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# INSTALLATION AND MAINTENANCE INSTRUCTIONS

# SPPS-204 SERIES WALL SPEAKER-STROBE

# SPP-204 SERIES WALL SPEAKER

## CAUTION / ATTENTION

DO NOT PAINT OR ALTER FACTORY APPLIED FINISH IN ANY WAY

NE PAS PEINDRE OU MODIFIER LA FINITION ORIGINALE

## ABOUT THIS MANUAL

This manual is included as a quick reference for installation. For further information on the use of this device with a FACP, please refer to the panel's manual.

**Note:** This manual should be left with the owner/operator of this equipment.

## SPEAKER/SPEAKER STROBE DESCRIPTION

The SPPS-204 speaker-strobe is designed to meet UL1480/ULC S541 requirements for speakers and UL1638 /ULC S526, UL 1638A/CSA C22.2 No.205 requirements for visual notification appliances. The SPP-204 speaker is designed to meet UL1480/ULC S541 requirements for speakers.
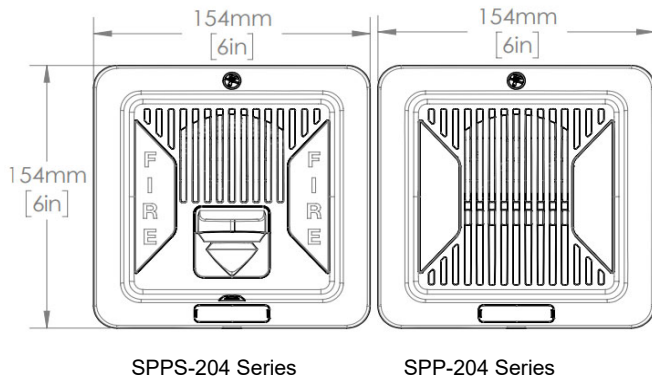
**FIGURE 1: MODEL FRONT:**

SPPS-204 Series          SPP-204 Series

**Table 1: SPECIFICATIONS**

| Operating temperature | 0ºC to 49ºC (32ºF to 122ºF) |
|---|---|
| Humidity range | 0% to 93% |
| Strobe flash rate | 1 Hz (1 flash per sec.)* |
| Nominal strobe voltage | Regulated 24VDC/VFWR |
| Operating voltage range | 16-33 VDC/VFWR |
| Nominal speaker voltage | 25V or 70.7Vrms |
| Speaker Size | 4" |
| Power Setting | ¼, ½, 1, 2 W |
| Speaker Frequency range | 400 -4000 Hz |
| Terminal wire gauge | 12-22 AWG |

**\*Note:** For FWR signaling use an MGC panel.

## SETTING THE CANDELA (SPPS series only)

The candela can be set to 15, 30, 75, 110, 185, 15/75 for SPPS-204-25 and SPPS-204-70 models.
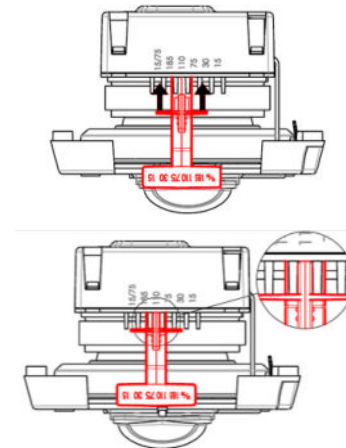
**Note:** 185cd setting is for General Signaling only.

The factory default setting is 15 for SPPS-204-25/70.

1. Pull out the candela selector from the device.
2. Re-insert the selector tab into the notch that is labeled with the desired candela setting (when removing or inserting the candela selector, ensure to keep it straight).

**Note:** Select the candela setting prior to installing the device in the mounting plate.

**FIGURE 2: INSERTING CANDELA SELECTOR**
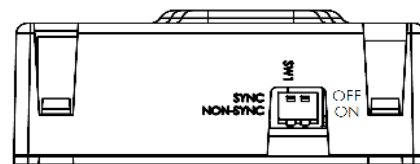
## SETTING THE DIP SWITCHES

**FIGURE 3: DIP SWITCH**

**Table 2: DIP SWITCH**

| DIP | | OFF | ON |
|---|---|---|---|
| Switch 1 | Input* | Synchronized | Regulated 24VDC/ FWR (Non-sync.) |

**\*Note**: Use "SYNC" when flash synchronization is required, either through a sync module or built-in synchronization on the control unit.
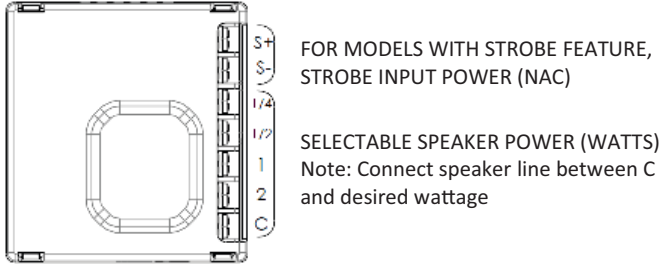
Use "NON-SYNC" when the appliances do not need to be synchronized.

**Note:** DIP switch 1 default setting is OFF, synchronized.

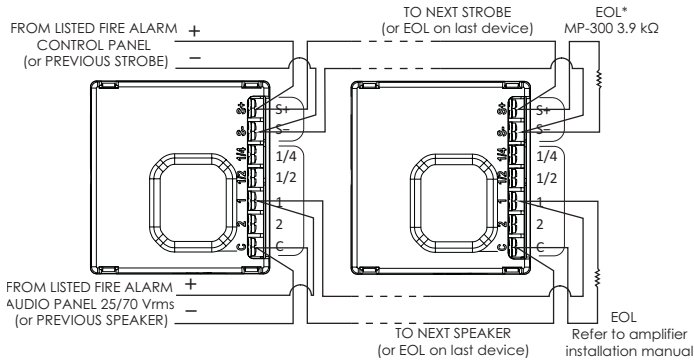**Note:** DIP switch 2 is not used. By default it is OFF.

## WIRING

### FIGURE 4: Figure 4 WIRING TAPS



FOR MODELS WITH STROBE FEATURE, STROBE INPUT POWER (NAC)

SELECTABLE SPEAKER POWER (WATTS)
Note: Connect speaker line between C and desired wattage

Note: This device should be installed as per applicable requirements of the authorities having jurisdiction.

Use the information in this document to determine the total power or current of the devices. The total power or current of the devices must not exceed the output rating of the panel. Refer to the FACP installation guide for the wire size required according to the loop length and devices power usage. For maximum strobe operating current, please refer to Table 5.

### FIGURE 5: DEVICE CONNECTION



**Note**: When using with MGC panel or sync module, use MP-300 (3.9K).

**Note:** Wiring must be in accordance with CSA C22.1, Canadian Electrical Code, Part I, Safety Standard for Electrical Installations section 32 and NFPA 70.

### CAUTION
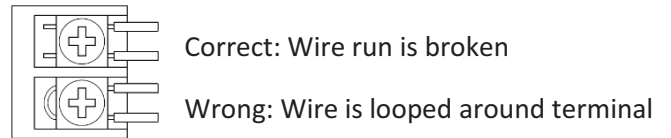FOR ALL TERMINAL TAPS USED FOR SYSTEM SUPERVISION, DO NOT USE LOOPED WIRE UNDER TERMINALS. BREAK WIRE RUN TO PROVIDE SUPERVISION OF CONNECTIONS.

### ATTENTION
NE PAS UTILISER DE FILS EN BOUCLE SOUS LES BORNES. OUVRIR LA LIGNE POUR CONFIRMER LA SUPERVISION DES CONNEXIONS.

### CAUTION
DO NOT LOOP SIGNAL CIRCUIT FIELD WIRES AROUND TERMINALS. ELECTRICAL SUPERVISION REQUIRES WIRE RUN TO BE BROKEN AT EACH END.



Correct: Wire run is broken

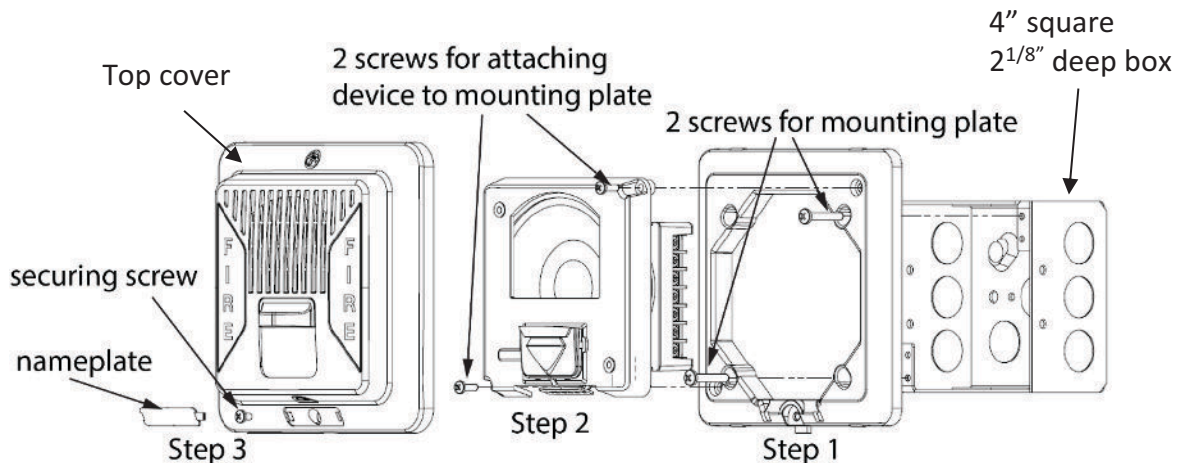Wrong: Wire is looped around terminal

### MOUNTING
MGC recommends spacing speaker strobe appliances in compliance with CAN/ULC S524 and NFPA72.

1. Attach the mounting plate to the electrical box with the 2 included mounting screws.
2. Insert the device to the mounting plate with 2 screws.
3. Attach the top cover with the included securing screw and snap the nameplate over the securing screw.

**Note:** Select the candela setting prior to installing the device in the mounting plate.

### FIGURE 6: MOUNTING DIAGRAM

## AUDIBLE RATINGS

**Table 3:**     SOUND PRESSURE LEVEL OUTPUT

| SPPS-204 SERIES | | | | |
|---|---|---|---|---|
| **WATT Tap** | **UL Reverberant (dBA@10ft)** | | **ULC Anechoic (dBA@3m)** | |
| | 70 | 25 | 70 | 25 |
| 2 | 88.4 | 88.4 | 86.5 | 85.8 |
| 1 | 86.1 | 86.3 | 83.9 | 83.5 |
| 1/2 | 83.4 | 83.6 | 81.1 | 80.7 |
| 1/4 | 80.1 | 80.3 | 77.9 | 77.5 |
| SPP-204 SERIES | | | | |
| **WATT Tap** | **UL Reverberant (dBA@10ft)** | | **ULC Anechoic (dBA@3m)** | |
| | 70 | 25 | 70 | 25 |
| 2 | 88.5 | 88.5 | 85.5 | 86.5 |
| 1 | 86.2 | 86.5 | 81.9 | 83.1 |
| 1/2 | 83.4 | 83.7 | 79.2 | 80.3 |
| 1/4 | 80.2 | 80.5 | 76.0 | 76.9 |

**Table 4:**     DIRECTIONAL SOUND CHARACTERISTICS
(Representative of both horizontal and vertical Axis)

| SPPS-204 SERIES | |
|---|---|
| ANGLE | dBA |
| +76°, -75° | -3 |
| +--°, -87° | -6 |
| ±90° | -6.3 |
| SPP-204 SERIES | |
| ANGLE | |
| ±80° | -3 |
| ±--° | -6 |
| ±90° | -5.3 |

## STROBE RATINGS

**Table 5:**     STROBE OPERATING RMS CURRENTS (mA)

| Candela | Regulated 24VDC | Regulated 24VFWR |
|---|---|---|
| 15 | 33 | 27 |
| 30 | 55 | 53 |
| 75 | 98 | 93 |
| 110 | 193 | 177 |
| 185 | 268 | 241 |
| 15/75 | 102 | 98 |

**Table 6:**     LIGHT DISPERSION

| Degrees | % of Candela Rating | |
|---|---|---|
| | **Horizontal Dispersion** | **Vertical Dispersion, Wall to Floor** |
| ± 0 | 155 | 150 |
| ± 5 | 147 | 152 |
| ± 10 | 145 | 168 |
| ± 15 | 140 | 152 |
| ± 20 | 135 | 110 |
| ± 25 | 131 | 100 |
| ± 30 | 124 | 97 |
| ± 35 | 116 | 92 |
| ± 40 | 105 | 88 |
| ± 45 | 99 | 74 |
| ± 50 | 95 | 66 |
| ± 55 | 92 | 62 |
| ± 60 | 88 | 57 |
| ± 65 | 84 | 53 |
| ± 70 | 78 | 49 |
| ± 75 | 82 | 44 |
| ± 80 | 86 | 37 |
| ± 85 | 80 | 32 |
| ± 90 | 53 | 25 |
| Compound ±45 | 39 | |

**Note:** The values in Table 6 are shown as percentages of the rated light output at any candela setting.

## Model Numbers

**SPPS-204-25** Wall mounted speaker strobe 25V white

**SPPS-204-70** Wall mounted speaker strobe 70V white

**SPPS-204-25R** Wall mounted speaker strobe 25V red

**SPPS-204-70R** Wall mounted speaker strobe 70V red


**SPP-204-25** Wall mounted speaker 25V white

**SPP-204-70** Wall mounted speaker 70V white

**SPP-204-25R** Wall mounted speaker 25V red

**SPP-204-70R** Wall mounted speaker 70V red

## Accessories

**MP-300** End of line resistor 3.9k Ohm