door section is flush with the back box. Both models use the same white 4 inch deep backbox with three 1/2 inch/ 3/4 inch double knockouts, one each in the back center, and top and bottom of the backbox.

The flush mount door section has exterior dimensions of 15-1/2 inches wide and 16-1/4 inches high. The surface mount model has dimensions of 14-1/2 inches wide, 15-1/2 inches high and 4 inches deep. Both models have a pull slam latch to open the continuous hinged door. Both models are available in white.

The SP4-LOC can be installed up to 2,000 feet from the SP40/2 or SP40S panel using 14-18 AWG wiring. Shielded wire is only required for the 1Vrms output from the SPRM.

Notation Conventions

This manual uses the following notation conventions:



INDICATES A POTENTIALLY HAZARDOUS SITUATION THAT, IF NOT AVOIDED, COULD RESULT IN SERIOUS PERSONAL INJURY OR DEATH TO YOU AND OR OTHERS.



Indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury. It may also be used to alert against unsafe practices.

Safety



De-energize all electrical circuits and equipment associated with installing the SP4-LOC. If the HVAC Pushbutton option is being added, the circuit can contain high voltage that can cause serious injury or death to the installer.

Additional copies of this manual may be obtained from www.cooperwheelock.com in the Technical Support section, or from:

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Long Branch, N.J. 07740
Tel: (732) 222- 6880
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Technical Specifications

Mechanical

Dimensions (H x W x D) See Figure 1.	Backbox: 15 1/4 x 14 1/2 x 4 in. Surface Front: 15 1/4 x 14 1/2 x 1/8 in. Flush Front: 16 1/4 x 15 1/2 x 1/8 in.
Weight	8 lb.
Finish	White
Mounting	Indoor surface mount Indoor flush mount
Wiring Entry	Top, bottom and back knockouts (1/2" and 3/4") (3 total)
Door Lock	Pull slam latch with 1/8" security tamper indicator installation holes
PC Boards	SPRM

Environmental

Operating Temperature	0 to 49 °C (32 to 120 °F)
Storage Temperature	-20 to 70 °C (-4 to 158 °F)
Humidity, Non-condensing	85±5% at 30±2 °C (86 ± 4 °F)

Electrical

Pushbutton switch rating	30 VDC at 1/2 Amp (15 Watts)
HVAC mushroom pushbutton	230VAC at 3 Amps.
SPRM from the SP40S Maximum distance from SP40S is 2,000 feet using 14–18 AWG shielded wire.	6 wire Input Voltage 24VDC at .038 Amps 1Vrms audio output to SP40S. Contact closure to SP40S.

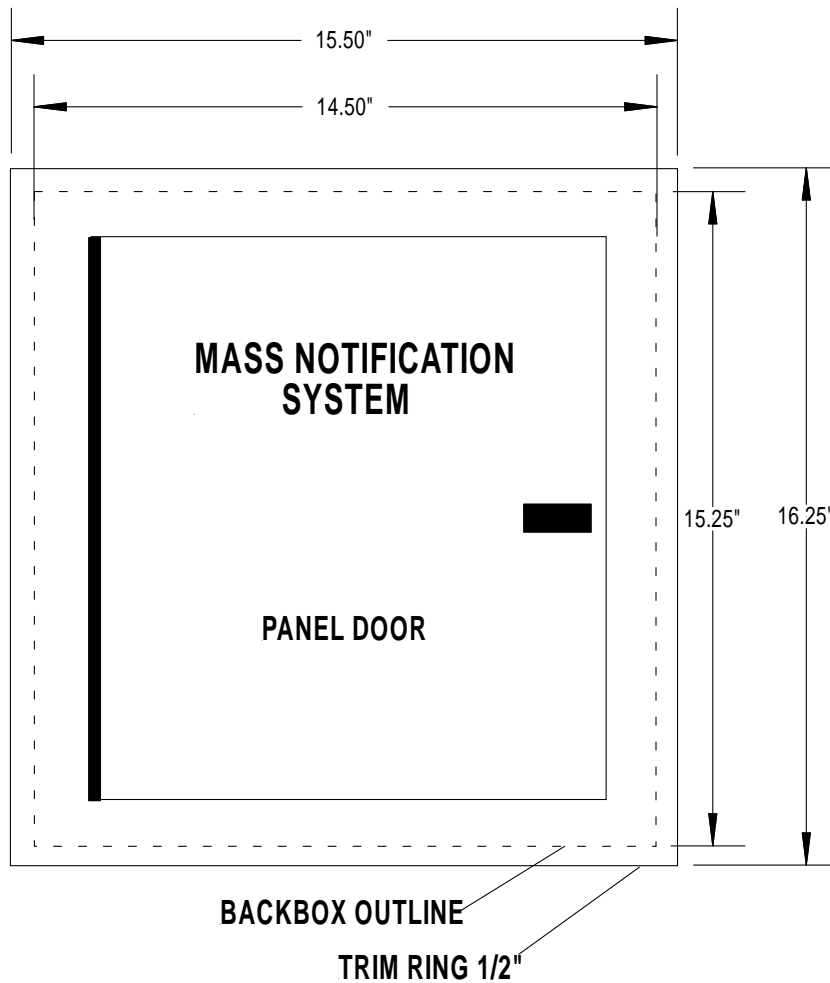


Figure 1. Outside Dimensions for the SP4-LOC Front

Mounting

COMPLY WITH ALL OF THE LATEST APPLICABLE CODES, REGULATIONS, LAWS, STANDARDS, AND GUIDELINES.

1. Remove the FRONT DOOR ASSEMBLY from the backbox by removing the eight (8) nuts holding the assembly in place.
2. Remove the INNER DOOR ASSEMBLY (Figure 2) and terminal block from the backbox.

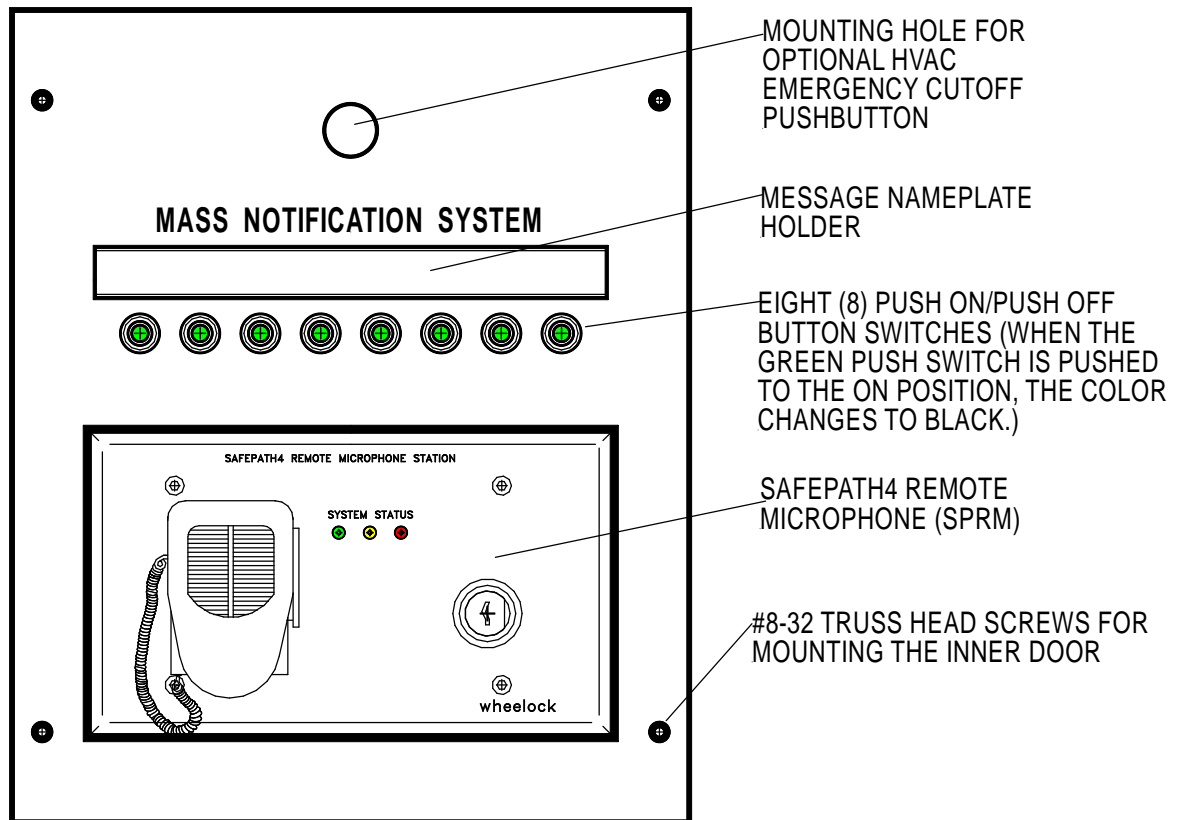


Figure 2. Inner Door Assembly

2. Mount the backbox assembly. See Figure 3 for mounting holes. Insure that the orientation label inside the backbox is pointing “UP” and that the studs for mounting the terminal block are on the left side.

NOTE: All mounting holes are laser cut as knockouts. Punch out the holes required for either flush or surface mounting.

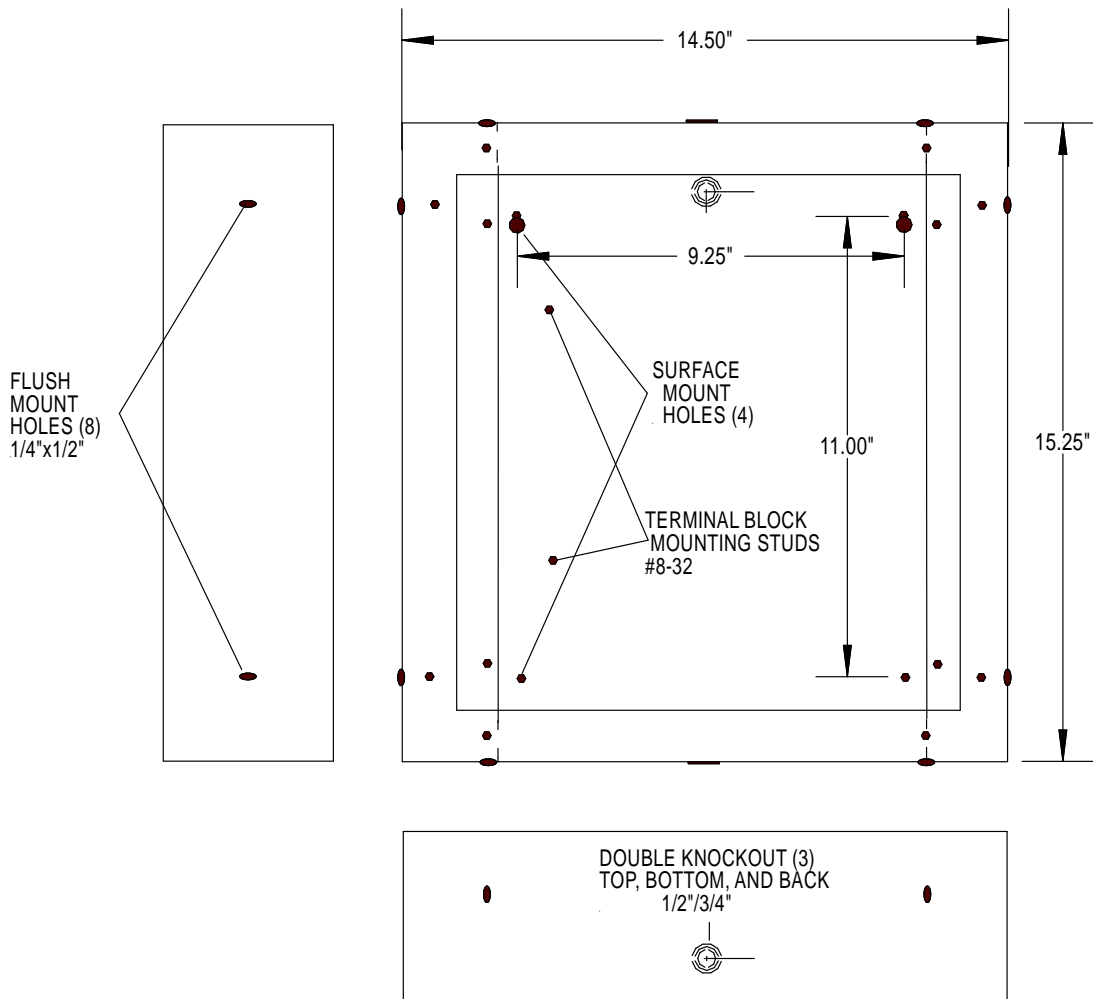


Figure 3. Mounting Holes for Mounting the Backbox, Flush and Surface

3. Connect conduit fittings to the desired cable knockouts, and run the appropriate pushbutton and SPRM wiring into the backbox.

CAUTION

If the optional HVAC pushbutton is installed, run the HVAC wiring through a separate conduit away from the push button and remote microphone wiring. This will prevent electrical interference and false troubles from appearing on the SP40S.

NOTE: If the SP4-LOC is being flush mounted and finish work on the location has to be completed, stop here and complete the work before connecting and mounting the inner and outer doors.

Installing and Wiring the Inner Door

4. Place the terminal block with the wire harness pointing down, onto the terminal block studs.
5. Connect the wire tie around the harness and to the bottom terminal block stud.
6. Using the washers and nuts, fasten the terminal block to the backbox..
7. If applicable, mount and wire the optional HVAC Emergency Shutoff pushbutton.
8. Connect the pushbutton wiring to the terminal block as shown in Figure 4 (SP40/2) and Figure 5 (SP40S).

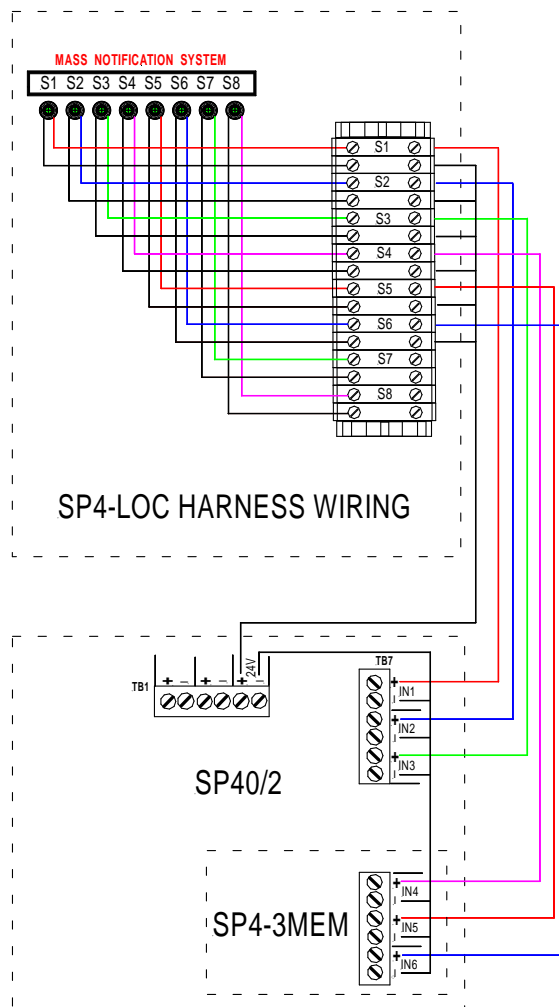


Figure 4. Wiring Diagram SP4-LOC to SP40/2

NOTE: The SP40/2 requires a 9 to 31VDC input in order to initiate a digital message.

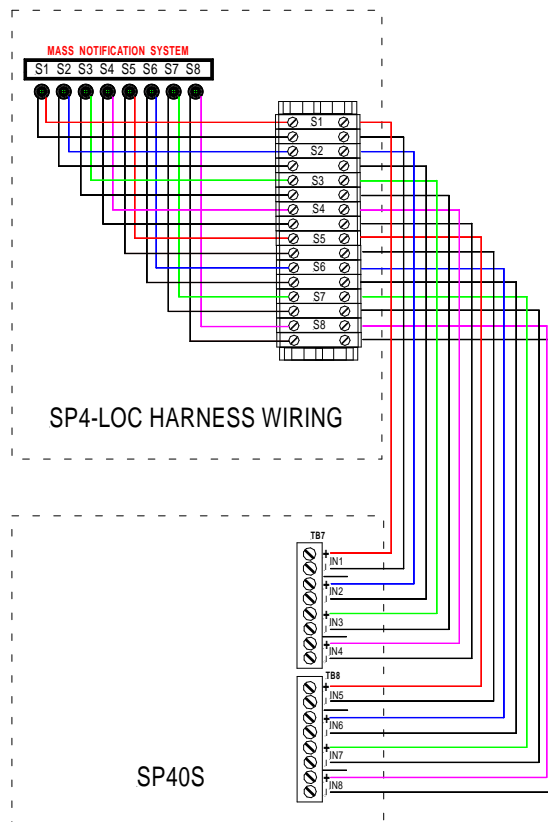


Figure 5. Wiring Diagram SP4-LOC to SP40S

NOTE: The SP40S inputs can be supervised by placing a 10K Ohm resistor across each pair of input terminals on the SP4-LOC terminal block and by switching ON the DIP switches on switch block SW7 positions 1 through 8.

9. Connect the SPRM to the SP40. Figure 6 shows the proper wiring connections for the SPRM to the SP40/2. Figure 7 shows the proper wiring connections for the SPRM to the SP40S.

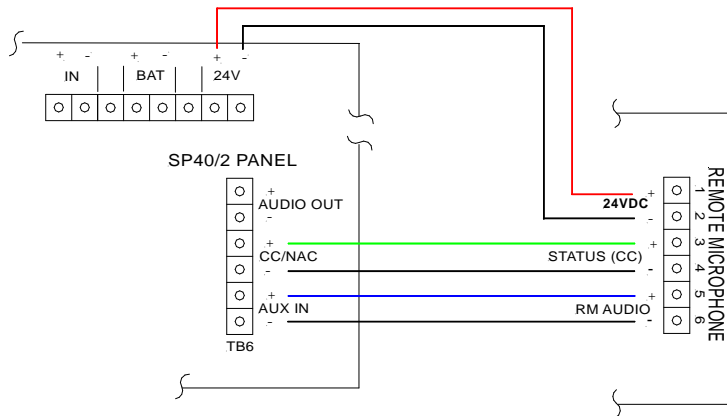


Figure 6. Wiring Diagram SPRM to SP40/2
This wiring is power limited.

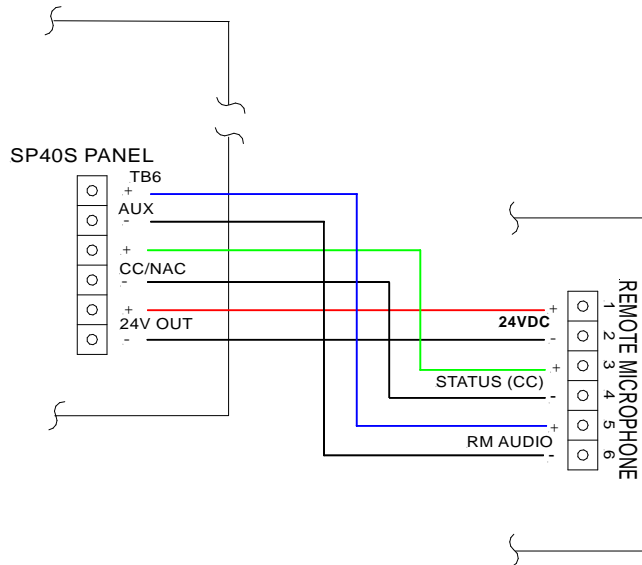


Figure 7. Wiring Diagram SPRM to SP40S
This wiring is power limited.

10. Mount the INNER DOOR to the backbox using the four #8-32 truss head screws and plastic washers.
11. Mount the FRONT DOOR to the backbox using the eight washers and #8-32 nuts in the locations shown in Figure 11.

NOTE: Figure 8 shows a diagram of a surface mount FRONT DOOR with a dotted line indicating the trim ring for a flush mount door.

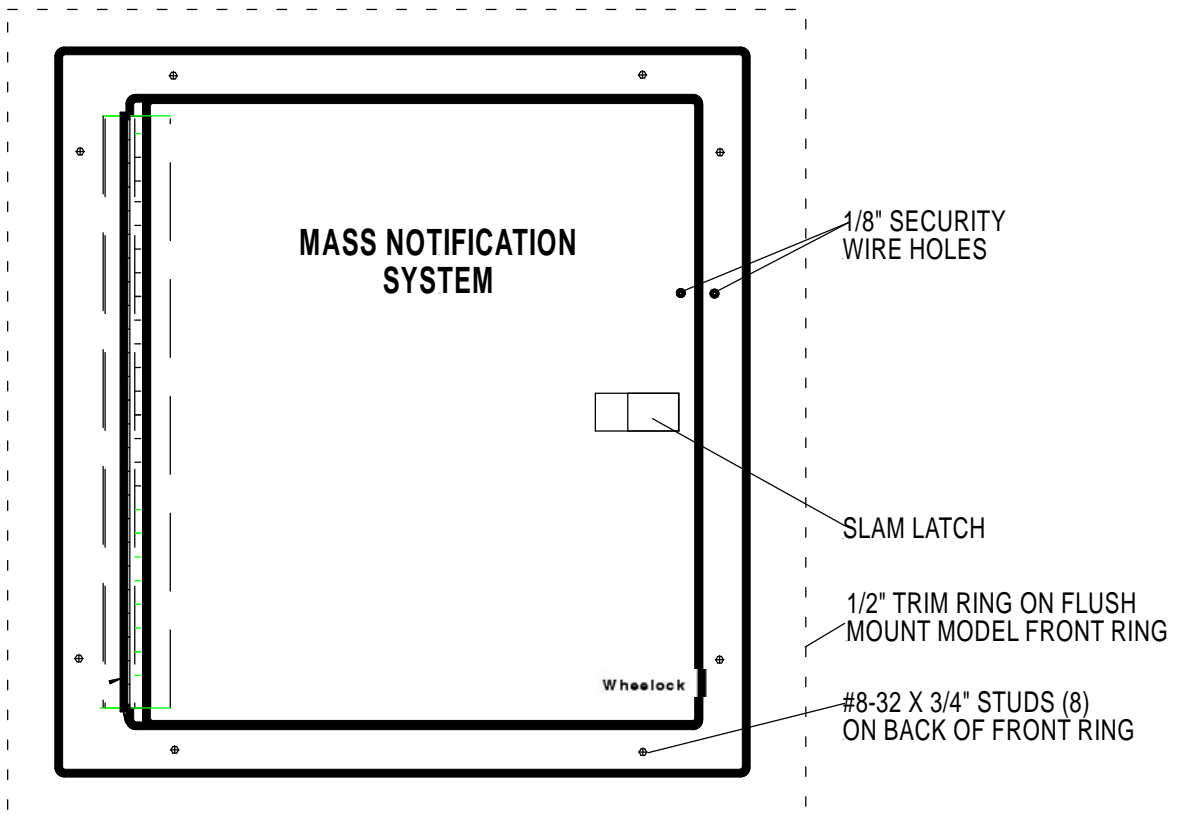


Figure 8. Front Door Layout

Operating Instructions:

SP40/2 Panel

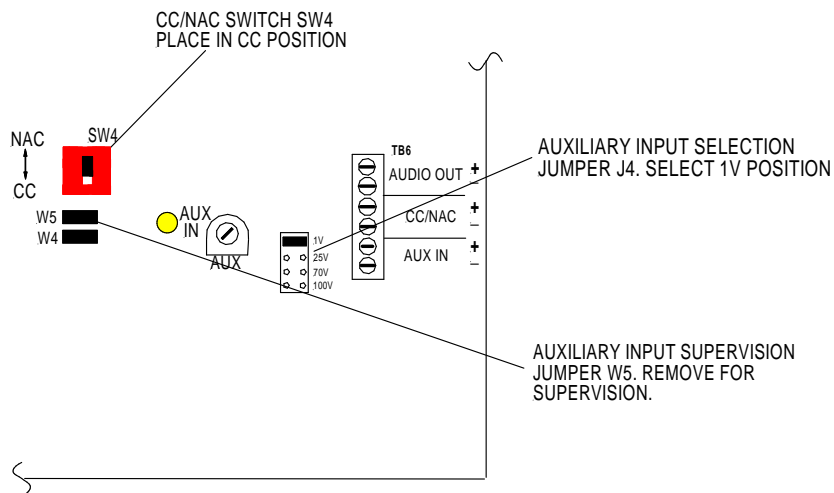


Figure 9. Switch locations on the SP40/2 for SPRM Operation

Figure 9 shows the locations of the switches and LED's on the SP40/2 that are required for SPRM operation.

1. Set the NAC/CC switch (SW4) on the SP40/2 PC board to the CC position.
2. Set the AUX IN jumper J2 to the 1V position.
3. Remove AUX SUP jumper (W5).
4. Install a UL Listed 10K Ohm End of Line Resistor (EOLR) on the AUX IN of SP40/2.

SP40S Panel

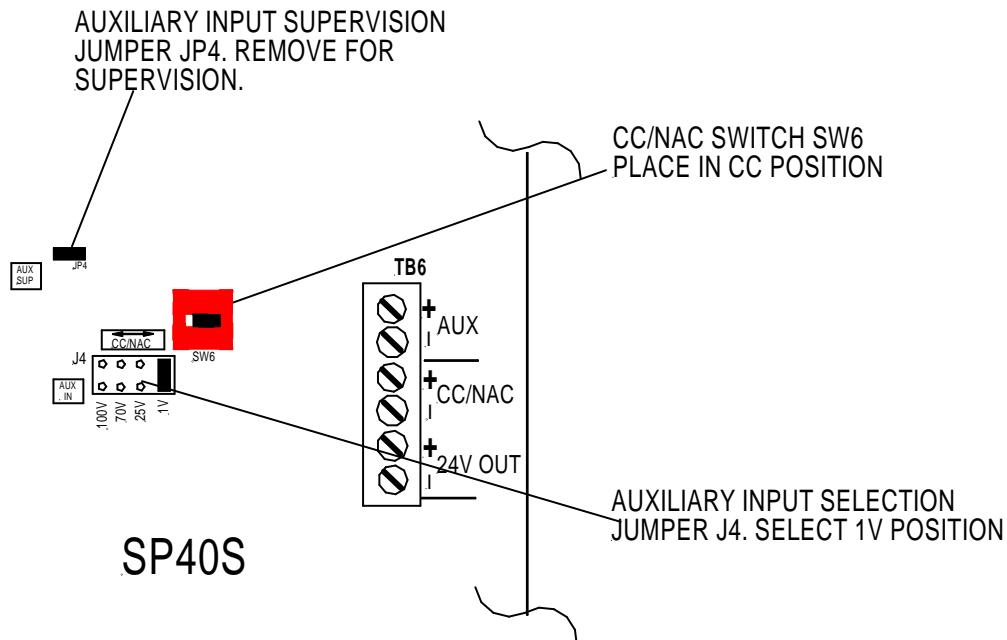


Figure 10. Switch and Jumper locations on the SP40S for SPRM Operation

See Figure 10 for switch and jumper locations.

1. Set the NAC/CC Switch (SW6) on the SP40S PC board to the CC position.
2. Set the AUX IN jumper J4 to the 1V position.
3. Remove AUX SUP jumper (JP4)

Testing

1. Energize the SP40/2 or SP40S Panel. Install the backup batteries.
2. Test each pushbutton circuit to insure the SP4-LOC is operational.
3. Insert key and turned to the ON position for the controls to function. (The key is removable only in the OFF position.)

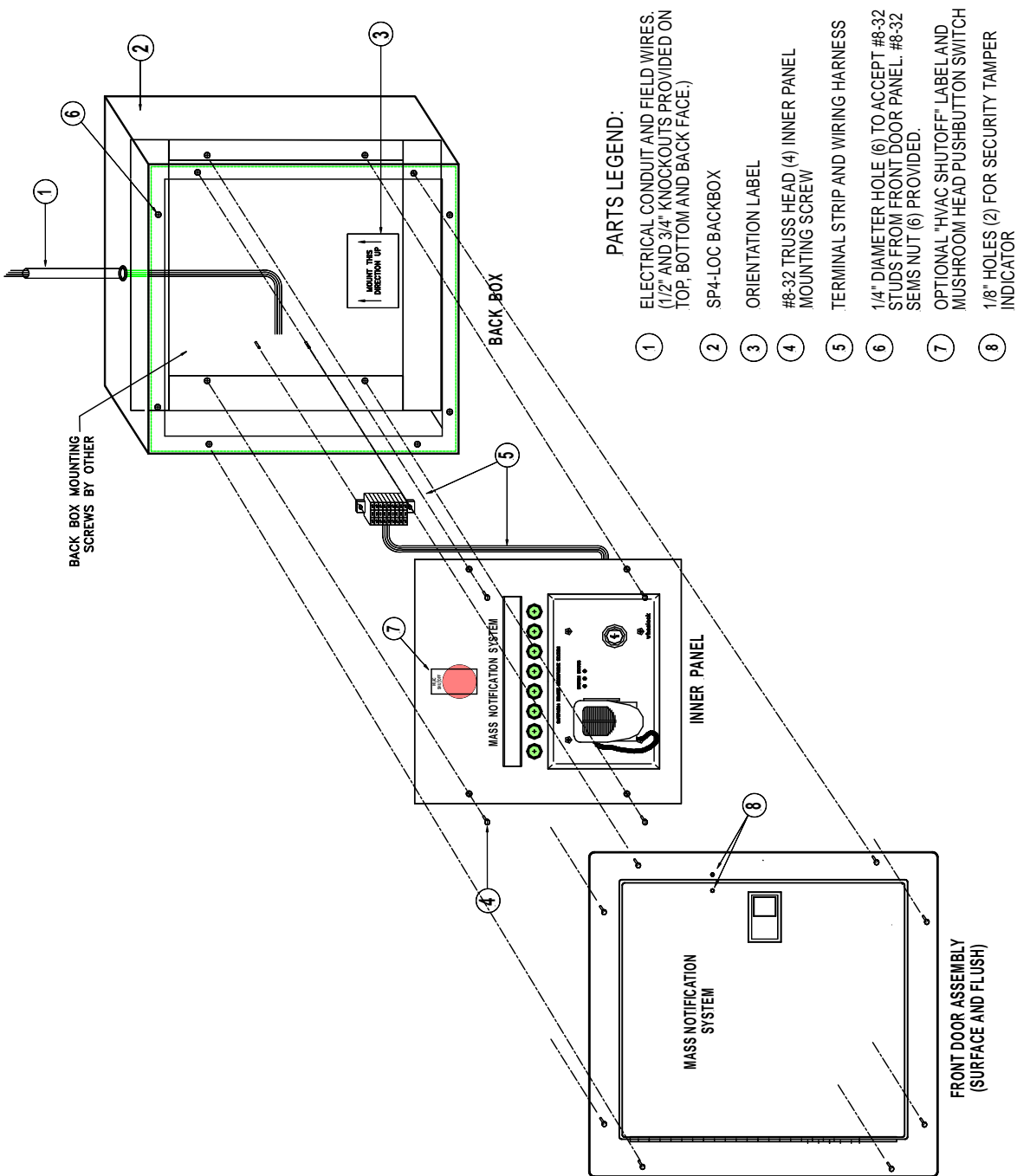


Figure 11. Exploded View of the Sp4-LOC

Warranty

Limited Warranty

Cooper Wheelock, Inc. 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 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). Cooper Wheelock, Inc. 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 Cooper Wheelock, Inc providing repairs or a replacement shall be at Cooper Wheelock, Inc.'s sole discretion and shall constitute fulfillment of all warranty obligations.

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