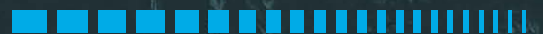



Three things you need to know in order to save lives

Alert
Inform
Direct

HSS



ENGINEERING®
WARNING SYSTEM SOLUTIONS


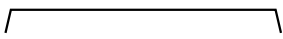
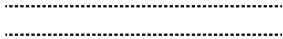





This is what you get

- Minimized cost of services and maintenance during the system's life span
- Less power consumption (therefore greater energy autonomy and less accumulation of heat in the electronic components of the system)
- Working 24 / 7 / 365 (No need for thermal auto shutdown during vital emergencies)
- Lower weight and height give less wind load, smaller mast and lower installation costs
- Comes with the most powerful speaker drivers in the market
- Greater reliability thanks to important components such as amplifiers, drivers and batteries.

Comes with six standard warning tones

It's important that the product you choose sounds right

Tone	Tone symbol	Frequency	Period of time
Wail		410-675 Hz	4 sec / 1 sec
Alert		560 Hz	Steady
Hi / Lo		465/650 Hz	0.8 sec / 0.8 sec
Attack		410-490 Hz	1 sec / 1 sec
Air Horn		465-650 Hz	Modulated / 1.6 sec
Whoop		300-465 Hz	3

Model	SPL @ 1 m	SPL @ 30 m	Systemwattage		Height mm (inches)	Width mm (inches)	Weight kg (lbs.)
			Audio tone	Voice audio			
TWS-291	139 dB(C)	109 dB(C)	400	500	518 (20.4)	848 (33.4)	48.6 (107)
TWS-292	145 dB(C)	115 dB(C)	800	1000	836 (32.9)	848 (33.4)	70.8 (156)
TWS-293	149 dB(C)	119 dB(C)	1200	1500	1,153 (45.4)	848 (33.4)	93.0 (205)
TWS-294	151 dB(C)	121 dB(C)	1600	2000	1,471 (57.9)	848 (33.4)	115.3 (254)
TWS-295	153 dB(C)	123 dB(C)	2000	2500	1,788 (70.4)	848 (33.4)	137.5 (303)
TWS-296	155 dB(C)	125 dB(C)	2400	3000	2,106 (82.9)	848 (33.4)	164.2 (362)
TWS-297	156 dB(C)	126 dB(C)	2800	3500	2,423 (95.4)	848 (33.4)	186.5 (411)
TWS-298	157 dB(C)	127 dB(C)	3200	4000	2,741 (107.9)	848 (33.4)	208.7 (460)
TWS-299	158 dB(C)	128 dB(C)	3600	4500	3,058 (120.4)	848 (33.4)	230.9 (509)
TWS-2910	159 dB(C)	129 dB(C)	4000	5000	3,376 (132.9)	848 (33.4)	253.1 (558)

Cabinets	Height mm (inches)	Width mm (inches)	Depth mm (inches)	Weight kg (lbs.)
Electronics cabinet** (TWS-291-295)	845 (33.3)	580 (22.8)	385 (15.1) Incl. padlock hasp 400 (15.7)	_*
Electronics cabinet** (TWS-296-2910)	1,610 (63.4)	800 (31.5)	310 (12.2) Incl. padlock hasp 335 (13.2)	_*

* Less batteries. Two batteries: Add approx 30 kg pr. battery. Less optional radio kit. Add 2.5 kg, if this option is selected.

Weight depends on model siren, verify weight in the technical data sheet of the specific equipment.

** The battery charger is configured for either 115 or 230 VAC input power (selectable).



TWS-Series has the best performance in the market

Performance

- Maximum acoustic and energy performance
- Highest SPL sound output compared to power consumption
- True 360° omnidirectional sound propagation without any acoustic shadows
- Proven MTBF of more than 30,000 hours
- Lowest maintenance and service requirements
- Modular design made of robust fiber-reinforced polycarbonate
- High efficiency EZ-PULL™ speaker drivers
- Normal amplifier output power 400 Watts during tone / 500 Watts during voice
- Rated total max. output power 600 Watts total capacity per amplifier
- Intelligible pre-recorded or live voice messages in a wide area
- STI intelligibility index 0.98
- A single amplifier for each high efficiency speaker driver
- Tested for decades in all types of climate and environments with success

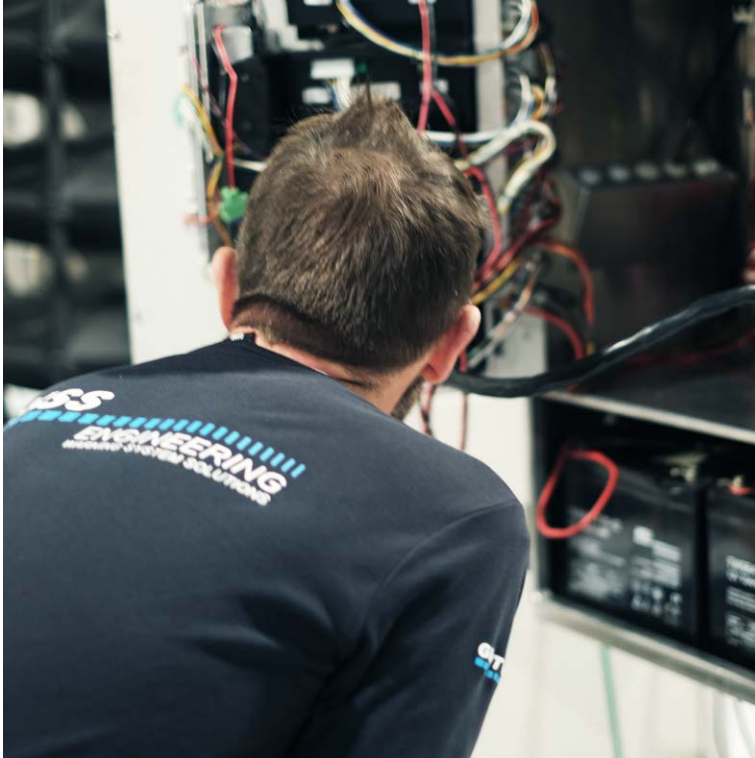
Communications

- Multiple technologies
- Simple or redundant
- VHF/UHF digital radio
- Radio trunking
- GPRS 3G 4G
- Satellite BGAN M2M
- Broadband Networks
- IP Ethernet / Fiber Optic

Power

- Operation with AC, DC or solar energy
- Less power consumption = greater autonomy in emergencies
- Less excess heat in the electronics cabinet
- Minimum autonomy 30 minutes of continuous activation
- No need for thermal auto shutdown during vital emergency alerts
- Separate ventilated battery compartment

TWS-290-Series Cabinet



For clear
and powerful
siren and voice
communication

A reliable, low cost warning and information system



Performance

- Maximum acoustic performance
- Six standard public warning tones
 - Wail, Whoop, Attack, Hi-Lo, Alert, Airhorn
- SI TEST®
- Lightning arrestor / Intrusion alarm
- Tone generator / Timer function
- Public address capability
- Local controls and/or remote controls

Design

- Two compartment natural finish aluminum cabinet with battery tray
- Battery switch
- Electronic siren controller
- Robust and light weight
- Lower weight and height
- Less wind load
- Easy to install
- High quality IP66 electronics cabinet

Tower and mast design

In accordance
with local
regulations and
standards



Solar Power System / VisuAlert

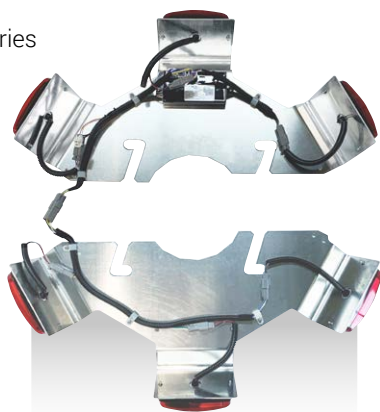


Accessories for the TWS-Series

Visual Led Warning

Enhance your Voice and Siren Mass Notification System with an optional visual component: The omni-directional visual lighting for TWS-290 & OA Series.

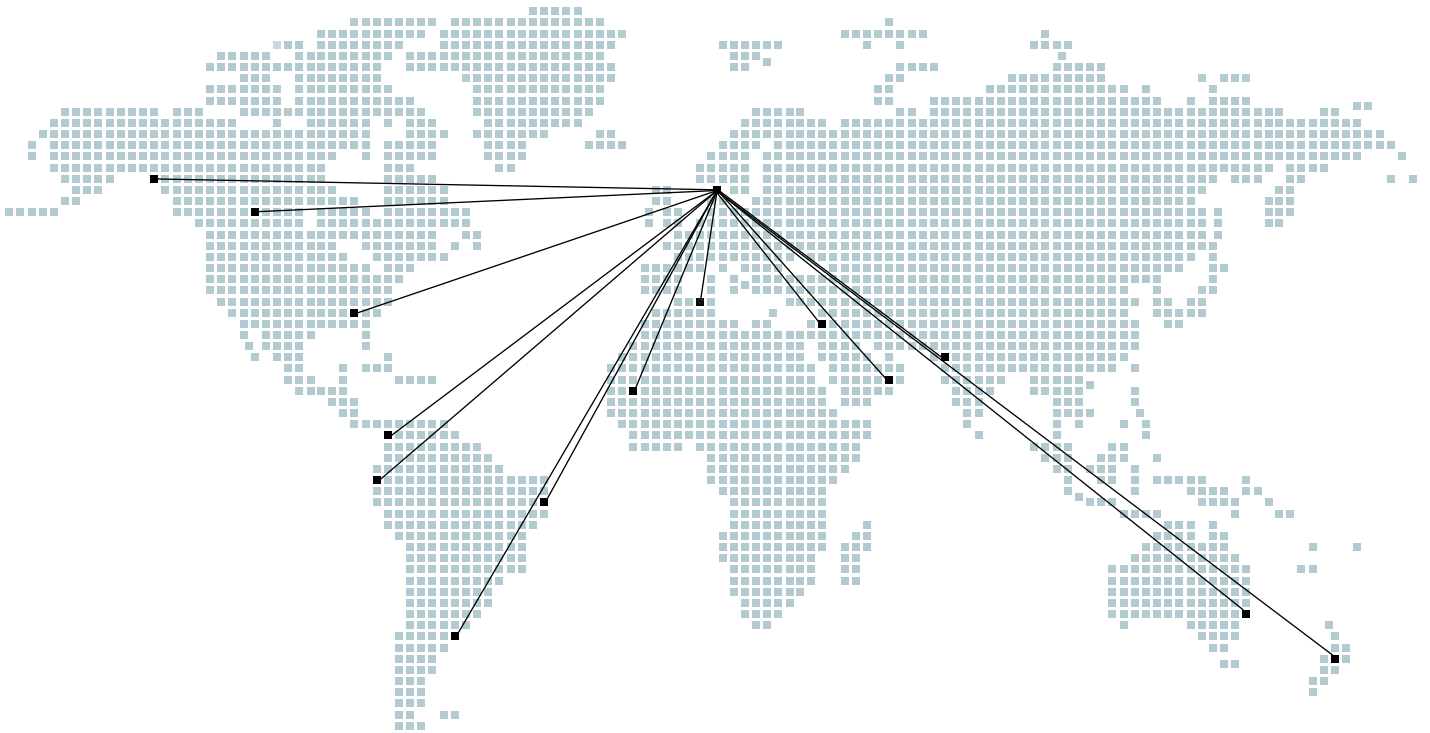
- VisuAlert Super-LED® can be mounted under a TWS-290 omni-alert system
- Complete 360° highly effective LED warning
- VisuAlert illuminates with a designed flash pattern when the siren is activated
- Cluster of six LED Whelen M6 Series warning lightheads, 24 VDC
- Bracket supports are 300 Series aluminium alloy in a high strength
- All connections are waterproof



Solar power system - designed for harsh environments

The TWS-SBC400 is an all-inclusive solar power supply solution engineered to meet the power requirement of a TWS-Siren or Giant Voice® PA/GA system. High quality components and UV resistant cabling ensure years of performance even in harsh environments. Solar panels with tempered glass and excellent low light power output combined with 3-Stage intelligent PWM charging ensure high efficiency charging performance. Simple yet flexible aluminium mounting bracket for easy panel angling and installation.





For further information,
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