

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:

FH-400-RR-WP Weather protected wall/ceiling mounted horn, red

FS-400-RR-WP Weather protected wall mounted strobe, red

FHS-400-RR-WP Weather protected wall mounted horn/strobe, red

Notes

- DO NOT PAINT OR ALTER FACTORY APPLIED FINISH IN ANY WAY.
- Input terminal wire gauge: 22 AWG to 12 AWG.
- 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 FACU. In all cases, the installer should consider the voltage drop to ensure that the last device on the circuit operates within its rated voltage.
- Maximum line resistance for a single wall mounted unit at 15 candela is 150 Ω.
- Wiring must be in accordance with CSA C22.1 Section 32, NFPA 70, and NFPA 72.
- These devices cannot operate on coded power supplies.

Description

The 400 series weather-protected horn, strobe and horn/strobe NAC devices provide a wide range of audible and visual settings in a single compact device. The audible settings include Temporal 3, Continuous, March Time and 20 BPM tones that can each be set for Low or High volume settings. The candela settings can be field-configured for 15, 30, 75, 110, 185, and 15/75 cd.

Dimensions

8 5/8" (219 mm) W

7 7/16" (189 mm) H

4 5/8" (117 mm) D

Specifications

Operating temperature:	-40 °C to +66 °C (-40 F to 151 F)
Humidity range:	95% relative humidity at 60 °C (140 F)
Strobe flash rate:	1 Hz
Nominal voltage:	Regulated 24 VDC / 24 VFWR
Operating voltage range (RMS):	16-33 VDC/VFWR
Input terminal wire gauge:	22 AWG to 12 AWG
Installation environment:	Outdoor environment wet location

The Kit Includes

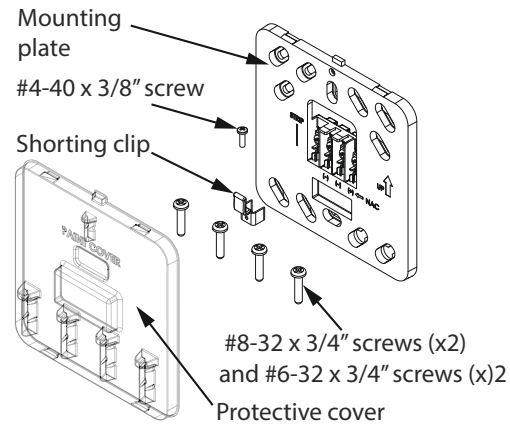
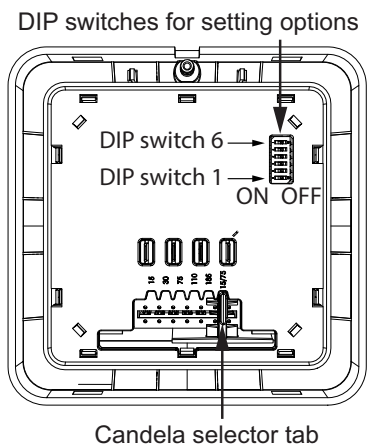


Figure 1 Included parts

Setting the Candela (FS-400-RR-WP and FHS-400-RR-WP only)

The candela can be set to 15, 30, 75, 110, 185, and 15/75. 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.



Setting the DIP Switches

Note: DIP switches 2 and 3 are not used. By default they are OFF.

NOTE for DIP switch 1: Use **NON-SYNCHRONIZED** when the appliances do not need to be synchronized. Use **SYNCHRONIZED** when synchronization is required, either through an external sync module or compatible FACU or PSU supporting MGC sync protocol.

Input	DIP Switch 1	
Regulated 24 VDC/FWR (Non-synchronized)	ON	
Synchronized	OFF (default)	
Signal Rate	DIP Switch 4	DIP Switch 5
Continuous	OFF	OFF
March Time	ON	OFF
Temporal 3	ON (default)	ON (default)
20 BPM	OFF	ON
Horn Volume	DIP Switch 6	
High	ON (default)	
Low	OFF	

Shorting Clip

In order to test the wiring, place the shorting clip on the middle two terminals after wiring.

Remove the shorting clip before mounting the device.

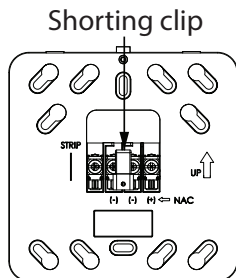


Figure 2 Shorting clip

Wiring

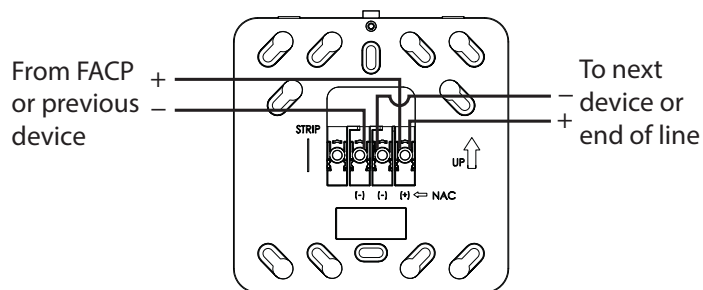


Figure 3 Wiring

Weather-Protected Enclosure

The enclosure is rated for Outdoor Environment Wet Location.

-40 °C to +66 °C (-40 F to 151 F)

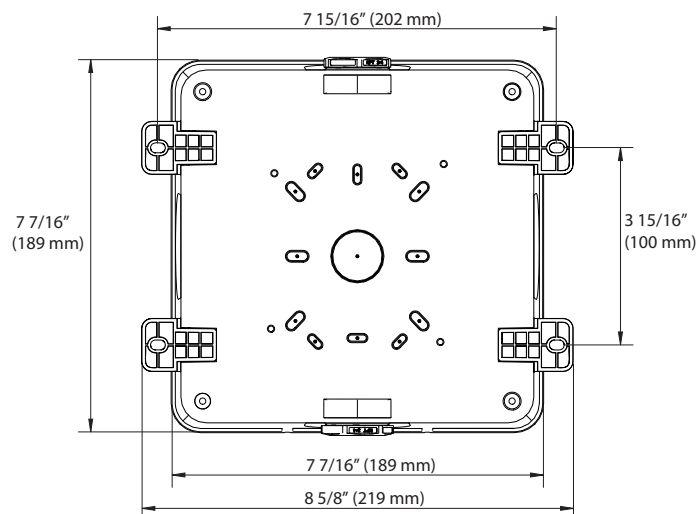


Figure 4 Enclosure bottom view

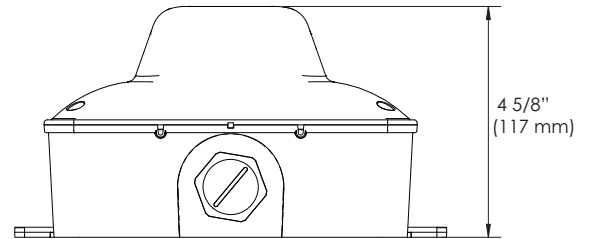


Figure 5 Enclosure side view

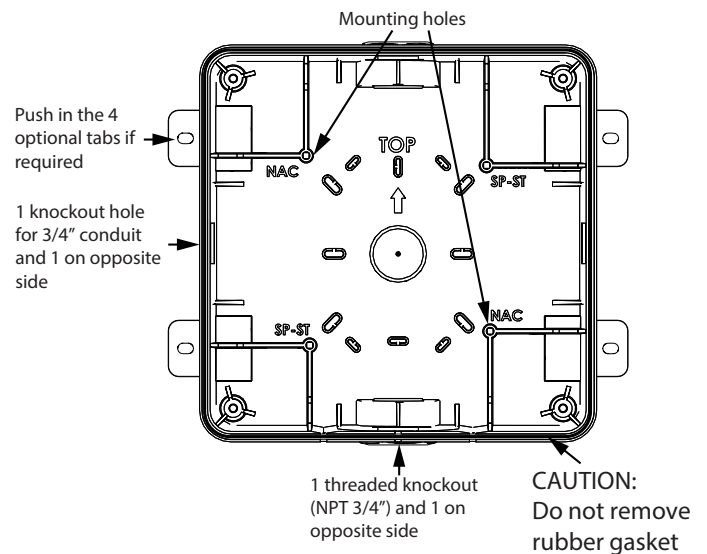
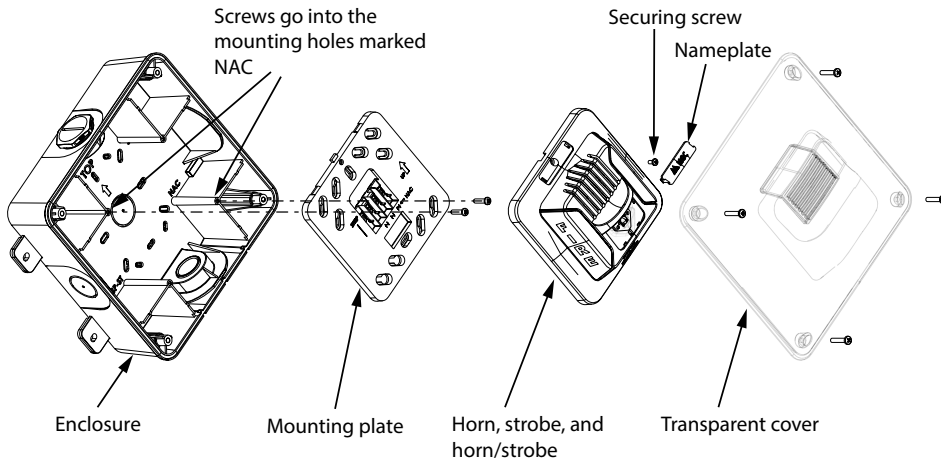


Figure 6 Enclosure top view without cover

Mounting to the Wall or Ceiling

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

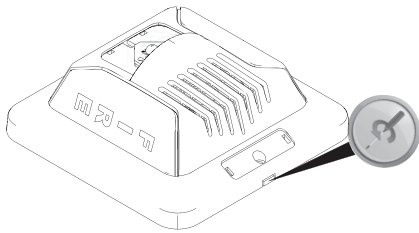
Mount the unit directly to the wall or ceiling depending on the model. When mounting on the wall, mount the enclosure with the word TOP at the top, and mount the device with the MGC nameplate at the top.



1. Before mounting, disassemble the unit as show in figure 7.
2. Secure the enclosure directly to the wall or ceiling.
3. Attach the mounting plate to the holes marked NAC in the enclosure with the 2 included screws.
4. Snap the horn, strobe, or horn/strobe on to the mounting plate and secure it with the securing screw. Snap the nameplate over the screw.
5. Secure the transparent cover over the assembly with the 4 included screws.

Figure 7 Mount a horn, strobe, and horn/strobe in enclosure

Removing the Device from the Mounting Plate



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

Operating RMS Currents (mA)

FS-400-RR-WP Strobe Operating RMS Currents (mA)

Candela	Regulated 24 VDC (16-33 VDC)	Regulated 24 VFWR (16-33 VFWR)
15	28	64
30	44	106
75	108	189
15/75	109	189
110*	115	189
185*	221	241

* For General Signaling only

FH-400-RR-WP Horn Operating RMS Currents (mA)

Volume	Regulated 24 VDC, all tones	Regulated 24 VFWR, all tones
High	37	37
Low	22	24

FHS-400-RR-WP Horn/Strobe Operating RMS Currents (mA)

Candela	Regulated 24 VDC		Regulated 24 VFWR	
	Coded Tone *, High Volume **	Continuous Tone, High Volume	Coded Tone *, High Volume **	Continuous Tone, High Volume
15	38	51	69	73
30	52	65	99	102
75	112	125	189	194
15/75	113	126	190	196
110***	115	130	190	199
185***	204	225	236	243

* Coded Tone is representative of Temporal, March, and 20 BPM tones.

** High volume is representative of low volume.

*** For General Signaling only

Audible Ratings**Overall Sound Pressure Level (Reverberant) @ 10 feet (dBA) for FH-400-RR-WP, FHS-400-RR-WP**

Volume	16 VDC	24 VDC	33 VDC	16 VFWR	24 VFWR	33 VFWR
High	83.1	85.6	85.8	79.7	81.5	82.6
Low	77	80.6	82	75.3	77.6	79.3

Testing conducted on continuous tone, representative of Temporal, Coded, and 20 BPM tones.

Directional Sound Characteristics for FH-400-RR-WP, FHS-400-RR-WP

Horizontal Axis	
± 29°	-3 dbA
± 48°	-6 dbA
± 90°	-9.9 dbA
Vertical Axis	
± 46°	-3 dbA
± 72°	-6 dbA
± 90°	-7.3 dbA

Light Output for FHS-400-RR-WP and FS-400-RR-WP

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	184	188
±5	178	204
±10	173	195
±15	169	158
±20	162	124
±25	153	125
±30	147	114
±35	143	109
±40	136	94
±45	140	82
±50	150	74
±55	128	77
±60	75	73
±65	75	66
±70	57	65
±75	61	52
±80	69	45
±85	77	39
±90	63	32
Compound±45°	51	-

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>

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