



# Instructions for Use

## **P164 MKII**

### Safelink Radio Repeater

This document applies to;  
P164 MKII [Product version 1 & 2]

Alert-iT and the Alert-iT logo are either registered  
trademarks or trademarks of iTs Designs Ltd.  
Copyright © 2023 iTs Designs Ltd.  
All rights reserved.

## Thank you for choosing an Alert-iT care alarm system

Your product has been manufactured by a team of industry experts with more than 20 years of experience designing, manufacturing and distributing care alarms.

With a commitment to quality and innovation we are able to bring you a robust and reliable system to aid caregivers with the safeguard of individuals. Please read this guide carefully to ensure the correct set up, use, and maintenance of your new product for years to come.

If you have any questions or require assistance in regards to this product or any other Alert-iT product, our experienced team are on hand to help. Please find contact details below. Don't forget you can also join us on Facebook, Twitter and LinkedIn where you'll find even more information and advice.

Email: [sales@alert-it.co.uk](mailto:sales@alert-it.co.uk)  
Tel: +44 (0) 1530 239 900



## Table of Contents

<b>IMPORTANT SAFETY PRECAUTIONS</b> .....	<b>4</b>
Important Information and Limitations for Use. Read Before Use.....	4
<b>PACKAGE CONTENTS</b> .....	<b>5</b>
<b>GUIDE TO SYMBOLS</b> .....	<b>6</b>
<b>INTRODUCTION</b> .....	<b>7</b>
Product Description.....	7
Intended Operator.....	7
Liability of the Manufacturer.....	7
About these Instructions for Use.....	7
<b>CONTROL UNIT OVERVIEW</b> .....	<b>8</b>
<b>BASIC FUNCTIONS</b> .....	<b>8</b>
Turning the Device On.....	8
Turning the Device Off.....	8
<b>INSTALLATION OF THE REPEATER</b> .....	<b>9</b>
Selecting a Suitable Location.....	9
Installation.....	9
<b>INSERTING BATTERIES AND BATTERY SERVICE LIFE</b> .....	<b>10</b>
<b>CHECKS</b> .....	<b>11</b>
Monthly Checks.....	11
Quarterly Checks.....	11
<b>ALERT-IT LIMITED WARRANTY STATEMENT</b> .....	<b>12</b>
<b>TECHNICAL SPECIFICATIONS</b> .....	<b>14</b>
Control Unit.....	14
Ambient Conditions.....	14
Product Conformity.....	14
<b>CLEANING</b> .....	<b>15</b>
<b>DISPOSAL OF THE DEVICE AFTER USE</b> .....	<b>15</b>
<b>DECLARATIONS OF CONFORMITY</b> .....	<b>15</b>

# 1 IMPORTANT SAFETY PRECAUTIONS

## 1.1 Important Information and Limitations for Use. Read Before Use

This Alert-iT product has been designed with due regard to reliability and integrity. While this system offers a highly vigilant alerting method, it is always possible that a distress condition can go undetected for a variety of reasons (including malfunction) and in life threatening situations it is advisable to use the Alert-iT system in conjunction with additional techniques. Neither the manufacturer nor its agent can accept legal responsibility to provide a system that is infallible. The caregiver is responsible for assessing the risks of using this equipment and any settings pertaining to it.

- This device is designed only to be used as an aid for a caregiver.
- Do not use this device for any purpose other than that specified by the manufacturer.
- Only use the monitor with accessories approved for use with this product and only in accordance with instructions.
- Do not try to repair the device yourself.
- No maintenance of the product is allowed during use.
- Do not move or transport the device during use. If the device needs to be moved remember to unplug all cables.
- Do not let the device get wet.
- This product is for indoor use only in a dry environment.
- Do not install this device near or on top of another device. However, if this cannot be avoided, the user must ensure that the device functions in the normal manner.
- Do not use the input / output connectors for any purpose other than that specified by the manufacturer. For example do not connect the connectors to telecommunications or local area networks.
- Equipment is not suitable for use in the presence of a flammable anaesthetic mixture with air or with oxygen or nitrous oxide.
- Remove the batteries when the device is not in use or when it is stored for an extended period. Alkaline batteries may become self-discharged, start leaking and contaminate the device.
- Ensure that the leads are routed and secured to avoid the risk of trips, entanglement or strangulation.
- Ensure, by testing, that the alarm notifications are received at the caregivers location(s).
- Clean and disinfect each item regularly in accordance with information on page 15.
- Regularly test the device as described in these instructions for use.
- As with all electronic equipment there is potential for the equipment to interfere with or be effected by interference from other electrical or electronic devices. For this reason avoid placing the device, sensor or connecting cable(s) in close proximity to sensitive electronic devices or devices which produce strong electro-magnetic fields such as radio transmitters, mobile phones or power cables.
- If the equipment is modified in any way, appropriate inspection and testing must be conducted to ensure continued safe use of the equipment.
- A risk assessment must be conducted to determine if the level of reliability offered by the device is sufficient or if additional equipment is needed. Consideration shall be given to the users likelihood of tampering with the system.
- The caregiver must never clear an alarm without checking the user's condition.
- Some accessories are fitted with small screws and have plastic bags. Ensure these do not come into the possession of vulnerable people who may choke on them.

## 2 PACKAGE CONTENTS



1x Radio Repeater	[P164 MKII]	
2x 1.25V AA Ni-MH Rechargeable Batteries (Fitted)	[P160C]	(Not Shown)
1x 1m Power Supply Extension Lead		(Not Shown)
1x Power Supply	[P171]	(Not Shown)
1x Mounting Kit. [Inc. screws, wall plugs & sticky pads]		(Not shown)

### 3 GUIDE TO SYMBOLS



Serial Number.



Catalogue Number



Manufacturer.



Date of Manufacture.



Authorized representative in the European Community.



Keep Dry.



Fragile.



Temperature Limitation.



Humidity Limitation.

**IP20**

Protected against solid objects over 12.5 mm (e.g. a finger) and no protection against liquids.



Caution - Refer to instructions for use.



Consult instructions for use.



Product is for indoor use only.



CE Mark. (the product conforms with the relevant EU regulatory requirements.)



UKCA Mark. (the product conforms with the relevant UK regulatory requirements.)



Symbol of the European Waste Electrical and Electronic Equipment Directive (WEEE Directive) 2002/96/EC on waste electrical and electronic equipment.

**RoHS**

Indicates that the product is in compliance with the European directive 2002/95/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment (commonly referred to as the Restriction of Hazardous Substances Directive or RoHS).

## 4 INTRODUCTION

These 'instructions for use' describe the use of the Alert-iT "Radio Repeater".

The "Product Version(s)" these instructions apply to are shown on the front page of this document. This should be referred to and compared against the "Product Version" number shown on the product information sticker found on the top of your device. If this document is not suitable for your product please refer to the "support" section of our website for alternative instructions.

- Follow all instructions provided in this document concerning the installation, use and cleaning of the device.

### 4.1 Product Description

This product is a wall mounted Radio Repeater used to extend the radio range of any of Alert-iT's wireless radio products.

Additional Repeaters can be used to extend the range as far as needed without limit.

Normally the Alert-iT radio systems will cater for a distance of up to 450 meters between the monitors and pagers.

In the event that a greater distance is needed, then the Repeater acts as a booster; boosting the signal into the extended area. It will also find use if particular building conditions reduce the range available.

The Repeater will normally be powered from a mains adapter, but it features a battery backup that provides up to 48 hours of power in case of a power cut.

### 4.2 Intended Operator

The intended operator is the caregiver of the user. The operator needs to be an adult who fully understands the instructions and limitations of use mentioned in these instructions for use. Otherwise no special skills or knowledge is needed for the operator.

### 4.3 Liability of the Manufacturer

ITs Designs Ltd. (T/A Alert-iT Care Alarms) is liable to ensure the safety, reliability and performance of the device, provided that:

- the device is installed, used and cleaned in accordance with the instructions in these instructions for use.
- any changes to the device, maintenance and repairs are conducted by a person trained by ITs Designs Ltd. or its representatives.
- any spare parts or accessories used have been approved by ITs Designs Ltd.
- any accessories are replaced as recommended by the manufacturer.

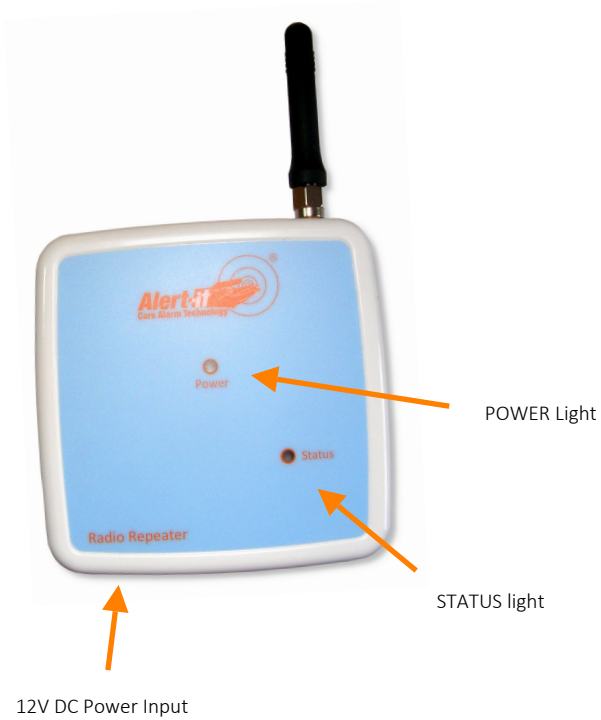
### 4.4 About these Instructions for Use

Read all warnings and reminders in these instructions for use with care to avoid hazardous situations and damage.

If assistance is needed in setting up, using, or maintaining the equipment contact your equipment supplier.

Please report any unexpected operation or events to your your equipment supplier.

## 5 CONTROL UNIT OVERVIEW



## 6 BASIC FUNCTIONS

### 6.1 Turning the Device On

The device is turned off (Internal backup batteries disconnected) when the 12V DC power jack is unplugged.

Insertion of the 12C DC power jack connects the batteries to the circuit and allows the device to operate.

Important Note: Because pulling the jack out of the socket turns the unit off, it is recommended that the repeater is mounted above head height and out of reach from any users who may pull it out unintentionally.

### 6.2 Turning the Device Off

Unplugging the 12C DC power jack disconnects the batteries and turns the device off.

The device can be left in this state for a while, but if it is to be left in storage for many months, it is recommended to remove the batteries to stop any damage to the batteries from them being discharged completely flat.



## 7 INSTALLATION OF THE REPEATER

### 7.1 Selecting a Suitable Location

The Radio Repeater should be used indoors in a dry area of between 5°C to 35°C and a maximum of 90% Relative Humidity.

If there has been an identified radio weak spot in an area of the building, simply locate the repeater some way towards the monitors, sufficient to create the extra coverage.

If there are large areas without signal or variability in performance from different monitors spread about the building, then a more formal approach can be used;

1. Place the existing Advanced Pager into “Node Test” mode (see pager hand-book for details as this requires using the supervisor menu, entering a password and locating the “NodeTest” option in the “FUNCTION” menu).
2. Ensure NO repeaters are currently active (i.e. unplug the 12V DC power connector).
3. Now walk away from the monitor to the furthest place from the area where radio fails. Watch the signal strength value for each monitor as it flashes on the screen.
4. The minimum value for reliable operation is 80 for pagers before December 2017 and 20 for pagers after December 2017. You can check the DOM date on the serial number label to check this.
5. Place the first repeater at this point. Turn it on (the unit can run temporarily on the internal battery if the power supply is plugged in, but without mains power connected) and proceed to find any other places where a monitors radio signal falls below the above value.
6. Place any additional repeaters here.

### 7.2 Installation

Once a suitable location has been found using the instructions above, the included power extension lead can be used to run the power cable to the closest plug socket.

A wall mounting kit has also been provided to mount it to the wall. The back of the case plate is removed using the tab underneath, this is then fixed to the wall and the unit is then clipped onto the back plate.

Once the Repeater has been fitted to the wall, plug the mains adapter into the nearest mains socket, the Green “Power” LED will illuminate. The Repeater will immediately begin boosting any Safelink signals it receives, the Red “Status” LED will flash each time a signal is boosted.

If the new boosted range is insufficient or there is a direction in which the signal strength needs boosting then more Repeaters can be fitted without limit.

The green “Power” LED will blink when running on the battery backup, it will blink faster when the battery is getting low.

## 8 INSERTING BATTERIES AND BATTERY SERVICE LIFE



Unplug all cables before removing the back plate.

Device operates with 2 high quality AA size 1.25V Ni-MH (Nickel Metal Hydride) batteries. (Operating voltage:  $2 \times 1.25V = 2.5V$ ).

Install and remove the batteries as follows:

1. Slide the back-plate off by lifting the latch at the bottom of the unit then sliding the back-plate downwards.

Note: If the device has been wall mounted, the latch is located at the bottom rear edge of the device, it should be pushed towards the wall and the device slid upwards.

2. Insert two high quality AA size 1.25V Ni-MH Rechargeable batteries into the device following the polarity symbols in the battery compartment. Slide the back-plate back on until it clicks into place.

3. Plug the 12V DC power jack back in to turn the device back on.

NOTE: Although Ni-MH batteries rarely leak, they do suffer from reduced capacity if allowed to discharge completely flat. So if the device is being placed into long term storage it is recommended to remove the batteries first.

Contact your equipment provider for recommended batteries.

## **9 CHECKS**

### **9.1 Monthly Checks**

#### **9.1.1 Condition of the Power Supply and Cables**

Check the condition of the mains power cable, ensuring it is free from cuts or loose wires.

Check the condition of the mains power supply.

### **9.2 Quarterly Checks**

#### **9.2.1 Check Backup Battery Health**

The product has a backup battery that can provide up to 48 hours of use when new. However the backup battery's capacity will degrade over time, so after a year from manufacture it is recommended to regularly simulate a power cut to check the backup battery still gives the desired performance.

To check the condition of the backup battery;

- Keep the 12V DC jack plugged in.
- Turn off the mains power, or unplug the mains adapter from the wall.
- Ensure the device is still operational after 3 / 6 / 12 hours (However long you require) by observing the "POWER" and "STATUS" lights. The "POWER" LED will flash slowly when mains power is first turned off, then flash quickly when the batteries are very low. The "STATUS" light flashes each time a radio backed is boosted.

If the backup battery life is insufficient, replace the batteries.

Batteries = 2x AA 1.25V Ni-MH Rechargeable Batteries.

## 10 ALERT-IT LIMITED WARRANTY STATEMENT

In the unlikely event that your product needs guarantee service, please contact your provider, distributor or manufacturer. To avoid any unnecessary inconvenience on your part, we recommend you read these instructions for use carefully before seeking guarantee service.

### YOUR GUARANTEE

By this Guarantee, Alert-iT guarantees the product to be free from defects in materials and workmanship at the date of original purchase for a period of three (3) years from that date.

If within the guarantee period the product is determined to be defective (at the date of original purchase) due to improper materials or workmanship, Alert-iT will, without charge for labour or parts, repair or (at Alert-iT's discretion) replace the product or its defective parts subject to the terms and limitations below. Alert-iT may replace defective products or parts with new or refurbished products or parts. All retained products and parts replaced become the property of Alert-iT.

### TERMS

Guarantee services will be provided only if the original invoice or sales receipt (indicating the date of purchase, model name and dealer's name) is presented with the defective product within the guarantee period. Alert-iT may refuse free-of-charge guarantee service if these documents are not presented or if they are incomplete or illegible. This Guarantee will not apply if the model name or serial number on the product has been altered, deleted, removed or made illegible.

This Guarantee does not cover transport costs and risks associated with transport of your product to and from Alert-iT.

This Guarantee does not cover:

- a. occupancy sensors or moisture sensors (see individual products for their guarantees).
- b. periodic maintenance and repair or parts replacement due to wear and tear.
- c. consumables (components that are expected to require periodic replacement during the lifetime of a product such as batteries).
- d. damage or defects caused by use, operation or treatment of the product inconsistent with normal use.
- e. damage or changes to the product as a result of:
  - i. misuse, including:
    - treatment resulting in physical, cosmetic or surface damage or changes to the product.
    - failure to install or use the product for its normal purpose or in accordance with Alert-iT's instructions on installation or use.
    - failure to maintain the product in accordance with Alert-iT's instructions on proper maintenance.
    - installation or use of the product in a manner inconsistent with the technical or safety laws or standards in the country where it is installed or used.
  - ii. the condition of or defects in systems with which the product is used or incorporated except other Alert-iT's products designed to be used with the product.
  - iii. use of the product with accessories, peripheral equipment and other products of a type, condition and standard other than prescribed by Alert-iT.
  - iv. repair or attempted repair by persons who are not authorised by Alert-iT.

v. adjustments or adaptations without Alert-iT's prior written consent, including:

- upgrading the product beyond specifications or features described in the instructions for use, or modifications to the product to conform it to national or local technical or safety standards in countries other than those for which the product was specifically designed and manufactured.

vi. neglect

vii. accidents, fire, liquids, chemicals, other substances, flooding, vibrations, excessive heat, improper ventilation, excess or incorrect supply or input voltage, radiation, electrostatic discharges including lighting, other external forces and impacts.

This guarantee covers only hardware components of the product.

#### **EXCLUSIONS AND LIMITATIONS**

Except as stated above, Alert-iT makes no warranties (express, implied, statutory or otherwise) regarding product or accompanying or constituent software quality, performance, accuracy, reliability, fitness for a particular purpose, or otherwise. If this exclusion is not permitted or fully permitted by applicable law, Alert-iT excludes or limits its warranties only to the maximum extent permitted by applicable law. Any warranty that cannot be fully excluded will be limited (as far as permitted by applicable law) to the duration of this Guarantee.

Alert-iT's only obligation under this Guarantee is to repair or replace products subject to these Guarantee terms and conditions. Alert-iT is not liable for any loss or damage relating to products, service, this Guarantee or otherwise, including - economic or intangible losses - the price paid for the product - loss of profits, revenue, data, enjoyment or use of the product or any associated products - indirect, incidental or consequential loss or damage. This applies whether that loss or damage relates to: impaired or non-operation of the product or associated products through defects or unavailability while with Alert-iT, which caused downtime, loss of user time or business interruption inaccuracy of output from the product or associated products.

This applies to loss and damages under any legal theory, including negligence and other torts, breach of contract, express or implied warranty, and strict liability (even where Alert-iT has been advised of the possibility of such damages).

Where applicable law prohibits or limits these liability exclusions, Alert-iT excludes or limits its liability only to the maximum extent permitted by applicable law. For example, some countries prohibit the exclusion or limitation of damages resulting from negligence, gross negligence, wilful misconduct, deceit and similar acts. Alert-iT's liability under this guarantee will in no case exceed the price paid for the product, but if applicable law permits only higher liability limitations, the higher limitations apply.

#### **YOUR LEGAL RIGHTS RESERVED**

Consumers have legal (statutory) rights under applicable national laws relating to the sale of consumer products. This guarantee does not affect statutory rights you may have, nor those rights that cannot be excluded or limited, nor rights against the person from whom you purchased the product. You may assert any rights you have at your sole discretion.

## 11 TECHNICAL SPECIFICATIONS

Equipment is for continuous operation.

### 11.1 Control Unit

Model:	P164 MKII
Power:	12V DC Power. Battery Backup. 2x Ni-MH AA Battery (HR6) 2400mAh.
Backup Battery:	Up to 48 hours.
Charging Time:	12 hours.
Signal Lights:	Green POWER light. Red STATUS light.
Mounting:	Wall mounting.
Measurements:	89 (140 inc Antenna) x 89 x 30 mm (HxWxD)
Weight:	170g
Colour:	White
Casing:	ABS Plastic
IP Rating:	IP20
Service Life:	5 years.

Radio Frequency:	434.0750 MHz (P164xxA).
Radio Output Power:	< 10 mW.
Radio Range:	600 meters (line-of-sight).
OR	
Radio Frequency:	869.2125 MHz (P164xxB).
Radio Output Power:	< 10 mW.
Radio Range:	600 meters (line-of-sight).

### 11.2 Ambient Conditions

Operating Temperature:	5°C to 35°C (Use Indoors)
Storage Temperature:	0°C to 40°C
Humidity Limit:	5% to 90% max. Non-condensing.

### 11.3 Product Conformity

Product has the following conformity markings: CE.

## 12 CLEANING

You can wipe the repeater and cables with a damp cloth, neutral cleaning product or mild disinfectant.



Avoid getting any liquid into any inputs.

Always disconnect the mains power cable before cleaning the device. Dry all parts well after cleaning.

## 13 DISPOSAL OF THE DEVICE AFTER USE

In conformity with the Waste Electrical and Electronic Equipment Directive (WEEE Directive), the device must be collected separately and returned to an authorised collection facility. The owner must take the device to the waste collection point specified by local authorities.



For more information on how to dispose of the device, please contact the relevant authorities.

## 14 DECLARATIONS OF CONFORMITY

The manufacturer, iTs Designs Ltd., hereby declares that this product is in compliance with the Radio Equipment Regulations (UK) 2017 and the Radio Equipment Directive (2014/53/EU).

The full text of the declaration of conformity is available at the following internet address;

[www.alert-it.co.uk/support/](http://www.alert-it.co.uk/support/)



Alert-iT Care Alarms  
Fernie House (Unit 3)  
Coalville Business Park  
Jackson Street  
Leicester, UK  
LE67 3NR

Tel: +44 (0) 1530 239 900  
Email: [support@alert-it.co.uk](mailto:support@alert-it.co.uk)  
Web: [www.alert-it.co.uk](http://www.alert-it.co.uk)

