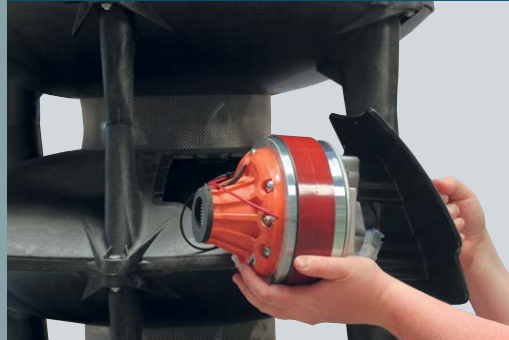




Two compartment electronics cabinet

HSS

ENGINEERING®
WARNING SYSTEM SOLUTIONS



The TWS-290 siren series is the most reliable warning siren system on the market for both warning tones and voice communication

ALL HAZARD HIGH-POWER SIREN SYSTEM TWS-291

The combination of powerful high efficiency alarm tones and clear, intelligible voice broadcast ensures an excellent warning during any emergency. This enables the operator to notify and direct a warning to the affected population. The superior design of the TWS speaker cluster provides a true 360° sound output throughout the entire frequency range. The TWS-290 series, with its high-efficiency amplifiers and durable EZ-PULL™ speaker drivers, can provide continuous warning for a minimum of 30 minutes at full output power, solely from battery power. All electronics are built into a high-quality corrosion resistant aluminum cabinet.

This makes the TWS-290 siren series the preferred Mass Notification Solution by our customers worldwide.

FEATURES

- 1 omni-directional speaker cell assembled in a vertical column
- IP 66 rated aluminum cabinet with separate battery compartment
- 109 dB(C) @ 100' / 30 m
- TWS-291 speaker includes 1 pcs high efficiency EZ-PULL™ speaker driver
- 600 Watts per speaker driver rated max. output power for superior durability
- 15 m speaker cable included
- Battery powered, minimum of 30 minutes of full power output with batteries of our recommendation
- Temperature compensated 3-stage switch mode battery charger
- Local or remote control / status
- 1 pcs high efficiency power amplifier
- Electronic siren controller featuring SI TEST® - Silent self-test / diagnostics
- Alarm tone generator, automatic and live voice broadcast
- Full status monitoring including low battery alarm, amplifier / speaker status
- AC lightning arrestor included (antenna lightning arrestor included with TWS-RADIO option)
- Six standard warning tones – Wail, Whoop, Attack, Hi-Lo, Alert, Airhorn
- Optional customized warning tones

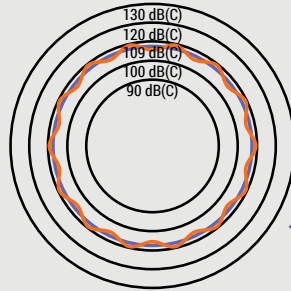


ACOUSTIC PERFORMANCE

SPL @ 1 m:	139 dB(C)
SPL @ 30 m:	109 dB(C)
70dB range ISO 13475-1*:	2,930 m
70dB range FEMA standard**:	457 m

* ISO: 6 dB sound pressure reduction pr. doubling of distance (as per ISO 13475-1)

** FEMA: 10 dB sound pressure reduction pr. doubling of distance (as per FEMA guidelines)



ENVIRONMENTAL

Operating temperature	-35° C to + 70° C
Storage temperature	-65° C to + 125° C
Humidity, non-condensing	0 to 95 %

The superior design of the speaker cluster provides a true 360° high sound output throughout the entire frequency range.

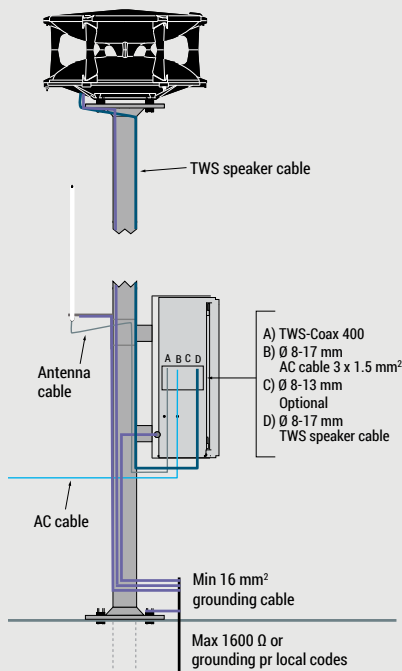
ELECTRICAL

Battery charger input	Option of 120/240 VAC or 50/60 Hz
Battery charger output	28 VDC, 10A*
Batteries	2 pcs 12 V, AGM sealed. 100 AH. Sold separately
Standby current	82 mA, 24 VDC
Operating current	23 A, 24 VDC
Normal amplifier output power	400 Watts during tone / 500 Watts during voice
Rated total max. output power	600 Watts

U.L. recognized component

Component	Height cm (inches)	Width cm (inches)	Depth cm (inches)	Weight kg (lbs.)
TWS-291 speaker	51.8 (20.4)	84.8 (33.4)		48.6 (107)
Electronics cabinet	84.5 (33.3)	58.0 (22.8)	35.0 (13,8)	29.8 (65.8)*

* Less batteries. Two batteries: 12 V, sealed, lead-calcium, add 24 kg pr. battery.
Less optional radio kit. Add 2.5 kg, if this option is selected.



ORDERING INFORMATION

Product Description	Order No.
Speaker assembly and electronics cabinet	TWS-291
Options	
Auxiliary activation / status control board for contact closure activation and status	AUXCS
Auxiliary activation board for contact closure	AUXIN
High efficient AC direct power supply unit	TWS-AC-PSU
GSM module	GV-GSM-RTU
Ethernet control / status interface	GV-IP
Giant Voice® Two way landline control / status monitoring	GV-LLM
High standard radios in both analogue and digital versions with wide frequency range within both VHF and UHF	TWS-RADIO
Omni-directional visual lighting	TWS-VISUALERT
Top mounted strobe light	TWS-TL31R
Giant Voice® Paging interface to interface TWS warning with existing paging systems	GV-PGINT
Intrusion alarm	TWS-INTRU
Solar power	TWS-SBC100
Two pairs of batteries	TWSBATT
Sun shield for electronic cabinet	TWS SUN SHIELD
Customized warning tones	GV-TONES

REV. G

HSS



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