

# THE *SA-361* DEFENDER

from

**CARSON**  
SIRENS



## *“Affordable Remote Siren”*

The **SA-361 DEFENDER** remote siren combines simple operation, reliable performance, rugged durability, and complete versatility all in an affordable package. The sleek and tough remote **DEFENDER** is engineered to meet the application needs of both volunteer firefighters and motorcycle police as well as others. Easy, flexible installation and customization options make this siren a relatively simple project even for the most inexperienced installer. Select the **DEFENDER** with the remote switch panel for typical applications or as an amplifier only when connecting to existing switches like in motorcycle applications.

The **SA-361 DEFENDER** has several options that are usually only found in full-featured sirens including the following features:

- **Output Diagnostics Indicator:** Sensors at the speaker lead wire connection on the printed circuit board measure when the siren is creating an output to the speaker and indicates the status on the face using an LED light. This provides the service person with the ability to determine if the problem is internal with the siren or external with the wiring and speaker should the system fail to produce a warning signal.

- **DIP Switch Programmable:** Flexible DIP Switch programming allows the installer to sample different settings before selecting desired functions. Options include disabling Phaser and Air Horn to be California Title 13 compatible, replacing Phaser with Two-Tone/HiLo, selecting Phaser or Horn Ring Cyclers 2 operation through the auxiliary input, setting the auxiliary and remote switches input polarity and format the siren to operate with a motorcycles switches. The DIP switch options also allow all of the siren tones except Air Horn to be disabled to create an Air Horn Only siren.

- **Motorcycle Mode:** Allows the siren to be formatted to work with the motorcycles existing switches. When the Motorcycle mode is selected, the Wail input becomes a Wail/Yelp toggle and the Yelp input becomes an active Standby. The remaining features, options, and inputs will function the same as in the normal mode.

- **Horn Ring Cyclers 2:** Allow the operator the capability to run the siren tones from the vehicles horn ring or other external switching for hands free tone selection during pursuit or rescue situations.

The **SA-361 DEFENDER** always answers the call.

**SA-361 DEFENDER**

# SA-361 DEFENDER

## Specifications

Siren	
Input Voltage	9 - 16 VDC (negative ground)
Input Current	8 Amps @ 14 VDC
Standby Current	Less than 125 ma
Output Power	105W RMS Max (@ 15 VDC - single 100W speaker)
Siren Frequency	700Hz - 1500Hz (Two-Tone & Air Horn = 435 & 585Hz)
Tones/Cycle Rates	Horn = 109 CPS, Wail = 13 CPM, Yelp = 190 CPM, Phaser = 15 CPS, Two-Tone = 60 CPM
High Voltage Protection	16 - 18 VDC output ceases, resumes at normal level
Short Circuit Current	50 Amps Min. from supply circuit
Operation Temperature	-15F to 140F
Controls	3 Position rocker switch for siren tone selection, 3 position momentary rocker switch for Manual/Phaser and Horn override, auxiliary input for +/- Horn, Phaser or HRC2 operation, and 8 position DIP switch option selector, Motorcycle mode has alternate Wail/Yelp, Standby, Horn, Manual/Phaser switch inputs
Siren Connections	10 Lead Wires: positive with in-line fuse, negative, 2 speaker, auxiliary input, remote enable input, and 4 tone switch inputs
General	
Size	6" Wide, 2" High, 6" Deep
Shipping Weight	3 Lbs
Ratings Met	Class A Sound Level, California Title 13

## Features

- Compact 100 watt amplifier with remote switch panel
- Three position rocker switch for tone selection with positions for Wail and Yelp
- Three position momentary rocker switch for Manual/Phaser and Air Horn override
- Output indicator light on the face for diagnostics
- Horn Ring Cyclor 2 (HRC2) for hands free siren control for pursuit and rescue situations
- Externally Exposed In-Line fuse to protect the siren
- Flexible DIP switch programmable options
- Enable Input or Instant On option to power up the siren
- Motorcycle mode for connecting to existing switches to toggle between Wail and Yelp
- Six lead wire connections
- No-hassle 5-year limited warranty

	<b>SA-361 DEFENDER</b>	Federal Signal MS4000U	Whelen Alpha 12R	Code 3 Compact 3920	Signal Vehicle Products SS651	Able 2/Sho-Me 30.2106/9	Able 2/Sho-Me 30.2104
Flexible DIP Switch Programmability	Yes		Yes				
Auxiliary Input & Horn Ring Capabilities	Yes		Yes				
6 or More Different Siren Tones Available	Yes		Yes		Yes		
Fused Power Input	Yes	Yes	Yes				
Speaker Diagnostics	Yes						
Motorcycle Mode	Yes						
5-Year Warranty	Yes						

**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)