

PA640 SIREN



PA640 siren (model 640000 pictured) Advanced electronics with built-in versatility

Federal Signal has taken another giant step as the leader in siren electronics technology. Crystal controlled microprocessors, integrated circuits and silicon based output transistors work together to make the PA640 the most reliable, most versatile totally enclosed siren/light controller available. Years of design and manufacturing experience has allowed Federal Signal to incorporate the most desired features along with advanced electronics into one affordable and compact siren package.

PA640 sirens provide 100-watt output and will meet Class A and SAE J1849 requirements for sound when paired with any Federal Signal high output speaker. Every siren comes with its own mounting bracket, hard-wired microphone and is electronically short circuit and reverse polarity protected. The PA640 can operate from any 12-volt negative ground electrical system and be powered through a Federal Signal Power Distribution Center or directly from the vehicle battery.

This compact siren (6.8"W x 3"H x 7.75"D) is packed with standard features, built-in versatility and product reliability that simply can't be matched by

similar competitive products. Nine on-board relays are used to deliver 80 amperes of total switching capacity and can control primary, secondary, take down, alley and auxiliary lighting circuits. The PA640 siren has two built-in flasher circuits available, provides advanced "dynamic" short circuit protection and allows the installer to easily change switch functions via internal programming.

Wail, Yelp, Priority or Hi-Lo, Manual Peak-and-Hold and Air Horn are all standard tones and can be enabled by a heavy-duty 5-position rotary switch. There are six backlighted rubber membrane auxiliary relay pushbutton switches, a user-friendly 4-position high current slide switch, separate pushbuttons for Air Horn and Manual activation, and a rotary PA/Volume control knob-all smartly located on the face-plate. Park-Siren Deactivation is built into the PA640 PC board. It is automatically activated once the vehicle transmission is shifted into Park. The Horn Ring Transfer (HRT) function allows siren and light step-through control and delivers effective traffic management, using the steering wheel horn ring.

QUICK REFERENCE

FEATURES

- Full -featured electronic siren with light control, PA and Air Horn
- 100-watt output & 80 amp total switching capacity
- Advanced crystal controlled microprocessor technology
- Meets Class A & SAE J1849 sound output requirements
- Internally programmable tones, switch functions and relay outputs
- Reversed polarity & "dynamic" short circuit protection
- Horn Ring Transfer (HRT) and two built-in flashers included

APPLICATIONS

- Marked and "slick-top" police vehicles
- Fire apparatus
- Ambulances

APPROVALS

- SAE J1849/ July '02 compliant
- CCR (CAC) Title 13 Class A

RELATED PRODUCTS

Dynamax™/MS100 Speaker
Bulletin # 6102

AS124 Economy speaker
Bulletin #5200

Cuda TriOptic™ LED lights
Bulletin # 4171

Cuda TriOptic LED SignalMaster™
Bulletin # 3114

Raydian® lightbars
Bulletin # 2002

Arjent™ lightbars
Bulletin # 3180

Unmatched versatility is achieved through internal programming built into the PA640 siren. Any of the six auxiliary pushbuttons can be changed from a standard on/off switch into a momentary, flasher, or eight second timer. In addition, auxiliary relays, standard tones and even HRT functions can be programmed to operate off of any slide switch position desired.

Advanced electronic technology that features the use of crystal-controlled microprocessors dramatically enhances the reliability of the PA640

SELECTOR SWITCH FUNCTIONS

- RADIO** Incoming radio messages are amplified by the siren and rebroadcast over the outside speaker
- MANUAL** Allows siren operation via the AIR HORN or MANUAL pushbutton switches or through the vehicles horn ring if the HRT function is enabled
- WAIL** Produces continuous "wailing" sound
- YELP** Produces a continuous and rapid "warbled" tone
- PRIORITY** Produces a continuous and extremely rapid "warbled" tone

VEHICLE HORN RING SWITCH

HORN RING TRANSFER (HRT)

(HORN RING and siren tones are factory set to be dependent on the slide switch position)

Slide switch positions – Off, 1 and 2. HRT is not transferred (HORN RING operates the vehicle horn).

Slide Switch position 3 – HRT is transferred and will scroll through tones starting with tone chosen on selector switch.

siren. This type of microprocessor continuously monitors current flow between the output transistors and the speaker. This "dynamic" style of short circuit protection between the output transistors and the amplifier delivers a quicker, more effective way to protect your siren warning system.

HOW TO ORDER

- Specify:** Model 640000
- Description:** Siren, 100 watt, light control, 80-amp switch capacity, internally programmable, standard tones and HRT (Horn Ring Transfer)

SPECIFICATIONS	
Input Voltage	11 Vdc to 16 Vdc
Standby Current	.0mA (ignition off) 150mA (ignition on)
Operating Current	.9.25A (at 13.6V with 11-ohm load, amplifier in wail)
Operating Temperature	-30deg. C to +65deg. C
Voltage Output (approx.)	.64V peak-to-peak
Current Ratings for Relays	
Total	.80A Combined Total-All Relays
Slide Switch Outputs	
Mode 1	.30A
Mode 2	.30A
Mode 3	.30A
	40A Combined Total for Mode 3
Push Button	
Switch Outputs	.20A Each
Shipping Weight	.6 lbs. (2.7 kg.)
Dimensions	.6.8"W x 3"H x 7.75"D