

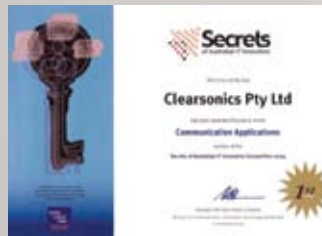


clearsonics

**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 patented 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.

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DEFINITIONS

GSM / Global System for Mobile Communications

NxG / Next G Mobile

PSTN / Public Switched Telephone Network

SLV / Slave (no VCE module)

VOIP / Voice Over Internet Protocol

dB(A)

Sound Level Measurement unit corrected for average human hearing response.

DTMF / Dual Tone Multiple Frequency

FD / Full Duplex – Ability to transmit and receive concurrently

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 its 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 GSM 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 PEER-TO-PEER

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

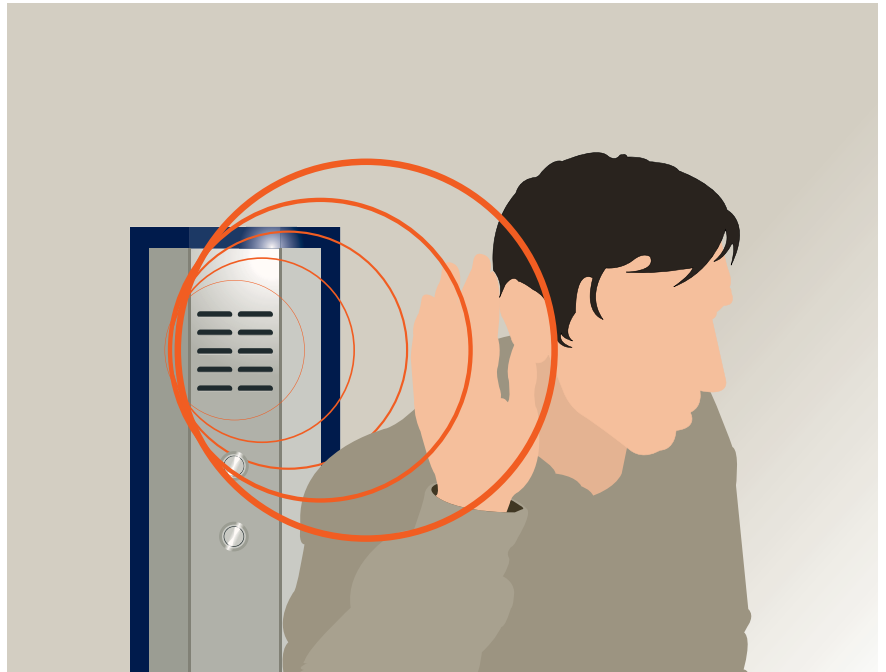
WayPhone-VoIP allows specification of a redundant proxy for use in the case of primary proxy server failure. In single proxy server systems, if the server fails, incoming calls will normally also fail as there is nothing to direct the calls to waiting operators.

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.

CLEARSONICS WAYPHONE FOR THE 'HEARING IMPAIRED'

Clearsonics hands-free communication products can be fitted with a purpose made "TeleCoil" 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.

The WayPhone "TeleCoil" has been designed to provide a uniform inductive field across the face of the WayPhone to ensure a comfortable position for the User.



WAYPHONE & EXTERNAL ACTIVATIONS

A WayPhone button when pressed can activate relay contacts that operate product such as CCTV and Lights. If high voltage switching is required, for example a mains lighting circuit, a relay contact can be used to control an external secondary switching device.



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.

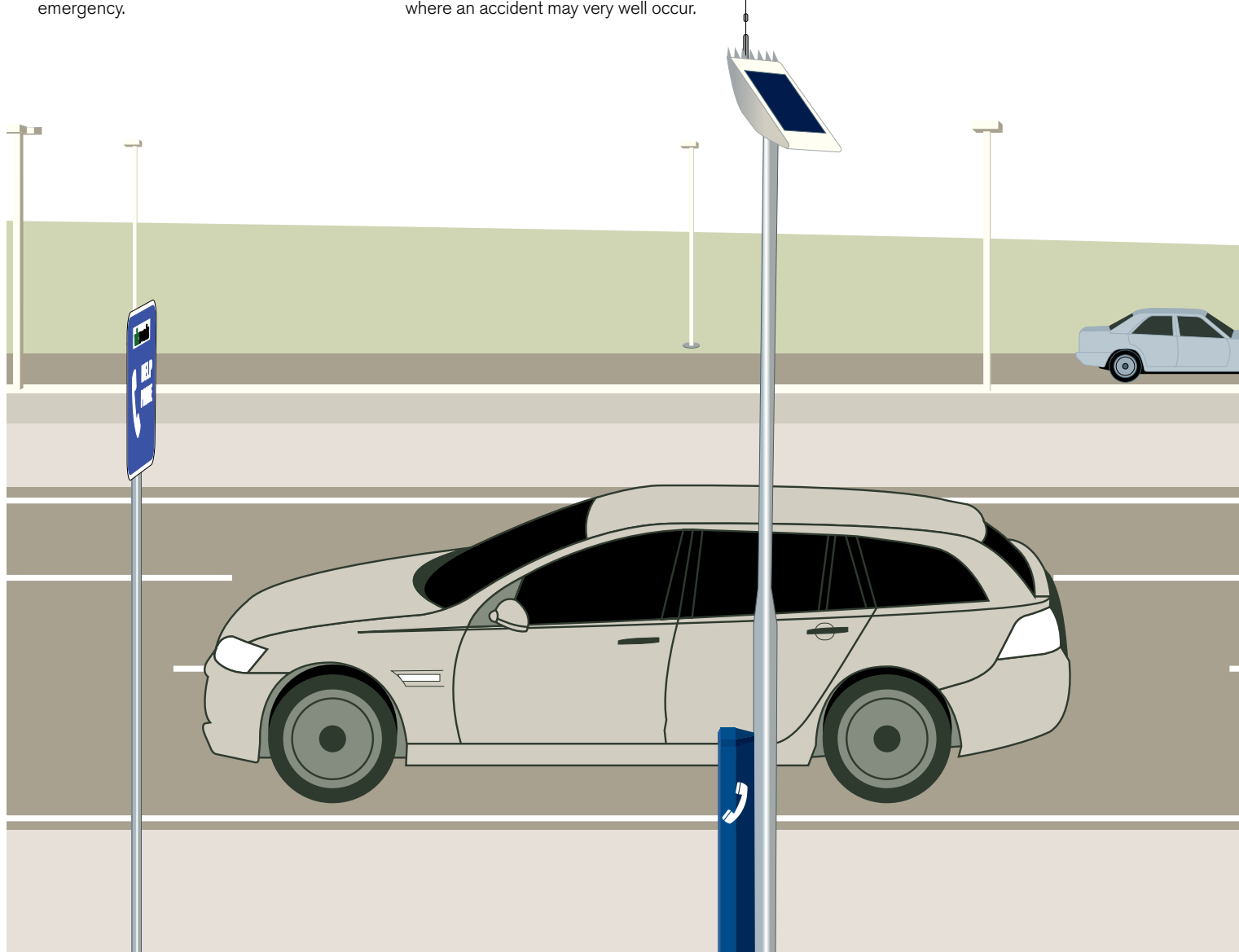
Tunnels

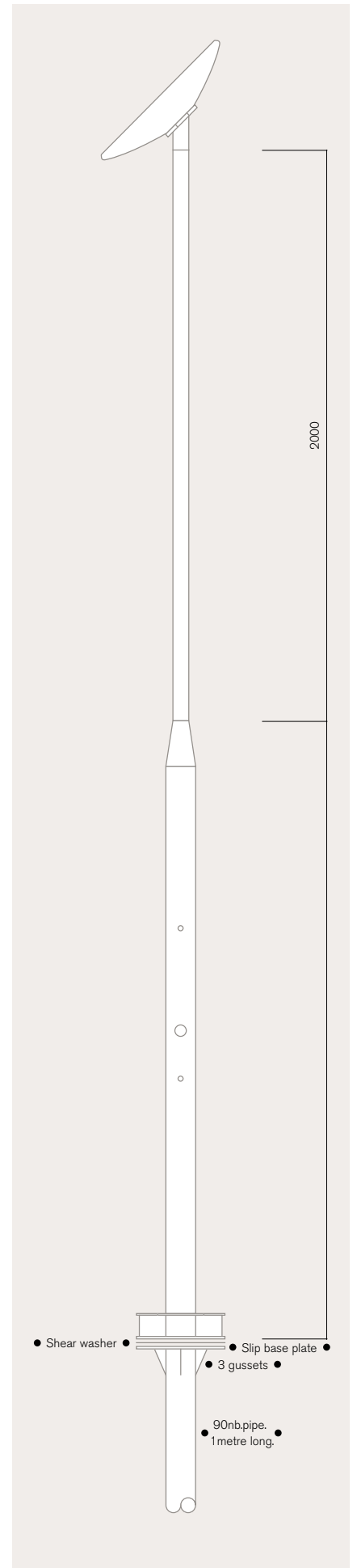
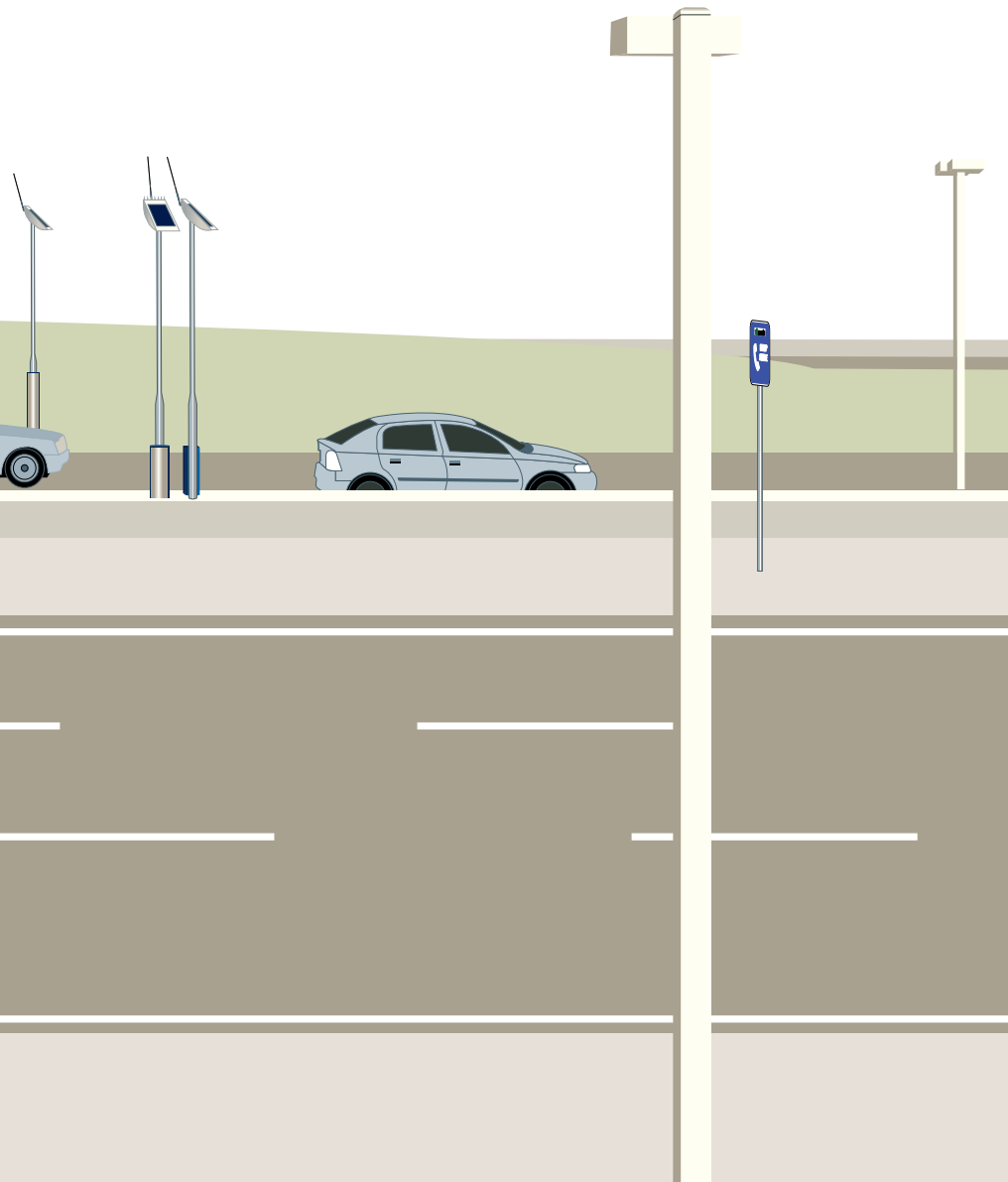
Dependant on the type of tunnel and traffic volume, it is recommended WayPhones can be installed from 100 to 200mts apart.

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 (GSM) fixed line (PSTN) telephone or Ethernet connectivity (VoIP)
- Extensive internal diagnostics, accessible locally or remotely
- Configure remotely using tone-dialling,
- 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
- Master / slave option when placed on each side of the road
- Polycarbonate label where graphics can be readily customized
- 5mm extruded aluminium housing with dual high security locks and powder coat finish
- IP rating of 55 for housing.

TECHNICAL SPECIFICATIONS: PEDESTAL WAYPHONE

Physical

Dimensions: 210W x 1475H x 130D (mm)
(illuminated version 2380H)
Base cover: 445mm diameter
Weight: 50kg (including internal pole)
Solar pole: 4.5 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
GSM (Next G SIM compatible)
Ethernet (VoIP)

Audio

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

User Interface

Hands-free operation
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

Compliance

ACMA
C-Tick

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 CLEVERPHONE

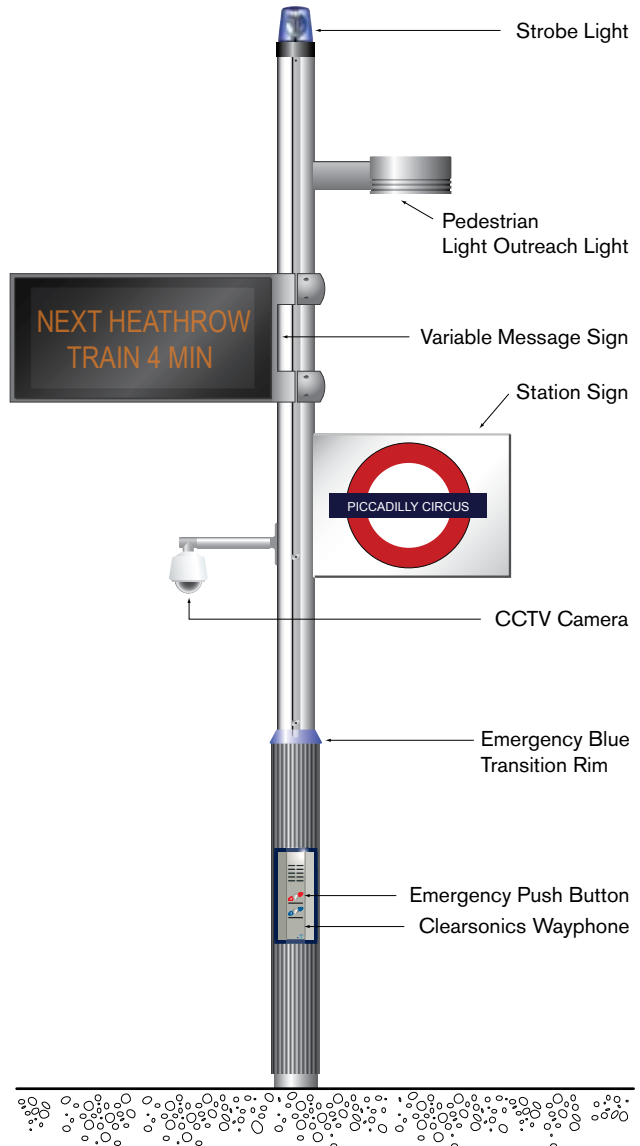
The CleverPhone is truly a multi function pole phone that also accommodates a range of accessories at any given time. Attachments can be made to the CleverPhone product such as CCTV camera, Illuminated Help Point Signage, Street Signage, Location Signage, Information Signage, VMS Signage and Luminaires.

The CleverPhone pole has a patented track that allows for simple installation of accessories at any height or angle around the pole. Made from high strength extruded aluminium alloy; the track is integral to the success of the CleverPhone Pole system.

Depending on the application and product required the CleverPhone can be supplied at 4.8mt, 7.2mt, 9.6mt and 12mt heights.

FEATURES

- Ø215 track
- Various base diameters available
- Multifunctional capabilities
- Maintenance friendly / long life
- Suited to City and Main Street Zones, Rail Platforms, Car Parking and Parks



TECHNICAL SPECIFICATIONS: CLEVERPHONE

Physical

Height: 4.8m - 12.0m
Upper Extrusion: Ø215
Lower Cladding: Ø300, Ø250
Materials: Mild steel, extruded and cast aluminium alloy
Finishes: Anodising, galvanising, powder coating
Colours: All colours available

Environmental

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

Power Options

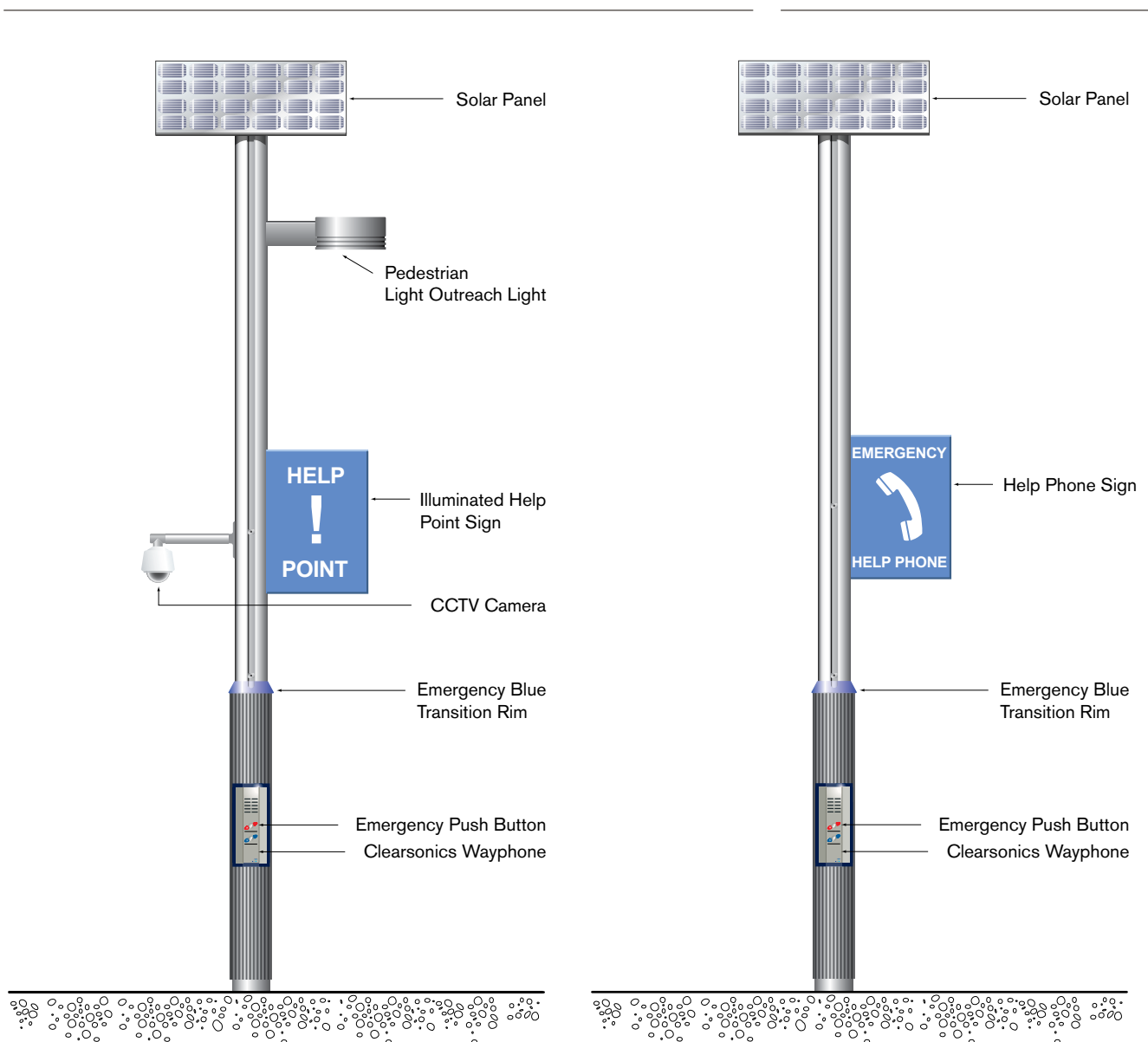
12V solar panel
Mains plug pack 15VDC 1A
Remote power feed 48VDC
Internal 12V sealed lead acid battery

Network

PSTN or PABX
GSM (Next G SIM compatible)
Ethernet (VoIP) Peer to Peer availability)

Audio

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



User Interface

Hands-free operation
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

Compliance

ACMA
C-Tick

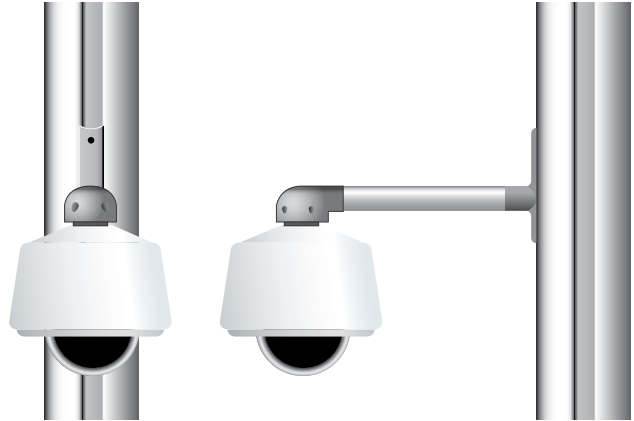
Supporting products

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.

CCTV – 50 ARM



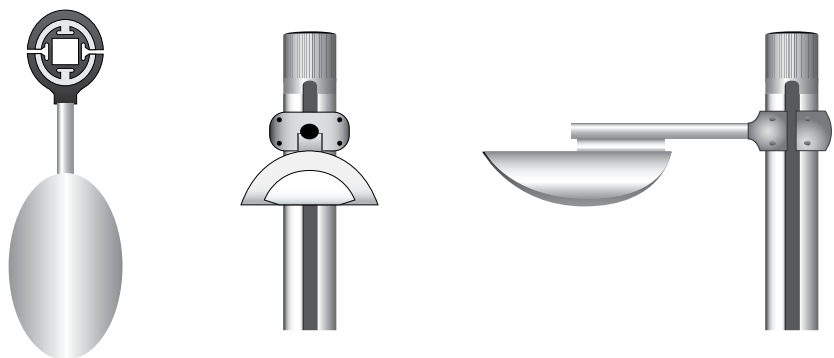
Specifications

Arm: Ø50mm
Length: 500mm Max.
Materials: Cast alloy, extruded alloy
Finishes: Powder coating, anodising
Colours: All colours available

Features

- Reaches out 500mm from Smartpole.
- Increase security and prevent crime
- Promotes a safe and secure environment
- Accommodates a wide range of cameras

SINGLE LIGHT FIXTURE



Description

The assembly is made up of a single light outreach arm providing direct lighting.

Specifications

Luminaire: Optional
Arm Length: 1000mm from centre of pole
Height: Flexible, as per lighting design
Materials: Extruded alloy, alloy bracketry, SS fasteners, luminaire
Finishes: Anodising & powder coating
Colours: All colours available

Features

- Compliments public spaces
- Single Light output
- Integrated design
- Modular design reduces maintenance costs
- Ideal for plaza, town square and boardwalk locations

SIGN ON POLE



Description

CleverPhone Sign on Pole is designed specifically for mounting traffic signs directly onto the track. Using two high tensile mounting nuts and fasteners the mounting assembly is hidden allowing obstruction free viewing.

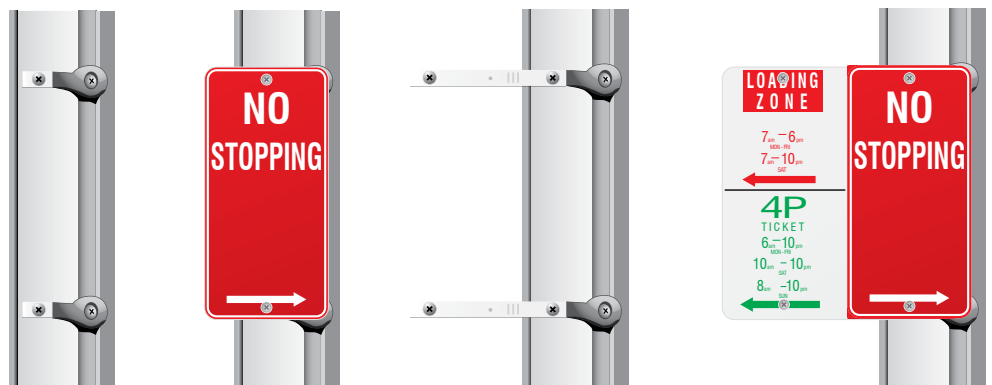
Specifications

Sign: As specified
Height: Any height
Materials: Alloy bracketry, SS fasteners
Finishes: Powder coating
Colours: Natural Finish

Features

- Accommodates all existing signage
- Standardises signage types
- Can be retrofitted insitu
- Security screws used to reduce vandalism
- Hidden mounting detail
- Turns a CleverPhone into a signage pole

KERBSIDE BRACKETS



Description

Kerbside Brackets allow the pole track to easily accommodate all roads and traffic signage. The brackets come in single or multiple arrangements and accept all existing kerbside signage in use today.

Specifications

Height: 600mm
Width: 450mm
Angle: 30 degrees
Sign: Sign supplied by client
Materials: Alloy bracketry, SS fasteners
Finishes: Powder coating
Colours: All colours available

Features

- Accommodates single or multiple combinations
- Standardises signage types
- Can be retrofitted insitu
- Security screws used to reduce vandalism
- Early recognition with 30 degree tilt towards the flow of traffic

STREETNAME SIGN BRACKET



Description

CleverPhone Sign Bracket is designed specifically to display a streetname for easy recognition to motorists and pedestrians alike. Made from high tensile alloy the assembly is slim line yet highly visible.

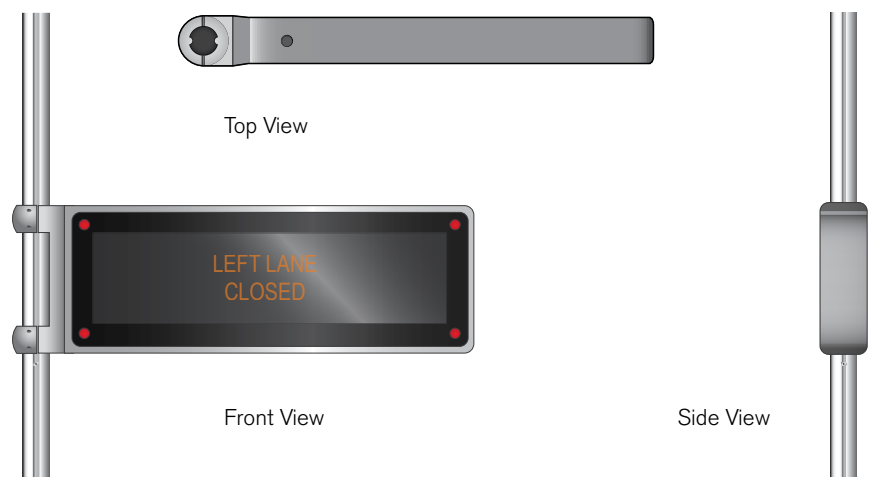
Specifications

Sign: 6mm aluminium 240 high x 1000mm max (supplied by client)
Height: Any height
Materials: Alloy bracketry, SS fasteners
Finishes: Powder coating
Colours: All colours available

Features

- Accommodates multiple sign lengths
- Standardises signage types
- Can be retrofitted insitu
- Security screws used to reduce vandalism
- Easy to identify streetname

VMS - SIGNS



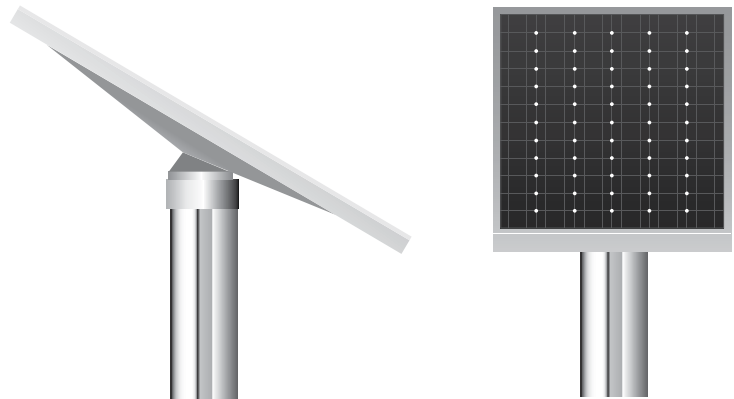
Specifications

Height: 840mm
Width: 2900mm
Deep: 350mm
Materials: Cast alloy, aluminium surrounds, LED Modules
Finishes: Powder coating
Colours: Full colour range available

Features

- Display messages in real time from remote locations
- Displays text and graphic
- Warning light setting
- Fully adjustable screen direction
- Uses low energy consuming LED modules
- Reliable technology

SOLAR PANEL



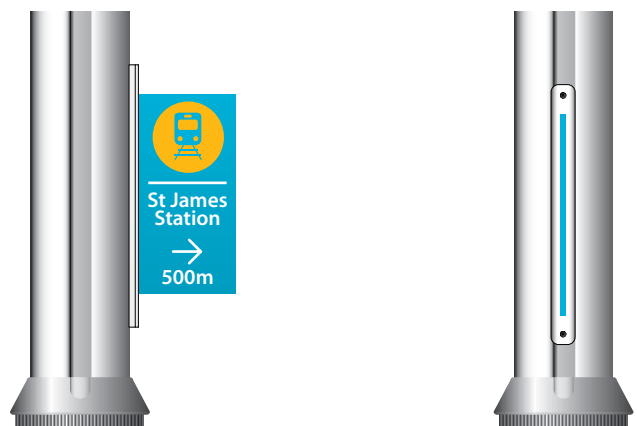
Specifications

Panels: 503 x 422 x 50
Materials: Mild Steel, Hot Dipped Galvanised,
Powder Coated SS fasteners
Finishes: Powder coating

Features

- Green power & sustainable energy solution

WAYFINDER SIGN BRACKET



Description

CleverPhone Wayfinder Sign Bracket is designed as a large format display panel for pedestrian and tourist information. Made from high tensile alloy the assembly is slim line yet highly visible.

Specifications

Sign: 6mm aluminium
600 high x 400mm max
(supplied by client)
Height: Any height
Materials: Alloy bracketry, SS fasteners
Finishes: Powder coating
Colours: All colours available

Features

- Accommodates large format signage
- Standardises signage types
- Can be retrofitted insitu
- Security screws used to reduce vandalism
- Easy to identify for tourists and pedestrians alike

WAYPHONE BOLLARD

The WayPhone Bollard (VoIP) is designed to enhance the street whilst adding security and assistance to those who require it.

Applications such as shopping malls, sidewalks, car parks, air ports, train stations. The WayPhone Bollard offers a robust yet aesthetic solution to security and information needs.



TECHNICAL SPECIFICATIONS: WAYPHONE BOLLARD

Physical

Height: 1m or as per request

Materials: Extruded cast aluminium alloy

Finishes: Anodising & powder coating

Colours: All colours available Compatible:
Type S1, S2 and S120

Model: 1162-B

Operating temperature: 0°C to 70°C

Storage temperature: -40°C to 70°C

Humidity: 5 to 95% non-condensing

Power Requirements: 12V - 24V DC

Power Consumption

Idle current 65mA

Typical current while call in progress 80mA

Maximum current while call in progress 150mA

Dimensions

1000mm by 215mm



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
Local area network (LAN)
Button
Programming
LED
Microphone
Speaker

Audio specifications

G711 m-law+A law
Audio in 1.0V
Audio out 1.0V

WALL MOUNT WAYPHONE

FEATURES

- Mobile (GSM), 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
- IP rating of 55 for housing

TECHNICAL SPECIFICATIONS: WALL TYPE WAYPHONE

Physical

Dimensions: 210W x 530L x 130D(mm)
Weight: 11kg

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

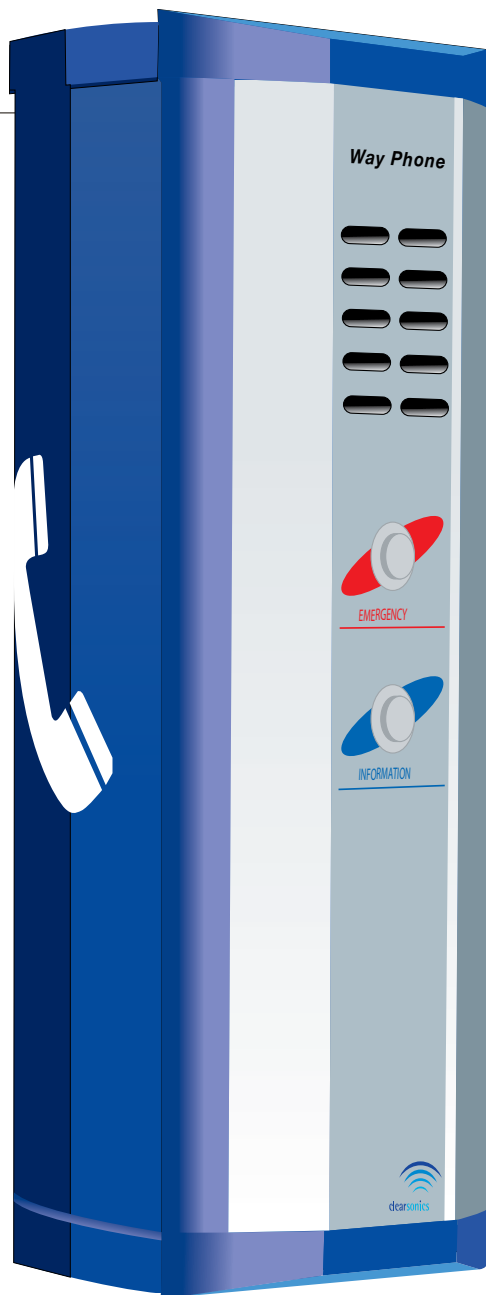
PSTN or PABX
GSM (Next G SIM compatible)
Ethernet (VoIP) Peer to Peer availability

Audio

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

User Interface

Hands-free operation
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

Compliance

ACMA
C-Tick

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

The Clearsonics Universal Mount WayPhone is an advanced vandal resistant, hands-free, digital SOS emergency telephone designed for high noise level and harsh environments.

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

Enclosure IP65 / Colour Bistro Orange / Height 854mm
Width 290mm / Depth 185mm

Note: Customised sizing is available upon approved applications



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
GSM (Next G SIM compatible)
Ethernet (VoIP) Peer to Peer availability

Audio

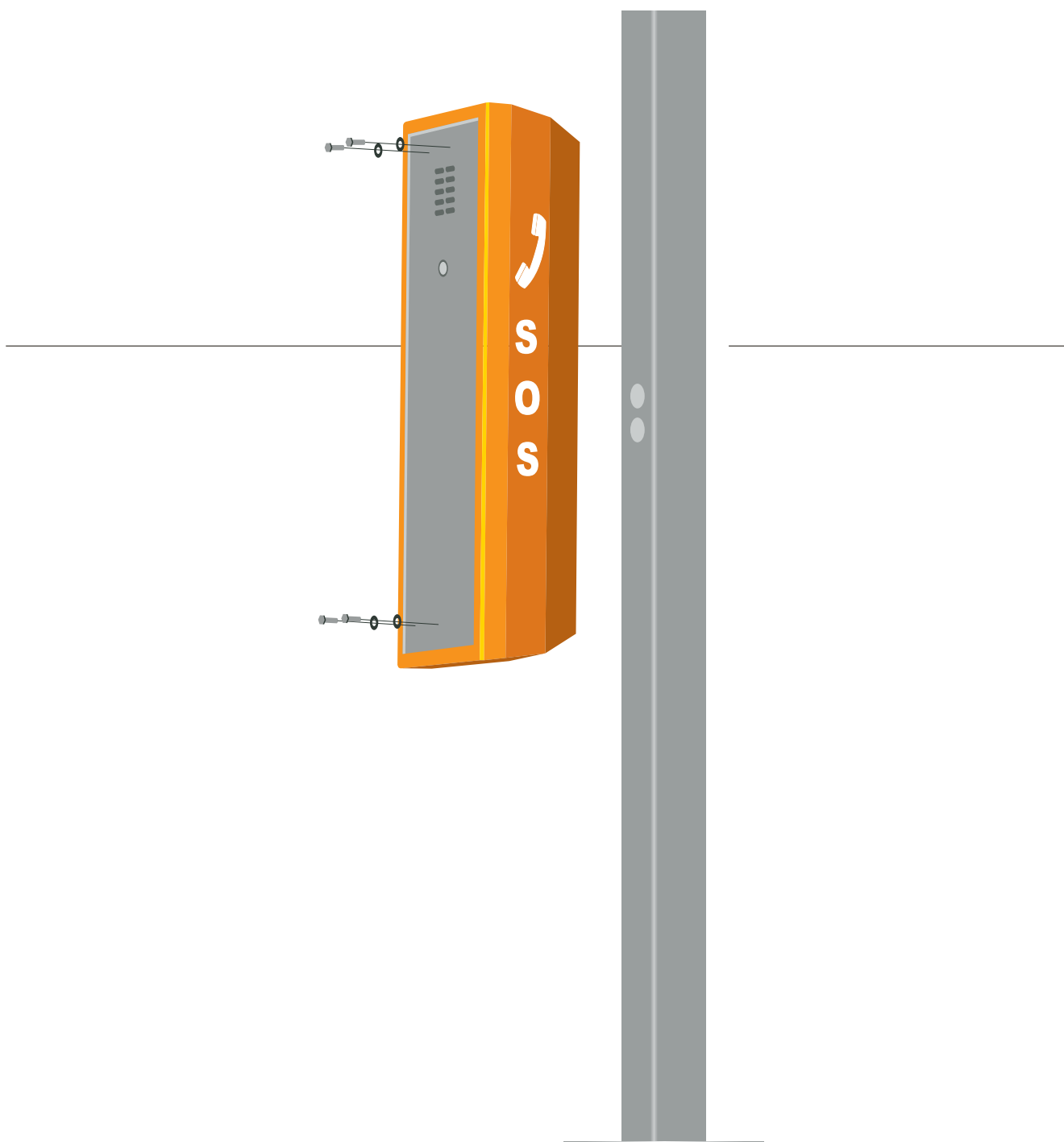
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Noise environments up to 105dBA
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User Interface

Hands-free operation
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

Compliance

ACMA
C-Tick

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 (GSM), 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

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
GSM (Next G SIM compatible)

Audio

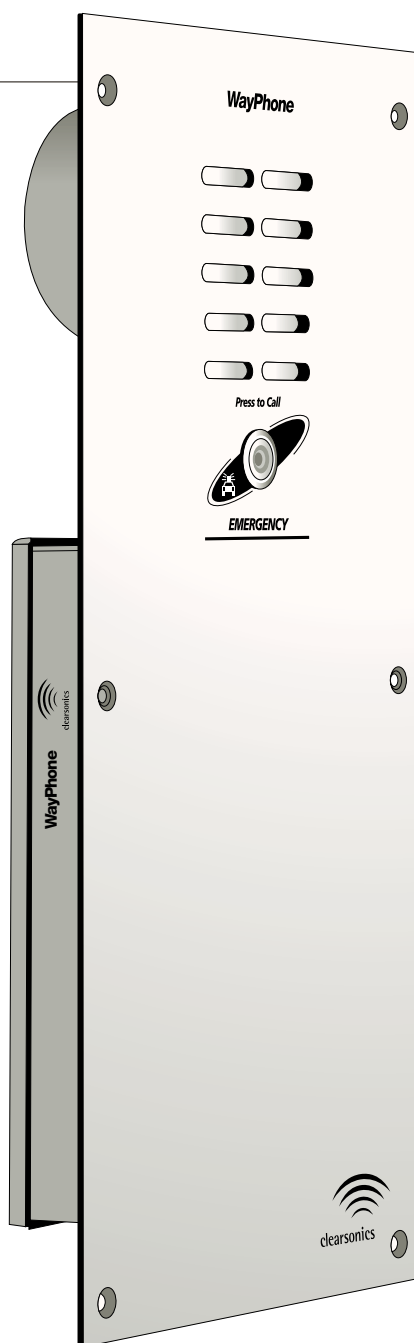
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High clarity speaker to deliver up to 120dBA

User Interface

Hands-free operation
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

Compliance

ACMA

C-Tick

Supporting products

WayPhone Manager for control room call management

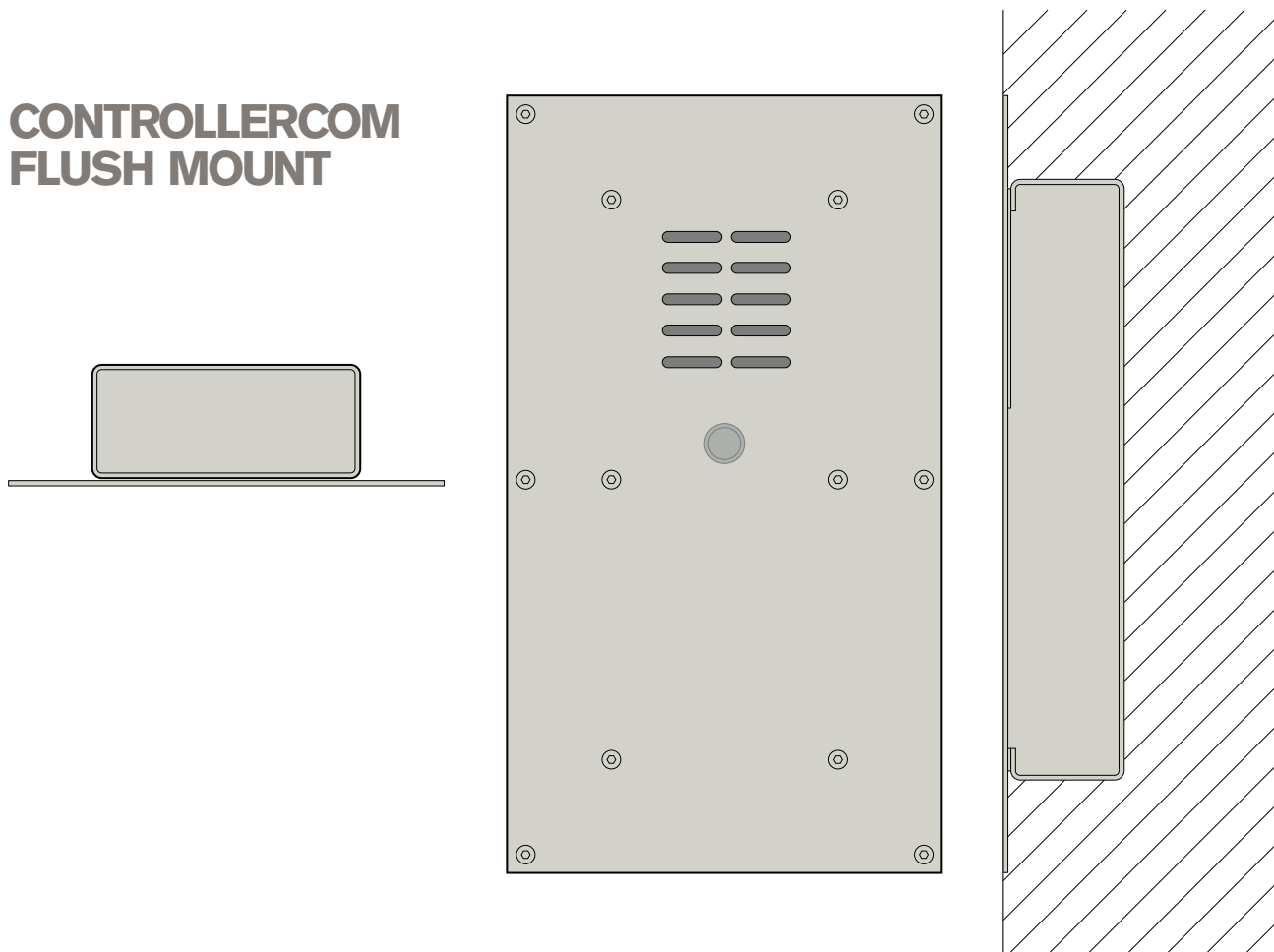
WayPhone Tester for automatic and remote testing

Warranty

12 months on parts and labour from date of delivery.

CLEARSONICS CONTROLLERCOM

CONTROLLERCOM FLUSH MOUNT



The Clearsonics IP Controllercom (controller/intercom) allows hands free Voice communications over wired IP networks (VoIP). With appropriate software, the Controllercom 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 signal (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.

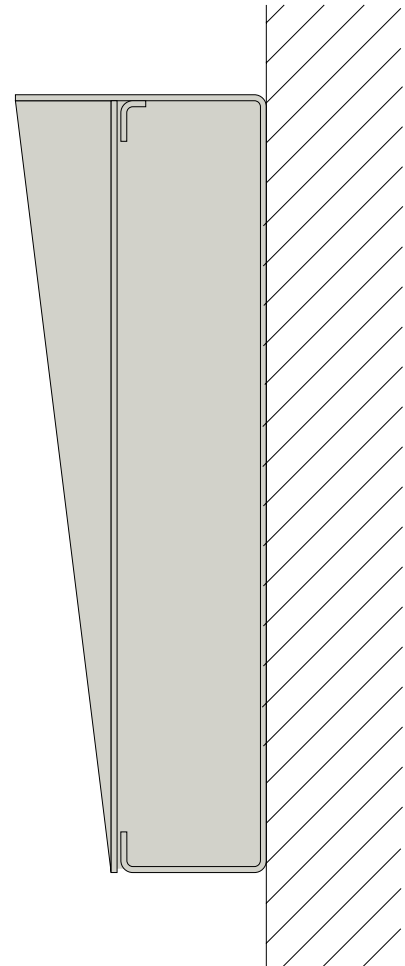
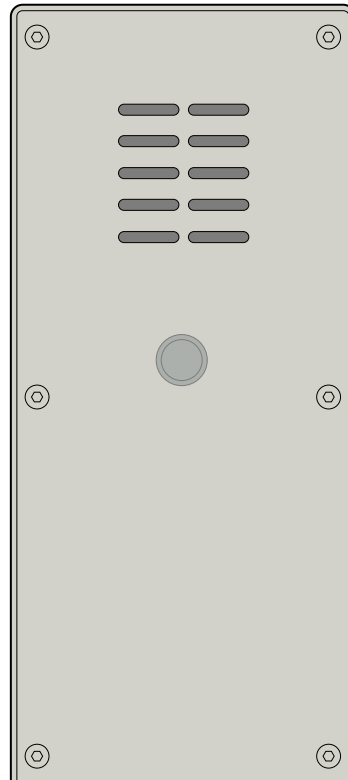
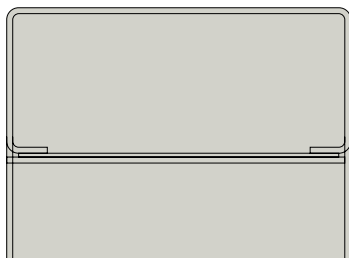
Logic level inputs and outputs are provided to allow remote control and monitoring of equipment at the Controllercom location. Input state changes can be manually read by command or presented as unsolicited reports over the IP link. Output states can be controlled by command over the IP link. Adapter modules can be provided to allow interfacing with equipment having incompatible electrical requirements. Examples for the use of these facilities include remote monitoring of gate/door latch state, remote access control by operation of a lock solenoid or remote activation of security cameras or control of camera direction and zoom.

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 Controllercom housing or be used to control external LED indicators.

Simple asynchronous serial communications can be provided for serial control or 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.

CONTROLLERCOM SURFACE MOUNT



TECHNICAL SPECIFICATIONS: CLEARSONICS CONTROLLERCOM

Model: VoIP-SA 1162

Operating temperature: 0°C to 70°C

Storage temperature: -40°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 patented 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

- Predictive echo cancellation and self adjusting speech algorithms
- Mobile (GSM), fixed line (PSTN) telephone or ethernet (VoIP) options
- 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
- Up to three auto dialling numbers, 20 digit
- 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
GSM, (Next G SIM compatibility)
Ethernet (VoIP) (Peer to Peer availability)

External Interfaces

Serial port, control I/O, Audi I/O

Audio

Adaptive full duplex
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

Compliance

ACMA
C-Tick

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.

VOIP MODULE

Model

VoIP PBA 1162

Operating temperature

0°C to 70°C

Storage temperature

-40°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)

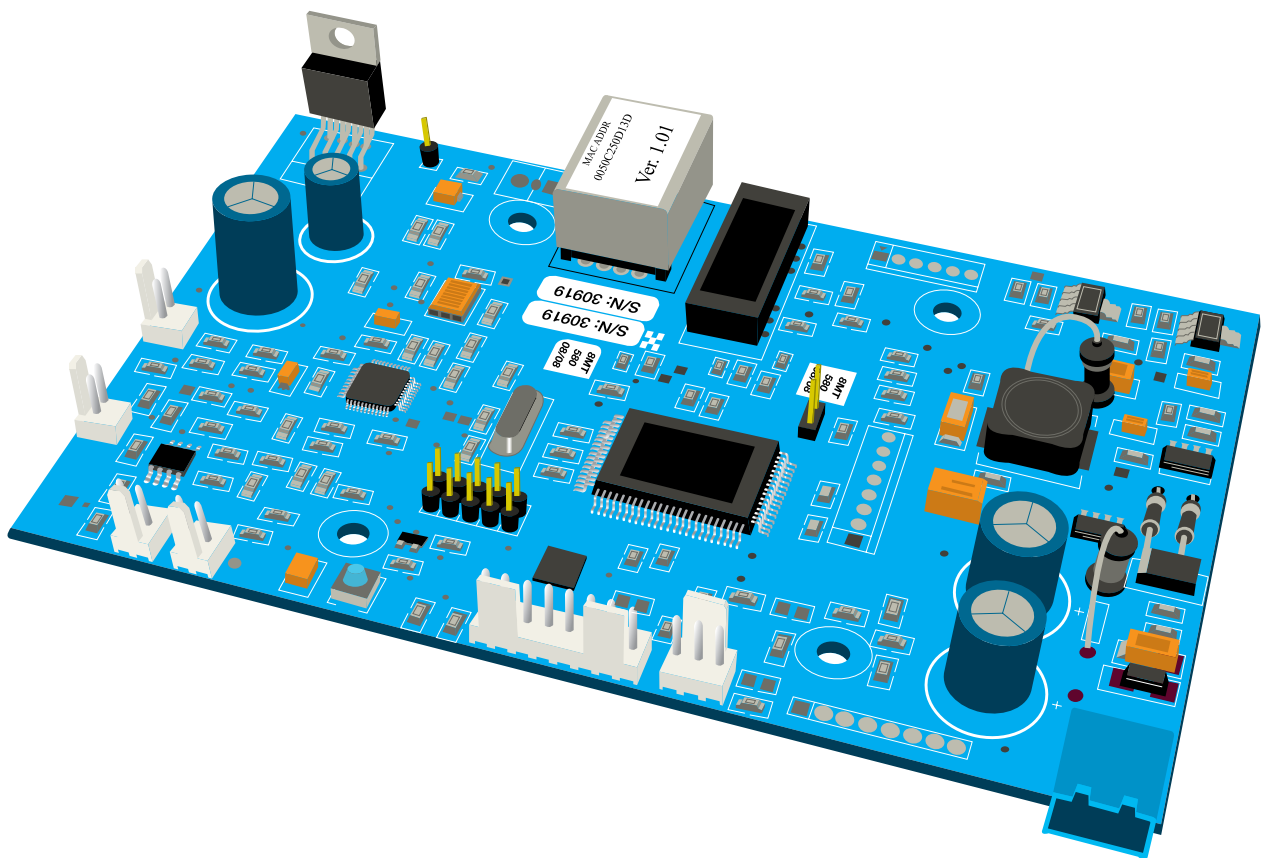
Speaker (2 way molex connector)

Audio specifications

G711 mu-law + A-Law

Audio in 1.0V

Audio out 1.0V



CS-LVD MODULE

WayPhone Low Voltage Disconnect accessory will extend the life of connected batteries by preventing damaging over discharge. It will also ensure WayPhone operation is not compromised by low battery voltage. When the battery voltage drops to very low levels, it is considered better the phone switches off than operate abnormally.

The disconnect voltage is factory programmable but is typically set at 10.5V, optimal for Sealed Lead Acid cells used in most WayPhones. The loaded battery voltage is periodically tested to determine if the

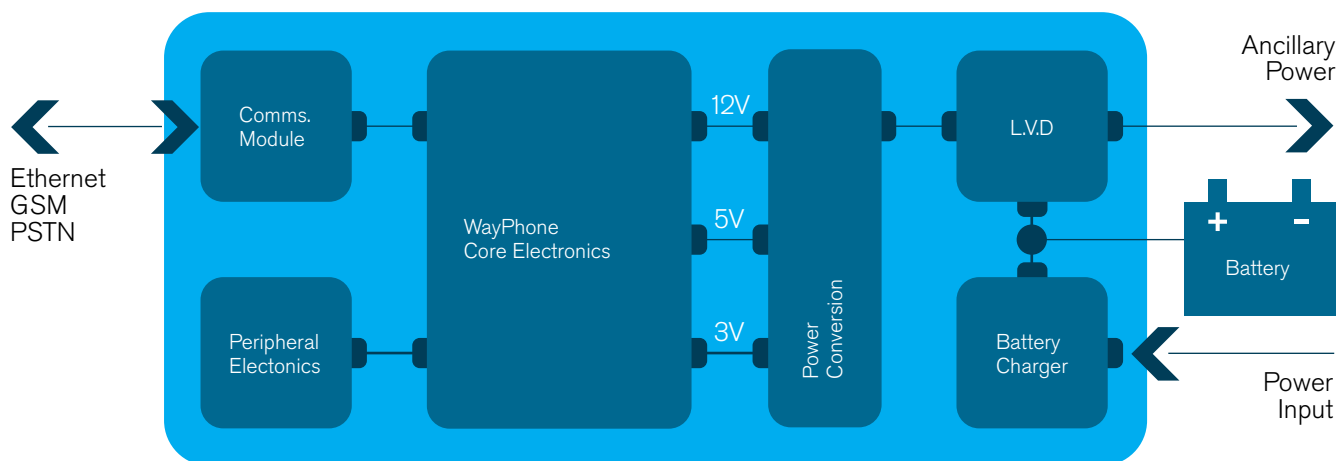
voltage is too low for reliable operation and approaching the level that causes battery degradation.

If the voltage is too low, the load (WayPhone) is disconnected from the battery.

The charging circuit remains connected to the battery and periodically, the LVD module tests the battery by applying a 'dummy' load and measuring the voltage. If it is considered charged enough for operation, it reconnects the battery to the WayPhone. The decision threshold for reconnection is also factory programmable but will typically be set to 12V.

A slowly blinking red LED indicates the battery has been disconnected from the load. A switched power output can be provided to ensure any ancillary equipment is also disconnected from the battery when the voltage is too low. If the equipment remains connected, the battery will continue to discharge, negating the benefit of the LVD device. Examples of such equipment are Line Extenders, Media Converters or Ethernet Switches.

Low voltage (Battery) Disconnect within WayPhone.



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

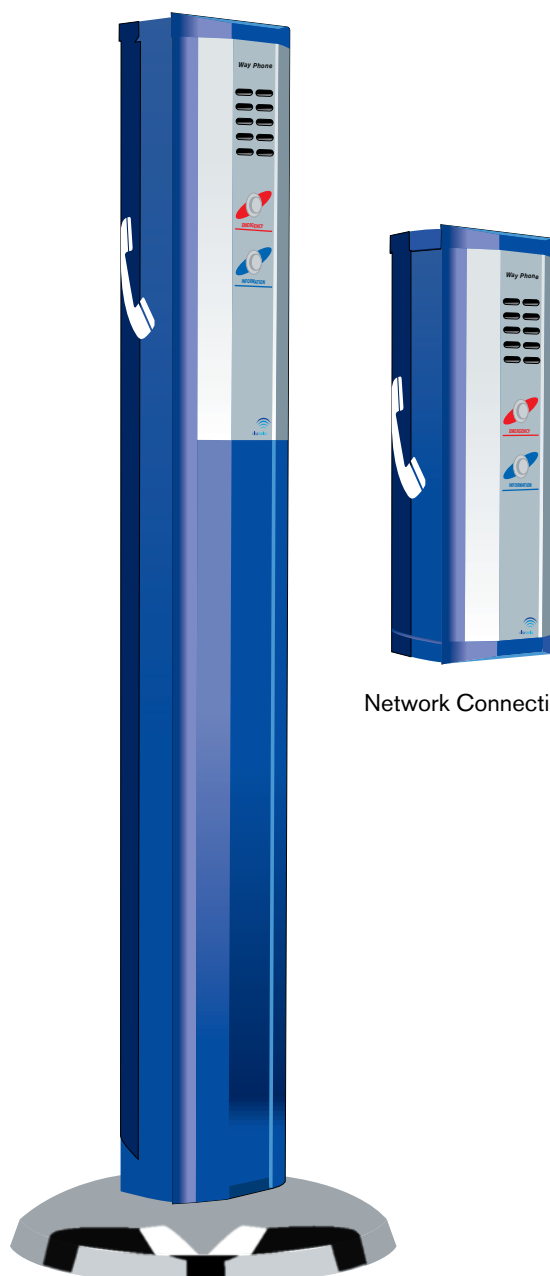
ALARM MANAGEMENT

- 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 Hardware/ Software configuration:

433 MHz Intel Celeron Processor minimum
128 MB RAM minimum
CDROM drive
2GB hard drive minimum
Super VGA computer monitor – 800 by 600 resolution minimum
Keyboard and Computer Mouse
Clearsonics specified DTMF Capable modem
Microsoft Windows 2000/XP Professional Operating System





Modem



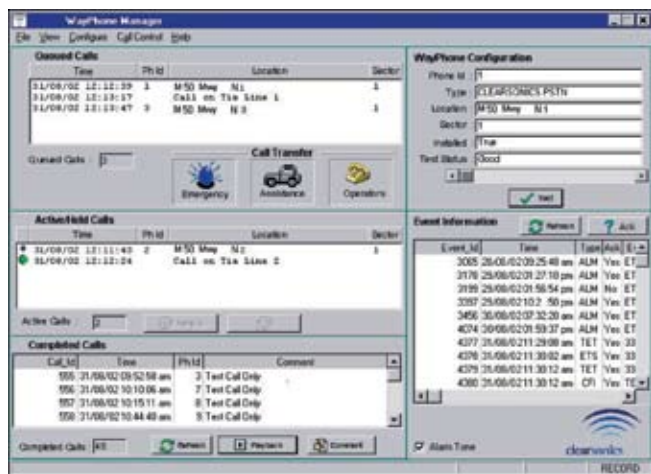
WayPhone Tester



Local Console

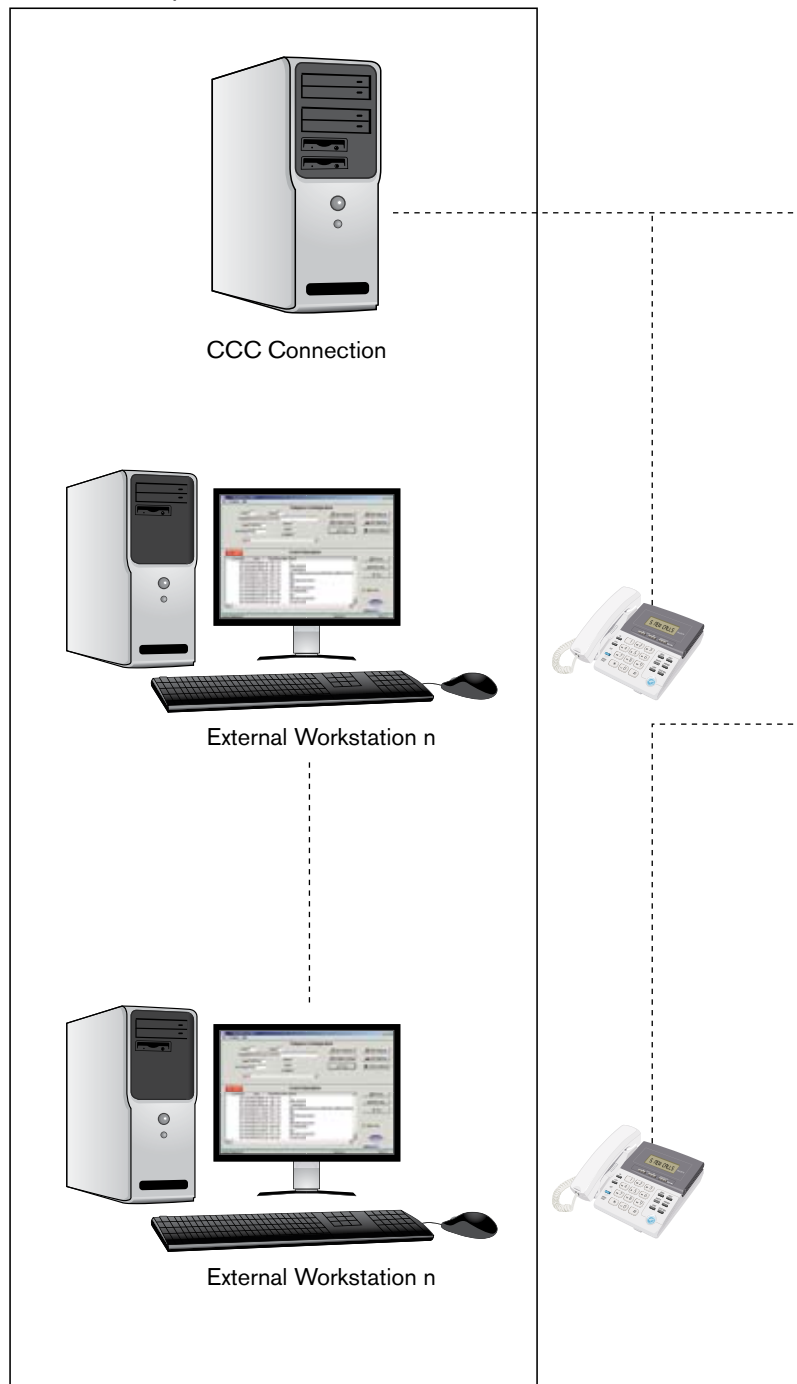
WAYPHONE MANAGER

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

External Computer

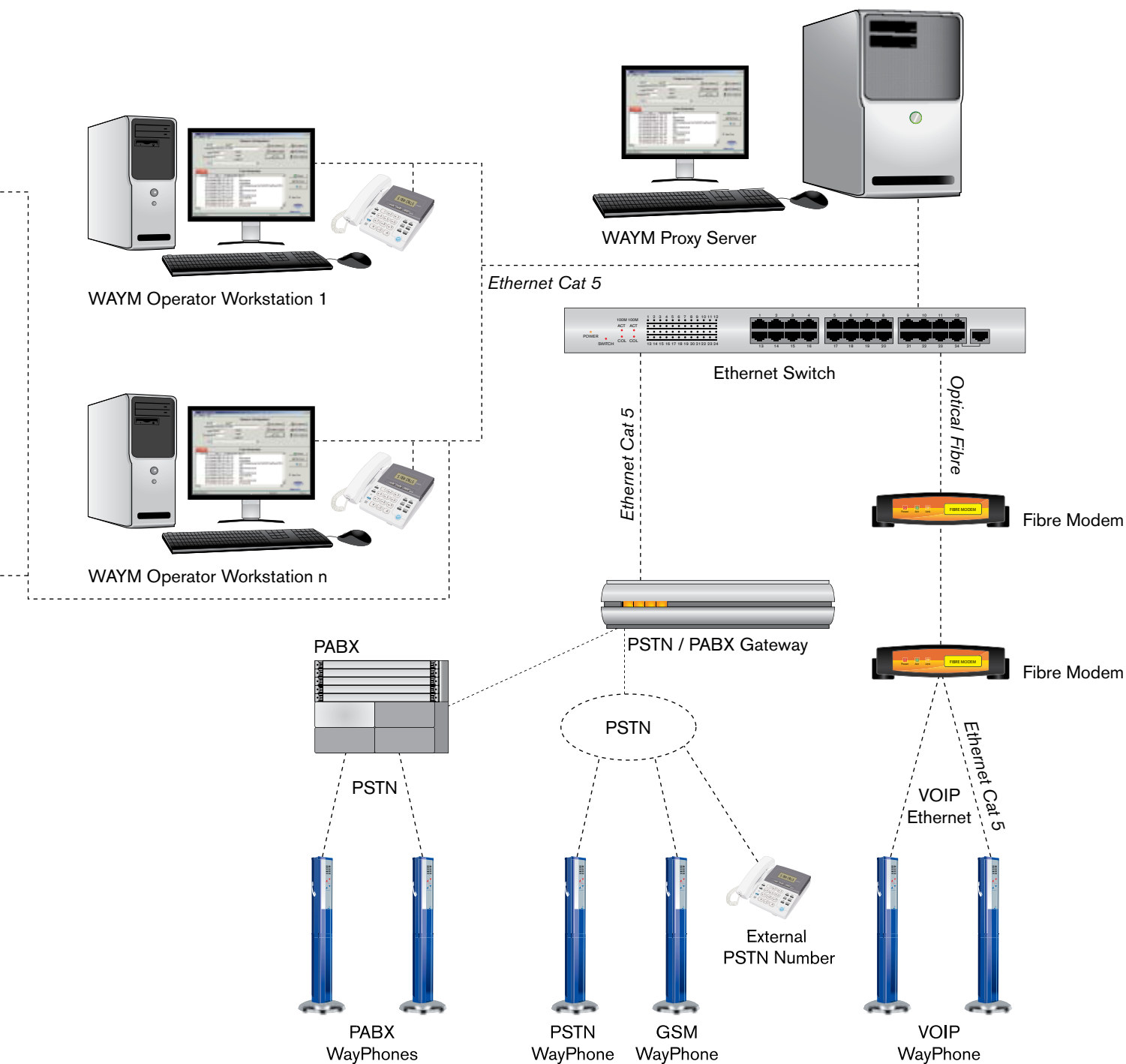


Call control

- 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

- 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

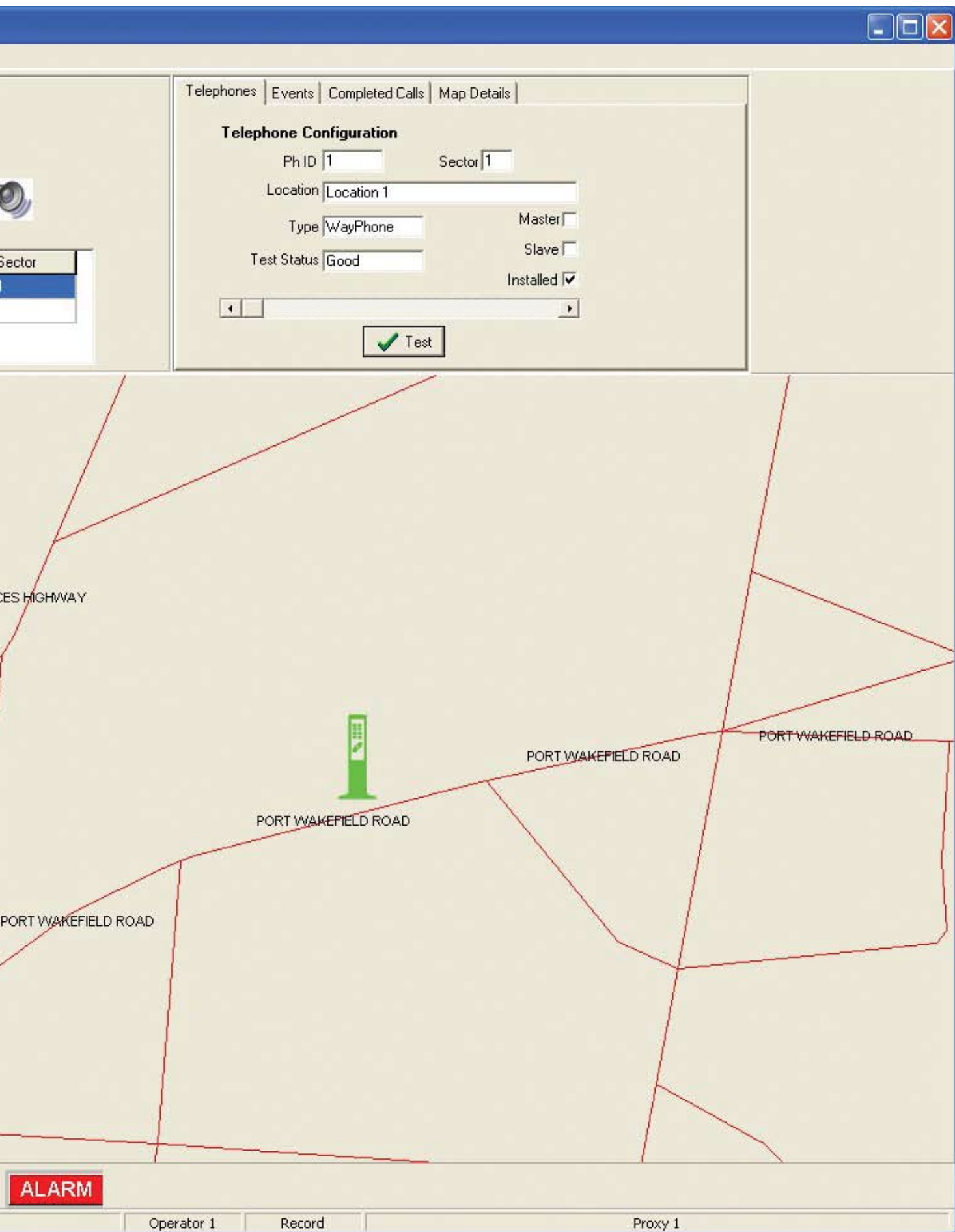
Integration

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

MAPPING

The new WayPhone Manager Graphical User Interface will include 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 will 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.



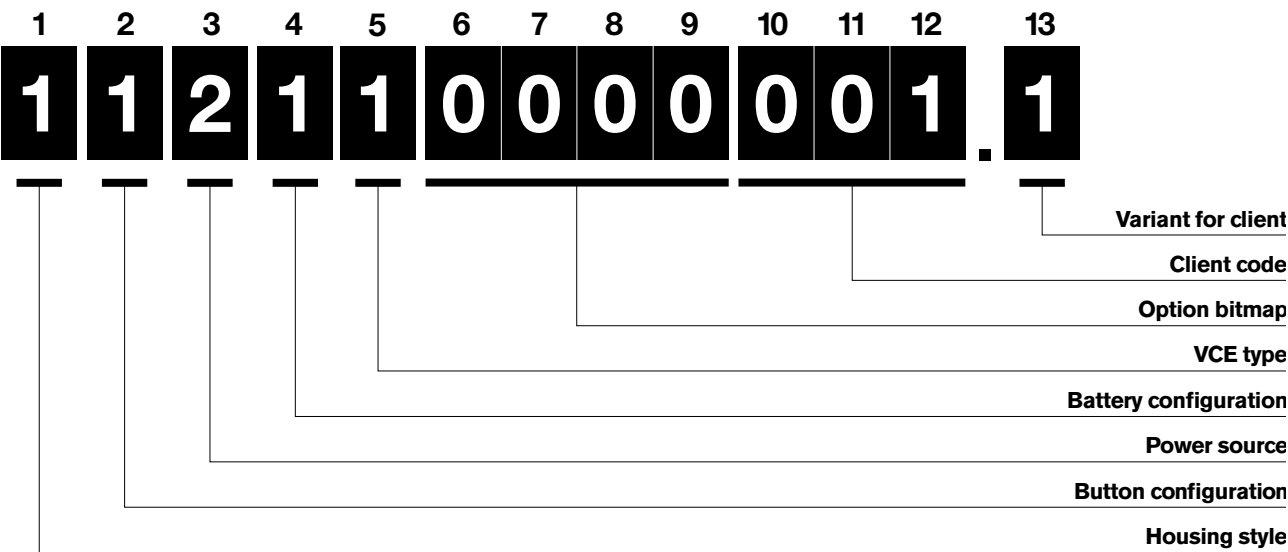


WAYPHONE PRODUCT CODING.

Clearsonics product coding for use in manufacture will take the form of a 13 digit numeric code. This allows translation between the current alpha code and the numeric code. The function of this coding is to allow creation of a unique code 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.

WAYPHONE CODING



The example above results in: PD-1B-MB12V12-GSM-ADT.1

WAYPHONE PRODUCTS

DIGIT	N	A	NAME	COMMENT
	HOUSING STYLE			
	0	PA	Panel	A panel isn't technically housing
	1	PD	Pedestal (1357mm)	
	2	WM	Wall mount (470mm)	
	3	UM	Universal Mount	
	4	UMM	Universal Mount (Mini)	
	8	PAC	Panel (non-standard size)	Or aspect (ie horizontal)
	9	PDC	Pedestal (non-standard size)	For extended/short etc
	A	WMC	Wallmount (non-standard size)	For extended/short etc
	F	–	Reserved for Fascia codes	
2	BUTTON CONFIGURATION			
	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	Sounds like a loo!
	9	1BT	Single Touch Button	WP2 only
	A	2BT	Dual Touch Button	WP2 only
	B	3BT	Triple Touch Button	
	E	HS	Hookswitch	
	F	BC	Custom (Refer BOM)	

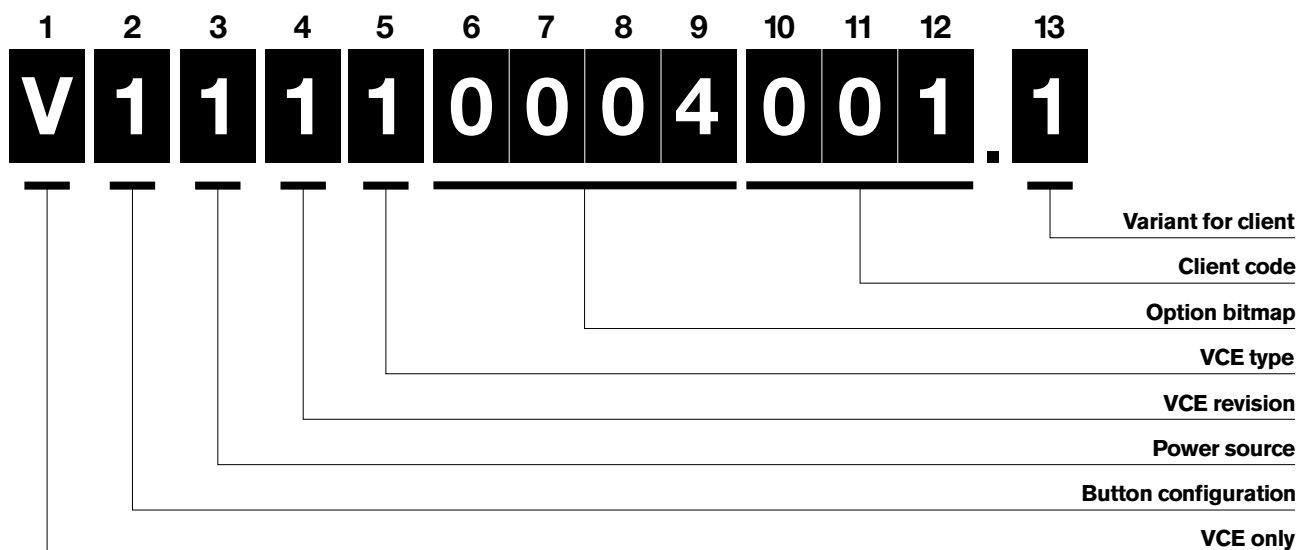
WAYPHONE PRODUCTS

3	POWER SOURCE			
	0	-	Client looks after power or not relevant	Use standard Batt & DC Feed cable
	1	M	Local Power Source	Mains Plug Pack etc.
	2	MB	Local Power & Battery	
	3	RPF	Old RPF Module & Battery	Can't run from RPF alone
	4	R	Remote DC	(22<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
	A	S50	50W Solar & Battery	Recommend external charger
	F	PC	Custom (refer BOM)	
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	C	Custom (refer BOM)	

5	VCE COMMUNICATIONS INTERFACE TYPE			
	0	-	No VCE or N/A	
	1	GSM	GSM Communications	
	2	NxG	Next-G Communications	
	3	PSTN	PSTN/POTS Communications	
	4	SLV	Slave (No VCE)	
	5	VoIP	VoIP Communications	
	F	VC	Custom comms	
6-9	WAYPHONE OPTION BITMAP – CODED AS 4 DIGIT HEX NUMBER			
	b0	IR	IrDA	Char 9 Add 1
	b1	M	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	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			Char 6 Add 1
	b13			Char 6 Add 2
	b14	XC	eXternal battery Charge	Char 6 Add 4
	b15			Char 6 Add 8 (10=A, 11=B etc)

VCE CODING

Strobes, Light Boxes, E-Cores & I-Cores don't effect the VCE hardware so aren't included as VCE options.



List the primary communications interface for WP2 product that has both primary and secondary communications

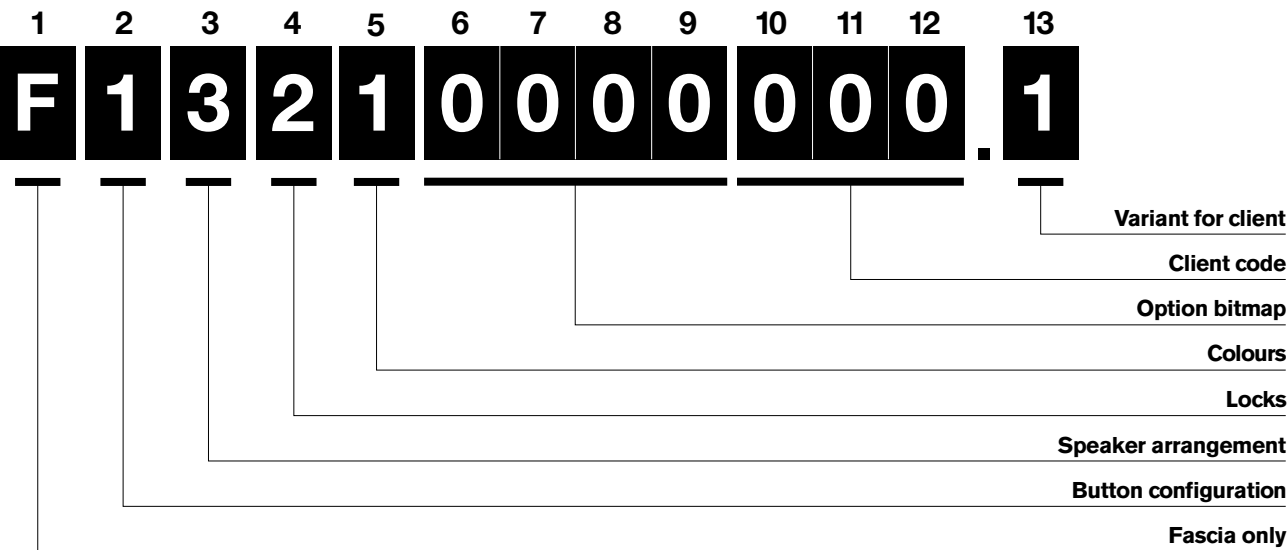
2	BUTTON CONFIGURATION			
	0	0B	No Buttons (PA only)	
	1	1B	Single Button Standard	
	2	2B	Dual Button Standard	
	3	1Bi	Single Button Illuminated	
	4	2Bi	Dual Button Illuminated	
	5	1BP	Single Button Illuminated Piezo	
	6	2BP	Dual Button Illuminated Piezo	
	E	HS	Hookswitch	
	F	BC	Custom (Refer BOM)	
3	POWER SOURCE			
	0	-	Client looks after power or not relevant	Use standard Batt & DC Feed cable
	1			
	2			
	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)	

4	VCE REVISION			
	0	-	Obsolete (L or P)	
	1	WP1.R	Current at October 2008	
5	VCE COMMUNICATIONS INTERFACE TYPE			
	0	-	No VCE or N/A	
	1	GSM	GSM Communications	
	2	NxG	Next-G Communications	
	3	PSTN	PSTN/POTS Communicationss	
	4	SLV	Slave (No VCE)	
	5	VoIP	VoIP Communications	
	F	VC	VoIP Communications	
6-9	WAYPHONE OPTION BITMAP (CHECK BOXES) – CODED AS 4 DIGIT HEX NUMBER			
	b0	IR	IrDA	Char 9 Add 1
	b1	M	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			Char 6 Add 2
	b14	XC		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

(FOR PANELS, REPLACE F WITH P)

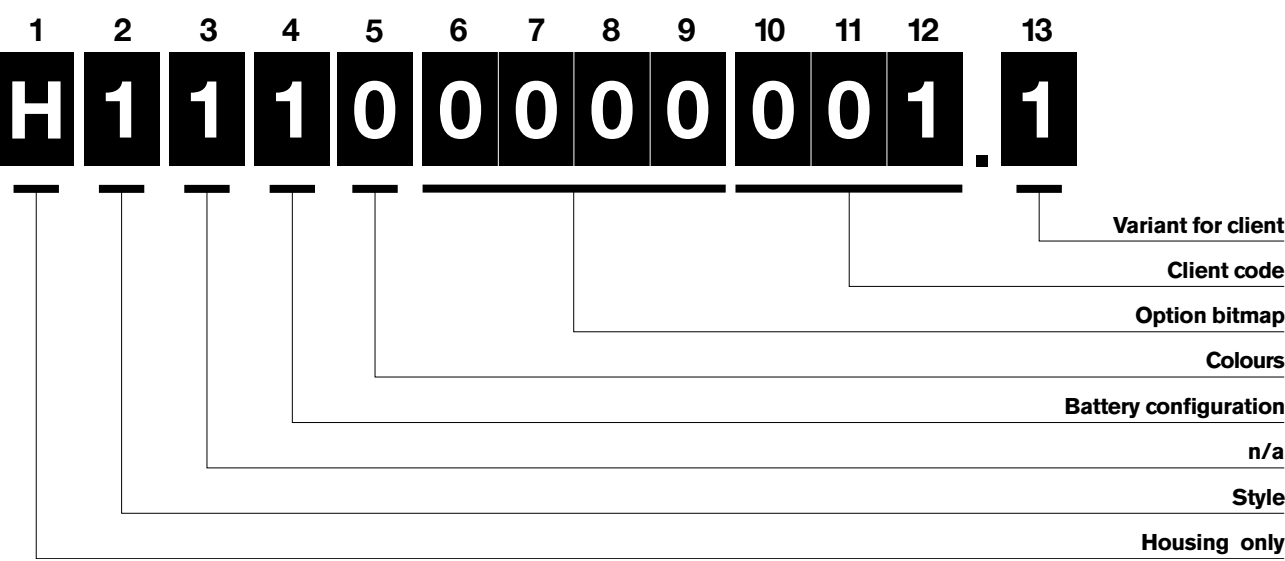


The example above results in: FAS-1B-STM-Bi-Sl.B-CS.1 (our standard single button fascia)
For Panels, use PAF as the abbreviation.

2	BUTTON CONFIGURATION			
	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	BC	Custom (Refer BOM)	
3	SPEAKER TYPE & POSITION			
	0	-	Reserved	
	1	STMIR	Speaker Top (Mic & IrDA)	
	2	SBMIR	Speaker Bottom (Mic & IrDA)	
	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)	

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	COLOUR			
	0	-	Raw	
	1	Sl.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	Ruby Red	
	7	BL.S	Space Blue	
	F	C	Custom (see BOM)	
6-9	WAYPHONE OPTION BITMAP – CODED AS 4 DIGIT HEX NUMBER			
	b0	A	Anti-Graffiti	Char 9 Add 1
	b1	P	Polished (Stainless)	Char 9 Add 2
	b2	B	Brushed (Stainless)	Char 9 Add 4
	b3			Char 9 Add 8
	b4			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			Char 6 Add 2
	b14			Char 6 Add 4
	b15			Char 6 Add 8 (10=A, 11=B etc)

HOUSING CODING



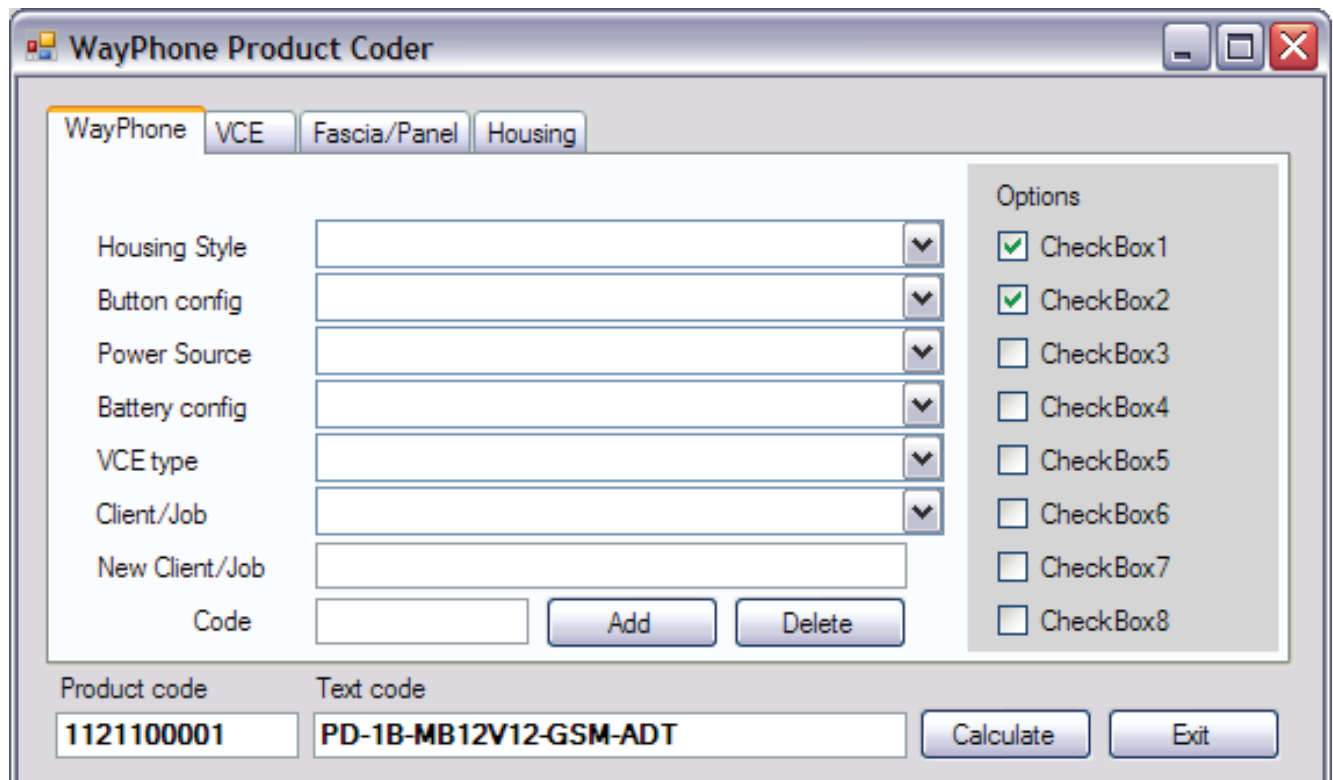
2	HOUSING STYLE			
	0	PA	Panel	A panel isn't technically a housing
	1	PD	Pedestal (1375mm)	
	2	WM	Wall Mount (470mm)	
	3	UM	Universal Mount	
	8	PAC	Panel (non-standard size)	
	9	PDC	Pedestal (non-standard size)	For extended/short etc
	A	WMC	Wallmount (non-standard size)	For extended/short etc
	F	-	Reserved for Fascia codes	

3	MOUNTING			
	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	B	Barrier Mount	New Jersey
4	BATTERY BRACKET CONFIGURATION			
	0	-	No Battery or N/A	For slaves
	1	B2S	2 x Standard Brackets	Two standard brackets required
	2	B1D	1 x Deep Bracket	For 12V10Ah
	3	B1S	1 x Standard Bracket	For 12V7Ah
	4	B1T	1 x Thin Vertical Bracket	For 12V2Ah
	5	B2D	2 x Deep Bracket	For 12V20Ah
	6	B1M	1 x Medium Vertical Bracket	For 12V2.3Ah
	F	C	Custom (refer BOM)	

HOUSING CODING

5	COLOUR			
	0	-	Raw	
	1	Sl.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	Ruby Red	
	7	BL.S	Space Blue	
	F	C	Custom (see BOM)	
6-9	WAYPHONE HOUSING OPTION BITMAP – CODED AS 4 DIGIT HEX NUMBER			
	b0	A	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)

SAMPLE WINDOWS INTERFACE



The image shows a Windows application window titled "WayPhone Product Coder". The window has a standard Windows XP-style title bar with minimize, maximize, and close buttons. Inside the window, there are four tabs: "WayPhone" (selected), "VCE", "Fascia/Panel", and "Housing".

Under the "WayPhone" tab, there is a list of configuration items on the left, each with a corresponding dropdown menu:

- Housing Style
- Button config
- Power Source
- Battery config
- VCE type
- Client/Job
- New Client/Job

Below these items is a "Code" label and a text input field. To the right of the input field are two buttons: "Add" and "Delete".

On the right side of the window, there is a section titled "Options" containing eight checkboxes:

- ☒ CheckBox1
- ☒ CheckBox2
- ☐ CheckBox3
- ☐ CheckBox4
- ☐ CheckBox5
- ☐ CheckBox6
- ☐ CheckBox7
- ☐ CheckBox8

At the bottom of the window, there are two labels: "Product code" and "Text code". Below "Product code" is a text input field containing "1121100001". Below "Text code" is a text input field containing "PD-1B-MB12V12-GSM-ADT". To the right of these fields are two buttons: "Calculate" and "Exit".

PROJECTS





6



7



8



9



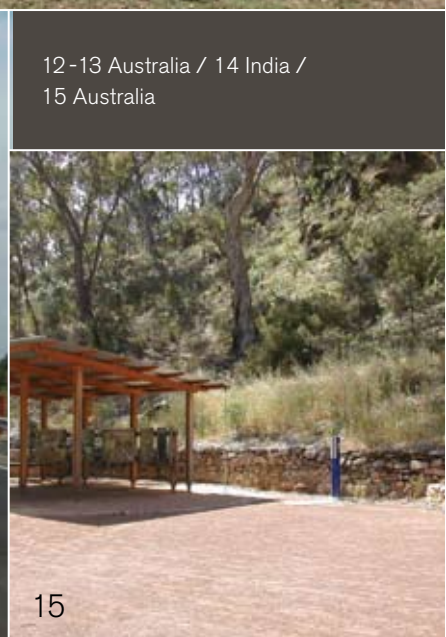
10



11

1 Australia / 2 UK / 3 Ireland / 4 Denmark / 5 UK /
6 Greece / 7 Ireland / 8 New Zealand / 9 Brazil / 10 Chile / 11 Wales

PROJECTS



12-13 Australia / 14 India /
15 Australia

NOTES

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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Products Group Company



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