

All Hazard High-Power Siren System

The TWS290 Series is a highly reliable warning system with clear and intelligible voice capability that ensures excellent warning during any emergency.

SYSTEM FEATURES

- TWS 294 Four **WHELEN** Omni-Directional Speaker Cells Assembled in a Vertical Column
- Aluminum Cabinet With Separate Battery Compartment
- 121dB(C) @ 100'
- TWS 294 Speaker Includes Four High Efficiency 400 Watt **WHELEN** EZ-PULL™ Speaker Drivers
- 15 m Speaker Cable Included
- Battery Powered, Minimum of 30 Minutes of Full Power Output with Batteries of Our Recommendation
- AC Temperature Compensated 5 Amp Battery Charger
- Local Controls or Remote Controls
- Four 400 W Power Amplifiers
- Electronic Siren Controller
- Tone Generator
- Timer
- Local Control Push Buttons
- SI TEST®
- Low Battery Alarm
- Battery Tray
- Lightning Arrestor
- Six Standard Public Warning Tones - Wail, Whoop, Attack, Hi-Lo, Alert, Airhorn

SYSTEM OPTIONS

- **SBC80** - Solar Power#
- **TWSBATT** - TWS Approved Batteries
- Alternate Tone Set

NOTES:

Solar power option includes 2 x 80 watt panels, cables, mounting bracket and 24V solar regulator.

SIREN ACTIVATION CONTROLS

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

- Radio
- Radio Interface
- Tone Squelch
- 0dB Gain Omni-Directional Antenna with Bracket
- 15 m of RG213 Antenna Cable Included
- Polyphaser
- Power Supply

Other features are dependent upon one or two way controls. TWS equipment can be interfaced with many different types of two-way communications products and systems including 800Mhz trunking, Motorola's MOSCAD, FSK, Narrow-Band and VHF Low Band Radio, GSM, and Fiber Optics. The following is available as standard options. Please contact manufacturer for special applications.

ONE WAY CONTROLS

- **AUXIN** - Auxiliary Board for Contact Closure Activation
- **D2020LL** - 10 Digit DTMF Landline Activation
- **TWSTT** - Two Tone Sequential Option

TWO WAY CONTROLS

- **AUXCS** - Two-Way Contact Closure Activation and Status Board
- **GV-LLM** - Giant Voice® Two-Way Landline Activation
- **GM340 VHF** - 10 Digit DTMF VHF: 136-174 Mhz
- **GM340 UHF** - 10 Digit DTMF UHF: 403-470 Mhz

OPTIONS:

- **FSKXMOD** - Converts the Siren Activation Controls to FSK Format
- **STATUS** - Cabinet Window LED Status Indicator
- **GV-PGINT** - Giant Voice® Paging Interface to Interface Whelen Tones with Existing Paging Systems
- **INTRU** - Intrusion Alarm (available with two-way only)



Two Compartment
Electronics Cabinet



TWS 294

| Component | Height cm (inches) | Width cm (inches) | Depth cm (inches) | Weight kg (lbs.) |
|------------------------|-----------------------|----------------------|----------------------|---------------------|
| TWS 294 Speaker | 147,1 (57,9) | 84,8 (33,4) | | 115,3 (254) |
| Electronics Cabinet | 85,0 (33,5) | 58,0 (22,8) | 32,0 (12,6) | 62,6 (138)* |

*Less batteries. Two batteries: 12V, sealed, lead-calcium, add 24 kg pr. battery

Electrical

- Battery Charger Input: option of 120 VAC 60Hz 7A fuse or 240 VAC 50Hz 5A fuse
 - Battery Charger Output: 28VDC, 5A#
 - Batteries: 2-12V, AGM sealed (not included)
 - Standby Current: 40mA,
 - Operating Current: 22A, 24VDC
 - Power Amplifier Output Power: 1600 watts during tone / 2000 watts during voice
- # U.L. 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:

- **TWS 294** - Speaker Assembly & Electronics Cabinet.
- OPTIONS:
- **AUXIN** - Auxiliary Board for Contact Closure Activation
 - **AUXCS** - Auxiliary / Status Control Board for Contact Closure Activation and Status
 - **D2020LL** - One Way Landline Control
 - **GV-LLM** - Giant Voice® Two Way Landline Control / Status Monitoring
 - **GM340 UHF, GM340 VHF** - Two Way Radio Control / Status Monitoring, COMM/STAT™
 - **TWSTT** - Two Tone Sequential
 - **FSKXMOD** - FSK Format
 - **STATUS** - Cabinet Window LED Status Indicator
 - **GV-PGINT** - Giant Voice® Paging Interface to Interface Whelen Tones with Existing Paging Systems
 - **INTRU** - Intrusion Alarm
 - **SBC80** - Solar Power*
 - **TWSBATT** - One Pair of Batteries

NOTES

10 digit DTMF Controls • Landline • VHF wireless link: 136-174 Mhz • UHF wireless link: 403-470 Mhz. Our VHF and UHF siren activation control packages include tone squelch, radio, radio interface, power supply, polyphaser, 0dB gain omni-directional antenna with bracket, and 15 m of RG213 antenna cable.

* Solar power option includes 2 x 80 watt panels, feed cables, mounting bracket and 24VDC regulator.

Acoustic Performance

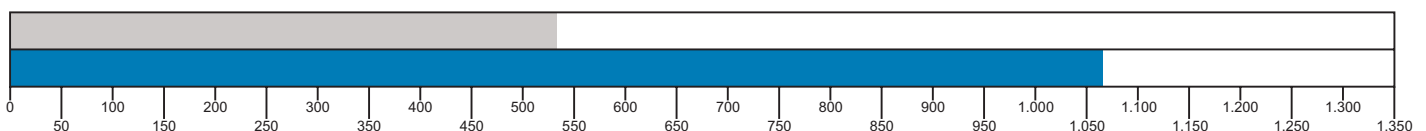
SPL @ 30 m: 121dB(C)

Estimated 80dB range: 533 m

Estimated 70dB range: 1.067 m

Note: 30 m performance levels listed represent repeatable results within +/-2dB to stated levels.

Estimated 80dB(C) perimeter is based on the Federal Emergency Management Agency's (FEMA) -10dB per distance doubled path model.



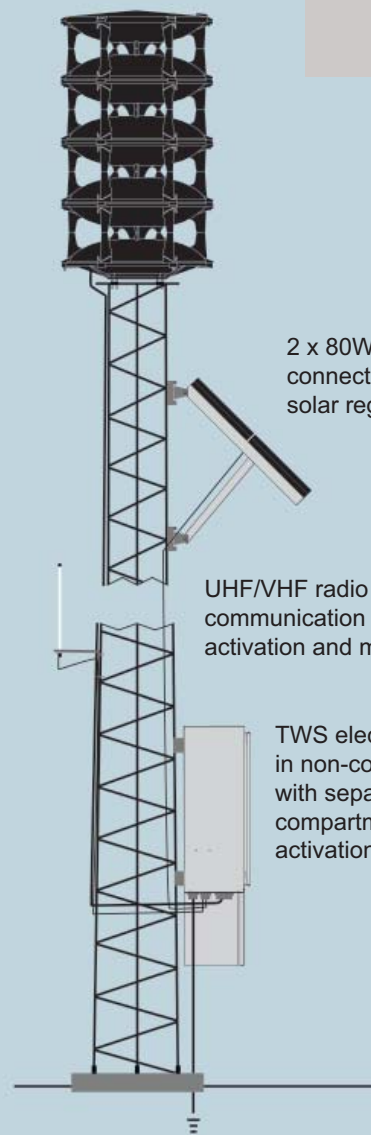
PUBLIC WARNING PRODUCTS

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HSS Engineering is the Master Distributor for
Whelen

Speaker array in
non-corrosive and
non-conducting
polycarbonate



2 x 80W solar panels
connected to 24VDC
solar regulator

UHF/VHF radio
communication for system
activation and monitoring

TWS electronics cabinet
in non-corrosive aluminum
with separate battery
compartment and local
activation touch pad

**TWS294 SIREN WITH
SOLAR POWER AND RADIO LINK**