

# 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:

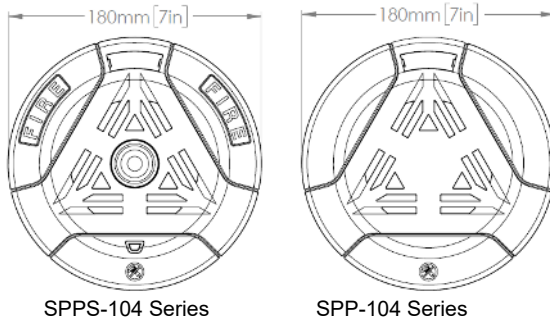


Table 1: SPECIFICATIONS

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 an MGC panel.

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

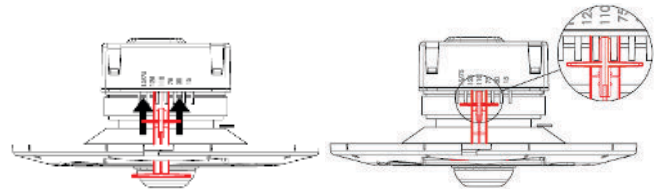
The candela can be set to 15, 30, 75, 110, 125, 15/75 for SPPS-104-25 and SPPS-104-70 models.

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

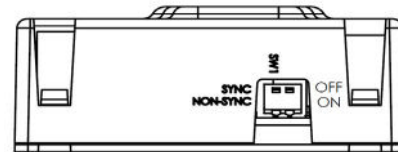


Table 2: DIP SWITCH

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

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

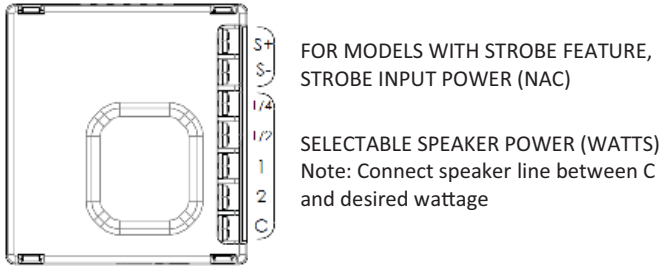
Use "NON-SYNC" when the appliances do not need to be synchronized.

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

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

**WIRING**

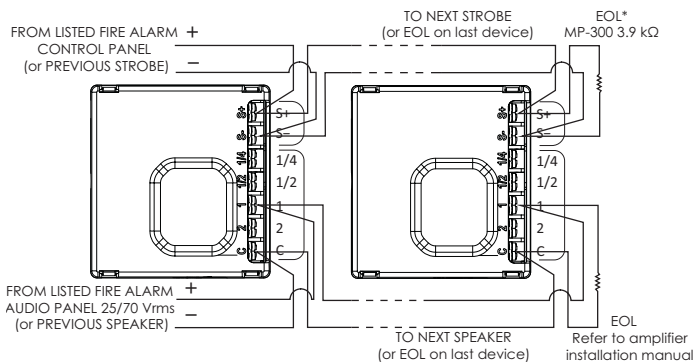
**FIGURE 4: Figure 4 WIRING TAPS**



**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. Refer to amplifier installation manual

**CAUTION**

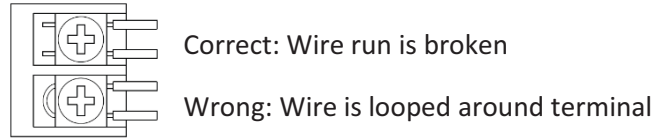
FOR ALL TERMINAL TAPS USED FOR SYSTEM SUPERVISION, DO NOT USE LOOPED WIRE UNDER TERMINALS. BREAK WIRE RUN TO PROVIDE SUPERVISION OF CONNECTIONS.

**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.



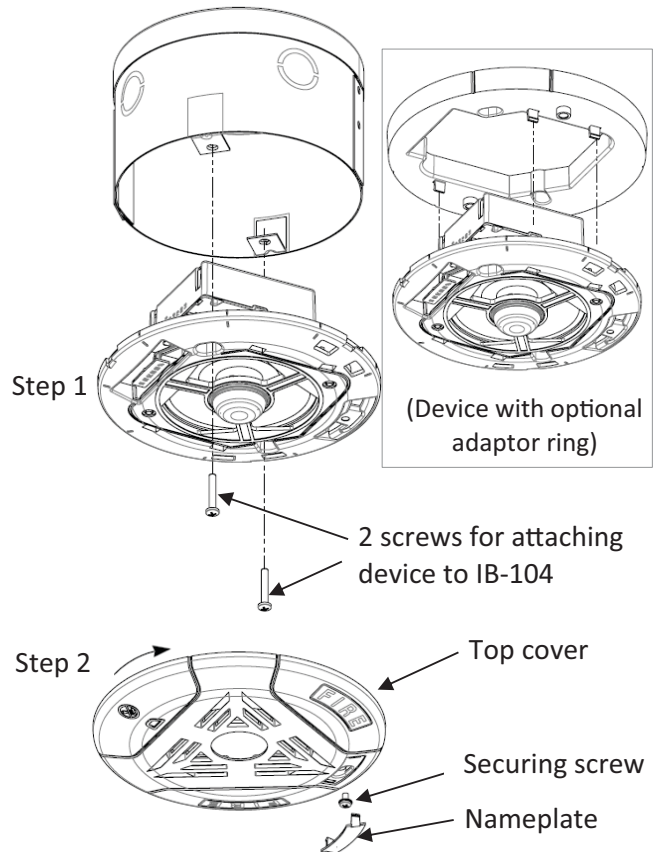
**MOUNTING**

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	100
110	204	186
125	295	277
15/75	112	100
SPPS-104 H SERIES		
Candela	Regulated 24VDC	Regulated 24VFWR
50	54	57
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.

## **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