

Notification Appliances

FW2961, FW2971, FW2981

Conventional & Addressable



Overview

The Series 2 Maple Armor Horn, Strobe, and Horn-Strobe appliances are a comprehensive family of audible and visual signaling appliances, combining contemporary design with energy-efficient performance.

They are engineered to operate in conventional and addressable operation modes, offering unparalleled versatility for a wide range of applications. In addressable mode, each device is equipped with intelligent communication capabilities, allowing it to report its precise location and status directly to the control panel.

The appliances provide a wide array of field-configurable audible and visual settings. The light intensity (candela) can be adjusted on-site to 15, 30, 75, 110, 140, or 177 cd. Additionally, multiple sound patterns are available, each with seven selectable sound output levels. All settings can be conveniently configured via a handheld programmer or directly through the control panel.

The strobe appliances produce a flash rate of one flash per second over the regulated voltage range. The temporal tone generated by the horn portion is designed in accordance with ANSI and NFPA 72 for standard emergency evacuation signaling requirements.

All Series 2 signaling appliances are designed to be installed on the same installation base as previous Maple Armor appliances, and they are compatible with Series 1 control panels, making them ideal not only for new installations but also for retrofits.

Features

- Modern design
- Conventional Mode
- Addressable Mode
- High-intensity LED light source
- Approved for ceiling and wall mounting
- Easy installation
- Fits on North American single-gang, 3.5" octagon, and 4" square electrical boxes
- Designed with energy efficiency
 - More devices per circuit
 - Longer circuit wire runs
 - Lower wire gauge
 - Less installation cost
- Six selectable strobe intensity
 - 15, 30, 75, 110, 140, or 177 cd
- Seven selectable horn output levels
 - From 67 dBA to 93 dBA
- Six Selectable horn patterns
 - Temporal 3
 - Temporal 4
 - Steady
 - March time 20 bpm
 - March time 60 bpm
 - March time 120 bpm
- Available in White and Red color finish
- Compatible with all Maple Armor control panels

Operation

Two-Wire operation

This enables both the horn and strobe to be wired and activated on the same NAC circuit in both conventional and addressable modes. This configuration allows the horn to be silenced while the strobe continues to flash. The horn continues to sound until it is silenced, while the strobe keeps flashing until it is reset.

Synchronization Sources

- Maple Armor FW2105 and FW2107 Fire Alarm Control Panels
- NAC Booster FW131
- Sync Module FW951

Note: refer to each panel data sheet for more information

Field Configuration

All the Series 2 signaling appliances come with factory preset sound and light parameters

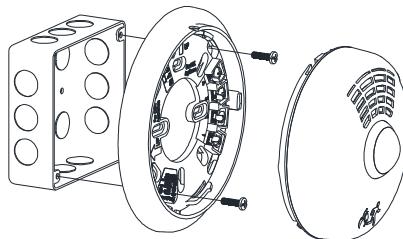
- The FW2961 horn-strobe comes pre-set to 15 cd strobe light intensity and 86dBA sound output level.
- The FW2971 horn comes pre-set to 86dBA sound output level.
- The FW2981 strobe comes pre-set to 15 cd strobe light intensity.

In **Conventional** operation mode, use the Maple Armor handheld programmer FW2411 to set the desired audible and/or visual settings before installing the appliance.

While in **Addressable** operation mode, audible and/or visual settings are configured through the control panel configurator.

Installation

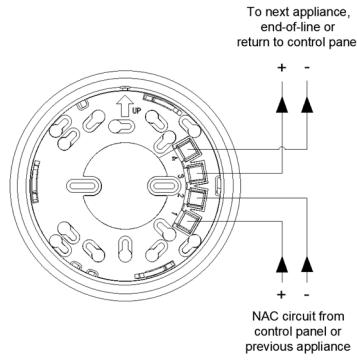
All Series 2 strobes, horns, and horn-strobes mount to universal appliance bases, which provide easy installation, wiring, and testing before the appliance is installed. The circular shape design requires minimal leveling.



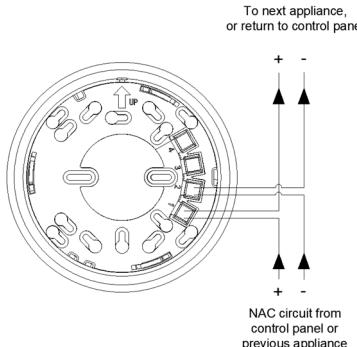
The bases can be mounted to any standard North American single-gang, octagon, 4-inch square electrical box. Assemble the appliance device by aligning it onto the base and twisting it clockwise.

Wiring

Field wiring is to be completed using the terminal screws provided on the universal installation base, and it can accommodate #18 to #12 AWG (0.82 mm² to 3.31 mm²).



Conventional Mode Wiring



Addressable Mode Wiring

Note: The installation is to be performed according to the latest applicable codes and standards.

Sound Output

ULC Directional Sound Characteristics

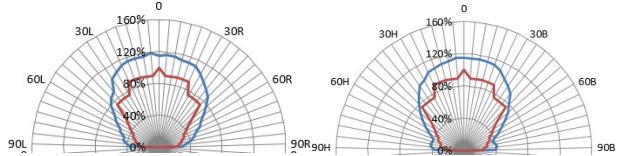
Axis	Angle	OSPL (dBA)
Horizontal	0° (ref)	0 (ref)
	± 56°	- 3 dBA
	± 60°	- 6 dBA
	± 90°	- 4.9 dBA
Vertical	0° (ref)	0 (ref)
	± 45°	- 3 dBA
	± 61°	- 6 dBA
	± 90°	- 6.9 dBA

Horn-Strobe - Sound Output

FW2961		OSPL (dBA) at 3 meters (10 ft)					
		UL 464 Reverberant			ULC-S525 Anechoic		
Volume	16Vdc	24Vdc	33Vdc	16Vdc	24Vdc	33Vdc	
A(Highest)	84	87	88	89	92	93	
B	82	86	86	88	90	90	
C	82	83	83	86	88	88	
D	80	80	80	85	85	85	
E	77	77	77	81	81	82	
F	71	71	71	76	76	76	
G (Lowest)	67	67	67	71	71	71	

Light Output

The light outputs compared to the UL minimum requirement



--- UL Limit (percent)

--- appliance intensity (percent)

Horn - Sound Output

FW2971		OSPL (dBA) at 3 meters (10 ft)					
		UL 464 Reverberant			ULC-S525 Anechoic		
Volume	16Vdc	24Vdc	33Vdc	16Vdc	24Vdc	33Vdc	
A (Highest)	88	89	89	92	93	93	
B	85	86	86	90	91	91	
C	83	83	83	88	88	88	
D	80	80	80	85	85	85	
E	76	77	77	82	82	82	
F	72	72	72	77	77	77	
G (Lowest)	67	67	67	72	72	72	

Current Draw

FW2981 Horn-Strobe - RMS Operating Current (mA)

FW2961		Light Intensity					
Sound Setting	177 cd	140 cd	110 cd	75 cd	30 cd	15 cd	
A (Highest)	194	156	127	99	50	36	
B	189	151	123	94	45	31	
C	186	148	120	91	43	29	
D	185	146	118	89	41	27	
E	183	145	117	88	40	25	
F	181	144	115	86	38	24	
G (Lowest)	181	143	114	85	37	23	

FW2971 Horn - RMS Operating Current (mA)

Sound Level	A	B	C	D	E	F	G
RMS Current (mA)	18	13	10	9	9	9	9

FW2981 Strobe - RMS Operating Current (mA)

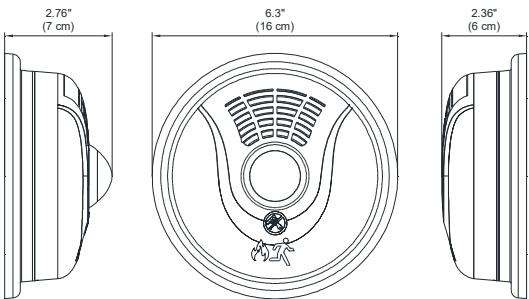
Light Intensity	177 cd	140 cd	110 cd	75 cd	30 cd	15 cd
RMS Current (mA)	186	145	116	85	26	22

Addressable Mode Standby Current (mA)

Voltage	FW2961	FW2971	FW2981
16 VDC	3.3	2.4	2.9
33 VDC	3.7	3.9	4.6

Dimensions

FW2961 Horn-Strobe, FW2971 Horn, and FW2981 Strobe dimensions with installation base



Specifications

Operating Voltage	16 to 33 VDC (regulated 24VDC)
Effective Light Output (cd)	15, 30, 75, 110, 140, 177 cd
Audible Pattern	Temporal 3, temporal 4, steady, 20bpm, 60bpm, 120bpm
Strobe Flash Rate	1 flash per second
Wire Size	18 to 12 AWG (0.82 mm ² to 3.31 mm ²)
Operating Temperature	0° C to 49° C (32° F to 120° F)
Operating Humidity	0 to 93% RH Non-condensing
Installation Environment	For indoor use only, Wall and Ceiling mount
Compatible FACP	FW105, FW106, FW106S, FW131, FW2105, FW2107
Compatible Base	FW901

Ordering Information

Model	Housing Color	Description	Ship Wt. Kg (lbs)
FW2961W	White	Horn-Strobe, Ceiling/Wall	0.3 (0.66)
FW2961R	Red	Horn-Strobe, Ceiling/Wall	
FW2971W	White	Horn, Ceiling/Wall	0.3 (0.66)
FW2971R	Red	Horn, Ceiling/Wall	
FW2981W	White	Strobe, Ceiling/Wall	0.3 (0.66)
FW2981R	Red	Strobe, Ceiling/Wall	
Accessories			
FW901W	White	Appliance Installation Base	0.1 (0.22)
FW901R	Red	Appliance Installation Base	
FW951	-	Sync Module	0.140 (0.31)

*Appliance Installation Bases are ordered separately.