Low Frequency 400 Series Notification Appliances - Sounder/Strobe

About this Manual

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

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

This manual covers the following models:

FHS-400-LF-WW White wall mounted low frequency sounder/strobe

FHS-400-LF-RR Red wall mounted low frequency sounder/strobe

Notes
- **DO NOT PAINT OR ALTER FACTORY APPLIED FINISH IN ANY WAY.**
- **NE PAS PEINDRE OU MODIFIER LA FINITION ORIGINALE.**
- Use the information in this document to determine the total current draw of the devices. The total current draw of the devices must not exceed the power supply of the panel. In all cases, the installer should consider the voltage drop to ensure that the last device on the circuit operates within its rated voltage.
- Wiring must be in accordance with CSA C22.1 Section 32 and NFPA 70 and NFPA 72.
- These devices cannot operate on coded power supplies.

Description

The low frequency 400 series sounder/strobe provides a wide range of low frequency audible and visual settings in a single compact device. These low frequency devices operate within a range of 520 Hz ± 10% which address the NFPA 72 sleeping space requirements. The low frequency sounder/strobe can be synchronized using an FACU or PSU with the MGC protocol or through an external sync module for compatibility with any UL/ULC listed FACU or PSU.

Sounder/strobe models are approved for wall installations.

Specifications

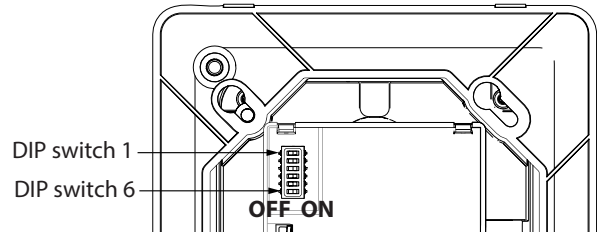|	
Operating temperature:	0°C to 50°C (32°F to 122°F)
Humidity range:	0% to 93%
Strobe flash rate:	1 Hz
Nominal Voltage:	Regulated 24 VDC / 24 VFWR
Operating Voltage Range (RMS):	16 - 33 VDC / VFWR
Frequency Range:	520 Hz ± 10%
Input terminal wire gauge:	22 AWG to 12 AWG
Installation environment:	For indoor use only

Warranty

Purchase of all MGC products is governed by:

https://www.mircom.com/product-warranty

https://www.mircom.com/purchase-terms-and-conditions

https://www.mircom.com/software-license-terms-and-conditions

Setting the DIP Switches

DIP switch 1
DIP switch 6
OFF ON

NOTE for switch 1: Use NON-SYNCHRONIZED when the appliances do not need to be synchronized. Use SYNCHRONIZED when synchronization is required, either through a sync module or built-in synchronization on the control unit.
When SYNCHRONIZED is selected, the settings for switches 3, 4 and 5 are ignored.
When NON-SYNCHRONIZED is selected, the sounder will sound only the audible pattern as selected through switches 3, 4 and 5.

Switch 2 is not used. By default it is OFF.

Input	DIP Switch 1
NON-SYNCHRONIZED	ON
SYNCHRONIZED	OFF (default)

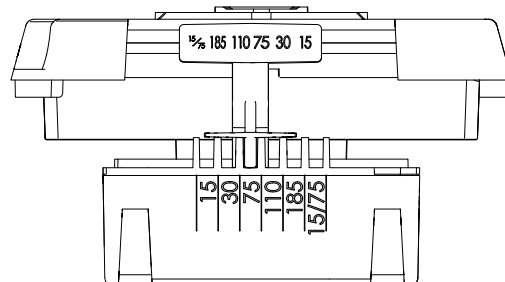| Signal Rate	DIP Switch 3	DIP Switch 4	DIP Switch 5
Continuous	OFF	OFF	OFF
March Time	OFF	ON	OFF
Temporal 3	OFF (default)	ON (default)	ON (default)
Temporal 4	ON	OFF	OFF
20 BPM	OFF	OFF	ON

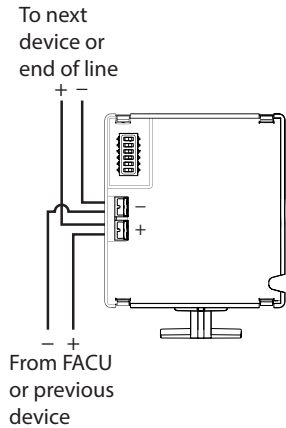| Sounder Volume	DIP Switch 6
High	ON
Normal	OFF (default)

Setting the Candela

The candela can be set to 15, 30, 75, 15/75,110 and 185. The factory default setting is 15.
1. Pull out the plastic selector tab from the back of 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.
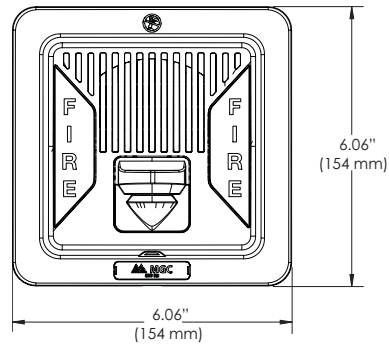
Note: Select the candela setting before installing the device in the mounting plate.
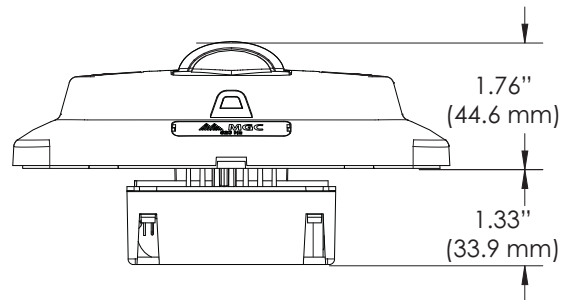
Wiring

To next
device or
end of line

+ −

From FACU
or previous
device

− +

Dimensions

6.06"
(154 mm)

6.06"
(154 mm)

Front view

1.76"
(44.6 mm)

1.33"
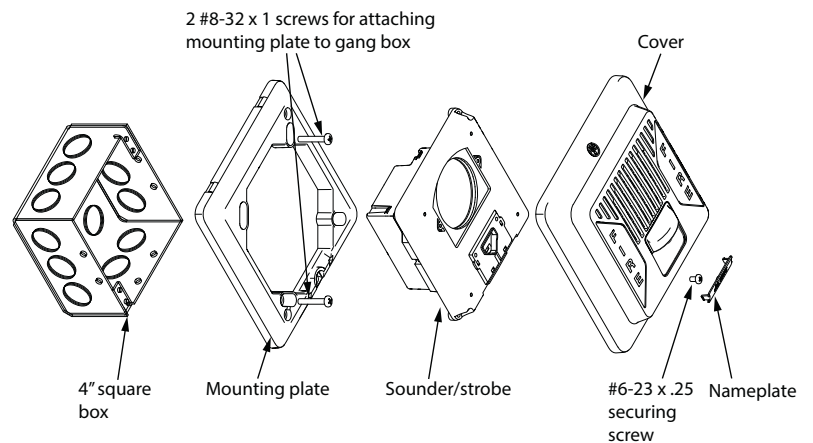(33.9 mm)

Bottom view

Mounting FHS-400-LF-RR and FHS-400-LF-WW to the Wall

MGC recommends spacing notification appliances in compliance with CAN/ULC S524 and NFPA 72.

Mount the unit with the MGC logo at the bottom. The appliance is compatible with double gang or 4" square boxes.
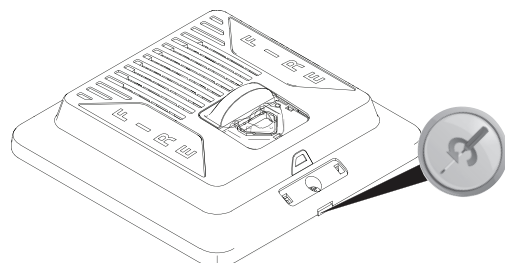
1. Before mounting, disassemble the unit as shown on the right. Remove the nameplate and securing screw first.
2. Attach the mounting plate to the electrical box with the 2 included mounting screws.
3. Fit the sounder/strobe in the mounting plate.
4. Attach the cover with the included securing screw and snap the nameplate over the securing screw.

Note: Set the DIP switches and the candela selector before installing the device in the mounting plate.

2 #8-32 x 1 screws for attaching
mounting plate to gang box

Cover

4" square
box

Mounting plate

Sounder/strobe

#6-23 x .25
securing
screw

Nameplate

Removing the Cover from the Mounting Plate

To remove the cover from the mounting plate, remove the nameplate and the securing screw, then insert a flathead screwdriver into the slot between the cover and the mounting plate, and rotate the screwdriver.

Operating RMS Currents (mA)

Sounder/Strobe Operating RMS Currents (mA)

	16 VDC - 33 VDC				16 VFWR - 33 VFWR			
	Coded Tone*		Continuous Tone		Coded Tone*		Continuous Tone	
Candela	Normal Volume	High Volume	Normal Volume	High Volume	Normal Volume	High Volume	Normal Volume	High Volume
15	266	257	278	300	277	309	303	330
30	242	260	245	263	302	350	268	300
75	307	340	315	336	380	450	360	380
15/75	298	320	301	322	297	330	317	350
110**	320	340	318	338	440	470	360	400
185**	400	390	399	424	430	450	450	480

* Coded tone is representative of T4, T3 and 20bpm.

** For General Signaling only.

Audible Ratings

Overall Sound Pressure Level (Reverberant) @ 10 feet (dBA)

Volume	16 VDC	24 VDC	33 VDC	16 VFWR	24 VFWR	33 VFWR
High	81	81	81	81	82	82
Normal	78	78	79	79	79	79

Testing conducted on continuous tone.

Directional Sound Characteristics

Horizontal Axis	OSPL (dBA)
± 87°	−3
± 90°	−5.1

Vertical Axis	OSPL (dBA)
± 90°	−3

At no point was there a 6 dBA decrease.

Light Output

Note: The following values are shown as percentages of the rated light output at any candela setting.

Degrees	% of Candela Rating	
	Horizontal Dispersion	Vertical Dispersion, Wall to Floor
±0	149	148
±5	146	149
±10	143	153
±15	138	135
±20	134	104
±25	128	101
±30	123	94
±35	116	92
±40	106	84
±45	99	75
±50	92	68
±55	87	65
±60	82	61
±65	78	58
±70	75	54
±75	73	49
±80	72	43
±85	81	40
±90	53	30
Compound±45°	42	