EAS

LOW COST WIRELESS EMERGENCY ALERT SOLUTIONS

WiLAS

'Wireless Lockdown & Alert Siren' System

WiLAS SYSTEM OVERVIEW

A low cost, wireless 'Emergency Alert Solution' for premises & workplace applications

The **'WiLAS' (Wireless Lockdown & Alert Siren) System** is an Australian developed emergency warning siren solution for premises or workplace applications. It delivers loud, easily distinguished Lockdown, Evacuation and All Clear alerts for applications where fast response times are essential to minimise the risk of injury or death resulting from incidents such as school invasions, fires, etc.

The **WiLAS System** features a robust, self-establishing, wireless networking technology that replaces the need for complex and expensive cabling. The wireless network automatically connects all Siren Stations (or optional flashing warning Beacon Stations) using a security coded signal. The system is activated using a wireless remote control, and any Siren Station that receives an activation signal re-transmits that signal to every Station in that network - all within seconds.

No need to access a central control panel or remember security codes or find a key. Simply select the required tone on your remote control and every siren in that network sounds that tone, or turn everything off by selecting 'ALL OFF'.

Because the entire system is wireless, stations can located, relocated or added, as required. The wireless network simply connects any station with the right code once it's powered up. This not only dramatically simplifies design and operation, it dramatically lowers installation times and costs.

Back-up batteries on every station ensure the network remains operational even in a black-out. Optional fixed control panels can be supplied in addition to the handheld remotes for applications where only authorised personnel have access (e.g. a mine site, refinery or school administration office). Flashing beacons are also available for sites with hearing impaired persons (e.g. in a school) or where there's high ambient noise (e.g. in a factory). A solar charging option is available for locations where 240VAC power isn't available (e.g. sports fields or mine sites) to charge the back-up batteries.

Features	Benefits
Security-coded wireless communication system	Lowers cost of installation; resistant to interference
Wireless remote control activation	Speeds response times no matter where authorised users are on site, with virtually no operator training required
Loud, distinct 'AS2220 compliant' siren tones & voice alerts	Alerts easily understood, with little or no site personnel training required
Scalable, modular architecture	Scales to suit almost any sized site; simply install sirens or warning beacons where they're required; then add more or relocate as required
Battery backup for all Siren Stations	Will operate in a total power black-out
Optional flashing light Beacon Stations	Ideal for sites with hearing impaired or high ambient noise
Optional solar charging	Can be used in locations without 240V power

TYPICAL INSTALLATION

Typical Multi-Building Campus Site

Legend:
- ● Repeater Enclosure
- ◀ Siren Horn
- — Signal Radius
- ···· Activation Signal Pathway

300m max. range

100-150m max. range

POSITIONING SIREN & BEACON STATIONS

- Any one Siren Station (or Beacon Station) should be placed within **300 metres** (max) of at least one other Siren Station, but preferably 2 or more (to ensure multiple communication pathways exist)
- Before installing into final position, test audio coverage of Siren Station using back-up battery to power up unit for the test
- After optimising placement of siren horns and station antenna, install Siren Stations and connect to 240VAC power, or optional Solar Charging Unit
- Test remote control coverage

ALERT DEVICES

PRIMARY (AUDIO)	SUPPLEMENTARY (VISUAL)

PRIMARY (AUDIO)

- Solar Charging Unit (optional)
- Fixed Control Panel (optional)
- Remote Control Handset (standard)

A **WIRELESS SIREN STATION** comprises:

- 1x Siren Station Enclosure (outdoor rated)
- 1x 240VAC Power adapter
- 2x Siren Horns (outdoor rated)
- 2x Siren mounting brackets (J-bars)
- 2x Speaker cable (30 metres)
- 1x Antenna
- Antenna mounting bracket
- Antenna cable (7 metres)

SUPPLEMENTARY (VISUAL)

A **WIRELESS BEACON STATION** comprises:

- 1x Beacon Station with integrated antenna

Activating the SIREN network activates any beacon in that network

# SYSTEM BUILDING BLOCKS

ACTIVATION

WIRELESS REMOTE CONTROL

These security-coded, handheld remote controls are supplied with all WiLAS Systems. Simply press the button that corresponds to the desired warning and all sirens (or optional flashing beacons) in that network are activated within seconds. Remotes will activate any Siren Station within 100-150 metres. A unique 'in-range' flashing LED warns the user if no Siren Station is within range when a button is pressed. To deactivate an alert, simply press the ALL OFF button.

WIRELESS FIXED CONTROL PANEL (optional)

In applications where fixed activation points are desired (e.g. in a refinery or other site where only authorised personnel are present), these control panels can be added to a Siren Station enclosure. They have the same functionality as a wireless remote control. These control panels are weatherproof, meaning they can be used with outdoor mounted Siren Stations. However, they require that the Station be mounted where operators can easily reach it so as to activate the system.

## WARNING
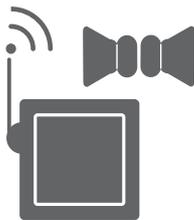
WIRELESS SIREN STATION

A Siren Station consists of a weatherproof enclosure (containing a wireless repeater, a siren tone/voice generator, and a backup battery), a 240VAC adaptor (or optional Solar Charging system), a pair of 100W siren horns (which are connected to the repeater enclosure via speaker cable), and an antenna (which is connected to the repeater enclosure via coax cable). The enclosure, sirens and antenna are generally mounted outdoors, however, the enclosure can be mounted indoors for added security, or where it has a Control Panel fitted to the front. Siren Stations are generally installed within 300 metres of one another to ensure network coverage.

WIRELESS BEACON STATION (optional)

A Beacon Station comprises three colour-coded flashing lights, an on-board battery pack and an integrated antenna. They provide supplementary visual warnings on sites with high ambient noise or hearing impaired personnel. They can be wall, ceiling or pole mounted.

ACCESSORIES
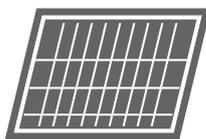
SOLAR CHARGING UNIT (optional)

Attaches to the Siren Station and increases the flexibility of the WiLAS system by allowing Siren Stations to be installed in locations without 240VAC power
(e.g. temporary open work or construction sites).

ADVISORY WALL PLAQUE (Set of 10)

LOCKDOWN
EVACUATE
ALL CLEAR

These wall mountable signs are placed at key locations within the site to help explain to workplace personnel the different alert system sounds and what to do when activated. Plaques are customisable to allow for detailed management plans to be clearly noted for specific premises (e.g. listing of different emergency assembly areas).

SYSTEM OPERATION

With WiLAS you can raise an alarm within seconds via remote control, no matter where you are in your workplace !

"EVACUATE! GO TO YOUR EVACUATION ASSEMBLY AREA."
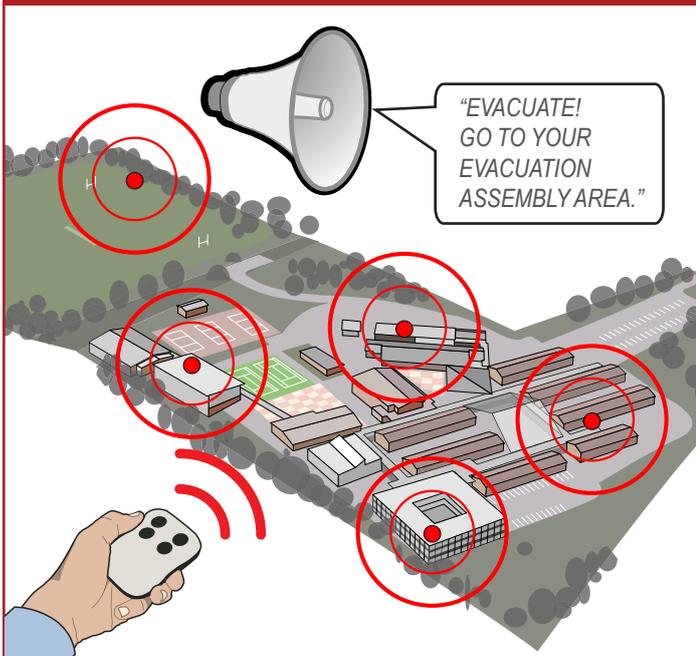
A typical **WiLAS System** comprises multiple (1-50 or more) wirelessly networked Siren Stations. These are installed where required to ensure best audio alert coverage. As long as there is signal overlap between any one Siren Station and at least one other, the activation signal received by one Station will be propagated through the entire network within seconds.

In an emergency, an authorised user anywhere in the workplace simply selects the required alert on their security coded Remote Control (or Control Panel) and within seconds, every siren in the network sounds the selected tone; or turns off if the ALL OFF function is selected. Siren tones are supplemented with a voice-over to reiterate the nature of the alert. Optional Beacon Stations also flash the appropriate coloured warning light.

Network security (and separation from adjacent **WiLAS** networks) is by way of a software encryption that is set at time of delivery for all devices. This means a **WiLAS System** is ready to install; and because the system operates in the 433MHz range, no radio licence or approvals are required.

A unique 'In-Range' indicator LED on the handsets ensures operators know they are within wireless range. Alternately, Fixed Control Panels can be installed in strategic locations around the workplace to supplement the wireless handheld remote controls.

SYSTEM ALERTS

WiLAS features three loud, easily distinguishable siren alert tones and 'voice-over' advisories. Voice-overs ensure siren tones are more easily understood on sites where personnel are not familiar with the system. The optional Beacon Stations feature colour-coded flashing warning lights.

To hear the siren tones, visit: **www.emergencyalertsystems.com.au/products/wilas/demo.shtml**

REMOTE CONTROL HANDSET
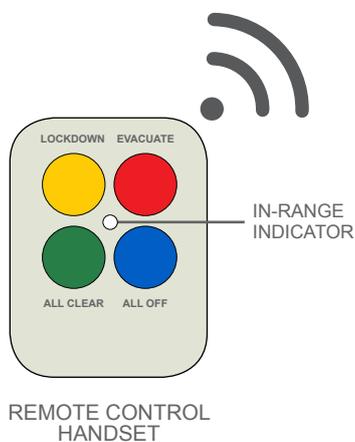
COLOUR CODE	ALERT	VOICE OVER MESSAGE
🔴	EVACUATE	"Evacuate! Go to your evacuation assembly area."
🟡	LOCKDOWN	"Lockdown. Go to your nearest safe zone."
🟢	ALL CLEAR	"All Clear! Wait for instructions from safety warden."

NOTE: Customised tones and voice-overs can be created, however, for Educational Institutions it is recommended the standard tones be deployed for consistency.

ABOUT INVENTIS TECHNOLOGY

Inventis Technology is a Sydney-based electronics design and manufacturing business specialising in embedded control systems, stand-alone electronics control devices, wireless warning systems and ruggedised portable computers and computer-based solutons. We've been delivering innovative solutions to electronics OEMs, first responders, enforcement and defence groups, as well as a wide range of commercial and industrial customers for more than 25 years.

Our brands include:

Emergency Alert Systems (EAS) - wireless emergency warning systems
Impart Special Products (Impart SP) - vehicle system controls & accessories
Opentec Solutions - rugged portable computers & computer-based solutions
PNE Electronics - custom-designed electronic control solutions
SafeZone - driver & pedestrian advance warning systems
UR Media - digital advertising solutions for unattended retail locations

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