

## All Hazard High-Power Siren System

Whelen's VORTEXR4 Series All Hazard High Power Sirens provide an economical alternative for powerful siren communication without compromising quality.

### SYSTEM FEATURES

- VORTEXR4 - Speaker with Four Speaker Cells Active
- Two Compartment (Type I) Natural Finish Aluminum Cabinet
- 129dBC @ 100'
- VORTEXR4 Speaker Includes Four High Efficiency 400 Watt Speaker Drivers
- 15 m Cable Included
- Battery Powered, Minimum of 15 Minutes of Full Power Output with Batteries of Our Recommendation
- AC Temperature Compensated 5 Amp Battery Charger
- Local Controls or Remote Controls
- Four Tone-Only Power Amplifiers
- Gear Driven Rotor
- Electronic Siren Controller
- Tone Generator
- Timer
- Local Control Push Buttons
- Rotor Relay Control
- SI TEST®
- Low Battery Alarm
- Battery Tray
- Lightning Arrestor
- Six Standard Public Warning Tones - Wail, Whoop, Attack, Hi-Lo, Alert, Airhorn

### SYSTEM OPTIONS

- VSBC80 - Solar Power ❶
- Alternate Tone Set

#### NOTES:

- ❶ Solar power option. 2 - 80 watt panels, mounting bracket and regulator.

### SIREN ACTIVATION CONTROLS

Our VHF High and UHF siren activation control packages include the following:

- Radio
- Radio Interface
- Tone Squelch
- 2-3dB Gain Omni-Directional Antenna with Bracket
- 15 m of RG213 Antenna Cable
- Polyphaser
- SI TEST®

Other features are dependant upon one or two-way controls. Whelen equipment can be interfaced with many different types of two-way radio communications products and systems including 800Mhz trunking, Motorola's MOSCAD, FSK, Narrow-Band and VHF Low Band. The following is available as standard options. Contact factory



VORTEXR4 cell speaker housing mounted on rotor.

for special applications.

#### ONE-WAY CONTROLS

- VAUXIN - Auxiliary Board for Contact Closure Activation
- VD2020LL - 10 Digit DTMF Landline Activation
- VD2020H - 10 Digit DTMF VHF High Band / 150-170 Mhz
- VD2020U - 10 Digit DTMF UHF / 450-470 Mhz
- VORTT - Two-Tone Sequential Option

#### TWO-WAY CONTROLS

- VAUXCS - Two-Way Contact Closure Activation and Status Board
- VC2020LL - Two-Way Landline Activation
- VC2020H - 10 Digit DTMF VHF High Band / 150-170 Mhz
- VC2020U - 10 Digit DTMF UHF / 450-470 Mhz
- VC2020NH - 10 Digit DTMF VHF High Band Narrow-Band
- VC2020NU - 10 Digit DTMF UHF Narrow-Band

#### Options:

- VFSKXMOD - Converts the Siren Activation Controls to FSK Format
- VSTATUS - Cabinet Window LED Status Indicator
- VPGINT - Paging Interface to Interface Whelen Tones with Existing Paging Systems
- VINTRU - Intrusion Alarm (available with two-way only)



TYPE I ELECTRONIC CABINET (with service door open shows control panel and battery tray with optional batteries).

# VORTEXR4

## Specification Data

Component	Height CM (Inches)	Width CM (Inches)	Depth CM (Inches)	Weight KG (Lbs.)
VORTEXR4 Speaker & Rotor	124.5 (49.0)	72.4 (28.5)	142.2 (56.0)	106.1 (234)
Electronics Cabinet - Type I	82.6 (32.5)	57.2 (22.5)	26.7 (10.5)	37.7 (83)*

\*Less batteries. Two batteries, CTV-80A 2-12V, 80AH Sealed Lead Calcium (user supplied, add 23,3kg)

**WHELEN**<sup>®</sup>  
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## ELECTRICAL

- **Battery charger input:** 120VAC, 60Hz, 7A Fuse or 240 VAC 50Hz 5A fuse
  - **Battery charger output:** 28VDC, 5A#
  - **Batteries:** 2-12V, 80AH sealed lead calcium (user supplied)
  - **Standby current:** 40mA,
  - **Rotor motor:** <1A, 24VDC
  - **Operating current:** 88A, 24VDC
  - **Power amplifier output power:** 1600 Watts
- # UL recognized component

## ENVIRONMENTAL

- **Operating Temperature:** -35C to +60C
- **Storage Temperature:** -65C to +125C
- **Humidity, Non Condensing:** 0 to 95%

## ORDERING INFORMATION

BASIC SYSTEM INCLUDES ALL OF THE FOLLOWING:

- **VORTEXR4** - Speaker Assembly & Electronics Cabinet
- OPTIONS:
- **VAUXIN** - Auxiliary Board for Contact Closure Activation
  - **VAUXCS** - Auxiliary / Status Control Board for Contact Closure Activation and Status
  - **VD2020LL - VD2020H, VD2020U** - One-Way Radio Control ①
  - **VC2020LL, VC2020H, VC2020U** - Two-Way Radio Control / Status Monitoring, COMM/STAT™ ①
  - **VC2020NH, VC2020NU** - Two-Way Narrow-Band Radio Control / Status Monitoring, COMM/STAT™ ②
  - **VORTT** - Two-Tone Sequential
  - **VFSKXMOD** - FSK Format
  - **VSTATUS** - Cabinet Window LED Status Indicator
  - **VPGINT** - Paging Interface to Interface Whelen Tones with Existing Paging Systems
  - **VINTRU** - Intrusion Alarm
  - **VSBC80** - Solar Power ②
  - **BSETVOR** - One Pair of Batteries

### NOTES

- ① 10 digit DTMF Controls • Landline • VHF High Band/150-170 Mhz • UHF/450-470 Mhz  
Our VHF High and UHF siren activation control packages include tone squelch, radio, radio interface, 2-3dB gain omni-directional antenna with bracket, 15 m of RG213 antenna cable and polyphaser.
- ② Solar power option includes 2 - 80 watt panels, mounting bracket and regulator
- ③ Contact Factory

## Acoustic Performance

SPL @ 100': 129dB

Estimated 70dB range: 6,000' 

Estimated 60dB range: 12,000' 

Note: 100' performance levels listed represent repeatable results within +/-2dB to stated levels.

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

