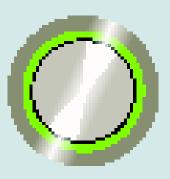




clearsonics

CLEARSONICS COMMUNICATIONS CATALOGUE



# **AWARDS**







WayPhones are a series of vandal resistant, all weather digital telephones designed to operate hands-free in the harshest conditions. Using an innovative mechanical design the Pedestal style WayPhone is ideal for applications where high resistance to the elements are required. All fixings are internal and protected by dual high security locks. Designed for remote applications where reliability is essential, it features extensive diagnostics and configurable options to simplify maintenance and minimise site visits. All WayPhones, will provide clear, handsfree voice communications in high acoustic noise environments. WayPhones utilise digital voice enhancement and advanced Digital Signal Processing (DSP) techniques to provide clear intelligible communications where ambient noise levels reach 105dBA. This technology is trademarked VCE (Voice Clarity Enhancement). Typical Pedestal WayPhone applications are for outdoor emergency or safety communications where high noise levels, harsh environmental conditions or vandalism exist such as: roads, rail and bus interchanges, ports, car parks, industrial and mining plants or remote locations. A cellular (mobile) and solar version Pedestal WayPhone provides cable free alternative to traditional cabled systems, minimising installation costs.

NSW OLD VIC

For sales and enquiries please phone: **02** 9701 9900 • **07** 3184 2000 • **03** 9430 0222

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# **DEFINITIONS**

**4G /3G/2G /** (short for 4th/3rd/2nd generation) is the 4th/3rd/2nd generation of wireless mobile telecommunications technology

GSM / Global System for Mobile Communications. Also referred to as 2G

**PSTN /** Public Switched Telephone Network

**VOIP /** Voice Over Internet Protocol

# dB(A)

Sound Level Measurement unit corrected for average human hearing response.

**DTMF /** Dual Tone Multiple Frequency

PABX / Private Automatic Branch Exchange

BSD / Berkley Software Distribution

**BSD Socket /** A Transport Layer Interface provided for applications to perform interprocess communication between separate processes on a single system or on multiply connected system.

**GUI /** Graphical User Interface

PIN / Personal Identification Number. Used to login to the WayPhone

**RVA /** Recorded Voice Announcement

**Sector /** A WayPhone network can be segmented into individual sectors (1-99). Each WayPhone located in a sector has its sector attribute set to the corresponding sector number. Each sector can be assigned to a particular WayPhone Manager operator to enable control of WayPhone call distribution

**WayPhone /** Clearsonics, vandal resistant, handsfree telephone designed to provide a Telephone service to selected pre-programmed numbers. Ability to operate in high ambient noise levels and in harsh environments. Please refer to the WayPhone Specification documentation for more information

**DSP /** Digital Signal Processing

**VCE /** Voice Clarity Enhancement

# CLEARSONICS HANDS FREE COMMUNICATION

The modern help phone should not be restricted for maximum use by it's surroundings and have facilities for remote operation testing and functionality changes, as well as flexibility for network connections and powering options.

The following should be considered when choosing a help phone system.

### Usability

In times of an emergency a help phone must be simple to use as unrestrictive as possible. A hands-free phone only needs the user to press a button once, even if they were injured or disabled it is easier to press a button than to hold onto a handset.

The user needs feedback that the phone is connecting them. A push button with travel will let them know so they know it has been pressed. Both visual and audible feedback is important to indicate that a call has been placed. A delay in any feedback would appear as an eternity in an emergency situation.

In relation to using a handset the cord length determines the restriction to a users movement and means only one hand is free. The hands-free user has the flexibility to use both hands. This then allows the user to do other tasks such as: applying first aid, directing traffic, taking notes or even receive instructions to fix

a car with their head under the bonnet which could be even more important for remote locations. A hands-free help phone should be able to operate in the expected maximum noise environment.

More than one person should be able to receive information from a hands-free phone, it is not restricted to a one to one conversation.

During a lightning storm it is much safer to use a hands-free phone than to hold onto a handset.

Hands-free phones are not as susceptible to vandalism and therefore are more available to those in need. If a help phone is provided then it will be relied upon and expected to be in working order, not with a cord hanging down with bare wires and no handset to be found. Additionally all help phones should be tested to ensure the utmost availability where the level of testing is conclusive.

This put together with detection and automatic reporting of accidental damage or vandalism (hit by a vehicle or receiving severe blows) will maximise availability.

Consider the wheelchair dependant driver whose car is failing and can stop next to a help phone in the emergency lane. With a handset phone the driver would have to get out of the vehicle necessitating the placement of the wheelchair in the first lane of traffic.

A hands-free help phone powered by solar and connected through a cellular network will be a higher initial investment but should prove the lowest in lifecycle costs whilst providing the upmost usability and flexibility for those who will rely on it.





# WAYPHONE VOIP REDUNDANCY

WayPhone-VoIP allows specification of a redundant proxy for use in the case of primary proxy server failure. In single proxy server systems, if the server fails, incoming calls will normally also fail as there is nothing to direct the calls to waiting operators.

If the IP address of an operator console (SIP Phone) is provided as the 'redundant proxy' address. WayPhone will attempt

to call this phone if the initial attempt via the primary proxy fails. In this 'failsafe' mode, one call can be handled at a time but this is much better situation than the alternative of no calls being answered.

VoIP 'Peer-to-peer' operation can ensure calls for assistance are not missed if the primary SIP proxy server is not operational.

# CLEARSONICS WAYPHONE FOR THE 'HEARING IMPAIRED'

Clearsonics hands-free communication products can be fitted with a purpose made "Hearing Loop" to allow "TeleCoil" equipped hearing aids to sense the audio from the help phone. This facility allows a hearing impaired person to stand in front of the help phone and to use the "T" setting on their hearing aid. This enables them to listen to the Operator without the extraneous noise from heavy passing traffic, which would adversely affect a conversation using the microphone "M" setting.





# WAYPHONE APPLICATIONS

ROAD, TUNNEL AND BRIDGE
AUTOMATED TOLL BOOTHS
GATE ENTRY
RAILWAY STATIONS AND TRACKSIDE
UNIVERSITY CAMPUS
POLICE STATIONS
NATIONAL PARKS
BIKE TRACKS
PETROL STATIONS
BUS STOPS
CAR PARKS - HOSPITAL, PUBLIC, UNIVERSITY
MINING
AIRPORTS







# WAYPHONE PLACEMENT

# WAYPHONE FREEWAY APPLICATION

A Clearsonics WayPhone should be easily accessed by the user. Placement of the WayPhone however is important as a number of areas must be taken into consideration.

WayPhones are used on roads in both city and country locations. Appropriate State Government authorities take into account the volume of traffic which is being utilised or to be utilised and also allow for the time that assistance can be rendered to a user such as a towing facility or medical emergency.

The installation spacing of a WayPhone may differ. In built up city applications WayPhones can be installed 1000 meters apart. In country applications the spacing is normally every 2km.

# **Multiple Freeways (Both Sides)**

If a freeway has more than 2 lanes in both directions and the shoulder of the road or the emergency lane does not have appropriate space it is recommended that two WayPhones be used. This is to stop the user from attempting to cross sections of traffic where an accident may very well occur.

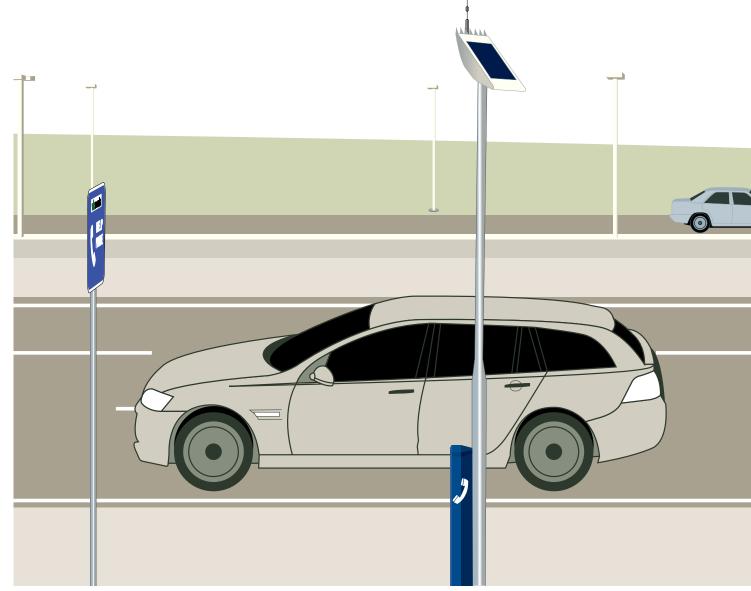
### **Tunnels**

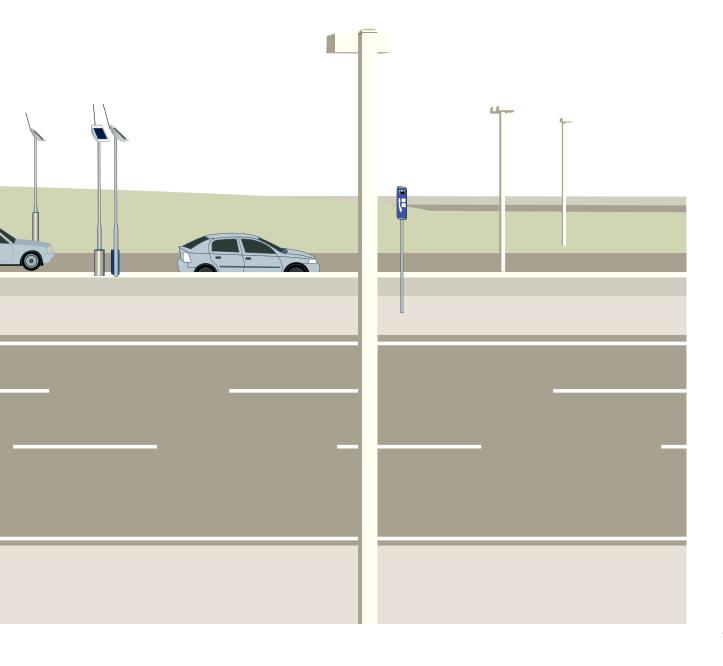
Dependant on the type of tunnel and traffic volume, it is recommended WayPhones can be installed from 100 to 200mts apart.

Other areas of concern to assist in the use of the WayPhone are appropriate lighting levels and road signage to direct and confirm position of the WayPhone.

### Note:

To confirm use and placement of WayPhones please consult your local authority.





# **PEDESTAL**WAYPHONE

# **FEATURES**

- Mobile 4G (3G/2G compatible) fixed line (PSTN) telephone or Ethernet connectivity (VoIP)
- Extensive internal diagnostics, accessible locally or remotely
- Configure remotely using tonedialling, or optional on site via serial port
- Adaptive volume control and duplex operation
- Programmable send and receive levels
- Internal battery with charging options (solar, mains or remote power feed)
- Illuminated option
- Digitally stored announcements
- Response to remote user commands is by digitized voice
- Tilt / vandal detection with automatic dial up reporting

- Unique ID for location information
- One push button standard but can be expanded to three
- Lightning and radio frequency interference protection on

PSTN / DC feed board

- Audible and visual feedback on button press with LED Buttons
- Polycarbonate label where graphics can be readily customized
- 5mm extruded aluminium housing with dual high security locks and powder coat finish
- Housing top is fitted with an endcap but not the bottom
- 1375 and 2280mm housing models

# TECHNICAL SPECIFICATIONS: PEDESTAL WAYPHONE

# Physical Dimensions: 210W x 1475H x 130D (mm)

(lightbox version) 2450H Base cover (ctr pole): 440mm diameter Base Cover (ext pole): 470mm diameter Weight 50kg (1375mm with centre pole) External Solar pole: 4 metres

### **Environmental**

Temperature range: -10 to +70 degrees C Humidity: 95% non-condensing

# **Power Options**

12V solar panel
Mains plug pack 15VDC 1A
Remote power feed 22V-70VDC
Internal 12V sealed lead acid battery

### Network

PSTN or PABX 4G (3G/2G compatible). The new 4G modem supports 4G, 3G and 2G communications. Ethernet (VoIP)

### Audio

Automatic volume control Noise environments up to 105dBA High clarity speaker to deliver up to 120dBA

### **User Interface**

Hands-free operation
Push button(s) to call or play
announcement Illuminated push buttons
(Optional) Standard network tones



# Configuration

Factory preset Remote dial in Management Software

# Maintenance

Diagnostics via

- 1. Remote dial in
- 2. Remote PC based management system

# Security

Four digit PIN protection Automatic tilt/vandalism warning with dial up reporting

# **Supporting products**

WayPhone Manager for control room call management WayPhone Tester for automatic and remote testing

# Warranty

12 months on parts and labour from date of delivery.

# WALLMOUNT WAYPHONE

# **FEATURES**

- Mobile 4G (3G/2G compatible), fixed line (PSTN) telephone or Ethernet connectivity (VoIP)
- Extensive internal diagnostics, accessible locally or remotely
- Configure remotely using tone-dialling, or optional on site via serial port.
- Adaptive volume control and duplex operation
- Programmable send and receive levels
- Internal battery with charging options (solar, mains or remote power feed)
- Digitally stored announcements
- Response to remote user commands is by digitised voice
- Tilt/vandal detection with automatic dial up reporting
- Unique ID for location information
- One push button standard but can be expanded to three

- Lightning and radio frequency interference protection on PSTN / DC Feed board
- Audible and visual feedback on button press
- Polycarbonate label where graphics can be readily customized
- 5mm extruded aluminium housing with dual high security locks and powder coat finish
- Housing top and bottom is fitted with an endcap
- Models: 470mm (Standard), 740mm (Extended) and 1375mm (Custom)
- Mounting Methods: Wall, Pole, Barrier/ New Jersey Mount

# TECHNICAL SPECIFICATIONS: WALLMOUNT WAYPHONE

### **Physical**

Dimensions:

Standard 470mm: 210W x 530H x 130D(mm) Extended 740mm: 210W x 800H x 130D(mm)

Custom 1375mm: 210W x 1435H x 130D(mm) Weight 470mm: 11kg approx

# **Environmental**

Temperature range: -10 to +70 degrees C Humidity: 95% non-condensing

### **Power Options**

12V solar panel

Mains plug pack 15VDC 1A
Remote power feed 22V-70VDC
Internal 12V sealed lead acid battery

### Network

PSTN or PABX

The new 4G modem supports 4G, 3G and 2G communications.

Ethernet (VoIP)

# **Audio**

Automatic volume control Noise environments up to 105dBA

High clarity speaker to deliver up to 120dBA

### 1200BA

Hands-free operation
Push button(s) to call or play

**User Interface** 

announcement
Illuminated push buttons (Optional)

Standard network tones



# Configuration

Factory preset
Remote dial in
Management Software

# Maintenance

Diagnostics via

- 1. Remote dial in
- 2. Remote PC based management system

# Security

Four digit PIN protection
Automatic tilt/vandalism warning with dial up reporting

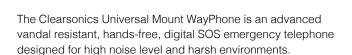
# **Supporting products**

WayPhone Manager for control room call management WayPhone Tester for automatic and remote testing

# Warranty

12 months on parts and labour from date of delivery.

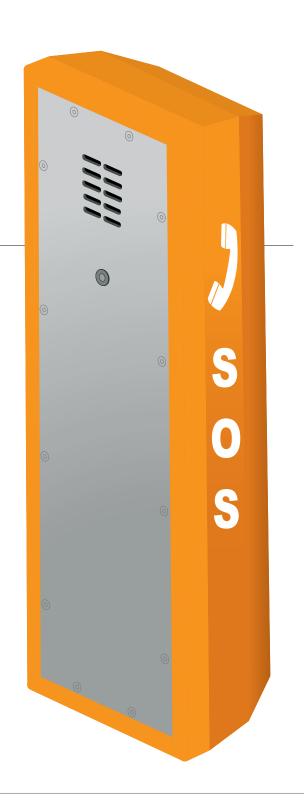
# WAYPHONE CUSTOMISED UNIVERSAL MOUNT



An innovative mechanical design ensures environmental protection, strength and provides a variety of mounting options to suit roadside, streetscape and architectural applications.

Enclosure Height 854mm / Width 290mm / Depth 185mm

Housing size accomodates up to 12V45AH SLA battery which may be required for VoIP Solar.



# TECHNICAL SPECIFICATIONS: UNIVERSAL MOUNT

### **Environmental**

Temperature range: -10 to +70 degrees C Humidity: 95% non-condensing

# **Power Options**

12V solar panel
Mains plug pack 15VDC 1A
Remote power feed 22V-70VDC
Internal 12V sealed lead acid battery

### Network

PSTN or PABX 4G (3G/2G compatible) Ethernet (VoIP)

### **Audio**

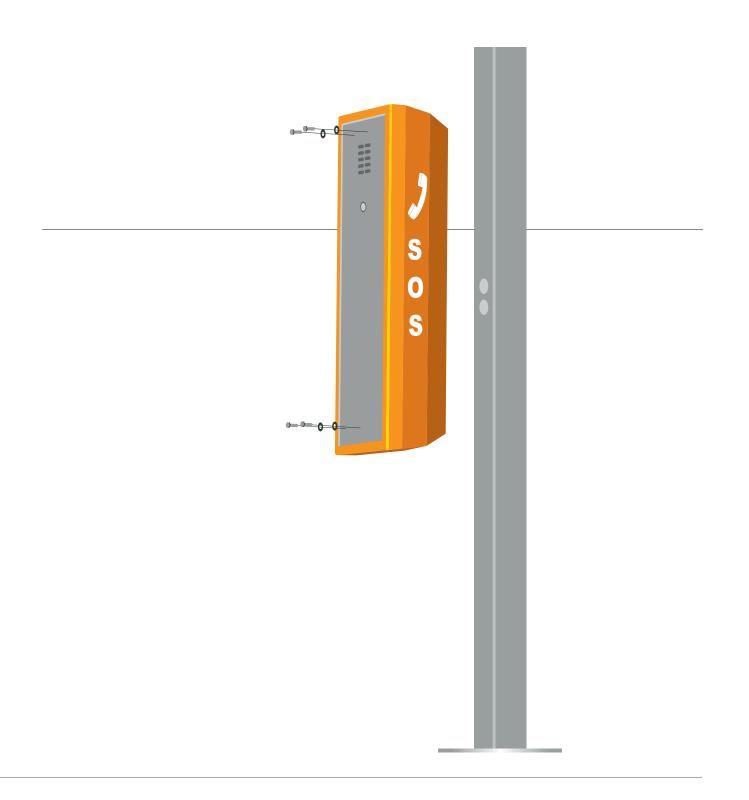
Automatic volume control Noise environments up to 105dBA High clarity speaker to deliver up to 120dBA

### **User Interface**

Hands-free operation
Push button(s) to call or play announcement
Illuminated push buttons (Optional)
Standard network tones

# Configuration

Factory preset
Remote dial in
Management Software



# Maintenance

Diagnostics via

- 1. Remote dial in
- 2. Remote PC based management system

# Security

Four digit PIN protection
Automatic tilt/vandalism warning with dial
up reporting

# Supporting products

WayPhone Manager for control room call management WayPhone Tester for automatic and remote testing

# Warranty

12 months on parts and labour from date of delivery.

# PANEL WAYPHONE

# **FEATURES**

- Mobile 4G (3G/2G compatible) fixed line (PSTN) telephone or Ethernet connectivity (VoIP)
- Extensive internal diagnostics, accessible locally or remotely
- Configure remotely using tone-dialling, optional on site via serial port
- Adaptive volume control and duplex operation
- Programmable send and receive levels
- External battery with charging options (solar, mains or remote power feed)
- Digitally stored announcements
- Response to remote user commands is by digitised voice

- Tilt/vandal detection and automatic dial up reporting
- Unique ID for location information
- One push button standard but can be expanded to three
- Lightning and radio frequency interference protection on PSTN / DC Feed Board
- Audible and visual feedback on button press with LED buttons
- Laser etched graphics which can be readily customized
- 2.5mm stainless steel face plate

# TECHNICAL SPECIFICATIONS: PANEL WAYPHONE

# **Physical**

Dimensions:

Standard: 220W x 480H x 850D(mm) Customised sizes available

### **Environmental**

Temperature range: -10 to +70 degrees C Humidity: 95% non-condensing

### **Power Options**

12V solar panel Mains plug pack 15VDC 1A Remote power feed 22V-70VDC External 12V sealed lead acid battery

# Network

PSTN or PABX 4G (3G/2G compatible) Ethernet (VoIP)

### Audio

Automatic volume control

Noise environments up to 105dBA

High clarity speaker to deliver up to 120dBA

### **User Interface**

Hands-free operation
Push button(s) to call or play announcement
Illuminated push buttons (Optional)
Standard network tones

### Configuration

Factory preset
Remote dial in
Management Software



# Maintenance

Diagnostics via

- 1. Remote dial in
- 2. Remote PC based management system

# Security

Four digit PIN protection
Automatic tilt/vandalism warning with dial
up reporting

# Supporting products

WayPhone Manager for control room call management WayPhone Tester for automatic and remote testing

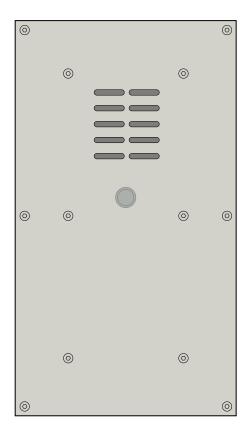
# Warranty

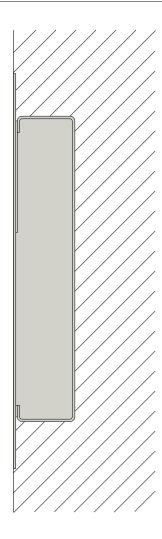
12 months on parts and labour from date of delivery.

# CLEARSONICS INTERCOM

# INTERCOM FLUSH MOUNT







The Clearsonics IP Intercom allows hands free Voice communications over wired IP networks (VoIP). With appropriate software, the Intercom may also be used as an IP based public address system. Line level monitoring/recording outputs are available

for both local and remote audio signals. The local voice signals (mic input) can also be transmitted to a "Recording Server" located on a separate IP address. Voice calls can be autonomously terminated after programmable 'no data' or 'in call' periods have been exceeded.

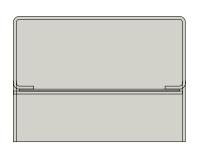
One or two 'call' buttons can be provided allowing calls to be established with up to two remote locations; a switchboard and gatehouse for example. The SIP number dialed when a button is pressed (and other operational parameters) may be re-programmed from any computer connected to the same IP network.

Two open collector LED drive outputs are available to provide device state information (LINK DOWN, IDLE, IN CALL, ON HOLD/QUEUED). These may drive an optional bi-colour indicator on the Intercom housing or be used to control external LED indicators.

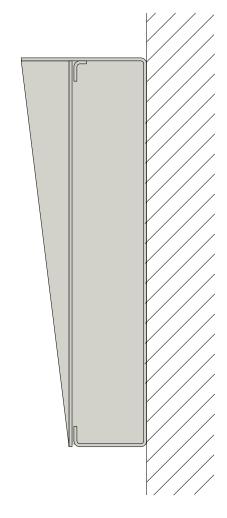
Interrogation of connected equipment.

A 4 Watt, 12V to 24V DC power supply is required for operation. If additional devices are to be powered from this supply, it should be scaled appropriately. Clearsonics can provide a high quality 25W/15V switching supply that will operate reliably to +70 degrees.

# INTERCOM SURFACE MOUNT







# TECHNICAL SPECIFICATIONS: CLEARSONICS INTERCOM

Operating temperature: 0°C to 70°C Humidity: 5 to 95% non-condensing Power Requirements: 12V - 24V DC 1A

# **Power Consumption**

Idle current 65mA

Typical current while call in progress 80mA Maximum current while call in progress 150mA

# Dimensions

Surface 326 x 144 x 105mm Flush 418 x 234 x 65mm

# **Supported protocols**

G.711 mu-law + A-Law
Session Initiation Protocol (SIP) RFC 3261
Real-Time Transport Protocol (RTP) RFC 3550
Session Description Protocol (SDP) RFC 2327
Trivial File Transfer protocol (TFTP) RFC 1350
User Datagram Protocol (UDP) RFC 0768

# **Physical connections**

Local area network (LAN) connector

# **Audio specifications**

G711 (mu-law + A-Law) Audio in 1.0V Audio out 1.0V

# VCE" MODULE

VCE OEM telephone module is designed to provide clear, hands-free voice communications in high acoustic noise environments. The module utilises digital voice enhancement and advanced Digital Signal Processing (DSP) techniques to provide clear intelligible communications where ambient noise levels can reach 105dBA, as would be experienced in a motorway tunnel. Typical applications are emergency or safety communications where the module is incorporated into telephone systems where calls are set up between high ambient noise environments and a call centre. Designed to be easily integrated into most communication systems using software configurable options and internal diagnostics. On-board facilities are provided to interface and control other devices via configurable digital I/O lines, serial port and switchable power.

# **FEATURES**

- Mobile 4G (3G/2G compatible), fixedline (PSTN) telephone or Ethernet (VoIP) options
- Up to 3 call buttons each with programmable auto dialling numbers of up to 20 digits
- Extensive internal diagnostics, accessible locally or remotely
- Configure remotely using tone-dialing, or optional on site via data communication port
- Adaptive volume control and duplex operation
- Programmable send and receive levels
- External battery with charging options (solar, mains or remote power feed)
- Sleep mode to minimise power consumption

- · Digitally stored announcements
- Response to remote user commands is by digitised voice
- · Real time clock
- Tilt/vandal detection and automatic reporting
- Unique ID for location information
- Multiple audio I/O
- Lightning and radio frequency interference protection on PSTN / DC Feed board

# TECHNICAL SPECIFICATIONS: VCE™ MODULE

### **Physical**

Box Dimensions: 122W x 257L x 67D (mm) Mounting flange: 122W x 281L (mm) Mounting holes centres: 71W x 266L (mm), 6mm diameter for M4 stud

# **Environmental**

Temperature range: -10 to +70 degrees C Humidity: 95% non-condensing

# **Power Options**

12V Solar Panel, Mains plug pack 15VDC 1A Remote power feed 22V-70VDC External 12V sealed lead acid battery

### Network

PSTN or PABX 4G (3G/2G compatible) Ethernet (VoIP)

### **External Interfaces**

Speaker/microphone audio, up to 3 Call Button inputs, optional Single or Multiple Dry Contact Relay Output, Serial config/debug port.

# Audio

Automatic volume control Noise environments up to 105dBA High level audio output, for speaker Low level audio output via codec



# Configuration

Factory preset Remote dial in Management Software

# Maintenance

Diagnostics via

- 1. Remote dial in
- 2. Remote PC based management system

# Security

Four digit PIN protection Automatic tilt/vandalism warning with dial up reporting

# Supporting products

Matched high clarity speaker assembly with integrated microphone WayPhone Manager for control room call management WayPhone Tester for automatic and remote testing WayPhone

# Warranty

12 months on parts and labour from date of delivery.

# **WAYPHONE TESTER**

The WayPhone Tester is an easy to use and inexpensive solution for maintaining a network of WayPhones providing automatic and manual testing facilities plus managing WayPhone configuration records. Facilities for phone diagnostics, event logging and database configuration changes are provided under mouse/ keyboard control in a user-friendly Windows environment.

# **FEATURES**

- Automatic and manual WayPhone testing with audible alarm
- Database logging of alarm/system events with viewing, filtering and printing facilities
- Facilities to modify WayPhone configuration records
- · On-screen control to customize system settings

# **ALARM MANAGEMENT**

- On the detection of a WayPhone fault condition, visual and audible alarms will be generated.
- All faults are stored in the database and there is an on-screen facility to silence the audible alarm.
- Alarms are automatically cleared when the system detects a fault condition has been removed.

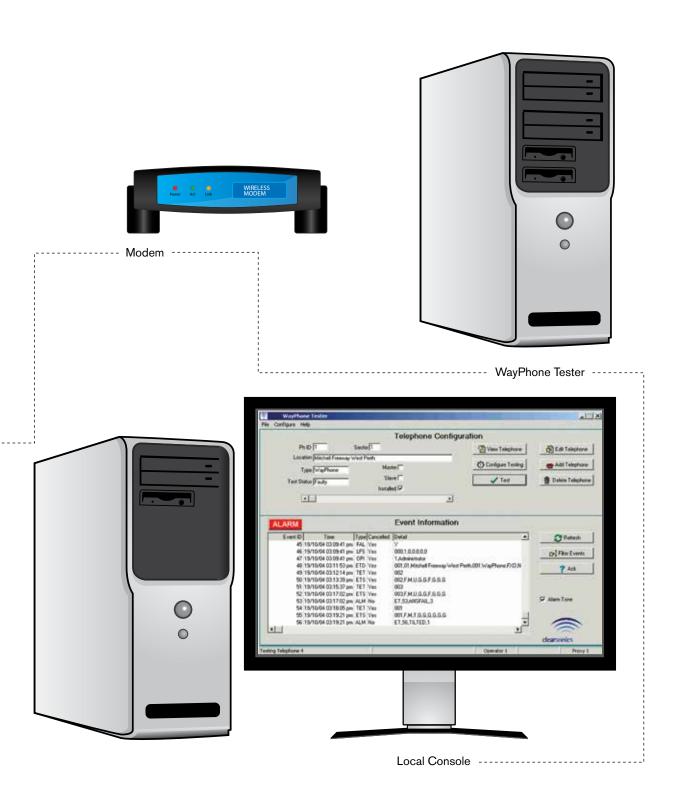
# **TECHNICAL SPECIFICATIONS: WAYPHONE TESTER**

# WayPhone Tester requires the following minimum Hardware/ Software configuration:

1.5 GHz Processor 1 GB RAM (2GB or more recommended) 100 GB hard drive 1024 x 768 screen size Keyboard and Mouse Clearsonics specified DTMF capable modem Microsoft Windows 7/10 Professional, Windows Server 2012/2019

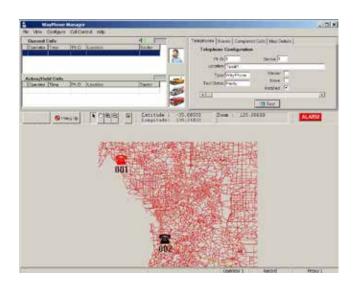


Network Connection



# WAYPHONE MANAGER

The WayPhone Manager is a call centre solution for managing a network of WayPhones based on innovative Voice over Internet Protocol (VoIP) technology. Facilities for call control, PA, conversation recording, telephone testing, fault reporting, event logging, configuration management and system diagnostics are all provided under mouse/keyboard control. The VoIP WayPhone Manager is essentially a virtual PBX, significantly lowering hardware complexity and costs, plus is more readily integrated into a central computer system. The WayPhone Manager has the flexibility to operate with multiple operators and multiple control rooms. WayPhones can be connected to the Manager via Ethernet/fibre, fixed line or via the public telephone network including Cellular.



Above image: WayPhone Manager GUI

# CCC Connection External Workstation n

**External Computer** 

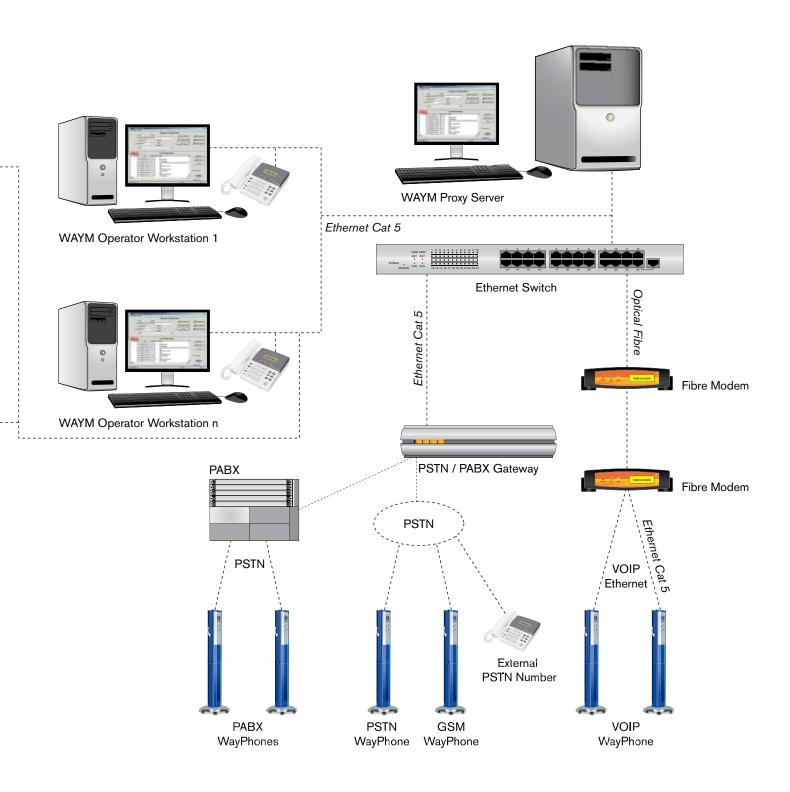
### **Call control**

- Multiple calls held on the queue which can be accessed by all operators
- Calls when answered are placed in the active window for that operator
- WayPhone calls can be placed on hold or transferred to outside party or other operator
- External calls can be transferred to any WayPhone
- Comments can be added to any call record for reporting purposes
- Recorded announcements are provided to the WayPhone user when in the queue or on hold

# Conversation recording

External Workstation n

- All WayPhone calls are digitally recorded in "wav" file format and stored on the Server
- Calls can be replayed on an Operator Workstation using Microsoft Windows Media Player or other Third Party software
- Voice recordings can be optionally archived to a removable storage media for storage/backup



### **Public Address**

 Pre-recorded or live PA announcements to single, multiple or all connected WayPhones

# **Call / Event logging**

 Database logging of call and alarm/ system events with viewing, filtering, export and printing facilities

# WayPhone configuration/testing

- Addition, deletion or variations to database records and WayPhone settings
- Automatic testing of all WayPhones or manual testing of individual WayPhones plus audible and visual alarms

# Integration

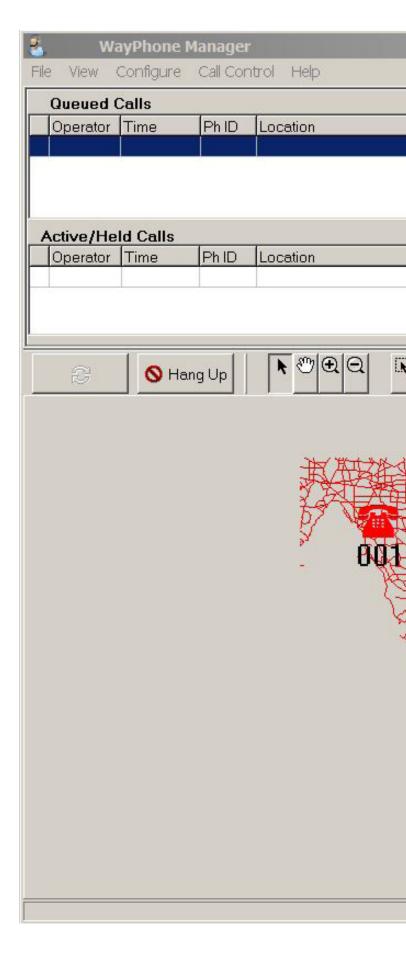
 The WayPhone Manager can operate on stand alone workstations, as a client window on multiple system workstations or integrated with other systems using an text base message protocol over via BSD Sockets

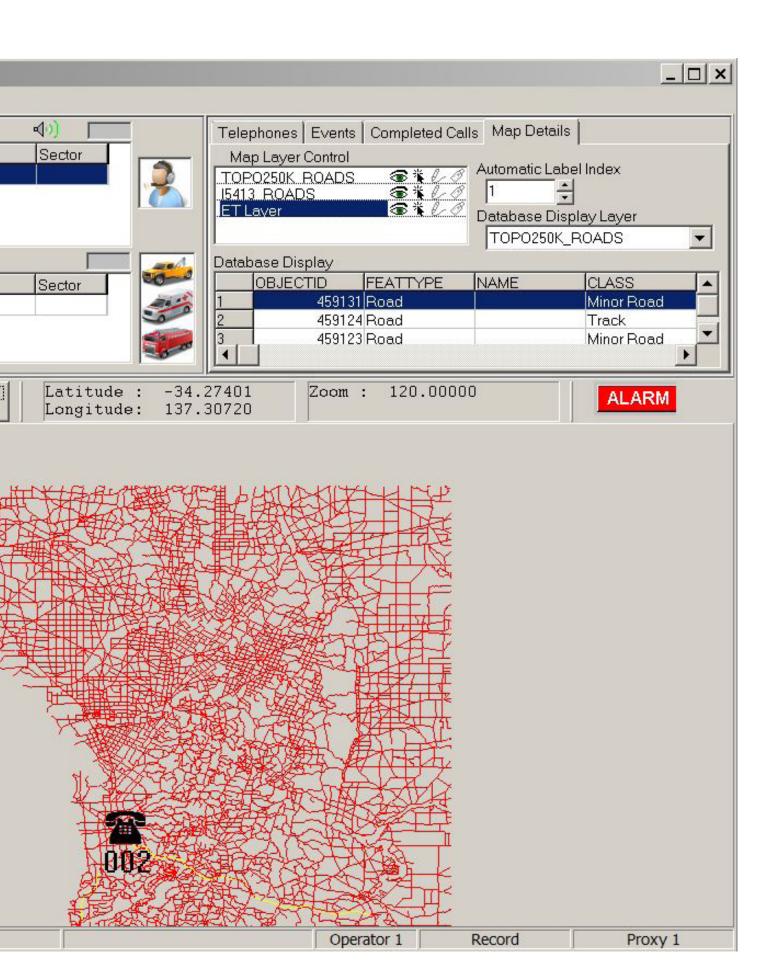
# WayPhone Manager requires the following minimum Hardware/ Software configuration:

- 1.5 GHz Processor
- 2GB RAM or more
- 200GB hard drive
- 1024 x 768 screen size
- · Keyboard and mouse
- Microsoft Windows 7/10 Professional, Windows Server 2012/2019

# **MAPPING**

The WayPhone Manager Graphical User Interface includes an optional Map facility to display a graphical map covering the areas where phones are installed. The map is able to be panned and zoomed in or out to show appropriate level of detail. Emergency telephones are represented via icons on the map. The emergency telephone map icons change colour and flash depending on the current call and test status of each phone. Using pop-up menus accessed from the map icons many emergency telephone call and maintenance functions are made quickly and conveniently available.





# **VOIP**MODULE

Model

VoIP PBA 1162

# **Operating temperature**

0°C to 70°C

# Humidity

5 to 95% non-condensing

### **Power Requirements**

12V - 24V DC 1A

### **Power Consumption:**

Idle current 65mA

Typical current while call in progress 80mA Maximum current while call in progress 150mA

# **Dimensions**

140mm by 85mm

# **Supported protocols**

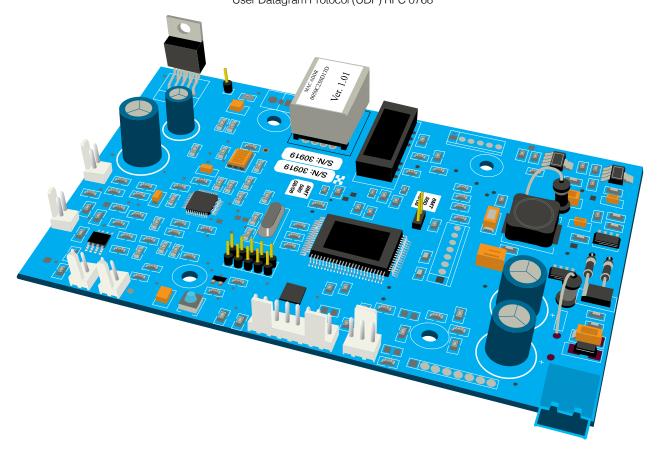
G.711 (mu-law + A-Law)
Session Initiation Protocol (SIP) RFC 3261
Real-Time Transport Protocol (RTP) RFC 3550
Session Description Protocol (SDP) RFC 2327
Trivial File Transfer protocol (TFTP) RFC 1350
User Datagram Protocol (UDP) RFC 0768

# **Physical connections**

Power (2 way plug in screw in connector)
Local area network (LAN) connector
Button (8 way molex connector)
Programming (5 by 2 way connector)
LED (3 way molex connector)
Microphone (2 way molex connector)
Speaker (2 way molex connector)

### **Audio specifications**

G711 mu-law + A-Law Audio in 1.0V Audio out 1.0V

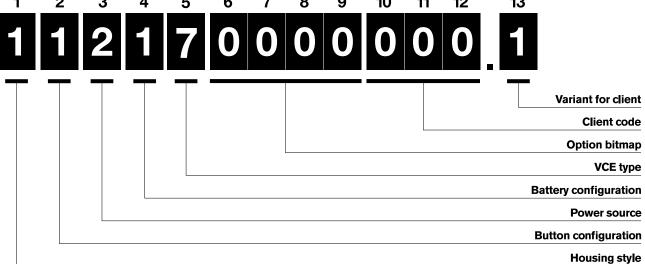


# WAYPHONE CODING

Clearsonics product coding for use in manufacture takes the form of a 13 digit numeric code. There is also a longer and more human readable alphanumeric code. The function of this coding is to allow creation of unique codes for every different product supplied to our clients. The codes defined here will adequately describe the majority of builds, but there are many subtle variations to the code to suit a particular need. This will be derived in our Clearsonics Bill of Materials for the product.

Note. The product Coding Table shall change continuously as new product + variations become available. Please consult your local Clearsonics Sales office.

# MAYPHONE CODING 1 2 3 4 5 6 7 8 9 10 11



The example above results in Alphanumeric code: PD-1B-MB-12V12-4G-CS.1

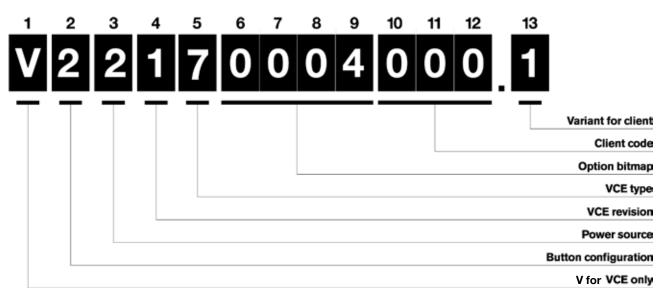
# WAYPHONE CODING

| DIGIT | N            | A      | DESCRIPTION                              | COMMENT                                |
|-------|--------------|--------|--|--|
| 1     | HOUS         |        |  |  |
|       | 0            | PA     | Panel                                    |  |
|       | 1            | PD     | Pedestal (1375mm)                        |  |
|       | 2            | WM     | Wallmount (470mm)                        |  |
|       | 3            | UM     | Universal Mount                          |  |
|       | 4 5          | WME    | Wallmount Extended (740mm)               |  |
|       | 8            | PAC    | Panel Custom (non-standard size)         | Or aspect (ie horizontal)              |
|       | 9            | PDC    | Pedestal Custom (non-standard size)      | For extended/short etc                 |
|       | А            | WMC    | Wallmount Custom (non-standard size)     | Any other size other than 470 or 740mm |
|       | F            | _      | Reserved for Fascia codes                |  |
| 2     | витто        | N CONF | IGURATION                                |  |
|       | 0            | 0B     | No Buttons (PA only)                     |  |
|       | 1            | 1B     | Single Button Standard                   |  |
|       | 2            | 2B     | Dual Button Standard                     |  |
|       | 3            | 1BI    | Single Button Illuminated                |  |
|       | 4            | 2BI    | Dual Button Illuminated                  |  |
|       | 5            | 1BP    | Single Button Illuminated Piezo          |  |
|       | 6            | 2BP    | Dual Button Illuminated Piezo            |  |
|       | 7            | 1BF    | Single Button Flush                      |  |
|       | 8            | 2BF    | Dual Button Flush                        |  |
|       | E            | HS     | Hookswitch                               |  |
|       | F            | ВС     | Custom (Refer BOM)                       |  |
| 3     | POWER SOURCE |        |  |  |
|       | 0            | -      | Client looks after power or not relevant | Use standard Batt & DC Feed cable      |
|       | 1            | М      | Local Power Source                       | Mains Plug Pack etc.                   |
|       | 2            | MB     | Local Power & Battery                    |  |
|       | 3            | RPF    | Old RPF Module & Battery (obsolete)      | Can't run from RPF alone               |
|       | 4            | R      | Remote DC                                | (22 <vdc<70)< td=""></vdc<70)<>        |
|       | 5            | RB     | Remote DC & Battery                      |  |
|       | 6            | S      | Solar & Battery                          | Client supplies power system           |
|       | 7            | S10    | 10W Solar & Battery                      |  |
|       | 8            | S20    | 20W Solar & Battery                      |  |
|       | 9            | S40    | 40W Solar & Battery                      | Recommend external charger             |
|       | А            | S50    | 50W Solar & Battery                      | Recommend external charger             |
|       | F            | PC     | Custom (refer BOM)                       |  |

# WAYPHONE CODING

| DIGIT | N  | A     | DESCRIPTION              | COMMENT                       |
|-------|--|-------|--------------------------|-------------------------------|
| 4     | BATTERY OPTION                                       |       |                          |                               |
|       | 0  | -     | No Battery or N/A        |                               |
|       | 1  | 12V12 | 2 x 6V/12Ah              |                               |
|       | 2  | 12V2  | 1 x 12V/2.3Ah            |                               |
|       | 3  | 12V7  | 1 x 12V/7Ah              |                               |
|       | 4  | 12V45 | 1 x 12V/45Ah             | Use external charger          |
|       | F  | С     | Custom (refer BOM)       |                               |
| 5     | VCE CC   | ОММИН | CATIONS INTERFACE TYPE   |                               |
|       | 0  | -     | No VCE or N/A            |                               |
|       | 1  | GSM   | GSM Communications       |                               |
|       | 2  | 3G    | 3G Communications        |                               |
|       | 3  | PSTN  | PSTN/POTS Communications |                               |
|       | 5  | VOIP  | VoIP Communications      |                               |
|       | 7  | 4G    | 4G Communications        |                               |
|       | F  | VC    | Custom comms             |                               |
| 6-9   | WAYPHONE OPTION BITMAP - CODED AS 4 DIGIT HEX NUMBER |       | IEX NUMBER               |                               |
|       | b0   | IR    | IrDA (Obsolete)          | Char 9 Add 1                  |
|       | b1   | М     | Master                   | Char 9 Add 2                  |
|       | b2   | RS    | Single Relay Board       | Char 9 Add 4                  |
|       | b3   | RM    | Multi Relay Board        | Char 9 Add 8                  |
|       | b4   | S     | Strobe                   | Char 8 Add 1                  |
|       | b5   | L     | Light Box                | Char 8 Add 2                  |
|       | b6   | Е     | E-Core                   | Char 8 Add 4                  |
|       | b7   | I     | I-Core                   | Char 8 Add 8                  |
|       | b8   |       |                          | Char 7 Add 1                  |
|       | b9   |       |                          | Char 7 Add 2                  |
|       | b10  |       |                          | Char 7 Add 4                  |
|       | b11  |       |                          | Char 7 Add 8                  |
|       | b12  |       |                          | Char 6 Add 1                  |
|       | b13  |       |                          | Char 6 Add 2                  |
|       | b14  | XC    | external battery Charge  | Char 6 Add 4                  |
| 1     | b15  |       |                          | Char 6 Add 8 (10=A, 11=B etc) |

# VCE CODING



The example above results in Alphanumeric code: VCE-2B-MB-WP1.R-4G-RS-CS.1

Strobes, Light Boxes, E-Cores & I-Cores do not effect the VCE hardware so are not included as VCE options.

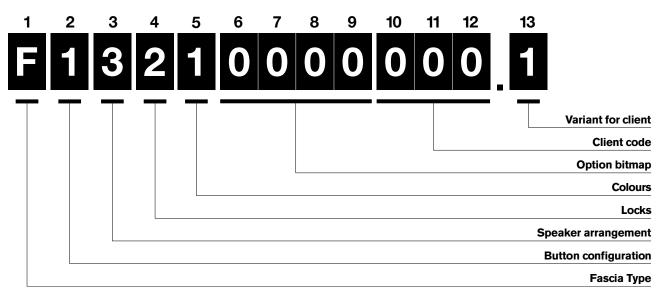
| DIGIT           | N            | A                    | DESCRIPTION                              | COMMENT                           |
|-----------------|--------------|----------------------|--|-----------------------------------|
| 2               | витто        | BUTTON CONFIGURATION |  |                                   |
|                 | 0            |                      | No Buttons (PA only)                     |                                   |
|                 | 1            | 1B                   | Single Button Standard                   |                                   |
|                 | 2            | 2B                   | Dual Button Standard                     |                                   |
|                 | 3            | 1BI                  | Single Button Illuminated                |                                   |
|                 | 4            | 2BI                  | Dual Button Illuminated                  |                                   |
|                 | 5            | 1BP                  | Single Button Illuminated Piezo          |                                   |
|                 | 6            | 2BP                  | Dual Button Illuminated Piezo            |                                   |
| E HS Hookswitch |              | Hookswitch           |  |                                   |
|                 | F            | ВС                   | Custom (Refer BOM)                       |                                   |
| 3               | POWER SOURCE |                      |  |                                   |
|                 | 0            | -                    | Client looks after power or not relevant | Use standard Batt & DC Feed cable |
|                 | 1            |                      |  |                                   |
|                 | 2            | MB                   | Local Power (Solar or Mains) and Battery |                                   |
|                 | 3            | RPF                  | Old RPF Module & Battery                 | Can't run from RPF alone          |
|                 | 4            | R                    | Remote DC                                | Requires DC-P module              |
|                 | 5            | RB                   | Remote DC & Battery                      | As above                          |
|                 | F            | PC                   | Custom (refer BOM)                       |                                   |



| DIGIT | N  | A            | DESCRIPTION               | COMMENT                       |  |  |
|-------|--|--------------|---------------------------|-------------------------------|--|--|
| 4     | VCE RE   | VCE REVISION |                           |                               |  |  |
|       | 0  | -            | Obsolete (L or P)         |                               |  |  |
|       | 1  | WP1.R        | Current                   |                               |  |  |
| 5     | VCE CC   | оммин        | CATIONS INTERFACE TYPE    |                               |  |  |
|       | 0  | -            | No VCE or N/A             |                               |  |  |
|       | 1  | GSM          | GSM Communications        |                               |  |  |
|       | 2  | 3G           | 3G Communications         |                               |  |  |
|       | 3  | PSTN         | PSTN/POTS Communicationss |                               |  |  |
|       | 5  | VOIP         | VoIP Communications       |                               |  |  |
|       | 7  | 4G           | 4G Communications         |                               |  |  |
|       | F  | VC           | Custom Comms              |                               |  |  |
| 6-9   | WAYPHONE OPTION BITMAP (CHECK BOXES) – CODED AS 4 DIGIT HEX NUMBER |              |                           |                               |  |  |
|       | b0   | IR           | (Obsolete)                | Char 9 Add 1                  |  |  |
|       | b1   | М            | Master                    | Char 9 Add 2                  |  |  |
|       | b2   | RS           | Single Relay Board        | Char 9 Add 4                  |  |  |
|       | b3   | RM           | Multi Relay Board         | Char 9 Add 8                  |  |  |
|       | b4   | W            | Waterproof Connectors     | Char 8 Add 1                  |  |  |
|       | b5   |              |                           | Char 8 Add 2                  |  |  |
|       | b6   |              |                           | Char 8 Add 4                  |  |  |
|       | b7   |              |                           | Char 8 Add 8                  |  |  |
|       | b8   |              |                           | Char 7 Add 1                  |  |  |
|       | b9   |              |                           | Char 7 Add 2                  |  |  |
|       | b10  |              |                           | Char 7 Add 4                  |  |  |
|       | b11  |              |                           | Char 7 Add 8                  |  |  |
|       | b12  |              |                           | Char 6 Add 1                  |  |  |
|       | b13  | 0            | OVP Module                | Char 6 Add 2                  |  |  |
|       | b14  | XC           | External Charger          | Char 6 Add 4                  |  |  |
|       | b15  |              |                           | Char 6 Add 8 (10=A, 11=B etc) |  |  |

If an external charger is specified, the internal VCE power connections may be effected.

# FASCIA CODING



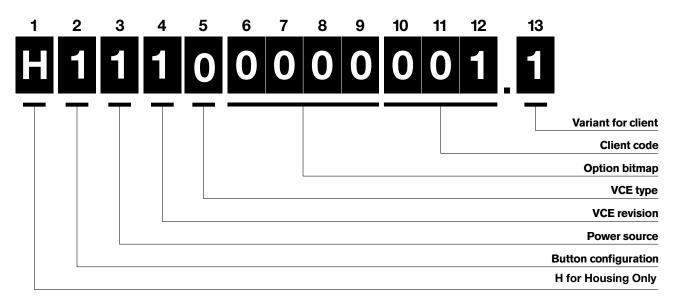
The example above results in Alphanumeric code: FAS-1B-STM-BI-SI.B-CS.1 (our standard single button fascia)

| DIGIT | N       | A       | DESCRIPTION                          | COMMENT |
|-------|---------|---------|--------------------------------------|---------|
| 1     | FACIA 1 | ГҮРЕ    |                                      |         |
|       | F       | FAS     | Extruded Fascia                      |         |
|       | F       | PAF     | Panel Fascia                         |         |
| 2     | витто   | N CONFI | GURATION                             |         |
|       | 0       | 0B      | No Buttons (PA only)                 |         |
|       | 1       | 1B      | Single Button Standard               |         |
|       | 2       | 2B      | Dual Button Standard                 |         |
|       | 3       | 1BI     | Single Button Illuminated            |         |
|       | 4       | 2BI     | Dual Button Illuminated              |         |
|       | 5       | 1BP     | Single Button Illuminated Piezo      |         |
|       | 6       | 2BP     | Dual Button Illuminated Piezo        |         |
|       | 7       | 1BF     | Single Button Flush                  |         |
|       | 8       | 2BF     | Dual Button Flush                    |         |
|       | E       | HS      | Hookswitch                           |         |
|       | F       | ВС      | Custom (Refer BOM)                   |         |
| 3     | SPEAK   | ER TYPE | & POSITION                           |         |
|       | 0       | -       | Reserved                             |         |
|       | 1       | STMIR   | Speaker Top (Mic & IrDA obsolete)    |         |
|       | 2       | SBMIR   | Speaker Bottom (Mic & IrDA obsolete) |         |
|       | 3       | STM     | Speaker Top (Mic only)               |         |
|       | 4       | STB     | Speaker Bottom (Mic only)            |         |
|       | 5       | ST      | Speaker Top                          |         |
|       | 6       | SB      | Speaker Bottom                       |         |
|       | F       | SC      | Custom (refer BOM)                   |         |

# FASCIA CODING

| DIGIT | N         | A       | DESCRIPTION                           | COMMENT                       |
|-------|-----------|---------|---------------------------------------|-------------------------------|
| 4     | LOCK TYPE |         |                                       |                               |
|       | 0         | -       | Reserved                              |                               |
|       | 1         | AB      | Abloy                                 |                               |
|       | 2         | BI      | BiLock                                |                               |
|       | 8         | KR      | Bryce KEY-REX                         |                               |
|       | 9         | SC      | Other security screw                  |                               |
|       | F         | LC      | Custom (refer BOM)                    |                               |
| 5     | COLOL     | JR      |                                       |                               |
|       | 0         | -       | Raw                                   |                               |
|       | 1         | SI.B    | Bright Silver                         |                               |
|       | 2         | OR.B    | Bistro Orange                         |                               |
|       | 3         | OR.M    | Mitsubishi Orange                     |                               |
|       | 4         | OR.S    | Signal Orange                         |                               |
|       | 5         | YE.S    | Safety Yellow                         |                               |
|       | 6         | RD.R    | Flame Red                             |                               |
|       | 7         | BL.S    | Space Blue                            |                               |
|       | 8         | OR.D    | Dulux Orange X15                      |                               |
|       | F         | С       | Custom (see BOM)                      |                               |
| 6-9   | WAYP      | HONE OF | PTION BITMAP - CODED AS 4 DIGIT HEX N | UMBER                         |
|       | b0        | А       | Anti-Graffiti                         | Char 9 Add 1                  |
|       | b1        | Р       | Polished (Stainless)                  | Char 9 Add 2                  |
|       | b2        | В       | Brushed (Stainless)                   | Char 9 Add 4                  |
|       | b3        |         |                                       | Char 9 Add 8                  |
|       | b4        |         |                                       | Char 8 Add 1                  |
|       | b5        | L       | Light Box                             | Char 8 Add 2                  |
|       | b6        |         |                                       | Char 8 Add 4                  |
|       | b7        |         |                                       | Char 8 Add 8                  |
|       | b8        |         |                                       | Char 7 Add 1                  |
|       | b9        |         |                                       | Char 7 Add 2                  |
|       | b10       |         |                                       | Char 7 Add 4                  |
|       | b11       |         |                                       | Char 7 Add 8                  |
|       | b12       |         |                                       | Char 6 Add 1                  |
|       | b13       |         |                                       | Char 6 Add 2                  |
|       | b14       |         |                                       | Char 6 Add 4                  |
|       | b15       |         |                                       | Char 6 Add 8 (10=A, 11=B etc) |

# HOUSING CODING



The example above results in Alphanumeric code: : HSG-PD-PC-B2S-BL.S-CS.1

| DIGIT | N     | A             | DESCRIPTION                          | COMMENT                                |
|-------|-------|---------------|--------------------------------------|--|
| 2     | HOUSI | HOUSING STYLE |                                      |  |
|       | 0     | PA            | Panel                                |  |
|       | 1     | PD            | Pedestal (1375mm)                    |  |
|       | 2     | WM            | Wallmount (470mm)                    |  |
|       | 3     | UM            | Universal Mount                      |  |
|       | 5     | WME           | Wallmount Extended (740mm)           |  |
|       | 8     | PAC           | Panel Custom (non-standard size)     |  |
|       | 9     | PDC           | Pedestal Custom (non-standard size)  | For extended/short etc                 |
|       | А     | WMC           | Wallmount Custom (non-standard size) | For any size other than 470mm or 740mm |
|       | F     | -             | Reserved for Fascia codes            |  |
| 3     | MOUN  | TING          |                                      |  |
|       | 0     | -             | n/a                                  | Use 0                                  |
|       | 1     | PC            | Pole Centre                          | Standard length                        |
|       | 2     | PL            | Pole Centre Long                     |  |
|       | 3     | PR            | Pole Rear                            | For Solar poles etc                    |
|       | 4     | W             | Wall Mount                           |  |
|       | 5     | В             | Barrier Mount                        | New Jersey                             |

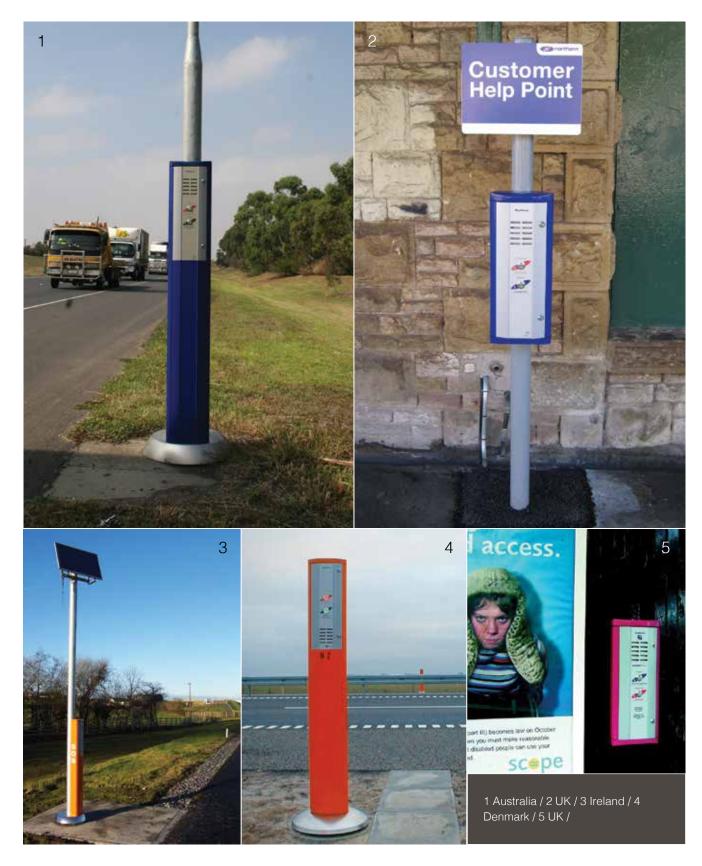
# HOUSING CODING

| DIGIT | N  | A       | DESCRIPTION                 | COMMENT                       |
|-------|--|---------|-----------------------------|-------------------------------|
| 4     | BATTE  | RY BRAC | KET CONFIGURATION           |                               |
|       | 0  | -       | No Battery or N/A           |                               |
|       | 1  | B2S     | 2 x Standard Brackets       | For 2 x 6V 12AH               |
|       | 2  | B1D     | 1 x Deep Bracket            | For 12V 7AH                   |
|       | 3  | B1S     | 1 x Standard Bracket        |                               |
|       | 4  | B1T     | 1 x Thin Vertical Bracket   | For 12V2Ah                    |
|       | 5  | B2D     | 2 x Deep Bracket            |                               |
|       | 6  | B1M     | 1 x Medium Vertical Bracket | For 12V2.3Ah                  |
|       | F  | С       | Custom (refer BOM)          |                               |
| 5     | COLOU  | R       |                             |                               |
|       | 0  | -       | Raw                         |                               |
|       | 1  | SI.B    | Bright Silver               |                               |
|       | 2  | OR.B    | Bistro Orange               |                               |
|       | 3  | OR.M    | Mitsubishi Orange           |                               |
|       | 4  | OR.S    | Signal Orange               |                               |
|       | 5  | YE.S    | Safety Yellow               |                               |
|       | 6  | RD.R    | Flame Red                   |                               |
|       | 7  | BL.S    | Space Blue                  |                               |
|       | 8  | OR.D    | Dulux Orange X15            |                               |
|       | F  | С       | Custom (see BOM)            |                               |
| 6-9   | WAYPHONE HOUSING OPTION BITMAP – CODED AS 4 DIGIT HEX NUMBER |         | AS 4 DIGIT HEX NUMBER       |                               |
|       | b0   | А       | Anti-graffiti Coating       | Char 9 Add 1                  |
|       | b1   |         |                             | Char 9 Add 2                  |
|       | b2   |         |                             | Char 9 Add 4                  |
|       | b3   |         |                             | Char 9 Add 8                  |
|       | b4   | S       | Strobe                      | Char 8 Add 1                  |
|       | b5   | L       | Light Box                   | Char 8 Add 2                  |
|       | b6   | E       | E-Core                      | Char 8 Add 4                  |
|       | b7   | I       | I-Core                      | Char 8 Add 8                  |
|       | b8   |         |                             | Char 7 Add 1                  |
|       | b9   |         |                             | Char 7 Add 2                  |
|       | b10  |         |                             | Char 7 Add 4                  |
|       | b11  |         |                             | Char 7 Add 8                  |
|       | b12  | GP      | Graphic: Phone (Symbol)     | Char 6 Add 1                  |
|       | b13  | GS      | Graphic: SOS                | Char 6 Add 2                  |
|       | b14  | GE      | Graphic: Emergency          | Char 6 Add 4                  |
|       | b15  | GC      | Graphic: Custom             | Char 6 Add 8 (10=A, 11=B etc) |

# SPARE PARTS

| ı      | PART NUMBER | DESCRIPTION                               | TECHNICAL DETAILS   |
|--------|-------------|---|---|
| CS0947 |             | Speaker/Microphone Assembly with 1m cable | 4 ohm speaker, electret microphone, male DB9 connector with 1m cable, CS1394B cable connected across speaker. |
| CS0831 |             | Button Prominent Cable Assembly           | Front panel diameter 28mm,<br>Cutout 25.8mm, IP66,<br>terminated with CS1342 cable.                           |
| CS1458 |             | Button Flush Cable Assembly               | Front panel diameter 28mm,<br>Cutout 25.8mm, IP66,<br>terminated with CS1342 cable.                           |
| CS1704 |             | Button Small Flush Cable<br>Assembly      | Front panel diameter 21.5mm,<br>Cutout 19.2mm, IP66,<br>terminated with CS1342 cable.                         |
| PP5600 |             | Button Green Illuminated                  | Front panel diameter 21.5mm,<br>Cutout 19.2mm, I<br>P66, 2.8mm<br>Tab connectors.                             |
| PB0105 |             | BATTERY 12V 2AH SLA                       | 150 x 20 x 89mm   |
| PB0106 |             | BATTERY 12V 45AH SLA DEEP<br>CYCLE        | 197 x 165 x 170mm   |
| PB0107 |             | BATTERY 6V 12AH SLA F1<br>Terminals       | 151 x 51 x 98mm   |
| PB0109 |             | BATTERY 12V 7AH SLA F1<br>Terminals       | 151 x 65 x 98mm   |

# **PROJECTS**



# **PROJECTS**



# **PROJECTS**





A Traffic Technologies Products Group Company





Unit 38, 38-46 South Street Rydalmere, NSW 2116 Australia Phone +61 (0)2 9701 9900 Email australiasales@clearsonics.com www.clearsonics.com

# QLD OFFICE QTC TRAFFIC SOLUTIONS

Unit 19/15 Holt St, Pinkenba, QLD 4008 Australia Phone +61 (0)7 3184 2000 Email australiasales@clearsonics.com www.clearsonics.com







# VIC OFFICE TRAFFIC TECHNOLOGIES LTD

320 Darebin Road Fairfield, VIC 3078 Australia Phone +61 (0)3 9430 0222 Email info@trafficltd.com.au www.trafficltd.com.au