

WPS2900 Series

WHELEN[®]

Mass Notification Warning Systems

ALERT and INFORM

*The basic purpose of an all-hazard siren is the ability to **ALERT** through a tone and **INFORM** through voice. If your siren system is producing only a tone, then it's only doing half it's job!*

The most effective way to warn the public is to issue a siren warning and follow it with a clear, deliberate and powerful voice message. This two-step approach, *ALERT* and *INFORM*, will eliminate confusion, restore order and most importantly, save lives.

Our WPS2900 Series accomplishes this in two ways. One is to *ALERT*, the other is to *INFORM* through omnidirectional voice and siren warning.

The WPS2900 Series delivers siren warning and broadcasting of unequalled clarity at uniform power levels (+/- 1dB) throughout 360°.



Ten models serve a wide variety of applications as shown here in ratio to a person's size.



WPS2900 Series

High-Power Voice and Siren Systems...

WHELEN EZ-PULL™ SPEAKER DRIVER



Notice in these photos how easy it is to remove a 2900 Series speaker driver. Each speaker cell uses one **EZ-PULL** 400 watt driver, eliminating distortion and power loss that occurs from mixing the outputs of multiple speaker drivers in a cell - as found in competitive systems. The EZ-PULL driver is Whelen Engineering's latest innovation. A handled plate connected to our 400 watt driver is an industry first. *Serviceability has never been easier!*

WHELEN'S 2900 SERIES



Whelen Siren 400 Watt Speaker Driver shown with Standard 100 Watt Speaker Driver.



Whelen WPS2900 Series siren systems are wind-tunnel tested to insure performance and reliability in the most trying conditions.



Whelen WPS2910 installed on site in Columbus, Georgia.



Whelen Model WPS2905 siren in the field on duty in Emmitsburg, Maryland.



Type II Electronics Assembly detail.

SYSTEM FEATURES

- Choice of one to ten omni-directional speaker cells assembled in a vertical column
- Ten models, 109dBc to 129dBc @ 100'
- All WPS2900 speaker cells include our high efficiency 400 watt **EZ-PULL™** speaker drivers
- 50' cable included
- Pole top mounting bracket included
- Two or three compartment natural finish aluminum cabinet
- Public address capability, live voice and pre-recorded messages
- Battery powered, minimum of 30 minutes of full power output with batteries of our recommendation
- AC temperature compensated 10 amp battery charger
- Local controls or remote controls
- Power amplifiers
- Electronic siren controller
- Tone generator
- Timer
- Local control push buttons
- Battery switch
- Low battery alarm (two-way only)

SYSTEM OPTIONS

- **SBC280** - Solar power ¹
- **WPSBATT** - Delco S2000 or Interstate Workaholic 31-MHD batteries
- **WPSNCMIC** - Noise canceling microphone
- Alternate tone set
- **RDVM** - Digital voice message capability ²

WPS2905 with SBC280 Solar Power Option.

NOTES:

- 1 Solar power option includes 2 - 80 watt panels, mounting bracket and regulator
- 2 RDVM - 1-16 message capability with 240, 480 or 960 seconds available for recording



SIX STANDARD WARNING TONES

TONE	TONE SYMBOL	FREQUENCY	SWEEP RATE
WAIL		410 - 675	4 sec/1 sec
ALERT		560	Steady
HI/LO		465/650	.8 sec/.8 sec
ATTACK		410 - 490	1 sec/1 sec
AIR HORN		465 - 650	Modulated/1.6 sec
WHOOOP		300 - 465	3

Performance chart footnotes *All 100' performance levels listed represent repeatable results with +/- 1dB to stated levels under free field conditions when warning systems are maintained to factory specification and tested according to published guidelines. Estimated 70dB and 60dB perimeters are based on the Federal Emergency Management Agency's -10dB per distance doubled path model, discussed in FEMA publication CPG 1-17, "Guide to Outdoor Warning Systems."

WPS2900 Series Performance Chart

Models	SPL @ 100'*	70dB (feet)	60dB (feet)
WPS2901	109	1,500	3,000
WPS2902	115	2,400	4,800
WPS2903	119	3,100	6,200
WPS2904	121	3,500	7,000
WPS2905	123	4,200	8,400
WPS2906	125	4,800	9,600
WPS2907	126	5,100	10,200
WPS2908	127	5,400	10,800
WPS2909	128	5,800	11,600
WPS2910	129	6,100	12,200

Public and Industrial Warning for Every Application

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
- 35' of RG58 antenna cable
- Polyphaser
- SI TEST®
- Low battery alarm (two-way only)

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 for special applications.

ONE-WAY CONTROLS

- **AUXIN** - Auxiliary board for contact closure activation
- **D2020LL** - 10 digit DTMF landline activation
- **D2020H** - 10 digit DTMF VHF high band / 150-170 Mhz
- **D2020U** - 10 digit DTMF UHF / 450-470 Mhz
- **WPSTT** - Two-tone sequential option

TWO-WAY CONTROLS

- **AUXCS** - Two-way contact closure activation and status board
- **C2020LL** - Two-way landline activation
- **C2020H** - 10 digit DTMF VHF high band / 150-170 Mhz
- **C2020U** - 10 digit DTMF UHF / 450-470 Mhz
- **C2020NH** - 10 Digit DTMF VHF high band narrow-band
- **C2020NU** - 10 digit DTMF UHF narrow-band

OPTIONS:

- **FSKXMOD** - Converts the above siren activation controls to FSK format
- **STATUS** - Cabinet window LED Status Indicator
- **PGINT** - Paging interface to interface Whelen audio, voice and tones with existing paging systems
- **INTRU** - Intrusion alarm (Available with two-way only)

LIVE PUBLIC ADDRESS AND PRE-RECORDED MESSAGES

ALERT and INFORM! This two-step procedure is accomplished through live public address and pre-recorded voice messages. Notify YOUR community, base or campus with messages specific to YOUR needs.

- Live public address standard
- From 1 to 16 verbal messages and musical renditions of varying lengths may be programmed into all modules
- Standard message memory storage is 240, 480 or 960 seconds
- Variable length messaging standard

SI TEST®

Only Whelen's diagnostic silent test, SI TEST®, fully exercises the siren system without disturbing the public. Diagnostic SI TEST® information includes the following:

- AC power On/Off
- DC power at operational levels
- Partial speaker driver / power amplifier operation
- Full speaker driver / power amplifier operation

Whelen Products are Pre-Assembled, Pre-Wired and Tested at our Facility to Ensure Product Quality and Reliability!



Testing Station



2900 Series Speakers Assembly



Type II Cabinet Assembly



Type III Cabinet Assembly

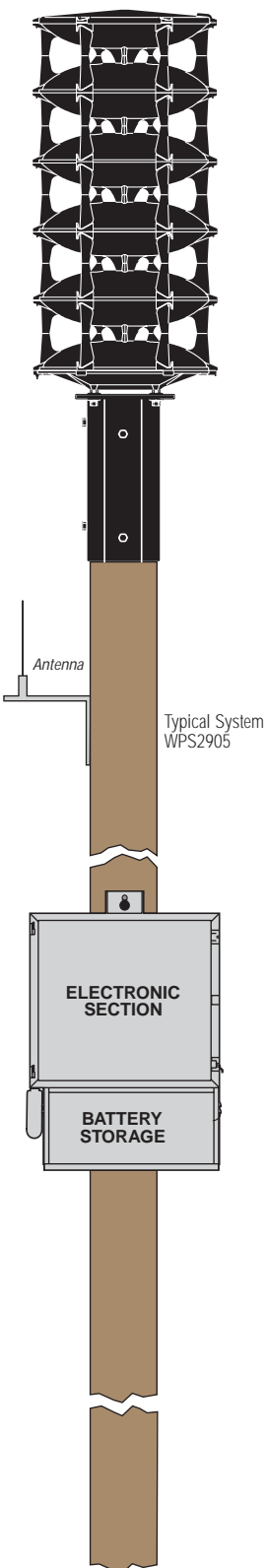


Repair Facility

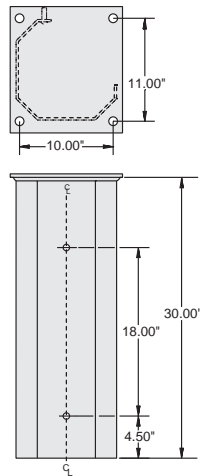


WPS2900 Series

Specification Data



REF: TOP VIEW



POLE TOP BRACKET

The pole top bracket for the WPS2900 Series is furnished in a natural finish, core-ten steel. The pole top bracket will accept a utility pole having a 10" top diameter.

PRODUCT SUPPORT

At Whelen Engineering, we not only design and manufacture the best warning systems available, we stand behind every product we make. For a copy of our warranty, write to us at our main office in Chester, Connecticut.

If you're interested in the most reliable, the most up-to-date warning systems -- and the service that comes with it -- give us a call. Find out why Whelen Engineering is "the first name in public warning".

A product specification sheet with installation details is available for each WPS2900 Series High-Power Voice and Siren Systems.

WHELEN®

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PUBLIC WARNING PRODUCTS

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Whelen Engineering Company, Inc. reserves the right to upgrade its products with design improvements without notification.

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WPS2900 Series Specifications

MODEL	SPL @ 100'	SYSTEM WATTAGE		HEIGHT Inches (CM)	WIDTH Inches (CM)	DEPTH Inches (CM)	SPEAKER ASSEMBLY WEIGHT lbs. (KG)	ELECTRONIC CABINET WEIGHT lbs. (KG)
		SIREN AUDIO	VOICE AUDIO					
WPS2901	109dBc	400	500	20.4 (51.8)	33.4 (84.8)	—	107 (48.6)	117 (53.1)
WPS2902	115dBc	800	1000	32.9 (83.6)	33.4 (84.8)	—	156 (70.8)	124 (56.3)
WPS2903	119dBc	1200	1500	45.4 (115.3)	33.4 (84.8)	—	205 (93)	131 (59.5)
WPS2904	121dBc	1600	2000	57.9 (147.1)	33.4 (84.8)	—	254 (115.3)	138 (62.6)
WPS2905	123dBc	2000	2500	70.4 (178.8)	33.4 (84.8)	—	303 (137.5)	145 (65.8)
WPS2906	125dBc	2400	3000	82.9 (210.6)	33.4 (84.8)	—	362 (164.2)	192 (69)
WPS2907	126dBc	2800	3500	95.4 (242.3)	33.4 (84.8)	—	411 (186.5)	199 (90.3)
WPS2908	127dBc	3200	4000	107.9 (274.1)	33.4 (84.8)	—	460 (208.7)	206 (93.5)
WPS2909	128dBc	3600	4500	120.4 (305.8)	33.4 (84.8)	—	509 (230.9)	213 (96.7)
WPS2910	129dBc	4000	5000	132.9 (337.6)	33.4 (84.8)	—	558 (253.1)	220 (99.8)
Electronics Cabinet ¹ (WPS2901 to 5)	—	—	—	40.7 (103)	30.0 (76)	10.0 (25.4)	—	—
Electronics Cabinet ¹ (WPS2906 to 10)	—	—	—	64.4 (164)	30.0 (76)	10.0 (25.4)	—	—
Pole Top Bracket	—	—	—	30.5 (77)	12.0 (30.5)	See Drawing	71	—

EQUIPMENT IS CONFIGURED FOR 120 VAC INPUT POWER, OTHER INPUT VOLTAGES SUPPLIED UPON REQUEST.

¹ A 6.00" WIDE MOUNTING CHANNEL ADDS 3.50" IN HEIGHT AND 2.00" IN DEPTH.