Eliza (A150)

User Guide
English

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1. Read first: Safety information

⚠ Always read and follow the safety information accompanied by this symbol.

- Always test the system according to the instructions before use and always test the product after adjustments have been made.
- The device is not always suitable for all users and should not be seen as a substitute for the caregiver's routine monitoring routines.
- The device are NOT intended for life-sustaining equipment, where any technical failure may result in serious injury or death.
- Check the unit regularly and replace if necessary.
- User's should pay particular attention to the potential for interference from other systems operating in the same or adjacent radio frequency bands.
- The compartment covers on the backside may be opened only by authorised persons in accordance with the instructions in the technical handbook.

⚠ **WARNING!**

Only use batteries, power supply and accessories that have been approved for use with this particular model. Connecting other accessories may be dangerous and may invalidate the type approval and guarantee.

- Only use recommended power supply as stated in the Technical Data section.
- The power supply can be used as a disconnecting device. The wall socket shall be installed near the equipment and shall be easily accessible.

IMPORTANT!

This device use radio signals, the mobile phone network and the terrestrial network. This means that connection cannot be guaranteed in all circumstances.

1.1. Battery safety

The Eliza unit and the personal radio trigger contains Lithium batteries with inherent risks if not used correctly or if damaged.

Lithium batteries can cause potential chemical burn hazards associated with ingestion. If swallowed or placed inside any part of the body, seek immediate medical attention.

Keep batteries away from children.

- Battery replacement may be performed only by authorised persons in accordance with the instructions in the Maintenance section, *see 12. Maintenance on p. 24*.
- Only use batteries recommended and designated for the product.

- Only use the charging device and cord that is designated for the product.
- Do not charge or use the device if you notice any malfunction or potential problem with the battery as odour, change in colour, too much heat, change in shape, leaking or odd noises.
- Do not disassemble, crush, puncture, or damage batteries.
- Keep batteries safely stored in a cool and dry place, store them in their original packaging or a designated container, and avoid exposing them to extreme temperatures or moisture.
- If a fire occurs: Copious amounts if cold water is an effective extinguishing medium for lithium batteries. Don´t use warm or hot water. Don´t use Halon type extinguishing material. You may use dry powder, sand or soil.

Consult the Material Safety Data Sheet (MSDS) for further first-aid measures, fire-fighting measures, and other safety information.

Immediately remove empty batteries, store and dispose them properly.
Further information available in the Environmental information section, *see 14.1. Environmental information on p. 28*.

1.2. Medical units

The use of equipment that transmits radio signals as a social alarm, can interfere with insufficiently protected medical equipment. Consult a doctor or the manufacturer of the equipment to determine if it has adequate protection against external radio signals, or if you have any questions.

To avoid potential interference, manufacturers of implanted medical devices recommend a minimum separation of 15 cm between a wireless device and the medical device.

If you have any reason to suspect that interference is taking place, turn off the device immediately. If you have any questions about using your wireless device with an implanted medical device, consult your health care provider.

2. Important information

All systems using radio and network communication are subject to interference beyond the user's control.

Products from Careium are designed to minimise the impact of such interference.

Nevertheless, the user must be aware that system components can be subjected to interference or other influences that may cause malfunction.

It is therefore important to regularly check that every part of the system works in all areas, especially radio communications. Contact your supplier immediately in case of any suspected malfunction.

Users should pay particular attention to the risk of disruption from products which communicate using the same or adjacent radio frequency bands.

For further information, please contact your supplier or refer to the technical handbook or the documentation at www.careium.com.

The device has a rechargeable battery that enables the device to be operated even in the event of a power failure. The device will beep for a short while after power failure. The alarm receiving centre will be notified in the event of power failure as well as low charge level. When the battery reaches a low charge level, this is indicated by a blinking status light, *see 5.3. Indicator lights on p. 16*. The backup battery power supply secures the operation up to 72 hours.

3. Package contents

- Eliza
- Power supply
- Radio trigger with accessories
- User guide/Quick start guide

4. Description of functions

Eliza is a digital social alarm and smartcare hub. Adaptable for future needs and connects to a wide range of accessories and welfare services – enabling the user a tailor made solution.

Eliza allow the user to call for assistance if they have an accident or a fall at home. Eliza can potentially be a life-saving device if someone has a fall or some other accident when they are alone.

Eliza has a built in module for 2G, 3G and 4G mobile networks, the unit has possibility to transfer alarms over broadband/network connections and mobile telephone networks. The unit offers the user the possibility of two way handsfree voice communication, even if the users is far away from the Eliza, using existing standard for VoIP (Voice over Internet Protocol) calling. The unit uses SIP, a standard protocol to initiate speech and video over broadband connections. In addition to voice connected alarm calls, Eliza offers a platform for transfer of detailed alarm information, speech messages, online status etc.

The Eliza is assigned an unique identification number (ID) that is transferred and corresponding to personal information stored in the alarm receiving centre (ARC).

The radio trigger is adapted for use with the unit, *see 10. Radio trigger on p. 23*.

4.1. Physical Device Overview

The Eliza device is shaped like a rounded box, approximately the size of a classic radio receiver or smart speaker etc.

Key elements include:

- Front: Covered with small indents and a hole pattern that conceal a speaker.
- Back: Features ports for power, Ethernet, an external antenna, and USB. There is also a removable lid that reveals an additional USB port and several small buttons that is intended for installers and professional user´s.
- Top Surface: At the centre is a round, slightly raised edged and tactile integral alarm button.

4.2. Main Alarm Functionality

Alarms can be triggered in several ways:

- By pressing a wearable radio trigger that comes with the Eliza set.
- By pressing the integral and tactile alarm button on the Eliza.
- By activating connected assistive technology or other peripherals

Once triggered, the device:

1. Emits a beep.
2. Announces the alarm.
3. Initiates a call to an emergency contact or alarm receiving centre.

You can then communicate hands-free with the alarm operator via the built-in speaker and microphone. The call ends when the alarm operator disconnects.

If configured, the service user can cancel the call at any time by pressing a touch-sensitive cancel button located between the raised tactile alarm button and the front edge of the device. A beep confirms successful cancellation

4.3. Alarm transmitters

50 radio transmitters (triggers/sensors) can be programmed with the Eliza, e.g. a radio trigger. In the event of an alarm from a radio transmitter, the battery status of the radio transmitter is tested.

4.4. Alarm receivers

Up to 10 alarm receivers can be programmed. The alarm is identified using an alarm code which is programmed into the Eliza.

The person receiving the alarm can then speak directly with the person raising the alarm and take appropriate action.

4.5. Home/Away Functionality

The Home/Away mode adapts the alarm system based on whether the user is at home or away, enhancing both safety and convenience. This is an optional setting that may not be enabled on your Eliza.

This functionality can be configured in one of the following ways:

- Not active
- Home = Green / Away = Yellow
- Home = Yellow / Away = Green

IMPORTANT!
Please check with your supplier to confirm the configuration used on your device.

On the top surface, to the left and right of the integral alarm button, are two touch buttons:

- Left: Green square
- Right: Yellow circle

These buttons are centrally placed between the alarm button and the outer edges of the device.

Behaviour:

- When the device starts, it defaults to the Home state.
- In Home state, only the Away button is active, and vice versa.

A successful press is confirmed with a beep and a voice message indicating the current state ("Home" or "Away").

4.6. Tactile buttons

The touch buttons on the top, “Cancel”, “Green square” and “Yellow circle” can be equipped with an additional adhesive tactile button. The green button have one tactile dot, the yellow button two dots and the cancel button three dots. The tactile button set can be required free of charge from Careium, art. no. 9032.

The tactile buttons needed for the service user, which one depending on setup and usage, can be easily attached by the installer or the service provider according to instructions.

If a tactile button is attached, it is possible to enable a slow touch feature in the Eliza to give additional time for physical recognition before the button is activated

4.6.1. Tactile buttons assembly instructions

- Turn off the device.
- Remove the protective film if it is still on the top surface of Eliza.
- If the protective film was removed previously, clean the surfaces where the buttons are to be applied with a slightly damp cloth and dishwashing liquid if necessary and wipe dry before application.
- Remove the protective film from the back of the buttons you intend to apply.
- Apply the buttons to the surface where the corresponding touch button is located on the device and apply a little pressure for a few seconds for good adhesion.
- Turn on the device.
- Activate the "slow touch" function on the device which gives extra time to identify the buttons before activation. See technical handbook for more information.

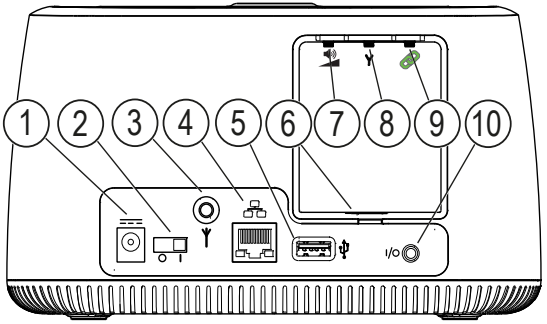
4.7. Other functions

Additional functions can be activated or modified – refer to the technical handbook or contact your supplier for further information.

5. Overview

5.1. Back view

This section contains information and functions intended for professionals, not consumers.

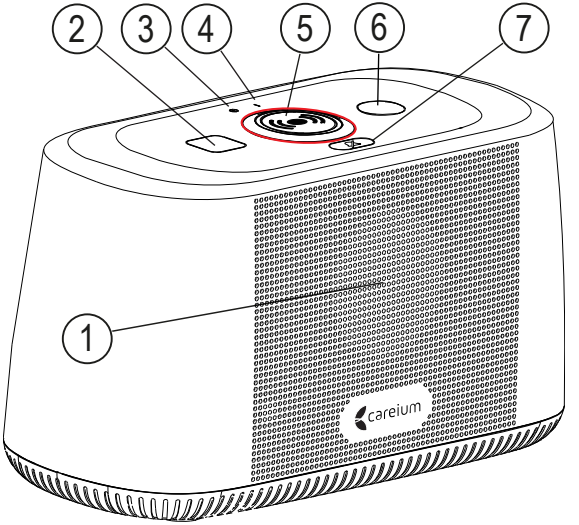


No. Function/Button	Description
1. Power supply socket	9V, 2A
2. Power switch	Turns Eliza on or off
3. External antenna connector	For an external antenna that must be adapted for use with 2G/3G/4G
4. Ethernet port	Connection for Ethernet cable from broadband/network
5. USB-port	For USB expansion
6. USB-port	

Function buttons under the compartment cover

7.	Audio volume setting
8. Y-key **Y**	Service menu
9. Link key	Radio pairing button
10. I/O connector	3.5 mm audio out or wired input

5.2. Front/top view



1. Loudspeaker
2. Square button (green)
3. Power indicator
4. Status indicator
5. Alarm button (red)
6. Circular button (yellow)
7. Cancel alarm (white)

5.3. Indicator lights

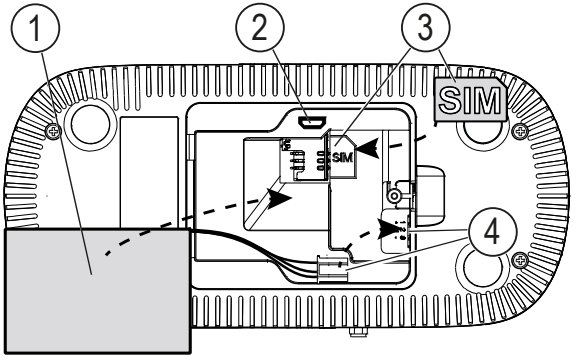
No.	Indicator	Function	Description
2		**SQUARE**	**GREEN**
		Subject to configuration	
3		**ON**	**RED**
		Steady light	Mains power
		Blinking light	Mains failure
4		**STATUS**	**RED**
		Off	Normal operation
		Steady light	Ethernet link[1] or mobile network problem
		Blinking light	Low battery
5		**ALARM**	**RED**
		Steady light	Normal operation
		Blinking light	Alarm activated
6		**CIRCLE**	**YELLOW**
		Subject to configuration	
7		**CANCEL**	**WHITE**
		Steady light	

1 Disable Ethernet link supervision if only mobile network is used.

5.4. Bottom view

This section contains information and functions intended for professionals, not consumers.

Illustration below is shown with the compartment cover removed.



1. Battery
2. Maintenance USB-port
3. SIM card slot under battery
4. Battery connector

WARNING!
Only authorised persons may open the compartment covers and perform wiring in accordance with the instructions in the technical handbook.

6. Installation

This section contains information and functions intended for professionals, not consumers.

6.1. Install the SIM card

⚠ WARNING!
Turn off the device and disconnect the external power supply before removing the battery cover.

- Ensure that Eliza is switched off.
- Remove the compartment cover.
- Carefully move the battery aside to expose the SIM card holder. If the battery already is installed, please note if the battery is connected to not damage the wiring.
- Install the SIM card according to picture, note the markings.
- Replace or install the battery.

⚠ WARNING!
Always make sure the battery is connected if the device is new or has been stored.

- Mount the cover for the SIM card compartment.

6.2. Connection

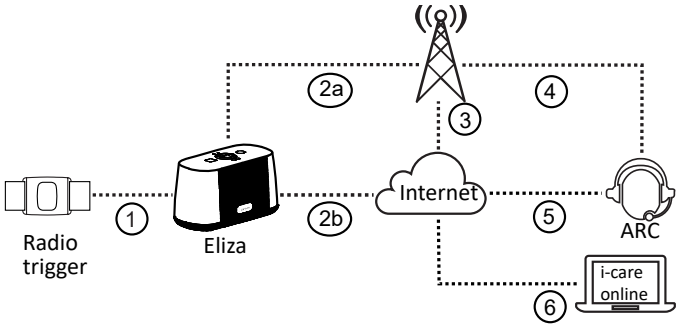
Eliza is easy to install, if broadband/network connection shall be used, connection is made with with a network cable (not included). Normally Eliza is set to use DHCP, which means that the unit automatically will be assigned an IP address when connected to a network.

1. Connect the power supply to the wall socket and the power supply lead to the DC input socket. Keep the device connected to the mains power at all times.
2. Connect the network cable from the broadband/network to the Ethernet socket on Eliza.
3. Turn the power switch to the **I** position
4. Check that the **On !** indicator lamp has a steady red light
5. The status light shall go off within 90 seconds if the mobile network (GSM/UMTS/LTE) is detected
6. Carry out a test alarm from the Eliza

⚠ WARNING!
Installation must be performed only by authorised persons in accordance with the instructions in the technical handbook.

7. Communication path

Example of a simplified communication path



1. Radio or wired alarm trigger activated.
2. Depending on selected transmission path:
  a. Connection via mobile network (GSM/UMTS/LTE) to Voice, IP alarm protocol and additional data
  b. IP on Ethernet, VoIP, IP social alarm protocol and additional data
3. IP connection via mobile network (GSM/UMTS/LTE)
4. Voice connection via mobile network (GSM/UMTS/LTE)
5. IP connection to a digital Alarm Receiving Centre (ARC)
6. Optional connection to i-care® online system.

8. Programming

This section contains information and functions intended for professionals, not consumers.

Contacts, alarm codes and settings are programmed using www.icareonline.com or by using a computer via a web-browser.

In some cases, the Eliza can be delivered pre-programmed by the supplier. For help with pairing, please refer to the technical handbook or contact your supplier.

8.1. Pairing radio triggers

Up to 50 radio triggers/sensors or other radio-alarm transmitters can be paired to Eliza.

- Press and hold the radio pairing button (**Link key**) and release when an audible signal is played and the Power indicator **!** starts to blink.
- Activate the radio transmitter. When Eliza receives the radio signal an audible signal is played.
- Confirm the pairing by pressing and releasing the red integral alarm button once on Eliza. The successful pairing is confirmed with an audible signal.
- The radio trigger is now paired and set to a default alarm type. The alarm type can be changed anytime using the optional i-care® online service.

***Note**: Repeat the steps above to pair additional radio triggers.*

9. Verification

This section contains information and functions intended for professionals, not consumers.

Always check the function after installation and pairing.

- Press and immediately release the radio pairing button (**Link key**).
- Press/activate the radio trigger/accessory. When Eliza receives the radio signal, you will hear a tone. Repeat this in all areas where the radio trigger/accessory shall function.

9.1. Check the mobile network signal strength

When installing the Eliza, the mobile network signal strength must be verified.

The mobile network signal strength can be checked via www.icareonline.com or *see 9.1.1. On device check on p. 22*. For more information, see the technical handbook.

9.1.1. On device check

Check the mobile network signal strength on the device.

1. Remove compartment cover on the backside of the device to access the maintenance buttons.
2. Press the radio pairing button twice.
3. A synthetic voice will say, -Service Mode!.
4. Press the Green square button repeatedly until a synthetic voice will say, -Signal strength!.
5. Press the Main Integral alarm button once.
6. The actual signal strength will be presented via a synthetic voice.
7. Press the Cancel button to exit the service mode.
8. Replace the compartment cover.

Note! *If acceptable value can't be achieved an external antenna must be used.*

9.2. Check the functionality

Always check the function after installation and pairing. Test alarms shall be done regularly and in a way that secures the whole alarm chain from radio transmitter to alarm receiver.

9.3. Automatic test

The functionality of the Eliza and its communication can automatically be checked down to every other minute through the optional i-care® online service. It can also be checked by automatic function monitoring or a periodical test report to the Alarm receiving centre (ARC), for example once a day.

The linked radio triggers can be automatically tested through Periodical radio test transmission (default ON). It is configurable and will be set in conjunction with radio transmission. The result is normally checked once every day depending on settings.

10. Radio trigger

The radio trigger uses two-way radio communication, this means that when Eliza receives an alarm from a radio trigger the carephone will send a confirmation of receipt to the radio trigger. This is confirmed on the radio trigger by indicator light change from red to green. If the radio trigger doesn't get any confirmation, the alarm is repeated.

The radio trigger can be worn using a wristband or neckband.

The radio trigger is waterproof according to IP67 by an integrated gasket and can be carried in the shower and in wet environment.

11. General information

- If Broadband/network connection is used the unit should always be connected to the network as near the router (or Ethernet connection) as possible.
- Verification of mobile network coverage should always be done as a part of installation.
- In order for an alarm to be sent, at least one alarm receiver/response centre needs to be programmed.
- The Eliza must not come into contact with water or any other liquid.
- If the Eliza is supposed to be connected to a mobile network it need to be equipped with a mini-SIM (2FF) and having an appropriate mobile subscription including voice and data.

12. Maintenance

12.1. Cleaning

The Eliza and the radio trigger should be cleaned using a slightly damp cloth.
Do not use other solvents when cleaning.

Note! *By ordering a complete housing set you can upgrade your used radio trigger to look as brand new.*

12.2. Reinstatement

If the Eliza is reinstated at a new user, it shall be reset to default settings and re-programmed according to the data and requirements of the new user.

12.3. Battery management

Effective battery management is essential for the reliability of telecare devices. Battery replacement periodicity and recommendations is described in the Technical handbook. When replacing the battery it is important to follow the safety precautions as described in the Battery safety section *see 1.1. Battery safety on p. 4*, replacement instructions in the Technical handbook and recycling guidance as described in the Environmental information section *see 14.1. Environmental information on p. 28*.

⚠ WARNING!
Battery replacement may be performed only by authorised persons in accordance with the instructions in technical handbook.

13. Technical data

13.1. Carephone Eliza

Description	Data
Model no:	A150
Dimensions:	197 x 92 x 112 mm (L x W x D)
Weight incl. power supply and cables:	0.7 kg
Power supply:	9 VDC power supply
Power consumption:	2W (Nominal)
Backup battery:	3.7 V, 2000 mAh, Li-Ion
Backup time:	Up to 72 hours (new and fully charged battery)
Inputs:	1 Normally Open (NO)
Output:	Audio
Communication:	GSM 2G, UMTS/HSDPA 3G, LTE 4G, Ethernet, Wi-Fi (optional)
Radio frequency band:	869,2-869,25 MHz
Number of radio transmitters:	Up to 50
Equipment class:	Class 1 radio equipment Class 1

13.2. Mobile networks

(MHz) [maximum radio-frequency power/dBm]

Network type	Network bands
2G GSM	(900) [33], (1800) [30]
3G UMTS	1 (2100) [24], 8 (900) [24]
4G LTE FDD	1 (2100) [24], 3 (1800) [24], 7 (2600) [24], 8 (900) [24], 20 (800) [24] , 28 (700) [24]
SIM card interface:	1,8V and 3V mini-SIM (2FF)

13.3. Other radio

(MHz) [maximum radio-frequency power/dBm]

Network type	Network bands
SRD:	(869.200-869.250) [10]
Bluetooth, version:	5, BLE , long range (2402 - 2480) [10]
ZigBee:	IEEE 802.15.4 (868.0 - 868.6) [20], (2400 - 2483.5) [20]
Wi-Fi:	IEEE 802.11 b/g/n, (2412 - 2472) [19] IEEE 802.11 a/n, (4915 - 5835) [18]

13.4. Portable radio trigger, Enzo

Description	Data
Dimensions:	39 x 32 x 11 mm (L x W x D)
Weight	12 g (excluding wrist band or necklace)
Battery:	3V lithium battery CR 2032
Battery life:	Up to five years
Water resistance:	Complies with IP67
Radio frequency band:	869,2-869,25 MHz
Radio frequency power:	max. 10 mW (10 dBm)
Radio range: indoors	≥ 40 meters (normal environment)
outdoors	≥ 300 meters (typical, line of sight)

14. Environment

This product is intended for indoor use in a normal residential environment.

Description	Data
Operating temperature:	5° C (41° F) - 35° C (95° F)
Humidity:	0% to 75% relative humidity (non-condensed)
Environmental class:	1 (EG-I)

14.1. Environmental information

This product complies with applicable EU- and UK regulations.
These regulations regulate the product liability for packaging, electronics and battery recycling with the purpose of increasing recycling and minimising waste.

The unit is marked with the crossed out wheeled bin logo, which indicates that it shall be handed in for recycling. The product can be returned free of charge to a recycling station that is connected, directly or via a recycling system, to Careium or to your distributor.

For detailed instructions, declarations and compliance information please check with your distributor or visit our website, www.careium.com. Use the QR-code to reach the product information.

14.2. Ecodesign

This product complies with applicable regulations under the Ecodesign for Sustainable Products Regulation (ESPR). The full information regarding the ecodesign requirements is available at the following internet address:
www.careium.com/ecodesign

14.2.1. External power supply

Description	Data
Manufacturer's name or trade mark, commercial registration number and address.	Tenpao International. Room 10-11,6/F., Kwong Sang Hong Centre, 151-153 Hoi Bun Road, Kwun Tong, Kowloon, HongKong
Model identifier	S018BAM0900200
Input voltage	100-240 VAC
Input AC frequency	50-60 Hz
Output voltage	9 VDC
Output current	2 A
Output power	18 W
Average active efficiency	86,64 %
Efficiency at low load (10 %)	84,12 %
No-load power consumption	0,057 W

14.2.2. Standby and off mode

The product is network connected with high network availability functionality (HiNA).

- Wireless network ports can be disabled through software configuration.

For more information se: www.careium.com/ecodesign

15. Accessibility

Careium is committed to ensuring accessibility compliance for users with disabilities across our product and service portfolio. This document outlines our adherence to applicable accessibility standards and the measures implemented to support inclusive usability.

15.1. Measures to support accessibility

Careium has a broad range of products and services to support and maintain independence. We offer solutions designed to accommodate diverse user requirements, with built-in compatibility for different assistive technologies depending on the chosen product or service. The product support services explain how to use the accessibility and compatibility features. This document is designed to fulfill accessibility requirements with optimized formatting for screen readers and text-to-speech applications.

For accessibility-related support, you can also contact Careium, your point of purchase or the organisation that supplied and installed your products.

15.2. Feedback

We welcome your feedback on the accessibility of Careium products and services. Please let us know if you encounter any accessibility barriers.

- Phone: +44 (0)300 333 6511
- Email: support.care.uk@careium.com
- Postal address: Careium UK – Product support accessibility queries - Aspinall House, Walker Office Park, Walker Rd, Guide, Blackburn, BB1 2QE, UK

15.3. Accessories

List of compatible assistive technology accessories to support accessibility

- Blow switch – Blow activated switch
- Ping Pong switch – Light touch activated switch
- Pullcord – Pull activated switch
- PikoButton – Easy to activate switch
- Pill Dispenser – Support medication feed and remembering
- Tactile buttons

Other available assistive technology accessories can vary from region to region and 3:rd party assistive technology peripherals can be attached to the Eliza's input or output, for example certain hearing aid amplifiers.

Please check our homepage at www.careium.com, ask our help desk or your supplier for further information and support

16. Others

16.1. Declaration of conformity

Hereby Careium Sweden AB declares that this radio equipment is in compliance with the RE Directive 2014/53/EU as well as other applicable EU and UK regulations. The full text of the declarations of conformity is available at: www.careium.com/dofc

16.2. Legal notices

The information contained here is subject to change without notice. The only warranties for Careium products and services are set forth in the express warranty statements.
Nothing herein should be construed as constituting an additional warranty.
Careium shall not be liable for technical or editorial errors or omissions contained herein.

A150 (Eliza)

English
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www.careium.com