

Model SAF101H Electronic Handheld Siren



Installation and operation manual

Notice to installer

Before installation and use -- read all instructions and warnings.
Deliver this manual to the end user of this equipment.

Doc. No.: SAF101H Siren_v.1

Button Mapping:

The switches **SW1**, **SW2** and **SW3** may be mapped with other buttons to grouped according to your usage and application needs.

1. Press and hold **SIREN** and **RADIO** for 3 second to enter PROGRAMMING MODE. **VOL-** and **VOL+** will blink to indicate that you are in PROGRAMMING MODE.
2. While in PROGRAMMING MODE, press the desired button to program (i.e. **SW1**, **SW2** or **SW3**).
3. While the programing switch blinks, press the desired button(s) that you would like to map with this switch. The possible button combinations are as followed:

Setting Mapping with	SW1	SW2	SW3
SW1	—	O	O
SW2	X	—	O
SW3	X	X	—
LIGHT (SW4)	O	O	O
SIREN	O	O	O

4. Once set, press the programmed button again to save the binding. You may then program another button.
5. Once every switch is set, press and hold **SIREN** and **RADIO** for 3 second to exit PROGRAMMING MODE. **VOL-** and **VOL+** will stop blinking to indicate that you have exited from PROGRAMMING MODE.

PROGRAMMING

Tone Setting:

The Siren may be set to different tone according to your usage and application needs.

1. Press and hold **SIREN** and **RADIO** for 3 second to enter PROGRAMMING MODE. **VOL-** and **VOL+** will blink to indicate that you are in PROGRAMMING MODE.
2. While in PROGRAMMING MODE, press **SIREN** button once and press **LIGHT** to change to the next Siren Tone until your desired Tone is selected.
3. Once set, press and hold **SIREN** and **RADIO** for 3 second to exit PROGRAMMING MODE. **VOL-** and **VOL+** will stop blinking to indicate that you have exited from PROGRAMMING MODE.

#	SIREN TONE CHART
1	WAIL (Default)
2	YELP
3	PHASER
4	HI/LO

Siren Volume Adjustment Lock:

The Siren Tone volume is locked by default to avoid changing of sound volume during regular usage.

1. Press and hold **SIREN** and **RADIO** for 3 second to enter PROGRAMMING MODE. **VOL-** and **VOL+** will blink to indicate that you are in PROGRAMMING MODE.
2. While in PROGRAMMING MODE, press **SIREN** button once and turn ON or OFF **RADIO** button for the following scenario:

RADIO button	ON	OFF
Volume Adjustment	Locked (Default)	Adjustable

3. Once set, press **MAN** button again to save the setting; press and hold **SIREN** and **RADIO** for 3 second to exit PROGRAMMING MODE. **VOL-** and **VOL+** will stop blinking to indicate that you have exited from PROGRAMMING MODE.

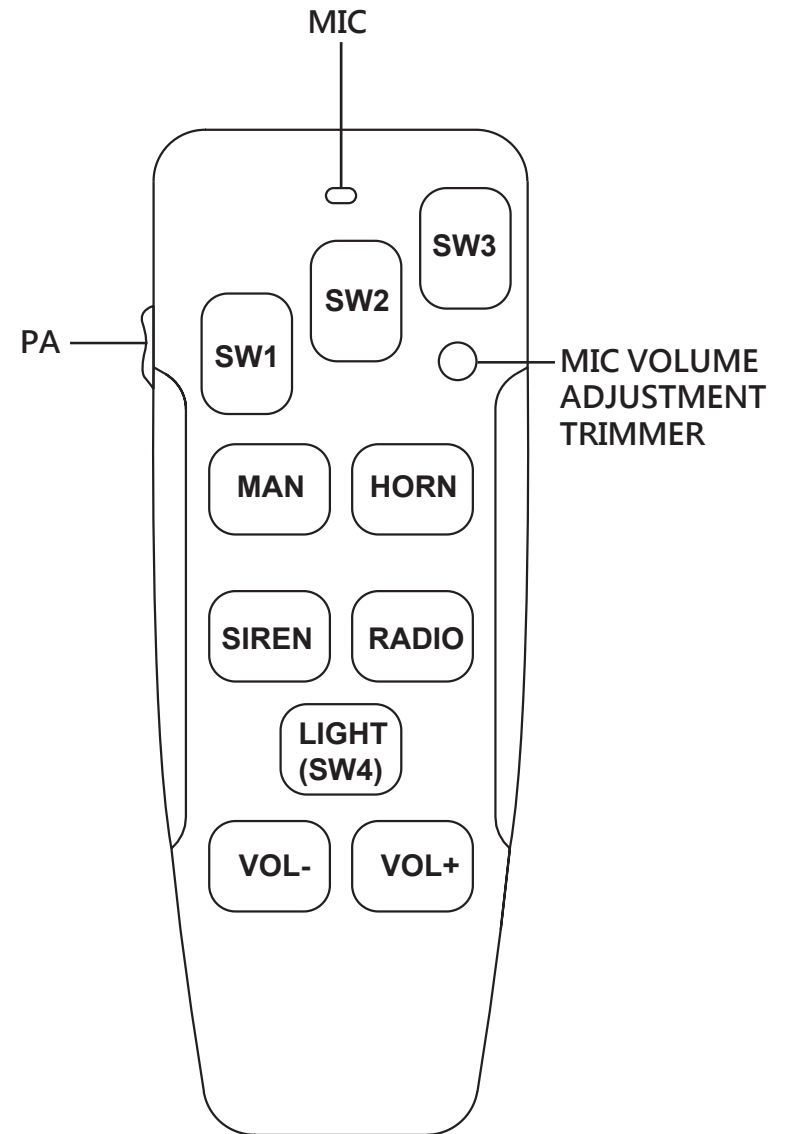
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SPECIFICATIONS

Input Voltage	10-16VDC (negative ground)				
Siren Input Current	10Amps (@13.6VDC - single 100W speaker)				
Siren Standby Current	Less than 150mA				
Audio Frequency	200Hz - 10kHz ± 3db				
Siren Output Power	40 watts (@13.6VDC-single 100W speaker)				
Siren Output Power	100 Watts RMS MAX. (14VDC - dual 100W speakers)				
Output Load	Single 11 Ohm Speaker				
Siren Frequency	725Hz - 1465Hz				
Tones/ Cycle Rates	HORN	WAIL	YELP	PHASER	HI/LO
Cycle Rates	Composite (Constant)	12CPM	190CPM	650CPM	60CPM
Operating Temp	-25° C to +60° C (-15° F to +140° F)				
Siren Controls	3 push-button Mode switch (SIREN, RADIO, PA).				
	Momentary push-button Horn switch.				
	Momentary push-button Manual/Tone toggle switch.				
	IGN (Ignition) Input Connection.				
Light Controls	4 - on/off lighted push-button switches with replaceable legends.				
	Light Output Ragings				
Siren and Light Control Connections (Removable 12-P Terminal Block)	Built-in 0.2A fuse on each of the 4 outputs.				
Siren and Light Control Connections (Removable 12-P Terminal Block)	SW1, SW2, SW3, SW4 (Light), +VDC, -GND, IGN(Ignition), RAD(Radio) x2, HORN(Horn Ring Transfer), SPK x2 .				
Size	Siren Amplifier 161mm x 178mm x 69cm Controller: 5.6cm x 14cm x 3.3cm				
Boxed Weight	1.5kg				

front view Handheld controller



CONTROLLER FUNCTION

Before any operation, apply positive voltage to the IGN (Ignition) terminal at the rear to power-up the unit.

PA: Activate Microphone for PA Broadcast through the siren speaker. This Button overrides all other acoustic function (i.e. Air Horn, Siren Tone and Radio Rebroadcast) while it is activated.

SW1: Activate SW1 Connection. It may be set to activate Button LIGHT and/or SIREN upon activation. (See “PROGRAMMING” section for more details)

SW2: Activate SW2 Connection. It may be set to activate Button SW1, LIGHT and/or SIREN upon activation. (See “PROGRAMMING” section for more details)

SW3: Activate SW3 Connection. It may be set to activate Button SW1, SW2, LIGHT and/or SIREN upon activation. (See “PROGRAMMING” section for more details)

MAN: When the Siren Tone is not activated, this button generates Manual WAIL Tone that will ramp up to sustain a specific pitch until it is released and ramp down to its default. When the Siren Tone is activated, trigger Tone Change(see chart below); push again to return to the previous Siren Tone.

HORN: Momentarily activate the Air HORN Tone until it is released. This tone will override all other Siren Tones and Radio Rebroadcast while it is activated. This function can also be activated through the HORN input terminal at the rear.

SIREN: Activate SIREN Tone. (To set siren tone, See “PROGRAMMING” section for more details) This Button will override the RADIO Rebroadcast upon activation.

RADIO: Activate RADIO Rebroadcast through the siren speaker. This Button will override the SIREN Tone upon activation.

LIGHT: Activate SW4 Connection.

VOL-: Lower the sound Volume of SIREN Tone, MIC Broadcast or RADIO Rebroadcast when they are activated respectively. (The Siren Tone volume is locked by default. To unlock, see “PROGRAMMING” section for more details)

VOL+: Increase the sound Volume of SIREN Tone, MIC Broadcast or RADIO Rebroadcast when they are activated respectively. (The Siren Tone volume is locked by default. To unlock, see “PROGRAMMING” section for more details)


Mic Volume Adjustment Trimmer: The trimmer (located on the controller front panel right below the SW3 button) sets the maximum level that the Mic volume will reach with the Volume control in the fully clockwise position.

INSTALLATION

It is essential to install the unit properly to ensure safe and reliable operation. Please read through all instructions thoroughly and carefully before installing the unit. Failure to follow these instructions could result in serious damage to the unit or vehicle and may void warranties. The correct mounting and wiring is the key to the effectiveness of SAF101H siren. Installers must read and follow installation instructions and warnings in the manual from original manufacturer. The vehicle operator should verify the siren system is fastened to the vehicle securely and is functioning properly. Failure to follow all safety precautions and instructions may cause property damage, injury, or death.

WARNING: The installer must have good knowledge of electricity, vehicle electrical systems and emergency equipment. Always seek professional assistance if in doubt.

WARNING **Sound Hazard** - Sound level from siren speaker (>120dBA @ 10 feet) may cause hearing damage. Do not operate siren without adequate hearing protection for you and anyone in immediate vicinity. (Ref. OSHA 1910.95 for occupational noise exposure guidelines)



CONTENTS

Inspect the product contents carefully to see if there is shipping damage or missing content.

Contents include:

1 pc – Siren (Amplifier)	1 pc – Handheld Controller
1 set – Mounting Kit	1 set – 15 Button Plates
1 sheet – Button Decals	1 pc – User Manual

Please contact supplier immediately if any component is missing or damaged.

MOUNTING

Mount the siren unit in a location that is not exposed directly to weather elements such as the driver compartment firewall, below the seat, or in the trunk; and away from any air bag deployment areas. Mount the handheld controller in an area where it can be easily accessed by the vehicle operator, and not affect the vehicle the air bag. Be sure that all wiring harness connections are made prior to connecting the harness to the amplifier unit.

Wire Clip: You may use the provided wire clip to secure the cord of the Handheld Controller to the side screw of the Siren Amplifier Unit.



WARNING: Do not interfere with the proper operation of the vehicle airbag deployment system. Ensure to install “Operation Warning Label” in the vehicle in an area that is clearly visible to operators and passengers.

Note: Avoid mounting the amplifier unit with wiring harness face down. This may cause harness connection to fall off during harsh sudden impact.

