

# INSTALLATION AND MAINTENANCE INSTRUCTIONS

## SPPS-104 SERIES [H] CEILING SPEAKER-STROBE

### SPP-104 SERIES CEILING 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-104 speaker-strobe is designed to meet UL1480/ULC S541 requirements for speakers and UL1638 /ULC S526 requirements for visual notification appliances. The SPP-104 speaker is designed to meet UL1480/ULC S541 requirements for speakers.

FIGURE 1: MODEL FRONT:

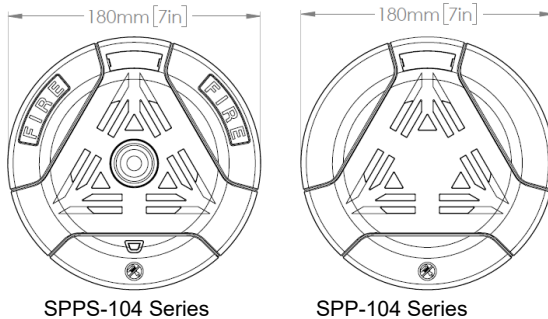


Table 1: SPECIFICATIONS

|                         |                             |
|-------------------------|-----------------------------|
| Operating temperature   | 0°C to 49°C (32°F to 122°F) |
| 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 a Mircom or Secutron panel.

#### SETTING THE CANDELA (SPPS series only)

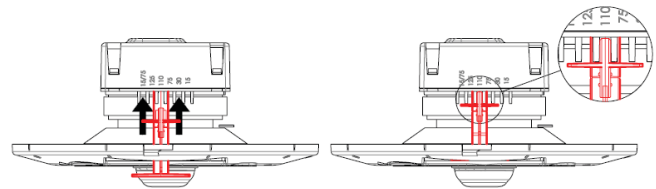
The candela can be set to 15, 30, 75, 110, 125, 15/75 for SPPS-104-25 and SPPS-104-70 models.

The candela can be set to 50, 75, 90, 130, 185, 15/75 for SPPS-104-25H and SPPS-104-70H models.

The factory default setting is 15 for SPPS-104-25/70 models, and 50 for SPPS-104-25H/70H models.

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).

FIGURE 2: INSERTING CANDELA SELECTOR



#### SETTING THE DIP SWITCHES

FIGURE 3: DIP SWITCH

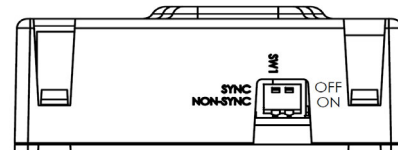


Table 2: DIP SWITCH

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

\*Note: Use "SYNC" when flash synchronization is required, either through a sync module or built-in synchronization on the control unit.

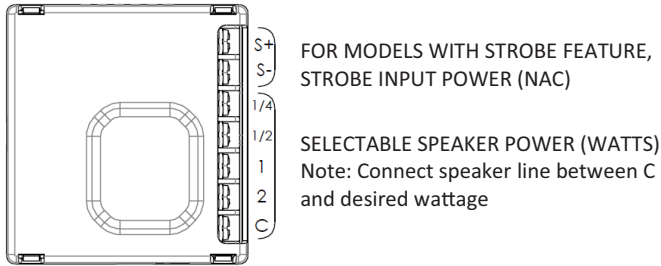
Use "NON-SYNC" when the appliances do not need to be synchronized.

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

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

## WIRING

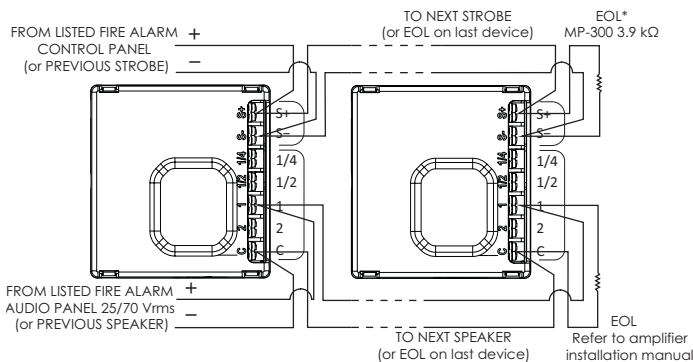
**FIGURE 4: WIRING TAPS**



**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 Mircom or Secutron 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

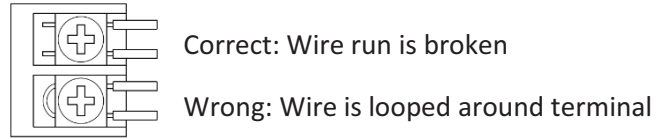
FOR ALL TERMINAL TAPS USED FOR SYSTEM SUPERVISION, DO NOT USE LOOPED WIRE UNDER TERMINALS. BREAK WIRE RUN TO PROVIDE SUPERVISION OF CONNECTIONS.

## ATTENTION

NE PAS UTILISER DE FILS EN BOUCLE SOUS LES BORNES. OUVRIER 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.



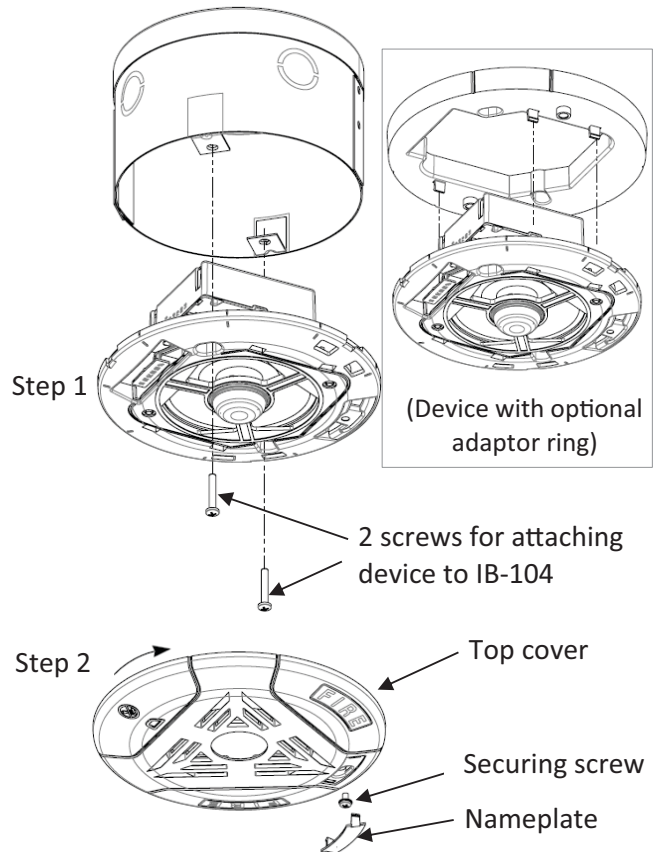
## MOUNTING

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

(Optional: In case of using a standard 4" square 2 1/8" deep electrical box, attach MP-184 adaptor ring from SPKC-W kit to the unit using 4 snaps.)

1. Attach the unit to the IB-104 electrical box with the 2 included mounting screws.
2. Rotate the top cover clockwise to snap it in place.
3. Secure the top cover with the included securing screw and snap the nameplate over the securing screw.

**FIGURE 6: MOUNTING DIAGRAM**



## AUDIBLE RATINGS

Table 3: SOUND PRESSURE LEVEL OUTPUT

| SPPS-104 SERIES |                           |      |                       |      |
|-----------------|---------------------------|------|-----------------------|------|
| WATT Tap        | UL Reverberant (dBA@10ft) |      | ULC Anechoic (dBA@3m) |      |
|                 | 70                        | 25   | 70                    | 25   |
| 2               | 89.0                      | 89.0 | 87.8                  | 88.2 |
| 1               | 86.7                      | 86.8 | 85.1                  | 85.6 |
| 1/2             | 84.0                      | 83.9 | 82.3                  | 82.6 |
| 1/4             | 80.8                      | 80.7 | 78.9                  | 79.5 |
| SPP-104 SERIES  |                           |      |                       |      |
| WATT Tap        | UL Reverberant (dBA@10ft) |      | ULC Anechoic (dBA@3m) |      |
|                 | 70                        | 25   | 70                    | 25   |
| 2               | 89.2                      | 89.2 | 89.6                  | 89.4 |
| 1               | 86.5                      | 87.4 | 86.8                  | 86.8 |
| 1/2             | 83.7                      | 84.5 | 83.9                  | 83.7 |
| 1/4             | 80.5                      | 81.2 | 80.7                  | 80.5 |

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

| SPPS-104 SERIES |       |
|-----------------|-------|
| ANGLE           | dBA   |
| +40°, -43°      | -3    |
| +76°, -74°      | -6    |
| ±90°            | -10.3 |
| SPP-104 SERIES  |       |
| ANGLE           | dBA   |
| ±35°            | -3    |
| ±72°            | -6    |
| ±90°            | -10.6 |

## STROBE RATINGS

Table 5: STROBE OPERATING RMS CURRENTS (mA)

| SPPS-104 SERIES   |                 |                  |
|-------------------|-----------------|------------------|
| Candela           | Regulated 24VDC | Regulated 24VFWR |
| 15                | 33              | 33               |
| 30                | 47              | 43               |
| 75                | 111             | 115              |
| 110               | 204             | 205              |
| 125               | 295             | 277              |
| 15/75             | 112             | 120              |
| SPPS-104 H SERIES |                 |                  |
| Candela           | Regulated 24VDC | Regulated 24VFWR |
| 50                | 54              | 65               |
| 75                | 78              | 83               |
| 90                | 100             | 104              |
| 130               | 159             | 162              |
| 185               | 343             | 327              |
| 15/75             | 82              | 87               |

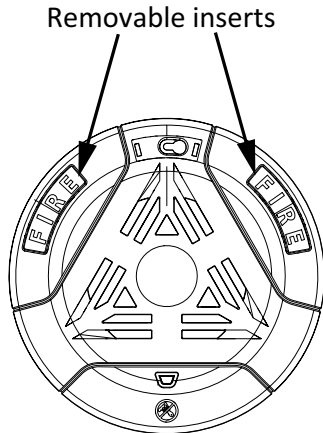
Table 6: LIGHT DISPERSION

| Degrees      | % of Candela Rating |
|--------------|---------------------|
| ± 0          | 114                 |
| ± 5          | 111                 |
| ± 10         | 106                 |
| ± 15         | 100                 |
| ± 20         | 94                  |
| ± 25         | 90                  |
| ± 30         | 87                  |
| ± 35         | 82                  |
| ± 40         | 78                  |
| ± 45         | 77                  |
| ± 50         | 77                  |
| ± 55         | 76                  |
| ± 60         | 75                  |
| ± 65         | 63                  |
| ± 70         | 43                  |
| ± 75         | 33                  |
| ± 80         | 36                  |
| ± 85         | 41                  |
| ± 90         | 39                  |
| Compound ±45 | 78                  |

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

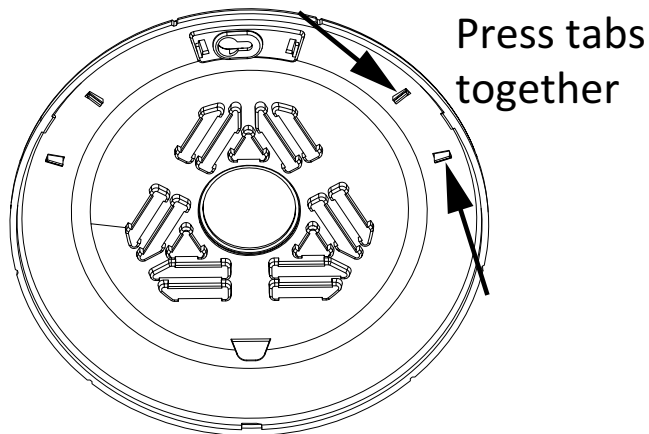
## CHANGING THE INSERTS

**FIGURE 7: LOCATION OF INSERTS**



1. Remove the nameplate, securing screw, and top cover.
2. With the thumbs of both hands, push the tabs on the inside of the top cover toward each other. The insert will snap out.
3. Snap the new insert into place.

**FIGURE 8: PRESS TABS TOWARD EACH OTHER TO REMOVE INSERT**



## MODEL NUMBERS

**SPPS-104-25** Ceiling mounted speaker strobe 25V white

**SPPS-104-70** Ceiling mounted speaker strobe 70V white

**SPPS-104-25R** Ceiling mounted speaker strobe 25V red

**SPPS-104-70R** Ceiling mounted speaker strobe 70V red

**SPPS-104-25H** Ceiling mounted speaker strobe 25V with High candela white

**SPPS-104-70H** Ceiling mounted speaker strobe 70V with High candela white

**SPPS-104-25HR** Ceiling mounted speaker strobe 25V with High candela red

**SPPS-104-70HR** Ceiling mounted speaker strobe 70V with High candela red

**SPP-104-25** Ceiling mounted speaker 25V white

**SPP-104-70** Ceiling mounted speaker 70V white

**SPP-104-25R** Ceiling mounted speaker 25V red

**SPP-104-70R** Ceiling mounted speaker 70V red

## Accessories

**IB-104** Round backbox

**SPKC-W** Optional spacer

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