

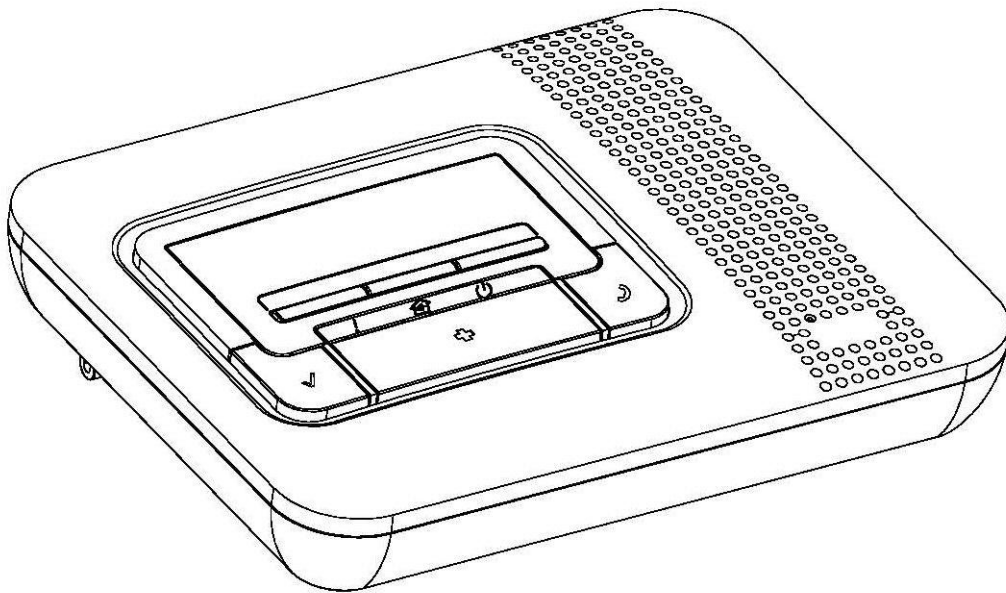
Telecare

Personal

Emergency

Response

System



User Guide

V1.02

Description

The Telecare Personal Emergency Response System (PERS) is an Assisted Technology monitoring system designed to assist people with varying disabilities and needs, allowing them to live what could be considered closer to a 'normal life'. This is effected by monitoring various day to day activities and reporting to a Care Provider should the activities move outside predetermined levels.

The system operates on wireless technology and is based around the installation of a Central Control Panel (CP) with which various types of detection transmitters communicate.

Activation of the transmitters will cause the CP to; give audio announcements locally, dial out to pre-programmed telephone numbers and give the same announcements or connect to a Central Monitoring Service (CMS) and report appropriate conditions.

CENTRAL CONTROL PANEL

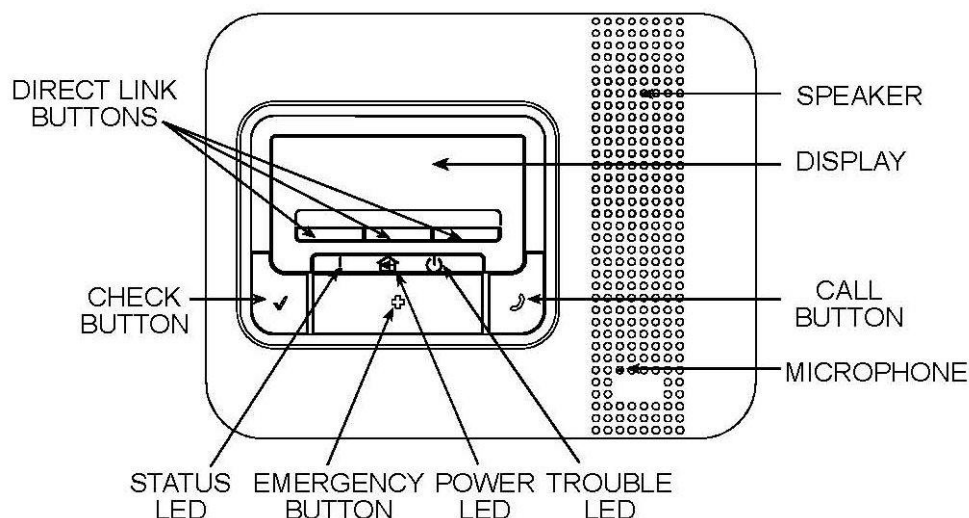


Fig.1

Functions

Item	Function
Display	Gives visual status of the panel and any activations.
Status LED (Amber)	Normally OFF. Flashes when the system has been set to AWAY mode, OFF when the system is set to HOME mode.
Power LED (Green)	Normally ON. Indicates presence of Mains Power connected to the CP.
Trouble LED (Red)	Normally OFF. Flashes when there is a problem with the CP or any associated devices.
Call Button	When pressed, a non-emergency message is reported to the Care Provider and a two-way voice communication is opened between the unit and the Care Provider.
Emergency Button	When pressed, an emergency alarm is reported to the Care Provider and a two-way voice communication is opened between the unit and the Care Provider.
Check Button	Acknowledge programmed reminders e.g. confirming you have taken medication. <ul style="list-style-type: none"> Change the status of the unit to HOME or AWAY. To do this, press this button continuously for 5 seconds. Announce Time – press this button for 1 second.
Direct Link Buttons	When pressed, a non-emergency call is placed to the pre-programmed telephone numbers and a two-way voice communication is opened between the unit and the call recipient.
Speaker	To allow the user to hear announcements from the CP and the voice of the Care Provider.
Microphone	To allow the Care Provider to hear the user or ambient sounds from the premises where the CP is installed.

SYSTEM OPERATION – DIRECTLY FROM THE CP

CALLING FOR EMERGENCY ASSISTANCE

If a Service User needs emergency assistance they can press the large, EMERGENCY button on the CP. The display shows **EMERGENCY BUTTON WAS PRESSED** and the CP announces, “EMERGENCY BUTTON WAS PRESSED.”

The CP calls the Care Provider and sends an emergency alarm. The Care Provider has to acknowledge the call (detailed in the Remote Control section) or the CP will attempt to dial the next pre-programmed telephone number. When the Care Provider answers they will hear a combination of announcements e.g. “Jeffrey House, Flat 7”, followed by the reason for the transmission e.g. “Emergency Button Was Pressed!” The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

CALLING FOR NON-EMERGENCY ASSISTANCE – CALL BUTTON

If a Service User needs non-emergency assistance, they press the CALL BUTTON on the CP. The display shows **SPEED DIAL** and announces, “DIALLING!” The CP then calls the pre-programmed Care Provider phone number. When the Care Provider answers the call, a two-way voice communication link is opened and the Service User will be able to speak to the Care Provider as described in ‘*CALLING FOR EMERGENCY ASSISTANCE*’.

CALLING FOR NON-EMERGENCY ASSISTANCE – DIRECT LINK BUTTONS

If a Service User needs non-emergency assistance, they can also press one of the DIRECT LINK BUTTONS on the CP. The display shows **SPEED DIAL** and announces, “DIALLING!” The CP then calls the pre-programmed telephone number. When the Care Provider answers the call, a two-way voice communication link is opened and the Service User will be able to speak to the Care Provider as described in ‘*CALLING FOR EMERGENCY ASSISTANCE*’.

Note: Any non-emergency call may be cancelled at any time by the Service User pressing the CHECK BUTTON or the Nominated Person ending the call normally.

OPERATION VIA SYSTEM DEVICES

PENDANT OPERATION

The pendant transmitter can be worn around the neck or on the wrist using the lanyard or wrist strap provided. The transmitter is waterproof and may be worn all the time including when in the shower or bath.

If a Service User needs emergency assistance they press the button on the pendant transmitter. The display shows **PENDANT WAS PRESSED** and the CP announces, "PENDANT WAS PRESSED."

The CP calls the Care Provider and sends an emergency alarm. The Care Provider has to acknowledge the call (detailed in the Remote Control section) or the CP will attempt to dial the next pre-programmed telephone number. When the Care Provider answers they will hear a combination of announcements e.g. "Jeffrey House, Flat 7", followed by the reason for the transmission e.g. "Pendant Was Pressed," or "Alert! Alert!" The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

PENDANT WITH MAN-DOWN DETECTION

The pendant transmitter can be worn around the neck with the lanyard provided or clipped to the Service User's belt or waistband. It can also be placed in the special holder provided. The pendant is waterproof and can be worn in the shower or bath.

If a Service User needs emergency assistance they press the button on the pendant transmitter. The display shows **PENDANT WAS PRESSED** and the CP announces, "PENDANT WAS PRESSED."

The CP calls the Care Provider and sends an emergency alarm. The Care Provider has to acknowledge the call (detailed in the Remote Control section) or the CP will attempt to dial the next pre-programmed telephone number. When the Care Provider answers they will hear a combination of announcements e.g. "Jeffrey House, Flat 7", followed by the reason for the transmission e.g. "Pendant Was Pressed," or "Alert! Alert!" The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

The pendant is designed not to be able to stand unless placed in its special holder! If the Service User falls or the pendant tilts from vertical by more than 60° in any direction, the

display of the CP shows **USER HAS FALLEN** and the CP announces, "USER HAS FALLEN!" If the device has not been restored to vertical, after 30 seconds the message will be repeated up to a maximum of three times. If the device is not restored to vertical after the third announcement and subsequent 30 second delay, the CP calls the Care Provider and sends an emergency alarm. The Care Provider has to acknowledge the call (detailed in the Remote Control section) or the CP will attempt to dial the next pre-programmed telephone number. When the Care Provider answers they will hear a combination of announcements e.g. "Jeffrey House, Flat 7", followed by the reason for the transmission e.g. "User Has Fallen!" The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

When the pendant is restored to vertical, the CP displays **USER IS OK** and also announces, "User is OK!"

CARBON MONOXIDE DETECTOR

The carbon monoxide detector, like most installed devices is wireless in operation. If the preset level of Carbon Monoxide Gas (CO) is detected, the detector will give an audible and visual alarm. The CP will display C.O. DETECTOR or display the detector location as appropriate; it will then initiate an emergency call to the Care Provider. When the Care Provider answers they will hear a combination of announcements e.g. "Jeffrey House, Flat 7", followed by the reason for the transmission e.g. "CO Detector Active!" The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

GAS DETECTOR

The carbon monoxide detector, like most installed devices is wireless in operation. If the preset level of Natural Gas (Methane CH₄) is detected, the detector will give an audible and visual alarm. The CP will display GAS DETECTOR or display the detector location as appropriate; it will then initiate an emergency call to the Care Provider. When the Care Provider answers they will hear a combination of announcements e.g. "Jeffrey House, Flat 7", followed by the reason for the transmission e.g. "Gas Detector Active!" The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

SMOKE DETECTOR

The smoke detector, like most installed devices is wireless in operation. If the preset level of smoke is detected, the detector will give an audible and visual alarm. The CP will display **SMOKE ALARM** or display the detector location as appropriate; it will then initiate an emergency call to the Care Provider. When the Care Provider answers they will hear a combination of announcements e.g. "Jeffrey House, Flat 7", followed by the reason for the transmission e.g. "Smoke Alarm!" The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

FLOOD DETECTOR

The flood detector, like most installed devices is wireless in operation. If the preset level of Carbon Monoxide Gas (CO) is detected, the detector will give an audible and visual alarm. The CP will display **FLOOD DETECTOR** or display the detector location as appropriate; it will then initiate an emergency call to the Care Provider. When the Care Provider answers they will hear a combination of announcements e.g. "Jeffrey House, Flat 7", followed by the reason for the transmission e.g. "Flood Detector Active!" The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

PERIMETER DETECTOR

The perimeter detectors, like most installed devices are wireless in operation. If the perimeter device is tripped outside designated times, the CP will display the location or type of condition e.g. **DOOR/ WINDOW OPEN** or display the detector location as appropriate; it will then initiate an emergency call to the Care Provider. When the Care Provider answers they will hear a combination of announcements e.g. "Jeffrey House, Flat 7", followed by the reason for the transmission e.g. "Alert," or "Door or window open! The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

Note: In some instances, a separate timer is incorporated to control the activity period(s) of the perimeter detectors.

FRONT DOOR MONITORING

If incorporated within a system, the front door or main entrance (and other perimeter detection if applicable) to a premises may be armed using the CP.

TO ARM THE SYSTEM

Press and hold the **CHECK BUTTON** (√) for 5 (FIVE) seconds. The CP will start to count down the exit time (usually 30 seconds) using a series of bleeps. If the main door of the premises is opened, the bleeps will usually be double. Approximately halfway through the **exit time** the frequency of the bleeps will double warning the user that the **exit time** is running out.

At the end of the **exit time** the CP will announce, "**Away, Reminders Off!**" The system is now **armed**. All detection of all types as described in this manual will continue to operate as normal.

TO DISARM THE SYSTEM

Enter the premises via the front door and the **entry timer** bleep will start to sound. You now have a set amount of time to switch the system off (DISARM). Halfway through the **entry time** the frequency of the entry bleep will double warning the user that the entry time is running out.

Proceed to the CP and press and hold the **CHECK BUTTON** (√) for 5 (FIVE) seconds. The CP will announce, "**Home, Reminders On!**" The system is now disarmed.

If the system is not switched off within the set time period (usually 60 seconds), the CP will display the location or type of condition e.g. **DOOR/ WINDOW OPEN** or display the detector location as appropriate; it will then initiate an emergency call to the Care Provider. When the Care Provider answers they will hear a combination of announcements e.g. "Jeffrey House, Flat 7", followed by the reason for the transmission e.g. "Alert," or "Door or window open! The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

ENURISIS (INCONTINENCE) DETECTOR

Enurisis detectors are connected to general purpose transmitters which will signal to the CP when detection is active.

There are 2 main types of detectors used; one is a detection mat (Smart Sheet) which may be placed under the bottom bed sheet, the other is a detection sensor to be appropriately placed in the Service User's underwear /nightwear. When the sensor mat is triggered, the sensor interface will activate (and sound an alarm if programmed). The associated transmitter will initiate an emergency call. The CP will display the location or type of condition e.g. **ENURISIS – BED 1** or display the detector location as appropriate; it will then initiate an emergency call to the Care Provider. When the Care Provider answers they will hear a combination of announcements e.g. "Jeffrey House, Flat 7", followed by the reason for the transmission e.g. "Alert," or "ENURISIS – BED 1! The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

Note: Whilst the sensor mat is wet, the sensor interface cannot be reset. The lead connecting the sensor mat to the interface must be carefully unplugged and the RESET BUTTON pressed. When the sensor mat has been dried, its cable may be plugged back into the sensor interface. The interface is reset by pressing the RESET button on the top edge of the interface.

In addition, portable, audible warning devices maybe used in conjunction with the Enurisis Sensor which give an audible bleep to the Service User should incontinence occur. This is used more for Service Users during the day or in addition to the *Smart Sheet* during the night. The audible devices help the Service User to become aware of and when incontinence occurs and sub-consciously, when incontinence is likely to occur.

Note: The portable devices do not transmit to the CP and no emergency call is generated as a result of detection.

EPILEPSY DETECTOR

Epilepsy seizures vary in severity and intensity though all seizures should be taken as serious. The epilepsy detectors are connected to general purpose transmitters which will signal to the CP when detection is active.

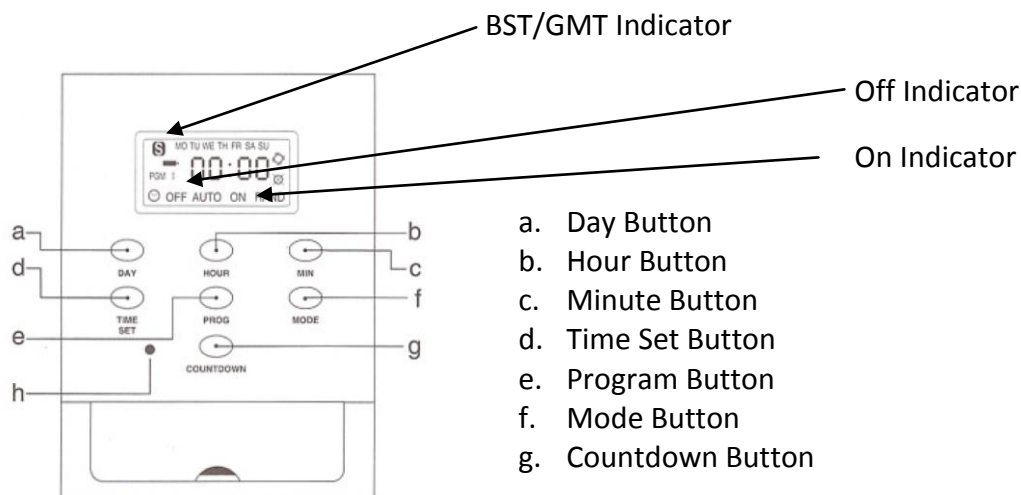
When the sensor is triggered, the associated transmitter will initiate an emergency call. The CP will display the location or type of condition e.g. **EPILEPSY – BED 1** or display the detector location as appropriate; it will then initiate an emergency call to the Care Provider. When the Care Provider answers they will hear a combination of announcements e.g. “Jeffrey House, Flat 7”, followed by the reason for the transmission e.g. “Alert,” or “EPILEPSY – BED 1! The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

The epilepsy sensors are set up during installation to detect mild to violent seizures and should not be adjusted by persons not familiar with the equipment.

OCCUPANCY DETECTOR

Occupancy Detectors are connected to general purpose transmitters which will signal to the CP when detection is active. The detectors may be used in conjunction with separate timers and movement detectors. The detectors are designed to monitor whether a Service User is still in bed after a pre-determined time and during a specified time window. The time window(s) will be set up by the installer at time of installation if required.

If **manual operation** of occupancy detection is required, proceed as follows:



The BST/GMT indicator, when showing indicates the clock is set to British Summer Time, to set this to GMT, press the Time Set and Program Buttons Simultaneously. The hour will increase and decrease accordingly.

When occupancy is being monitored, the **OFF** indicator must be showing.

When occupancy is not being monitored, the **ON** indicator must be showing.

ENABLING MONITORING MANUALLY

The bed MUST be occupied before enabling monitoring.

Once the service user is in bed and settled, press the **MODE BUTTON** repeatedly until the **OFF** indicator is displayed. Monitoring is then activated and should the service user leave the bed, the CP will trigger as detailed below.

DISABLING MONITORING MANUALLY

Monitoring must be disabled BEFORE the service user leaves the bed.

To disable the monitoring and before the service user has left the bed, press the **MODE BUTTON** repeatedly until the **ON** indicator is displayed.

NOTE:

If enabling and disabling the monitoring is done incorrectly, the system will generate an emergency call.

When the occupancy sensor is triggered, the associated transmitter will initiate an emergency call. The CP will display the location or type of condition e.g. **OCCUPANCY – BED 1** or display the detector location as appropriate; it will then initiate an emergency call to the Care Provider. When the Care Provider answers they will hear a combination of announcements e.g. “Jeffrey House, Flat 7”, followed by the reason for the transmission e.g. “Alert,” or “OCCUPANCY – BED 1! The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

INACTIVITY DETECTOR

Inactivity Detection can be monitored in two ways; premises wide, where inactivity is monitored over the whole premises via a number of detectors, or by detectors in a specific area of the premises.

Inactivity Detectors are connected to general purpose transmitters or to specific movement detectors which will signal to the CP when detection is active. The detectors may be used in conjunction with separate timers. The detectors are designed to monitor whether there is activity in the designated areas(s) during certain times windows. If no activity is detected, the CP will initiate an emergency call (for premises wide systems) or trigger a dedicated sensor which will signal the CP to initiate an emergency call.

When an emergency call is initiated, the CP will display the location or type of condition e.g. **INACTIVITY – BED 1** or display the detector location as appropriate; it will then initiate an emergency call to the Care Provider. When the Care Provider answers they will hear a combination of announcements e.g. “Jeffrey House, Flat 7”, followed by the reason for the transmission e.g. “Alert,” or “INACTIVITY – BED 1! The Care Provider needs to acknowledge the call after which they will be able to hear and speak to the Service User through the CP. The Care Provider will be able to adjust the volume of the CP Speaker and also the sensitivity of the CP microphone as and if necessary via their telephone keyboard. If the Care Provider answers but does not acknowledge the call, or if the call is not answered, the CP will end the call and dial the next pre-programmed number.

REMOTE CONTROL TELEPHONE FUNCTIONALITY

Whenever the CP initiates an emergency call, the Care Provider must not only answer the call but acknowledge receipt of the call. Once the call has been acknowledged certain other functions may be carried via the Care Provider's handset.**

Key functions are as follows;

Key	Function/Procedure
1	Half Duplex – Speaker ON , Microphone OFF
2	Acknowledges incoming call
3	Half Duplex – Microphone ON , Speaker OFF
4	Increase Speaker Volume
5	Increase Microphone Sensitivity
6	Automatic Full Duplex – Both Microphone and Speaker ON
7	Decrease Speaker Volume
8	Decrease Microphone Sensitivity
9	99 Ends the Voice Session following an Emergency Call
0	Not Used
*/#	**# Toggles User Test Mode On & OFF

USER TEST PROCEDURES

It is possible for certain System Tests to be carried out by the User/ Care Provider though this would normally be done by an engineer carrying out a maintenance visit.

During every 2-way voice communication either with a Central Monitoring Station or Nominated User, the CP automatically prepares for USER TEST MODE. To enter this mode, the Care Provider must key in ****#** on their handset. The CP resumes normal mode once the call has ended.

When in User Test Mode, the CP announces a message upon receipt of a transmission from any detector registered on the system, the message is in two parts:

- **Detector Name** - The CP will announce the detector type and the detector's zone number.
- **Signal Strength** - 3 Beeps = Strong Signal, 2 Beeps = Good Signal, 1 Beep = Poor Signal and 0 Beeps indicates that the CP has been unable to measure the signal strength for that transmission. Poor or No Signal incidents should be reported to your system maintainers.

SETTING THE CLOCK

To enter the clock adjustment mode, press the CHECK button three consecutive times. After each press, be sure to wait for the time announcement to complete before pressing again. The top line, assigned to the Month, will begin to flash.

15/01/2004

08:25:53 PM

To set a new date or time value, use the Direct Link Buttons as follows:

- Button 1 Scrolls Up
- Button 2 Scrolls Down
- Button 3 moves to the next field to be adjusted.

Press the Check Button when time and date setting is complete.

TROUBLESHOOTING

PROBLEM	DEFINITION	SOLUTION
The red light n the CP is flashing and beeps are heard.	If connected to a Monitoring Centre, the CP will transmit details of trouble conditions otherwise they will only be displayed.	Press the Check Button to silence the beeps and respond to any messages displayed.
The display shows AC POWER FAILURE	No electrical power is being supplied to the CP and it is running on Backup batteries. If connected to a Monitoring Centre, they will be informed after a 2 minute delay.	Check to see if there is a power failure. If there has not been a power failure, make sure the power cord is connected securely to the CP and the electrical outlet.
The display shows TELEPHONE LINE TROUBLE.	The unit does not detect that a working phone line is present.	Make sure the phone cord is connected securely to the CP and to the phone jack on the wall. If the problem persists, report the problem to your maintenance company.
The CP beeps continuously.	The CP is malfunctioning.	Press the CHECK button to silence the trouble beeps. Contact your maintenance company
The display shows CP LOW BATTERY.	The CP's batteries are low. The CP if connected to a Monitoring Centre, will inform them.	Batteries will be recharged when AC power is restored.
The display shows the device name and LOW BATTERY or BATTERY TROUBLE.	A pendant transmitter's or a smoke detector's battery is low. The CP if connected to a Monitoring Centre, will inform them	Contact your maintenance company.
You hear strange tones when using the phone.	Your CP is trying to call your Monitoring Centre or Care Provider	Hang up so your system can report a problem. When it finishes you can use the phone.
You hear noise interference when using your cordless phone.	The cordless phone might be picking up noise interference from the CP.	Connect the phone to a phone jack away from the CP. If the cordless phone's base is not connected to the CP, move the phone's base farther away from the CP.
The clock blinks continuously.	The CP has been reset.	Refer to the section "Clock Adjustment"
The display freezes or no response when pressing buttons.	The CP is jammed.	Refer to your maintenance company