



Chiptech GO™

The Help button for home and away



Chiptech GO™ is a market leading digital mPERS solution encouraging user confidence and independence. Daily activities can be enjoyed whether at home or out and about, knowing that safety is covered every step of the way.

TECHNICAL SPECIFICATIONS

V1.01



What is it?

Chiptech GO™ is a mobile personal help device with 3G cellular and global positioning system (GPS) technology. It can be used in and around the home, or taken out and about.

Chiptech GO™ is a multifunctional device, featuring an easy button press to alert for help, a handsfree speakerphone system to talk with the Alarm Receiving Centre (ARC) operator, and GPS location reporting ensuring user safety is covered every step of the way.

Chiptech GO™ includes fall detection technology that can be enabled on request.

Chiptech GO™ is supplied with a hypoallergenic chain and split ring, so can be worn around the neck as a pendant, fixed to a belt, or added to a key ring.

*** An asterisk throughout this document denotes a configuration value.**

Who is it for?

Chiptech GO™ is a confidence companion for those who want to maintain their independence and enjoy participating in activities outside of the home, knowing their safety is covered every step of the way.

Some people may be prone to isolation in their community, and Chiptech GO™ can help them enjoy the health benefits of regular exercise and promote contact with others.



How does it work?

To send an alert for help, in any place that has 3G and GPS coverage, press and hold both buttons on Chiptech GO™. This will start a short pre-alarm sequence, and it will flash red to let the user know an alert is being sent to the Alarm Receiving Centre (ARC). A voice message will also play, "Help alert in progress."

Once the alarm has been received by the ARC, a voice message will play and repeat: "The alert has been received by monitoring; you will soon be contacted by an operator." An ARC operator will call back; Chiptech GO™ will ring and automatically answer the call so the user can talk to the operator through the handsfree speakerphone system.

Chiptech GO™ will work in the background to obtain the user's current location and send it to the ARC mapping software, or to SmartCare Locate, which displays GPS data and features an algorithm to refine a user's location. When an operator ends the call, Chiptech GO™ will flash green to indicate that the ARC can still call back into Chiptech GO™, and the location continues to be sent.

Chiptech GO™ can be paired with a Chiptech base unit. If an alert is sent when Chiptech GO™ is in range of the base unit, it will report to the ARC that the user is 'Home', so they can be quickly located. The ARC operator can speak to the user over the Chiptech GO™ speakerphone. In the unlikely event that Chiptech GO™ cannot communicate with the ARC, the base unit will take over and try to send the alert for help.



Features

- A single button press starts the System Check -
 - battery status announced
 - cellular coverage confirmed
 - GPS coordinates obtained at current location.
- Pressing both buttons at the same time starts a pre-alarm sequence and sends an alert for help. This dual button press is designed to reduce false alerts.
- During an alert for help the built-in speakerphone system allows two-way communication between the user and the operator, providing reassurance.
- Chiptech GO™ can be paired with a Chiptech base unit for additional safety when at home.
- When an alert for help is sent to the ARC, this is followed by GPS co-ordinates being sent to mapping software, or SmartCare Locate, which is a purpose-built web application that will display Chiptech GO™ current location.
- Chiptech GO™ can be paired with a Chiptech base unit for additional safety when in range of a Chiptech base unit. Chiptech GO™ will report that it is 'Home' to mapping software, in the first report sent following the activation.
- Voice messages and coloured indicator lights around its edge automatically let the user know when the battery is low, and if Chiptech GO™ needs to be placed on the charger.
- Automated voice messages only play during daytime hours.
- The battery in Chiptech GO™ will operate for 1 – 2 months with standard use. It requires charging when it announces the battery is low, or following an alert being sent, as this consumes more power.
- Easy to update with setting changes, additional features, or apply firmware updates via the SmartCare Cloud – just place Chiptech GO™ on the charger to connect, ensuring operational efficiency and optimal performance.
- Fitted with an RFID tag and laser marked with an identifying number for easy asset tracking.
- Each Chiptech GO™ is tested for water resistance and durability during the manufacturing process.

Wearable options



Hypo-allergenic, stainless steel chain – worn around the neck as a pendant.

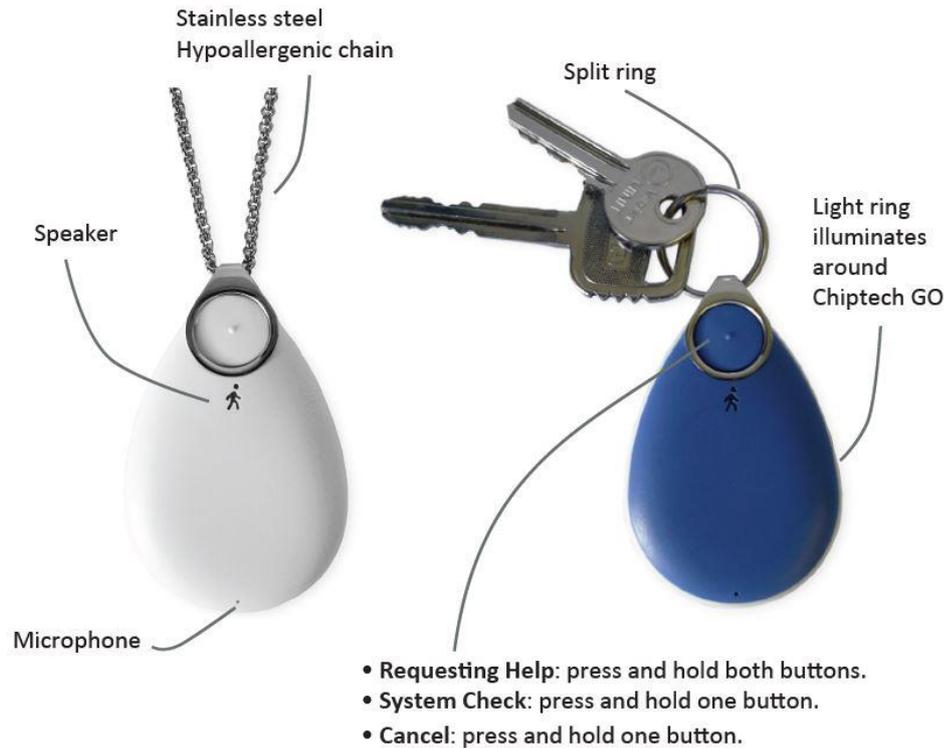


Supplied split-ring - to be attached to keys, a belt loop, or carabiner.





Overview



User Features	GO
<p>Friendly User Notifications – Chiptech GO™ has a range of notifications to provide users with information on the status of their personal help device.</p> <ul style="list-style-type: none"> • Visual feedback is provided by the multi-coloured LED lights that illuminate around the outer edge of the device. • Voice messages clearly describe current status; automated voice notifications only play during daytime hours and do not repeat unnecessarily. • Emergency functions are accompanied by vibration for haptic feedback. 	✓
<p>System Check – A button press will start the System Check. This informs the user of the battery status, the 3G cellular coverage and performs a GPS check*, which logs the current location.</p>	✓
<p>Large Tactile Buttons – The buttons on Chiptech GO™ are multifunctional. One button press begins the System Check process. Pressing and holding two buttons together begins an alert for help - which can help minimise false activations. Mashing a button at least 5 times can also start the alert process.</p>	✓
<p>Cancelling any Function – The user can cancel a System Check or a false activation by pressing one button on Chiptech GO™. When pressed it will announce, “Cancelled.”</p>	✓
<p>Wearable– Chiptech GO™ can be worn in a number of different ways, giving the end user the freedom to choose the best option for them.</p> <ul style="list-style-type: none"> • Chiptech GO™ must be kept at least 25cms away from a pacemaker so cannot be worn as a pendant in this instance, but the key ring or belt clip are alternative options. • When using the fall detection technology, Chiptech GO must be worn as a pendant. 	✓

Wireless Charging

Chiptech GO™ is supplied with a wireless charger and cradle, specifically designed for the user to place Chiptech GO™ in the correct position for charging. The ‘walking person’ must be facing upwards for the device to charge.

Charging duration is approximately 3-5 hours from low battery, but can be removed at any time if an alert for help needs to be sent.

Chiptech GO™ and the outer edge of the charger will turn blue to indicate charging. When Chiptech GO™ has reached a sufficient battery level its lights will change to green.



Battery

Chiptech GO™ has a rechargeable lithium-ion battery. The battery life between charges is approximately 1-2 months with standard use. Chiptech GO™ will need to be charged after an emergency activation as this event uses more battery power.

Users are automatically prompted both visually (with lights) and verbally, when Chiptech GO™ has a low or critically low battery, and advised when to place it on the charger. The current battery level can be checked at any time by pressing one button to start the System Check.

An automatic voice message and lights will indicate low battery at 20% capacity, and this is reported through to the ARC. Once Chiptech GO™ is placed on the charger and the battery has reached 3.7V or greater, a battery charging report will be sent to the ARC.

The battery capacity will reduce to approximately 80% after 350 -500 charges (when charged in temperature of 25°C and fully discharged between cycles), and when the battery is less than 3-5 years old.

Updating Chiptech GO™

A SmartCare Cloud connection allows Chiptech GO™ to connect via 3G cellular data, in order to perform various tasks. Tasks include reading the log and configuration, updating the device by writing new configuration, firmware, cellular and voice files, and changing the assigned account number (CSID).

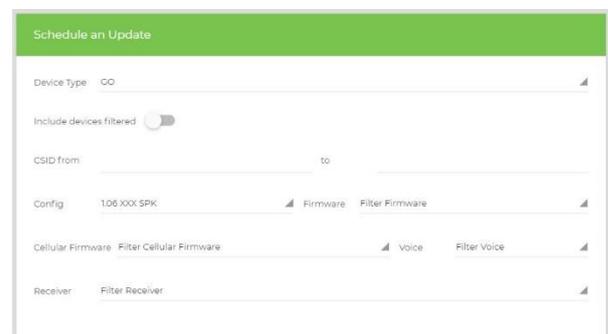
A cloud connection on Chiptech GO™ can be started either manually or automatically.

Chiptech GO™ can be remotely updated by placing it on the charger, and an automatic connection to the Cloud begins after approximately 30 minutes, if there is adequate battery. Once connected, Chiptech GO™ will check if it has a log retrieval or update task scheduled, and start the process. Alternatively, a manual cloud connection can be initiated from the Installer Mode, and is intended to be used only by installers and servicing staff.

A voice message will announce, “Update complete” when Chiptech GO™ is removed from the charger. Chiptech GO™ will also illuminate white briefly to confirm a successful update.

Please note: It is important to perform a System Check where the charger is located to ensure adequate 3G cellular coverage for cloud connections.

SmartCare CLOUD





Installer Mode

The Installer Mode is a voiced guided menu that is accessed through a long button press while Chiptech GO™ is on the charger. This reduces the likelihood of the user accidentally entering the mode and making a change to the settings.

To enter into Installer Mode, place Chiptech GO™ on the charger with the walking man facing upwards and press and hold the top button. When Installer Mode has been initiated, a chime will play followed by the voice message “Installer Mode.” The outer rim will flash pink and Chiptech GO™ will announce its ID number.

The installer can **connect to the Cloud** by pressing both buttons, it will announce ‘Cloud connection started’ and then exit Installer Mode.

Alternatively, when in Installer Mode, they can step through the adjustable settings by pressing one button to move to the next setting. Press both buttons to select a setting option. Changes can be made to the following:

- Adjust the **volume** of Chiptech GO™ for all announcements and chimes, which includes; pre-alarm tone, System Check and battery notifications. Please note, this does not affect the incoming ring tone or speech volume during a two-way call.
- Enable or disable **GPS location** logging (which happens during System Check function).
- Enable or disable **fall detection**.

To apply any change leave Chiptech GO™ to automatically time out, a chime will play upon exit.

To enter installer mode again, perform a single button press while Chiptech GO™ is placed on the charger, and follow the above sequence.

Fall Detection with Chiptech GO™

Chiptech GO™ is equipped with sophisticated fall detection technology and will automatically sound an alert for help when it detects a fall, and significant impact has occurred. Chiptech GO™ must be worn as a pendant around the neck for the fall detection algorithm to work as intended. Using or attaching Chiptech GO™ in any other manner will not provide accurate fall recognition and may result in a fall being missed.

When enabled with fall detection, Chiptech GO™ is constantly looking for a free fall followed by a significant impact, then a short period of no movement. When Chiptech GO™ detects a fall has occurred, it will play the pre-alarm sequence and then announce, “Fall detected.” During the pre-alarm sequence, red lights will flash around Chiptech GO™ to let the user know that an alert for help is being sent to the ARC.

Please note: Although advanced technology is used to detect a fall, there are certain types of falls that are less likely to trigger the automatic fall detection system. Falls that may not be detected include slumping, falling into an object that breaks the fall, or falling from an object that is not average standing height. While every effort is made to detect a significant fall from standing, there are circumstances where Chiptech GO™ will not automatically activate. If the user is able, they can request help by pressing both buttons on Chiptech GO™.

Having fall detection enabled will consume more battery, and the device will need to be charged more frequently.



Safety Features	GO
<p>3G Test Signal – Chiptech GO™ will send a 3G test signal to the ARC to communicate that it is operating as expected. The interval time between each test signal is a configurable setting with a default time of 48* hours.</p>	✓
<p>Lost Mode – This function sends the GPS location of Chiptech GO™ to mapping software after a period of no movement. This is a configurable setting, with a default of 72* hours of no movement and then every 24* hours thereafter until movement is detected.</p>	✓
<p>Flight Mode – Is used to suspend cellular communication to meet aviation regulations and for transportation. To enable Flight Mode press and hold one button for 10 seconds, until the voice message plays: “Flight Mode enabled. All functions suspended until button press or placed on a charger.” To disable Flight Mode press a button on Chiptech GO™ (this will start System Check), or place Chiptech GO™ on a charger.</p> <p>If you require help, press and hold two buttons to send an alert for help, this will override Flight Mode.</p>	✓
<p>Exceptional Battery – Chiptech GO™ has a rechargeable battery and will run for approximately 1 – 2 months with standard use before it requires charging. The lithium-ion battery in Chiptech GO™ will need to be charged after an alert for help.</p> <p>Chiptech GO™ will automatically announce low and critically low battery notifications to the user during day time hours. Chiptech GO™ requests that they charge their device within a defined period of time.</p> <p>Low battery and battery charging reports are also sent to the ARC.</p>	✓
<p>Reporting Redundancy – When learned into a base unit, Chiptech GO™ will always send an alert using its own 3G cellular reporting system. In the unlikely event that Chiptech GO™ cannot communicate with the ARC (typically because of a lack of 3G cellular coverage) then Chiptech GO™ will hand over the control to the base unit. The Chiptech base unit will pre-alarm and follow its standard reporting process. Chiptech GO™ speakerphone system will stay active in case it can be connected by the ARC.</p>	✓

Compatible Products



EVA – Voice Guided,
Self-Install



EVE 3G



ERICA





ARC Information	GO
Comprehensive reporting is sent to ARC – automated test signals, battery status, and flight mode reports are sent to the ARC to ensure that they are always aware of Chiptech GO™’s current status.	✓
Destination Reporting – Contact ID reporting via CSV over cellular data, or SCAIP over cellular data to four data destinations, which can be a combination of DNS and static IP addresses.	✓
GPS location reporting through SmartCare Locate – The ARC is able to retrieve Chiptech GO™ device GPS coordinates via SmartCare Locate. SmartCare Locate operates as a secondary software application to the ARC solutions, for the purposes of displaying GPS locations and does not operate as a standalone product. The ARC can also retrieve GPS location coordinates during an emergency activation through existing monitoring software platform that supports GPO1 data.	✓

Compatible Software



SmartCare Locate



SmartCare Relay



SmartCare Cloud

Technical Details

System: Chiptech GO™, stainless steel chain, split ring, a wireless charger, plug pack, USB cable, user guide, fitted nano 3G SIM card, and internal RFID tag (NFC tag type 2) which stores information including: serial number, customer name, phone number, hardware version and date of manufacture.

Dimension: 67mm x 47mm x 13.5mm (L x W x H) weighs 33g.

Packaged: 215 x 175 x 55mm (L x W x H) and weighs 0.65kg with all components included.

Environment: Operating temperature of 0°C to + 50°C, 90% humidity (non-condensating).

Radio

Frequency: 869MHz European Social Alarm frequency.

Range: 100 metres+ typical in open air when paired with a Chiptech base unit, when at home. Emergency hand over range is 300 metres + in open air.

Battery

Recharge time: Approximately 3 to 5 hours from low battery.

Capacity: 300mA
Maximum continuous discharge current 600mA
Maximum charge current 200mA (0.7C)

Standards

GO-1 complies with:

EN 55032
EN 50130-4
EN 301489 (-1,-3-19,-52)
EN 301908-1
EN 300 220-3-1
EN 62209-2
EN 60950-1
EN 60529 (IP67)
ROHS: compliant
CE: Compliant

Plug pack:

EN 60950
CE: Compliant

Wireless Charger:

EN 60950
ROHS: Compliant
CE: Compliant
Qi: Compliant

Manufacturing Quality Assurance:

ISO 9001:2015

Communication/Protocols

Cellular Module: 3G 2100 MHz and 850MHz or 900MHz

Digital reports: Contact ID in CSV format TCP over cellular data and SCAIP.

GPS Location: Location provided through assisted and autonomous GPS methods.
Periodic updates of GPS location are sent until the emergency event is completed.
GPS co-ordinates are transmitted via cellular data to SmartCare Locate or other GPS mapping platform.
GPS antenna tuning 1574.42Mhz

Product codes

Code:	Description:
GO1-Telco-Colour	Chiptech GO™ Device - Charcoal Grey, Blue, or White. Includes AC adapter, USB Cable, Wireless Charger, Split Ring, Chain, and User Guide.

Chiptech

Chiptech International Limited is an electronics company specialising in the design and manufacture of innovative digital solutions aimed at supporting people in their environment, so they can enjoy their independence and feel safe.

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