

## EkoCare® - Peace of mind for nurses and residents

A mobile resident or nurse; an exact alarm location

### Nurse Call System

EkoCare® Nurse Call System enables residents or residents to raise an alarm and staff to receive alert messages. It has been designed to be accessible to the resident whether they are bed bound or mobile; and, either way, it will pinpoint their exact location and alert the right people immediately. EkoCare® is a battery operated mesh network based on the 802.15.4 standard which can be easily implemented within a building without routing wires. Each device is monitored for technical faults and if any are detected, an automated alarm is raised.

### Wall Unit

With the wall unit mounted close to the residents bed, it will operate wirelessly using the EkoTek infrastructure. When alarms are raised, messages are delivered to the mobile devices and the over door light/sounder is triggered.

### Three Levels of Alarm

The EkoCare® wall unit has three levels of alarm.

- **Emergency:** red pull switch raises an emergency alarm
- **Nurse Assist:** On pressing the blue assist button a call is raised
- **Resident Assist:** on pressing the amber call button a call is raised

### Bed Call Button

The bed call button is a hand held device which extends the call button from the wall unit, allowing residents to quickly call for assistance when required from the comfort of their bed.

### Over Door Light

Upon raising a call from a wall unit, the over door light will illuminate, simultaneously an audible tone can be activated to alert nearby staff. This Unit will also behave as a repeater, playing a part in building the EkoTek wireless infrastructure.

### Nurse Finder

When the green presence button is pressed on the wall unit the over door light will illuminate green. This makes it easier for identifying that a nurse is present in the area.

### Bathroom Pull Cord

This unit is to be used in toilets, bathrooms, and showers. It can be ceiling or wall mounted with an anti-microbial pull cord connected. Raising a bathroom call sends a message and activates an audible tone on the nurse call system. The call can be cancelled at the originating call point or wirelessly from a wall unit located outside.

### EkoTek Messenger

The messenger is a multi-functional staff device; displaying received messages with acknowledgement button; It also has the ability to generate an alarm from the button, snatch cord (panic), dead-man or man-down features. Its multi-coloured display shows alarms from other messengers and call fobs, allowing the user to accept the alarm and signal back to confirm that assistance is on its way.

### Hub

The hub is the system's central control unit, displaying alarm messages, identifying users, their location and if needed sending messages to devices. Device management, history and configuration is also controlled through the hub via a PC interface and web browser.

### Resident Call Fob

The resident wireless call fob has been designed to allow for full site mobility, with a single large red button to allow for urgent assistance to be sent to a member of staff. Plus the optional support of dead-man or man-down features. Accurate location information is regularly obtained from the repeater network and relayed to teams for immediate assistance.





### Call Assist Fob

The call fob allows an assistance or panic call to be generated by the member of staff pressing a button, or automatically by the dead-man or man-down features. Accurate location information is regularly obtained from the repeater network and relayed to teams for immediate assistance.

### Fob and Messenger two Levels of Alarm

The EkoTek messenger and fob offer two levels of alarm.

- **Emergency red button:** Single or double press raises an alarm with escalation process
- **Man-down:** On suffering a fall, an alarm is raised
- **Dead-man:** Raises alarm if no response is received to a scheduled request
- **Snatch alarm (messenger only):** Raises alarm if messenger is snatched from the user
- **Assist blue button:** Single or double press raises an assist call.



### IP67

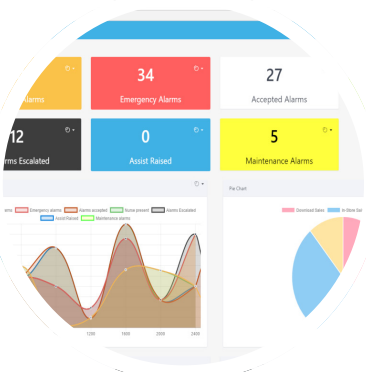
The call fob and messenger devices have an IP67 rating, and are suitable for spraying or immersion in shallow water or suitable disinfectant.

\* The cases are also able to handle daily wear and tear, passing drop tests up to 1.2m.

\* Tested with Virusolve and Salveson disinfectants

### EkoMS

The EkoCare Management and Information Software has been designed to monitor resident alarm location and the staff response, through a powerful dashboard display. From which system activity is logged; from call priorities, call volume to call location, providing the tools to manage a busy ward or home.



### Technical Specification

#### Maxi Hub Radio Performance

- Radio frequency: 2405-2480MHz
- Radio channels: 16
- Channel operating mode: Fixed frequency, or frequency hopping
- Maximum no. of radio channels simultaneously used per system: 16
- Radio power: 10mW
- Radio coding: modulation format OQPSK DSSS IEEE 802.15.4
- Network coverage optimum spacing: 10m repeater to repeater

### Maxi Hub System Maximums

- Standard hub: Max no. of Messengers: 127  
Max no. of devices per system: 500 (inc. messengers, fobs, repeaters and hub)
- Maxi hub: Max no. of messengers: no restriction  
Max no. of devices per system: 750
- Note: TAP & ESPA protocols are not standardised and require tests for compatibility. \*dependent on usage
- Power requirement: +12 - +26Vdc (lockable DC jack)
- ACPI: single power ATX support S0, S3, S4, S5 ACPI 3.0 compliant
- Power mode: AT/ ATX (ATX is the default setting)
- Operating temperature: 0 - 50°C (32 - 122°F) (w/ CF & SSD), ambient w/ air flow
- Storage temperature: -40 - 75°C (-40 - 167°F)
- Relative humidity: 0% - 90% relative humidity, non-condensing
- Vibration protection: with CF/ SSD: 1.5grms, IEC 60068-2-64, random, 5 - 500Hz, 30min/ axis
- Shock protection: with CF/ SSD: 10G, IEC 60068-2-27, half sine, 11ms
- Certification: CE, FCC Class A
- Mounting: VESA Compliance Maximums
- Max no. of pagers: no restriction
- Max no. of devices per system: 750 Physical characteristics
- Dimension (W x D x H): 178 x 112 x 50mm
- Weight: 1.2Kg

### Over Door Light

- Dimensions: 101w x 50d x 141h (mm)
- Weight: 179g
- Sounder: 2KHz resonant frequency
- LED: Red, Amber, Blue and Green
- Anti-microbial using Biomaster antibacterial technology

### Electrical Specification

- Standard hub power: AC-DC power adaptor
- Standard hub back-up batteries: 3 x C cell NiMH rechargeable batteries
- Maxi hub power: AC-DC power adaptor
- Repeater power: 2 X D cell high capacity alkaline manganese batteries
- Messenger power: 1 X NiMH rechargeable battery (non-removable)
- Wall unit power: 4 \* size 'C' Alkaline batteries, 10-28V DC, 50mA
- Over door light power: 4 \* size 'C' Alkaline batteries, 10-28V DC, 50mA
- Bathroom unit power: 4 \* size 'C' Alkaline batteries, 10-28V DC, 50mA



- Mains powered repeater power: 9.5-15V DC 15mA, with proprietary rechargeable battery pack as back-up
- Charging rack: AC-DC power adaptor
- Call point power: 2 X D cell high capacity alkaline manganese batteries
- Synchronized Ethernet Repeater: power over ethernet with a back-up of 2AA NiMH rechargeable batteries
- Mains powered call point: 11 – 15V 25mA, with proprietary rechargeable battery pack as back-up
- Operating time: EkoTek Messenger: up to 2 weeks\* EkoTek fob: up to 4 weeks\*
- Battery life: 2 years from data of purchase under normal operating conditions
- Mains powered repeater: 11 – 15V 25mA, with proprietary rechargeable battery pack as back-up.

### Wall Unit

- Dimensions: 101w x 44d x 141h (mm)
- Weight: 182g
- Emergency, Assist and Call Alarm buttons
- Presence/Clear button
- Anti-microbial using Biomaster antibacterial technology

### Bed Call Button

- Dimensions: 40w x 15d x 77h(mm)
- Weight: 100g (incl. cable)
- Emergency, Assist and Call Alarm buttons
- Reassurance lamp
- Anti-microbial using Biomaster antibacterial technology.
- Cable length: 3 meters

### Approvals

Waiting for EMC results

### Bathroom Pull Cord

- Dimensions: 101w x 57d x 141h (mm)
- Weight: 180g
- Pull cord: Red 3m length
- Anti-microbial using Biomaster antibacterial technology
- Reassurance lamp
- IP54

### Fob

- Dimensions: 65w x 42h x 17d mm (clip excluded)
- Weight: 41 g
- Belt clip and lanyard
- Emergency and Assist Alarms buttons
- Mandown and deadman

### Messenger

- Dimensions: 86w x 60h x 22d mm (plus belt clip)
- Weight: 85 g
- Belt clip
- Emergency and Assist Alarms buttons
- Mandown and deadman
- 4 line character variable colour display.
- Anti-microbial using Biomaster antibacterial technology

### Repeater

- Dimensions: 100w x 48h x 88d mm
- Weight: 122 g excluding batteries
- Fixing: two screws (not included) fixing to ceiling



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