

VORTEX™

Outdoor Warning Siren

Now you can afford the BEST!

Economical to Purchase. Perfect for Public Warning, the Vortex™ is all siren. Its straightforward design yields reduced cost without cutting corners on quality, reliability and performance.

Economical to Own. Vortex cuts long term ownership costs by more than 50%. The speaker's rotor is maintenance free, eliminating aerial truck expense for preventative maintenance. Two batteries provide 15 minutes of continuous full power alerting - that's 1/2 the batteries used by DC powered mechanical sirens.

Solid State Efficiency and Reliability.

The Vortex's rugged power amplifiers and speaker drivers, designed for outdoor warning and harsh environments, deliver powerful siren alerting without the problems associated with motor driven systems.

Tough & Reliable Power System.

An advanced charging system provides increased battery reliability. The Vortex's cyclic battery charger is temperature compensated, assuring that batteries are charged to 100% capacity in all seasons and all weather.

Experience.

Vortex comes from the leader, Whelen Engineering, with more electronic sirens and electronic high-power voice and siren systems installed worldwide than all other makers combined.

FEATURES

- Unmatched Alerting Ability.
- Solid State Efficiency and Reliability.
- Battery Powered, Operates Despite AC Power Failure.
- Temperature Compensated, Battery Charger.
- Six Distinct Warning Tones and SI TEST®.
- Local Controls and Timer Standard.

- Maintenance Free Speaker Rotor.
- Local Diagnostic Features.
- Optional Radio Controls.
- 24 Month User Direct Warranty.

WHELEN
ENGINEERING COMPANY, INC.



Vortex Speaker and Rotor



Electronics Cabinet

VORTEX™

Specification Data

SPECIFICATION DATA

Battery powered, 129dB electronic siren featuring oscillating, directional speaker. Directional speaker uses four 400 watt speaker drivers designed exclusively for high-power outdoor warning. The wiring path between speaker drivers and power amplifiers is hardwired and does not incorporate a brush ring commutator device.

The Vortex operates from two readily available, 60ah 12VDC batteries. Its battery supply is charged from a temperature compensated, cyclic charger, tested to withstand AC powerline surges according to IEC 801. Siren's rotor oscillates speaker at 2RPM and does not require preventative maintenance. The Vortex does not require maintenance painting.

ENVIRONMENTAL DATA

Operating Temp.: -35°C to +60°C.

Storage Temp.: -65°C to +125°C.

Humidity: 0 to 95% (Non-Condensing).

WARNING TONE DATA

Tone	Frequency Range	Sweep Rate
Wail	410-675hz	4 sec/1 sec
Attack	410-490hz	1 sec/1 sec
Alert	465hz	Steady
Hi/Lo	410-650hz	.8 sec/.8 sec
Air Horn	465-650hz	Steady
Slow Whoop	300-465hz	3 sec

PHYSICAL DATA

Part	Height in/cm	Width in/cm	Depth in/cm	Weight lbs/kg
Speaker & Rotor	49.0 (124.5)	28.5 (72.4)	56.0 (142.2)	220 (100)
Electronics Cabinet	32.5 (82.6)	22.5 (57.2)	10.5 (26.7)	70 (31.8)*
Pole Top Bracket	30.0 (76.2)	12.0 (30.5)	10.0 (25.4)	71 (32.3)

*Less batteries. Two batteries, Delco DC74, add 90lbs (40.9kg).

ACOUSTIC DATA

SPL: 129dB @100*

Effective Range:

Estimated 70dB perimeter, 6,000***

*Measurement represents repeatable results, +/-2dB, to stated levels when tested according to published guidelines under free field conditions and warning system is maintained to factory specifications.

**Estimated 70dB perimeter is based on Federal Emergency Management Agency's (FEMA) -10db per distance doubled path model.

ELECTRICAL DATA

AC Line Surge: To IEC 801.

Battery Charger Input: 120VAC, 60hz, 3a fuse.

Battery Charger Output: 5a, 28VDC.

Batteries: 2-12v, 60ah, lead calcium. User supplied.

Recommended Battery: Delco DC74.

Standby Current: 40ma.

Operating Current: 88a, 24VDC.

Power Amplification: 1,600 watts.

Rotor Motor: < 1a, 24VDC.

CONTROLS & INDICATORS

Power Amplifier/Speaker Driver: Operational.

Battery Charger: Active.

Local Control Panel:

Power-UP; Command Timing; DC ON; AC ON.

Function Selections:

Wail, Attack, Alert, Hi/Lo, Noon, Test, Air Horn, Slow Whoop, SI TEST® tone, Stand-by & Cancel.

Optional Radio Controls: Two-Tone Sequential or DTMF.

ORDERING INFORMATION

Basic System: Speaker Assembly. Directional speaker with four-400 watt speaker drivers, rotor and 50' of speaker and rotor wiring cables. Electronics cabinet: two compartment, natural finish aluminum case assembly, four power amplifiers, tone generator, local control & timer, oscillation module and temperature compensated battery charger. Batteries not included.

Options: Pole Top Bracket: VPTB.

Cabinet Pole Bracket: VCPB.

Batteries: BSETVOR.

DTMF Radio Controls*:

VDTMFVL, VDTMFVH & VDTMFU.

Two-Tone Sequential Radio Controls*:

VSTTVL, VSTTVH & VSTTU.

Two-Tone Sequential Tone

Modules: VTTM (A-E)

Tone Squelch: VTSQRX.

*Available frequencies:

VHF Low Band (V-L), 30-50Mhz.

VHF High Band (V-H), 150-170Mhz.

UHF (U), 450-470Mhz

WHELEN®

ENGINEERING COMPANY, INC.

Route 145, Winthrop Road
Chester, Connecticut 06412-0684

(860) 526-9504

1-800-637-4736

Fax: (860) 526-4784

Internet: www.whelen.com

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