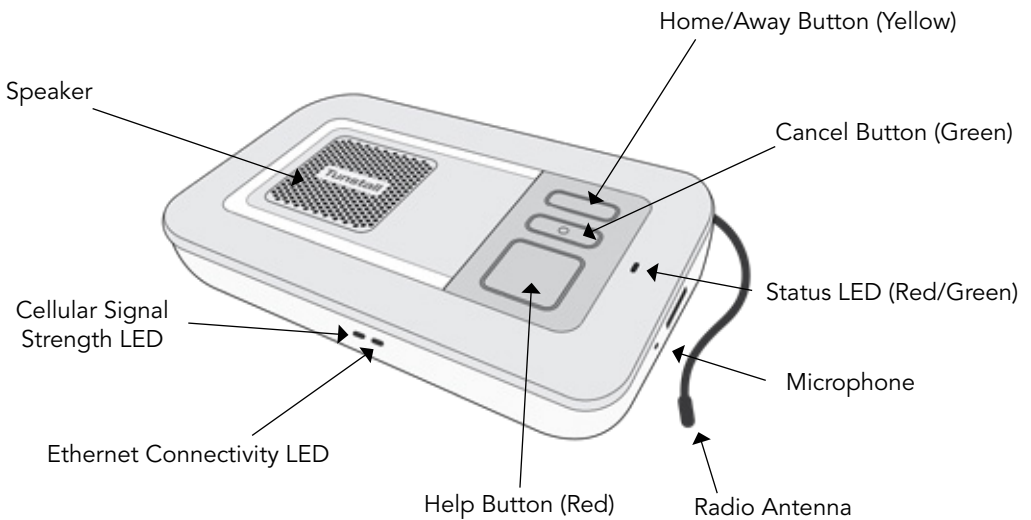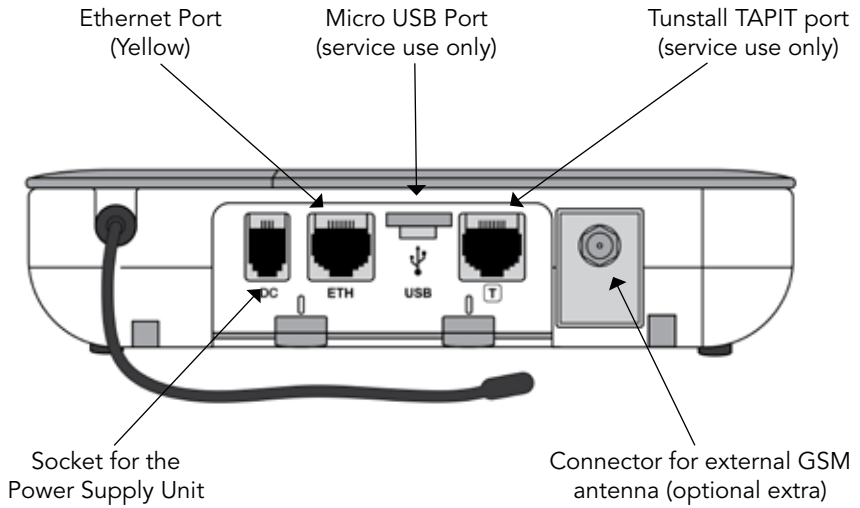# Smart Hub

User & Installation Guide

Tunstall

Your Tunstall Smart Hub

The Tunstall Smart Hub is connected to the mains power supply and has a built-in battery in case of mains power failure. The Smart Hub connects to a cellular network, via a SIM card, enabling you to generate an immediate call for help when and if you need it. This will connect you to the Customer Care Centre, via the Smart Hub's powerful loudspeaker and microphone, where trained care consultants will provide you with the assistance you require.

In the background the Smart Hub regularly sends it status via heart beats to the Device Management Platform (DMP). The DMP will allow trained care consultants to remotely configure the Smart Hub based on your individual needs.

Home/Away Button (Yellow)

Speaker

Cancel Button (Green)

Status LED (Red/Green)

Cellular Signal Strength LED

Microphone

Ethernet Connectivity LED

Help Button (Red)

Radio Antenna

The rear of your Smart Hub

Ethernet Port
(Yellow)

Micro USB Port
(service use only)

Tunstall TAPIT port
(service use only)

Socket for the
Power Supply Unit

Connector for external GSM
antenna (optional extra)

Your pendant

Your pendant is wirelessly connected to your Smart Hub and enables you to generate a call for help from anywhere in your home or garden. The pendant should be worn at all times and can be worn around the neck or on the wrist using the attachments supplied. The pendant is water resistant (to IP67 standard) up to 1m. It can be worn in the shower however wearing it in the bath should be avoided where possible.

The pendant has the below features:

|					
💧	Water resistant	↔	Internal radio range = 50m (typical) External line of sight radio range = 200m+	🔋	Auto Low Battery*

* The pendant will automatically send a notification call via the Smart Hub to the Customer Care Centre when its battery is low.

LED indication on the pendant

When pressed, the red LED on the pendant will light up to indicate activation. The green LED will light up when the Smart Hub base unit has received the signal from the pendant.

LED
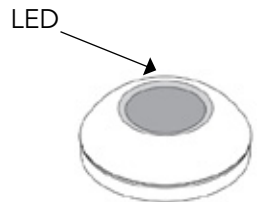
If the red LED flashes when pressed, this indicates that the pendant battery is low and should be replaced.

How to self-install your Tunstall Smart Hub alarm

Before you can start using your Tunstall Smart Hub alarm, please complete the following steps:

Step 1. Situating your alarm

The unit should be safely located in an area providing good audio coverage for the user. It should not be close to sources of heat, noise or electrical interference.

The unit should be located within two metres of an easily accessible mains power socket and in a place which ensures the unit receives a stable 3G cellular signal e.g. near a window.

Step 2. Connecting to mains power

Plug the mains adaptor into the socket on the back of the Smart Hub labelled DC and then connect the adaptor to the mains power. Once the Smart Hub has been powered up, it will attempt to connect to the Tunstall DMP using a cellular data connection. During this time the status LEDs on the top and front of the Smart Hub will indicate progress. Wait until the alarm announces "Cellular data connection restored" which should take less than two minutes.

Note: Only use with the power adaptor supplied with the home unit (part number XD5206006). Tunstall recommends connecting the mains adaptor to a dedicated power point and not to connect it to a double adaptor or power board.
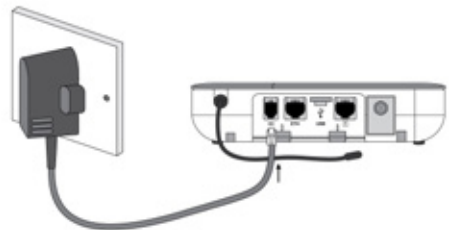
Step 3. Testing signal strength

The Smart Hub can provide continuous signal strength announcements. The cellular network level is announced as a spoken value from 00 (no signal) to 31 (strong signal).

To check signal strength, press and hold the yellow Home / Away button for seven seconds. The Smart Hub will continue to announce signal strength for a period of five minutes and can be stopped by pressing the green Cancel button.

Tunstall recommends a minimum level of eight to ensure the Smart Hub can successfully and consistently connect to the Telstra 3G network. If required, additional antennas are available to order via your Tunstall supplier.

The colour of the cellular signal strength LED light also indicates the strength of the signal received.

Cellular signal strength		
LED colour	Indicative signal strength	Antenna requirements
Green	19+ (Strong)	Not applicable
Yellow	7 to 18 (Good)	External antenna
Red	1 to 6 (Poor)	High gain external antenna
White	No SIM or network connection	High gain external antenna (may not resolve coverage)
Flashing white	Incorrect SIM PIN	Not applicable

NOTE: If the cellular signal strength is good, registering between 7 and 18, the use of an external antenna maybe required to increase the signal strength. If so, attach and activate the antenna using the instruction's outlined on page seven and eight.

If the cellular signal strength is poor, registering between 1 and 6, a high gain external antenna maybe required to increase the signal strength. Please contact Tunstall's Customer Service Centre on 1800 603 377 for further information.

Antenna installation (optional)

Antenna requirements

Once the Smart Hub has been connected to mains power, you can begin testing the signal strength. During testing of the signal strength, if the alarm has announced a signal strength of eight or less, or if the cellular signal strength LED light is yellow, red or white, you may need to attach an external antenna to improve signal coverage from the Smart Hub.

External vs High Gain External antenna

An external antenna is a short antenna designed to be used inside the home to boost the Smart Hub's ability to receive a 3G signal.

A high gain external antenna is designed for outdoor use where a stronger signal boost is required.

Attaching an external antenna

To connect the antenna to the Smart Hub alarm unit, simply screw the antenna lead to the antenna port on the back of the alarm (indicated below), ensuring that the lead is screwed in firmly:
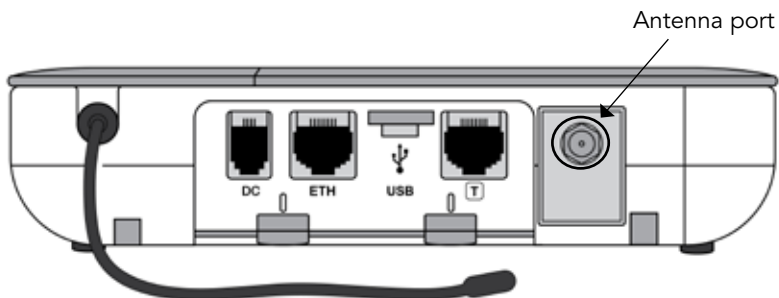
Antenna port

The correct positioning of the antenna is very important in low signal areas. To maximise the signal, it is best to position both the alarm and antenna in an open area with clear line of sight outside e.g. near a window.

NOTE: Make sure the antenna cable is unravelled fully and do not remove the adhesive backing until enhanced signal strength has been confirmed from the desired location.

Activating an external antenna

Once the antenna has been attached to the Smart Hub, the antenna can be activated by pressing and holding down the yellow Home / Away button until the alarm announces "External antenna selected" to indicate that it has switched from internal to external antenna configuration.

To revert to the internal antenna, simply press and hold the yellow Home / Away button until the alarm announces "Internal antenna selected".

NOTE: If the Smart Hub has weak or no cellular signal strength, the external antenna will need to be attached and activated in an area of adequate cellular signal strength, then returned to the installation point.

If you find, after following the instructions above, that the alarm signal strength is still below recommended levels, you may require a high gain external antenna, and should contact Tunstall's Customer Service Centre on 1800 603 377 for further information.

Step 4. Testing the pendant range

Your Smart Hub comes with a pre-programmed pendant. If you have purchased an additional pendant or sensor, advise the Tunstall care consultant of this when you test your Smart Hub and it will be remotely programmed for you.

To test the pendant range, press and hold the green Cancel button until the unit beeps (approximately five seconds). The unit will announce "Programming Mode" and the red Help button will flash slowly. Test the pendant by activating it from key areas within the home and around the perimeter of the property.

You should expect a range of more than 50 metres inside the home, depending on the environment.

The Smart Hub pendant is bi-directional which means the LED will flash red while it is transmitting to the base unit and change to green when the base unit responds. The base unit will also announces the trigger type after each successful pendant press. To exit Pendant Test Mode, press the green Cancel button.

IMPORTANT: Please ensure the alarm has sufficient 3G signal strength (8+) and you have completed the pendant range test before moving on to Step 5. If the signal strength is below eight, please complete the antenna installation on page seven of this guide.

Step 5. Test the alarm unit

Call the Tunstall Customer Care Centre on 1800 046 981 and advise the care consultant that you have installed your Smart Hub alarm. They will ask you for information including:

- Client details
- Smart Hub serial number
- Smart Hub product code
- SIM mobile number
- Internal or external antenna
- Any additional pendants or sensors
- Sensor Gateway installation (if applicable)

Once the care consultant has entered these details, they will advise you to press the pendant to raise a test call.

You have now completed the installation of the Smart Hub.

Using the Tunstall Smart Hub

Making an alarm call

Press the button on the pendant or the red Help button on the Smart Hub. The Smart Hub will announce the trigger activated, and after approximately 5 seconds also announce

"Press cancel button to cancel the alarm".

If the activation was accidental, you can cancel the alarm call at this point. (see below – Cancelling an alarm call).

If you do not cancel the alarm, the Smart Hub will then announce "Do not worry, contacting assistance". The call will be answered by a care consultant at the Customer Care Centre. Tell them why you have generated the alarm call and they will arrange for assistance.
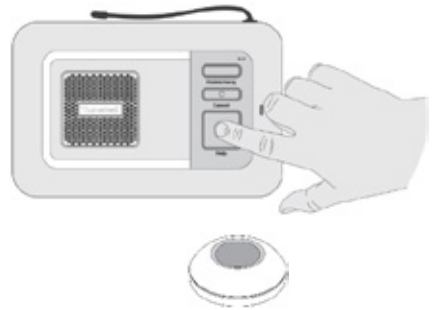
Cancelling an alarm call

After the help button is pressed, after approximately 5 seconds the alarm will announce "Press cancel button to cancel the alarm". Once the green Cancel button has been pressed, the Smart Hub will announce "The alarm call has been cancelled". This in-built delay prevents accidental cancellation of an alarm.
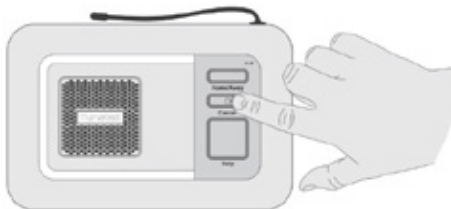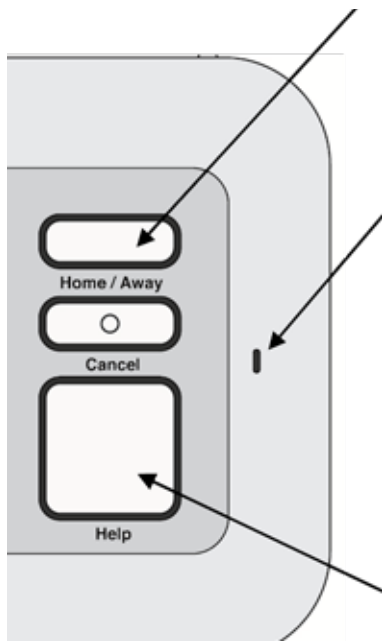
False alarms

If you accidentally generate an alarm, please do not worry as the care consultants are always happy to hear from you and the raising of the alarm acts as a useful test of your Smart Hub.

Warning/status lights on the Tunstall Smart Hub

The Smart Hub has warning and status lights to clearly indicate its status based on the below.

Home/away button (yellow LED)	Smart Hub status
On	Away mode
Off	Home mode

Status LED (green/red)	Smart Hub status
Green LED on	Normal mode
Red LED flashing (1 every 4 seconds)	Low internal battery
Red LED flashing (1 every second)	No external communications
Red/green flashing	Reduction in radio range
Yellow LED flashing	Configuration/software update in progress

Help button (red LED)	Smart Hub status
On	Normal mode
Flashing (1 every 4 seconds)	Normal mode running on battery
Flashing (1 every second)	Alarm in progress
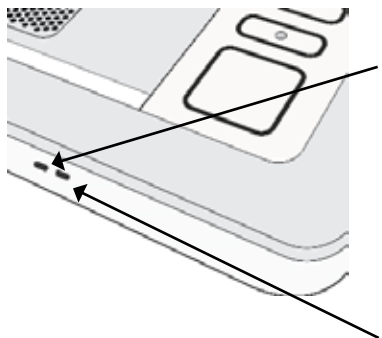
Cellular signal strength status LED	
Green	Strong signal
Yellow	Good signal
Red	Poor signal
White	No SIM or network connection
Flashing white	Incorrect SIM PIN

Ethernet connection status LED	
Green	Connected to the router and has internet access
Orange	Connected to the router and has no internet access
Off	Not connected to the router

How to respond to announcements

Announcement	What to do
"Red button"	An alarm has been initiated using the red Help button.
"Pendant Activation"	An alarm has been initiated using a radio pendant.
"Press Cancel button to cancel the alarm"	Normal message heard during an alarm. If the cancel button is pressed then the alarm in progress will be cancelled.
"The alarm call has been cancelled"	Normal message heard as a result of using the cancel button to cancel an alarm before connection to a monitoring centre is attempted.
"Do not worry contacting assistance"	Normal message indicating that an alarm call connection to the monitoring centre has been initiated (the alarm can no longer be cancelled).
"Please wait while we connect you to an operator"	Normal message to provide continued reassurance that an alarm is being progressed. This will be repeated until a connection with the monitoring centre is achieved.
"Please wait…"	Normal message. The call is being presented to operators and awaiting selection. Expect an operator to speak shortly afterwards.
"Connected to Monitoring Centre"	Normal message. Heard when protocol and monitoring centre use a call back method for speech operation. Expect an operator to speak shortly afterwards.
"Alarm call completed"	Normal message heard when the alarm has been cleared by the monitoring centre operator.
"The alarm call sequence has ended"	An alarm has occurred and the Smart Hub has tried to contact a Control Centre but not been successful. Press the cancel button to acknowledge and stop the message repeating. Contact the Service Provider and check that the Smart Hub's call sequences and destinations are correctly programmed.
"Incoming call. Press pendant or Cancel button to cancel the alarm"	Normal message. This is heard when the mobile phone number of the alarm unit is receiving a call (ringing).

Announcement	What to do
"There is no mains power"	Heard if power is disconnected. Check the Smart Hub is plugged into a working electrical socket.
"The mains power is OK"	It is normal to hear this message after power has been reconnected to the Smart Hub. No action required.
"Away"	Yellow button has been pressed and unit is now in Away mode. Normal operational message.
"Home"	Yellow button has been pressed and unit is now in Home mode. Normal operational message.
"Programming Mode"	Green button has been used to enter programming mode. During programming mode the range of radio devices can be tested without raising alarms.
"Registration Mode"	Green button has been used to enter registration mode and allowing new radio devices to be registered.
"Please wait, measuring signal strength"	May be heard after yellow button has been held depressed for 6 seconds and Smart Hub is measuring strength of cellular signal prior to announcing.
"Signal strength is ...<1 to 31>"	Heard after yellow button has been held depressed for 6 seconds and Smart Hub is indicating strength of cellular network signal.
"External antenna selected"	Heard after yellow button has been held depressed for 10 seconds and Smart Hub has switched antenna connection from internal to external. NB this mode should only be used when an external antenna is fitted.
"Internal antenna selected"	Heard after yellow button has been held depressed for 10 seconds and Smart Hub has switched antenna connection from external to internal.
"Remove the power cable"	Heard after the green button has been held depressed for 10 seconds signifying opportunity to shut-down the unit (if power cable is removed promptly) ready for transportation.
"Applying new device settings"	Changed settings have been prepared for the Smart Hub through the DMP. These have been downloaded and are being updated. No action required.
"New device settings applied"	Updated settings have been applied and are in use. No action required.

Announcement	What to do
"Connected to DMP"	The Smart Hub has been able to connect to the DMP. This should be heard if a short press of the cancel button is made whilst no alarm is pending. No action required.
"Connection attempt to DMP failed"	The Smart Hub is unable to connect to the DMP. This indicates that no IP communication method is available and/or it cannot reach DMP. Check that internet communications are available through the router/cellular service and that the DMP service is active.
"Software download started/pauses/resumed/completed/failed"	The Smart Hub is in the process of obtaining updated software. No action required. If the download fails it should be rescheduled and in the meantime operation will continue with the original software. The status will be known to the Service Provider through the DMP.
"Software installation started/completed/failed"	The Smart Hub is in the process of installing new software it has already downloaded. No action required. If installation fails operation will continue with the original software and a further attempt scheduled. The status will be known to the Service Provider through the DMP. Please note that the Smart Hub will reboot after a software/firmware update
"Battery low"	This message may be heard when a Smart Hub is first powered up if it has been in storage for a long period, or after a long mains power failure. Check the Smart Hub is plugged into a working electrical socket and allow time for the battery to charge.
"Reduction in radio range detected"	This may happen in the presence of strong radio interference impeding the ability to receive from radio peripheral devices. Check that the Smart Hub is not close to any other electrical devices such as a computer, television, fan, mobile phone. If so, turn-off or move the equipment away from the Smart Hub and check if this stops the warning. Contact the supplier if this does not resolve the issue.
"Cellular data connection failure"	The unit is unable to connect to a cellular data service. If the cellular network is known to be operational or the situation persists then contact your supplier.

Announcement	What to do
"Cellular data connection restored"	Cellular coverage has reconnected. No action required.
"Ethernet connection failure"	The unit is no longer connected to the router. Check the Ethernet cable and router.
Ethernet connection restored"	The Ethernet connection is restored and can now communicate with the router. No action required.
"SIM card removed"	The SIM card has been removed from the Smart Hub. Re-insert SIM card.
"SIM card PIN error"	The SIM card has a security protection for which the Smart Hub has not been configured. Ensure that the correct card is being used and settings are correct.
"SIM card locked"	The SIM card is locked preventing use after too many attempts to use with an incorrect security PIN. Contact the Smart Hub and SIM supplier.
"No mobile network coverage"	A SIM card is fitted but the Smart Hub is not able to connect to a cellular network. Check the SIM is valid and the internal/external antenna selection is correct. Try using and re-positioning an external antenna. Check if a suitable network signal should be available using another device or information provided by the network or your supplier. The Smart Hub should not be relied upon in this condition.

If the warning messages persist or in case of other announcements please contact your supplier.

Adding or removing pendants and sensors

While your Smart Hub comes with a pre-programmed pendant, if you have purchased an additional pendant or a telecare sensor, please contact the Customer Care Centre by pressing the red Help button on your Smart Hub and advise the care consultant who will remotely program this to your alarm for you.

If you have lost or no longer use the pendant or sensor, the Smart Hub will alert the Customer Care Centre that the sensor is missing. To stop these alerts the sensor needs to be removed from your Smart Hub. Please contact the Customer Care Centre by pressing the red Help button on your Smart Hub and advise the care consultant will action this for you remotely.

How to self-install your Tunstall Sensor Gateway (if applicable)

The Sensor Gateway provides a means of using Tunstall legacy sensors operating on the 312MHz frequency with the new Tunstall Smart Hub alarm, which operates on the 915MHz frequency.

The sensor gateway will receive the transmissions from the 312MHz legacy sensors and re-transmit them at 915MHz.

The Sensor Gateway is powered by the Smart Hub and will remain powered even if the mains power fails, for as long as the Smart Hub internal battery has sufficient charge.

Fitting the Sensor Gateway

1. Remove the four black rubber feet from the rear of the Smart Hub and store them in the slots inside the Sensor Gateway.

2. Plug the Smart Hub mains adaptor into the Smart Hub socket labelled DC. Plug the twisted red and black cable into the socket labelled with a capital T. Then connect the adaptor to the mains power.

3. Tuck the mains power cord behind the alarm and line up the Sensor Gateway so the power cord sits in the gap, ensuring the cord is flat to the back of the alarm unit.

4. Attach the Sensor Gateway to the Smart Hub. First fit the bottom two pegs into the holes where the rubber feet were fitted. Then engage the clips at the top into the slots in the rear of the Smart Hub.

   Extend the antenna out from the rear of the unit, point towards the ground. This will help to maximise the radio reception range of the Sensor Gateway.

Programming legacy sensors to the alarm

Legacy sensors with plug and play functionality can be programmed to the Smart Hub by calling the Customer Care Centre. After advising the care consultant that you have installed a Sensor Gateway, they will program the legacy sensors to your Smart Hub remotely.

Range test

The Smart Hub has a range test feature that enables you to test the range of personal triggers without raising an alarm call. This is done by putting the Smart Hub into Programming Mode.

When in Programming Mode, press the required personal trigger; if it is within range the home unit will beep and announce the sensor type.

Shutdown procedure

As the Smart Hub contains mobile phone technology and may announce warning messages, it is essential to fully power down the unit when uninstalled and prior to transportation. Because the unit has an internal back-up battery, simply removing the mains power is not sufficient.

Before returning or transporting the Smart Hub alarm, please complete the following steps.

Shutdown procedure

1. Press and hold the green Cancel button. You will hear the Smart Hub beep once. Do not release the button but continue holding until the Smart Hub announces "Remove the power cable" (approximately 10 seconds).

2. Release the green Cancel button and quickly remove the power cable from the rear of the Smart Hub. All the LEDs on the Smart Hub will flash together and then go out to indicate the Smart Hub has now powered down.

NOTE: The power must be disconnected as soon as prompted to do so otherwise the shutdown will not occur and the Smart Hub will continue to operate normally on battery power. To re-attempt the shutdown, ensure that the mains power is reconnected and then repeat from Step 1.

Help and advice

Do's

- Wear your pendant at all times.

- Test your Smart Hub on a monthly basis with the Customer Care Centre.

- Keep the Smart Hub connected to the mains power at all times.

- Dust the Smart Hub and pendant with a soft cloth which can be slightly moistened with a gentle detergent if required.

Don'ts

- Expose the Smart Hub to water or other liquids.

- Connect cables other than those supplied with the Smart Hub.

- Move the Smart Hub from the location that it was originally installed.

- Move objects close to the Smart Hub that are made of metal or create lots of noise or heat, such as televisions, radios, washing machines, microwave ovens, Wi-Fi routers, mobile phones, laptops etc.

- Attempt to change the battery in the pendant or Smart Hub. Should this become necessary it will be can be carried out by your supplier.

Please note: If you are relocating the Smart Hub out of one property into a new one, or within another area of your property, you must ensure the system is plugged in at the new location and a successful test alarm call to the Customer Care Centre is made to ensure it is working properly.

Battery Information

All batteries should be disposed of in accordance with the latest legislation.

CAUTION: Do not ingest battery, chemical burn hazard.

The pendant with this product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. Keep new and used batteries away from children.

If the battery compartment is not closed securely, stop using the product and notify your supplier. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

⚠ WARNING

THIS PRODUCT CONTAINS A BUTTON BATTERY

If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.

Keep batteries out of reach of children.

If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

Technical Details

Weight:	680g (1kg packaged)
Dimensions:	185mm x 122mm x 41mm (WxLxD)
Mains power:	120V - 240V ac
Stand-by battery:	2000mAhr capacity (continually internally charged)
Back-up time:	40 hours of stand-by operation
	(minimum expected at date of purchase and when fully charged)
Radio frequency:	917.6MHz & 927.8MHz (dual channel)
External connections:	DC power adapter with 3m cable
	Quad-band GSM 3G antenna (internal or optional external)
	Ethernet port IPv4
	USB port (installer use only)
Pendant battery:	3V Lithium CR2450 with up to 5 year life
	The battery can be replaced by your supplier.
	RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS
Cellular:	GSM/GPRS/Edge/UMTS

Environmental

Temperature:	Operating temperature (to perform to full specification) = 0°C to 50°C, storage = -10°C to 55°C
Humidity:	Operating relative humidity (non-condensing to perform to full specification) = 0 to 90%, storage relative humidity (non-condensing) = 0 to 93%

Standards

EMC:	AS/NZS CISPR 32:2013, AS/NZS 4252.1:1994
Safety:	AS/NZS 60950-1:2011
Radio:	AS/NZS 4268:2012 + A1:2013
PERS:	AS4607:1999
MEPS:	AS/NZS 4665-2005
Pendant:	IP67
Design manufacture:	ISO9001:2008
RoHS compliant:	2011/65/EU

Contact Details

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