

# **VIRALERT 3**

## **QUICK START GUIDE**

PUBLICATION N° 814238

LANGUAGE: ENGLISH

ISSUE: 3

DATE: 28 JULY 2020

# HUMAN BODY TEMPERATURE SCREENING SYSTEM



**LAND**  
**AMETEK®**

[LANDVIRALERT.COM](http://LANDVIRALERT.COM)

### Health and Safety Information



Read all of the instructions in this booklet - including all the **WARNINGS** and **CAUTIONS** - *before* using this product. If there is any instruction which you do not understand, **DO NOT USE THE PRODUCT.**

### Safety Signs



#### WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or personal injury.



#### CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury to the user or users, or result in damage to the product or to property.

#### NOTE

Indicates a potentially hazardous situation which, if not avoided, could result in damage or loss of data.

### Signs and Symbols used on equipment and Documentation



Caution, risk of electric shock.



Caution, attention to possibility of risk of damage to the product, process or surroundings. Refer to instruction manual.



Caution, hot surface.



Protective Conductor Terminal.



Observe precautions for handling electrostatic discharge sensitive devices.

### Equipment Operation

Use of this instrument in a manner not specified by AMETEK Land may be hazardous. Read **and understand** the user documentation supplied **before** installing and operating the equipment.

The safety of any system incorporating this equipment is the responsibility of the assembler.

### Protective Clothing, Face and Eye Protection

It is possible that this equipment is to be installed on, or near to, machinery or equipment operating at high temperatures and high pressures. Suitable protective clothing, along with face and eye protection must be worn. Refer to the health and safety guidelines for the machinery/equipment before installing this product. If in doubt, contact AMETEK Land.



Wear Protective Gloves



Wear Protective Clothing



Wear Eye Protection



Wear Ear Protection



Wear Safety Boots



Wear Face Protection

### Electrical Power Supply

Before working on the electrical connections, all of the electrical power lines to the equipment must be isolated. All the electrical cables and signal cables must be connected exactly as indicated in these operating instructions. If in doubt, contact AMETEK Land.

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For further details on all AMETEK Land offices, distributors and representatives, please visit our website.

## Storage

The instrument should be stored in its packaging, in a dry sheltered area.

The maximum storage temperature is 10°C (18°F) higher than the maximum operating temperature.

The minimum storage temperature is 10°C (18°F) lower than the minimum operating temperature.

Refer to the Technical Specification for details of the operating temperature limits.

## Unpacking

Check all packages for external signs of damage. Check the contents against the packing note.

## Lifting Instructions

Where items are too heavy to be lifted manually, use suitably rated lifting equipment. Refer to the Technical Specification for weights. All lifting should be carried out in accordance with local and national regulations.

## Return of Damaged Goods

**IMPORTANT** If any item has been damaged in transit, this should be reported to the carrier and to the supplier immediately. Damage caused in transit is the responsibility of the carrier not the supplier.

**DO NOT RETURN** a damaged instrument to the sender as the carrier will not then consider a claim. Save the packing with the damaged article for inspection by the carrier.

## Return of Goods for Repair

If you need to return goods for repair please contact our Customer Service Department for details of the correct returns procedure.

Any item returned to AMETEK Land should be adequately packaged to prevent damage during transit.

You must include a written report of the problem together with your own name and contact information, address, telephone number, email address etc.

## Design and Manufacturing Standards

The Quality Management System of Land Instruments International is approved to BS EN ISO 9001 for the design, manufacture and on-site servicing of combustion, environmental monitoring and non-contact temperature measuring instrumentation.

Registered ISO9001 Management System approvals apply in the USA.

UK Calibration Laboratory: UKAS 0034.

USA Calibration Laboratory: ANAB Accredited ISO/IEC 17025.

National Accreditation Board for Testing and Calibration Laboratories approvals apply in India.

Operation of radio transmitters, telephones or other electrical/electronic devices in close proximity to the equipment while the enclosure doors of the instrument or its peripherals are open, may cause interference and possible failure where the radiated emissions exceed the EMC directive.

The protection provided by this product may be invalidated if alterations or additions are made to the structural, electrical, mechanical, pneumatic, software or firmware components of this system. Such changes may also invalidate the standard terms of warranty.

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# 1 INTRODUCTION

**This Quick Start Guide gives you information on how to install and set up the AMETEK Land VIRALERT 3 Human Body Temperature Screening System.**


## 1.1 About VIRALERT 3

VIRALERT 3 screens people for elevated temperatures that could indicate fever. The system is intended for use at business premises, hospitals, airports, schools, sporting and social gathering venues etc.

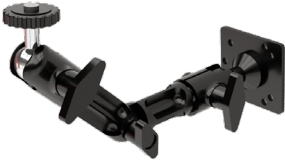


A high-resolution visual camera, with facial detection software identifies the part of the image containing the subject’s face. VIRALERT 3 uses an infrared thermal imager to determine the highest temperature in the subject’s face.

	<p><b>WARNING</b></p> <p>VIRALERT 3 is a screening tool. It has <b>not</b> been cleared or approved by the FDA or any other regulatory agency. It should <b>not</b> be relied on solely or primarily to diagnose or exclude a diagnosis of COVID-19 or any other disease.</p>
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## 1.2 What’s in the box?

	<p><b>VIRALERT 3 Camera and Blackbody Reference source</b></p> <p>Pre-mounted on a bracket with tripod fixings</p>
	<p><b>Camera Cable</b></p> <p>Power and signal cable</p> <p>Connects the camera to the Laptop/PC</p> <p>Ethernet and USB connections to the Laptop/PC</p>
	<p><b>Power Cable</b></p> <p>For the Blackbody Reference Source</p> <p>International mains adaptors included</p>

## 1.3 Optional Accessories

	<p><b>Laptop PC running VIRALERT 3 software</b></p> <p>VIRALERT 3 software is available for download from <a href="http://www.landviralert.com">www.landviralert.com</a></p>
	<p><b>Surface Mount Bracket</b></p> <p>Part N° 814266</p> <p>An adjustable mounting bracket that can be screwed to a wall, ceiling or any other suitable flat surface. Fixings included</p>
	<p><b>Clamp Mount Bracket</b></p> <p>Part N° 814267</p> <p>A mounting bracket with a clamp to connect to a desk or a table</p>
	<p><b>Tripod</b></p> <p>Part N° 814268</p> <p>A tripod for installation on a flat surface</p>

## 2 SYSTEM OVERVIEW

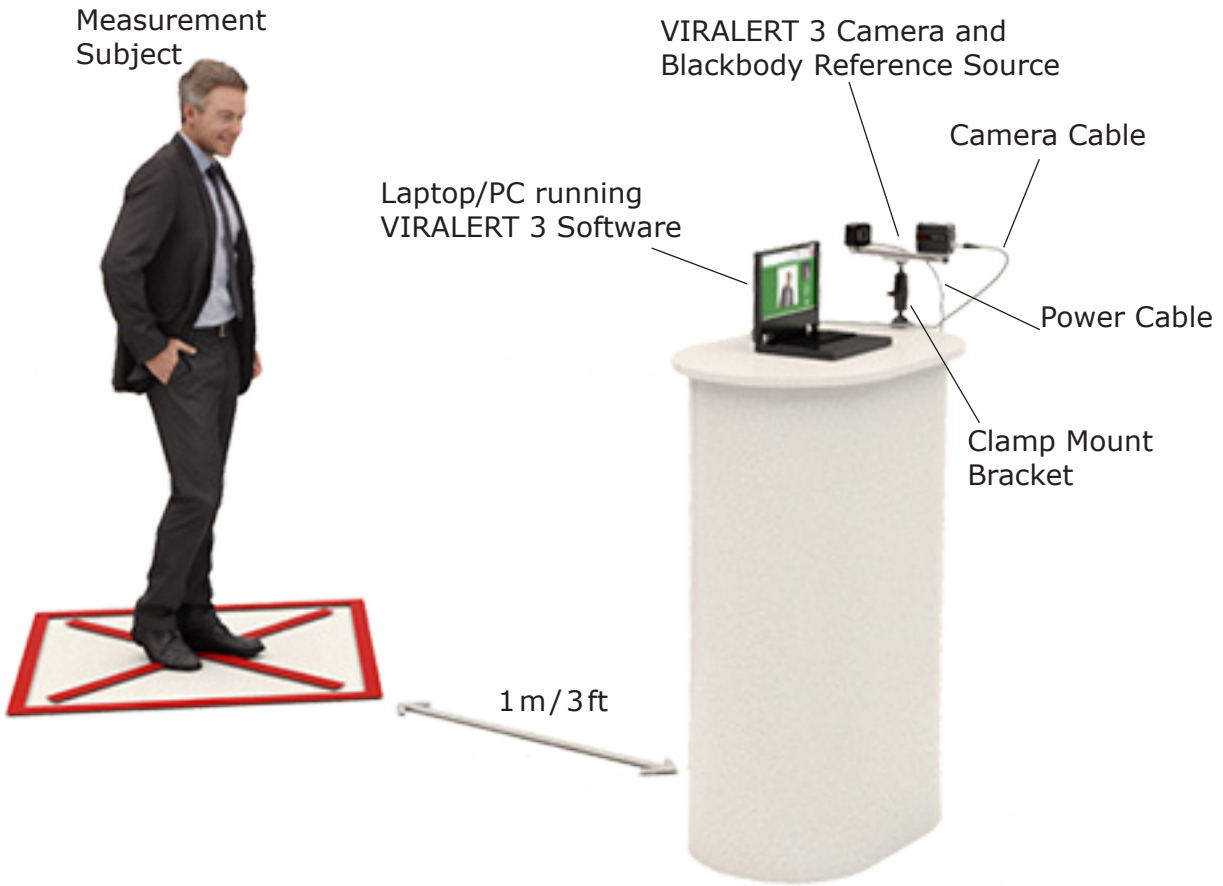


Fig. 2-1 VIRALERT 3 Typical System Overview

## 3 SYSTEM SETUP

### 3.1 Measurement Location

- 1) Choose a location near to the entrance of the area you want to protect.
- 2) There must be space to install the VIRALERT 3 so that the Measurement Subject can face the system from a distance of 1 m/3ft.
- 3) Avoid locations where there are possible heat sources e.g. electrical equipment, radiators etc. in the field of view of the camera.
- 4) Also avoid locations where the camera may pick up reflections from windows, mirrors etc.
- 5) VIRALERT 3 is designed to scan one person at a time. The measurement location should not be a high-traffic area where people other than the subject will be in the field of view.
- 6) During the temperature measurement process, the Subject will need to stand still in front of the camera for approximately 2 seconds. Make sure there is adequate provision for social distancing in your chosen measurement location.
- 7) The camera must have a clear, unobstructed view of the Subject's face, ideally with the camera at a height around eye level. If necessary, use one of the mounting accessories available from AMETEK Land (see Section 1.3).
- 8) The Blackbody Reference Source requires a mains voltage supply. You will also need to provide power to the Laptop/PC running the VIRALERT 3 software.
- 9) Once the system is installed and operating, use cable ties to secure the cables to suitable structures. This minimises the risk of the cables becoming dislodged and reduces the risk of tripping over the cables.
- 10) Posters which explain the screening process and provide instructions for your staff and visitors on how to use the system are available for download from:  
**[www.landviralert.com](http://www.landviralert.com)**

Detailed guidelines for deployment, implementation and operation of a screening system can be found in ISO/TR 13154:2017

### 3.2 System Connections

#### NOTE

If you have purchased a mounting accessory i.e. Surface Mount Bracket, Clamp Mount Bracket, or Tripod from AMETEK Land, then each accessory will come supplied with its own installation instructions.



	<p><b>Camera Connection</b></p> <p>Connect the cylindrical connector on the power and signal cable to the Camera</p>
	<p><b>Laptop/PC Connections</b></p> <p>Connect the Laptop/PC to the mains power supply.</p> <p>Connect the two connectors on the other end of the power and signal cable to the Laptop/PC.</p>
	<p>The power (USB) connector on the cable looks like this.</p>
	<p>Connect it to a USB socket on the laptop which looks like this.</p>
	<p>The Network signal connector on the cable looks like this.</p>
	<p>Connect it to a Network socket on the laptop which looks like this.</p>
	<p><b>Blackbody Reference Source Connection</b></p> <p>Connect the smaller connector of the source power cable to the USB port on the Blackbody Reference Source.</p> <p>Use the supplied mains adapter to connect the cable to the mains supply.</p>

**System connections are now complete**



## 4 START THE SOFTWARE

### NOTE

If you purchased a Laptop/PC from AMETEK Land with your VIRALERT 3 system, then the Network Adapter Settings will already be configured and the software installed on the computer.

### 4.1 Network Adapter Settings

If you are using your own Laptop/PC, the correct Network Adapter Settings must be specified so that your PC can communicate with the VIRALERT 3 Camera.

- 1) In the bottom left corner of your PC screen, there is a 'Windows' icon   
Click on the icon so that it turns blue   
The Windows **Start** menu is displayed.
- 2) On your keyboard, type **Ethernet Settings**.  
The **Ethernet** settings screen will be displayed, similar to the one shown in Fig. 4-1 below.

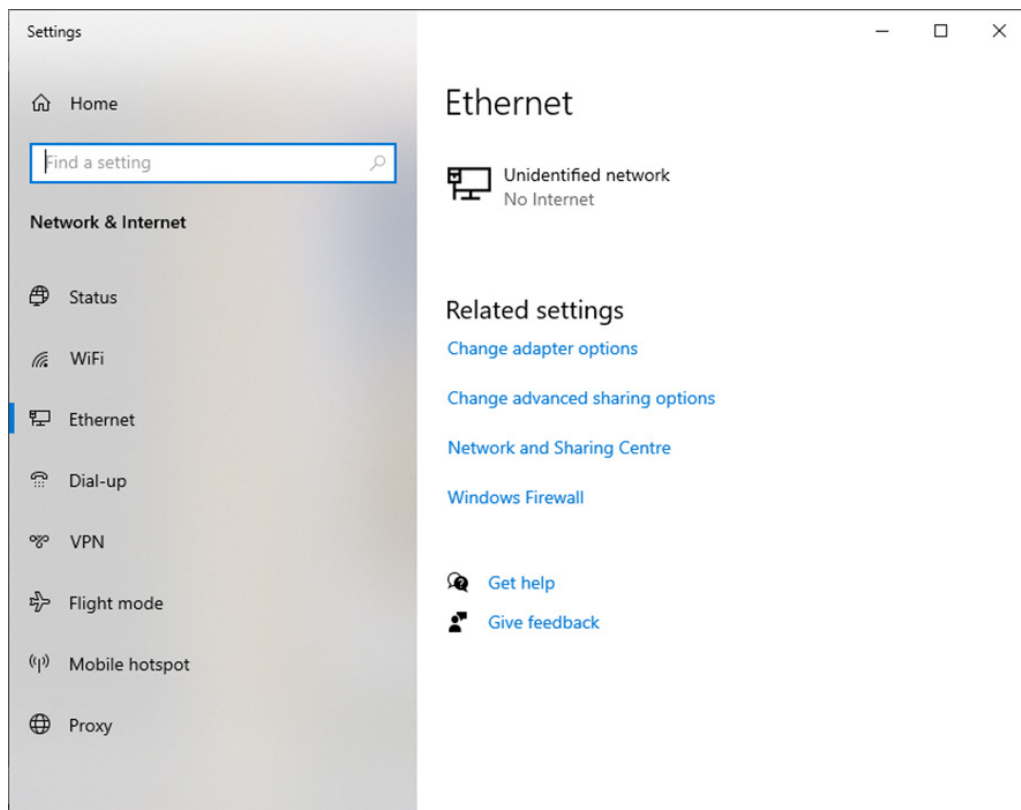


Fig. 4-1 Typical Ethernet settings screen

- 3) Click on the **Change adapter options** link (See Fig. 4-2).

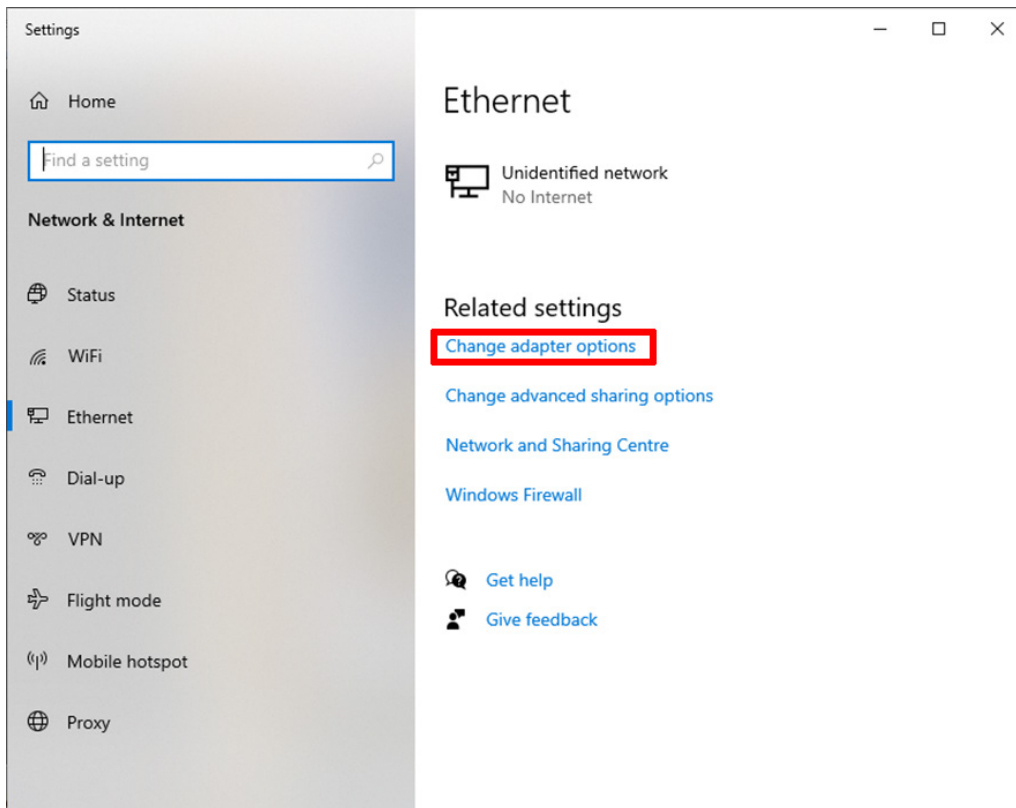


Fig. 4-2 Status screen

The **Network Connections** screen is displayed. See Fig. 4-3 below.

- 4) Move your mouse cursor over the icon for your Network (Ethernet in the example below).
- 5) Click the right-hand mouse button and select the Properties option.

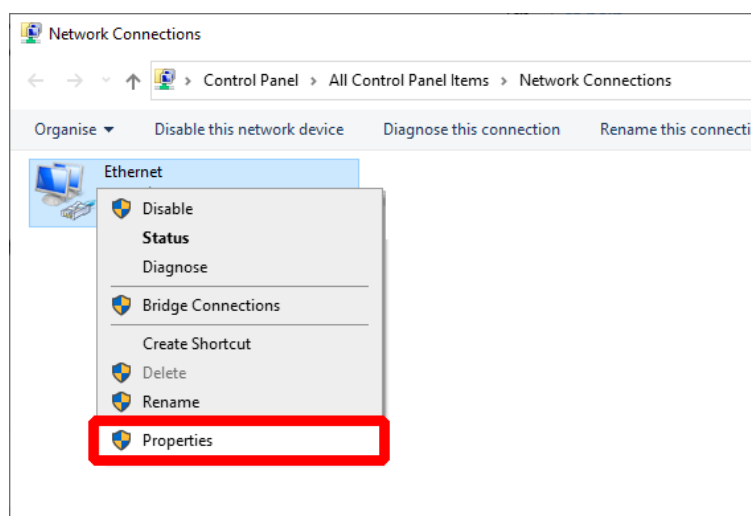


Fig. 4-3 Network Connections screen

The **Networking Properties** screen is displayed. See Fig. 4-4 overleaf.

- 6) Click to highlight the **Internet Protocol Version 4 (TCP/IPv4)** option and click the **Properties** button.

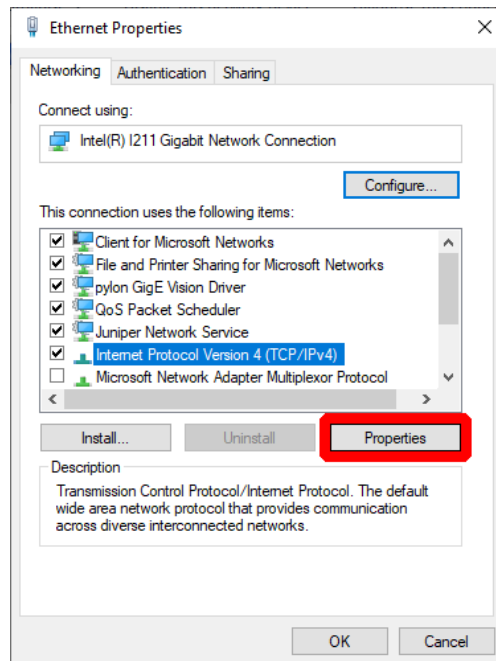


Fig. 4-4 Network status search

The **Internet Protocol Version 4 (TCP/IPv4) Properties** screen is displayed. See Fig. 4-5 below.

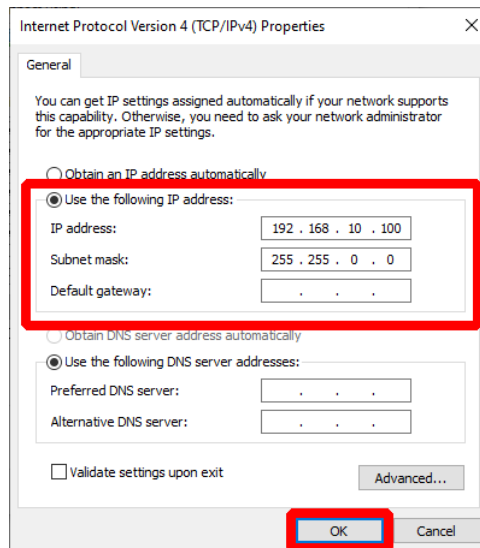


Fig. 4-5 Internet Protocol Version 4 (TCP/IPv4) Properties screen

- 7) Click the small round button next to **Use the following IP address** to select this option.
- 8) In the text boxes, enter the following values:
  - IP address: 192.168.10.100
  - Subnet mask: 255.255.0.0
- 9) Click on **OK** to save these settings.
- 10) Close the **Networking Properties** and **Network Connections** screens. The Network Adapter Settings are now complete.

## 4.2 Starting the Software

If you are using your own Laptop/PC, download and install the software from the AMETEK Land website.

VIRALERT 3 software is available for download from **[www.landviralert.com](http://www.landviralert.com)**.



### CAUTION

During installation of the VIRALERT 3 software, your computer may restart. Before installation, make sure to save and close any files in other programs that you may have open.

The minimum specifications for a computer running VIRALERT 3 are:

- I3 processor or equivalent
- 4 GB RAM
- Minimum 1xRJ45 port and 1xUSB-A port
- 64GB Hard disk
- Windows 10\*

\* *If your Laptop/PC is running Windows 10 in S mode, then VIRALERT 3 will not run on this machine. S mode runs only applications from the Microsoft Store, and requires Microsoft Edge for Internet browsing. To run VIRALERT 3 on your machine, it should be switched to standard Windows 10 mode. Simple instructions for this are available from [support.microsoft.com](http://support.microsoft.com)*

- 1) On the Laptop/PC, click on the **VIRALERT 3** icon  or search for VIRALERT in the Windows search bar.

The software will start automatically in Measurement mode.

- 2) Wait for the LED next to the cable connector on the front panel of the Blackbody Reference Source to turn green.



### WARNING

The warm-up rate of the Blackbody Reference Source is 13°C / 23°F per minute.

Therefore, from an ambient temperature of 25°C / 77°F it will take approximately 1 minute for the source to reach the factory default value of 38°C / 100.4°F.

From an ambient temperature of 0°C / 32°F, it will take approximately 3 minutes to reach the default temperature value.

- 3) Position a Subject in front of the Camera. The subject must:
  - Remove glasses
  - Remove any hat, hood or mask
  - Have no hair covering the forehead

Posters which explain the screening process and provide instructions for your staff and visitors on how to use the system are available for download from:

**[www.landviralert.com](http://www.landviralert.com)**

The software will automatically detect the presence of the subject and calculate their body temperature.

The default temperature unit is Celsius, but this can be changed to Fahrenheit. Refer to Section 5 of the VIRALERT 3 User Guide for further information.

During the measurement process, the screen background will turn yellow

- 4) Follow the instructions displayed on the software screen.

Subjects with a normal body temperature are indicated by a green screen, as shown in Fig. 4-6.

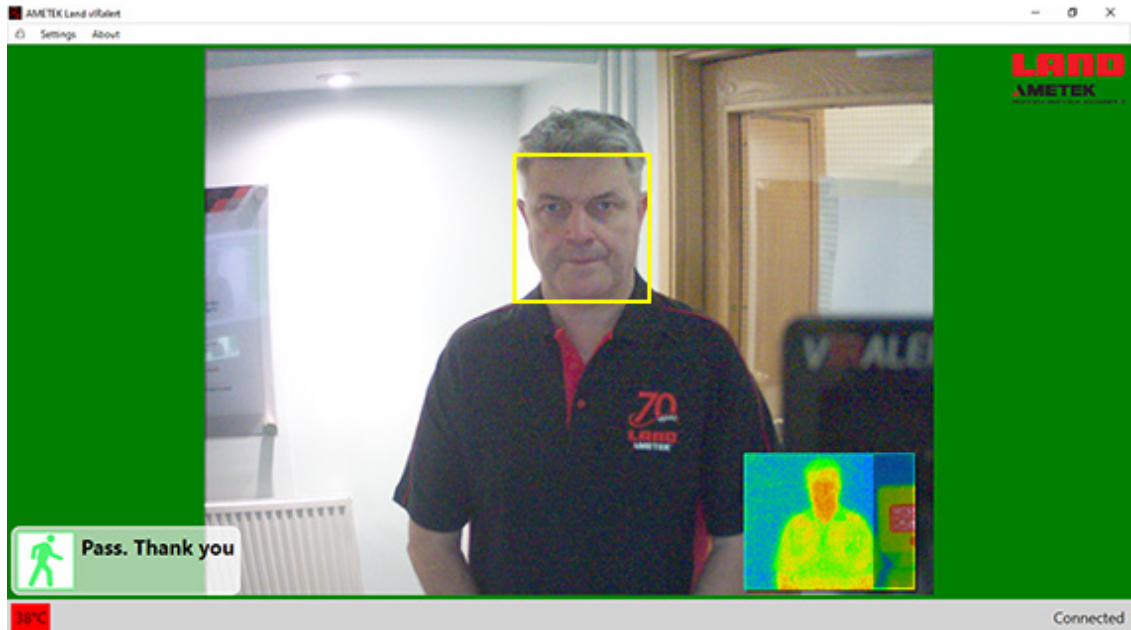


Fig. 4-6 VIRALERT 3 Software Normal Body Temperature display  
Subjects with a high body temperature are indicated by a red screen, as shown in Fig. 4-7.

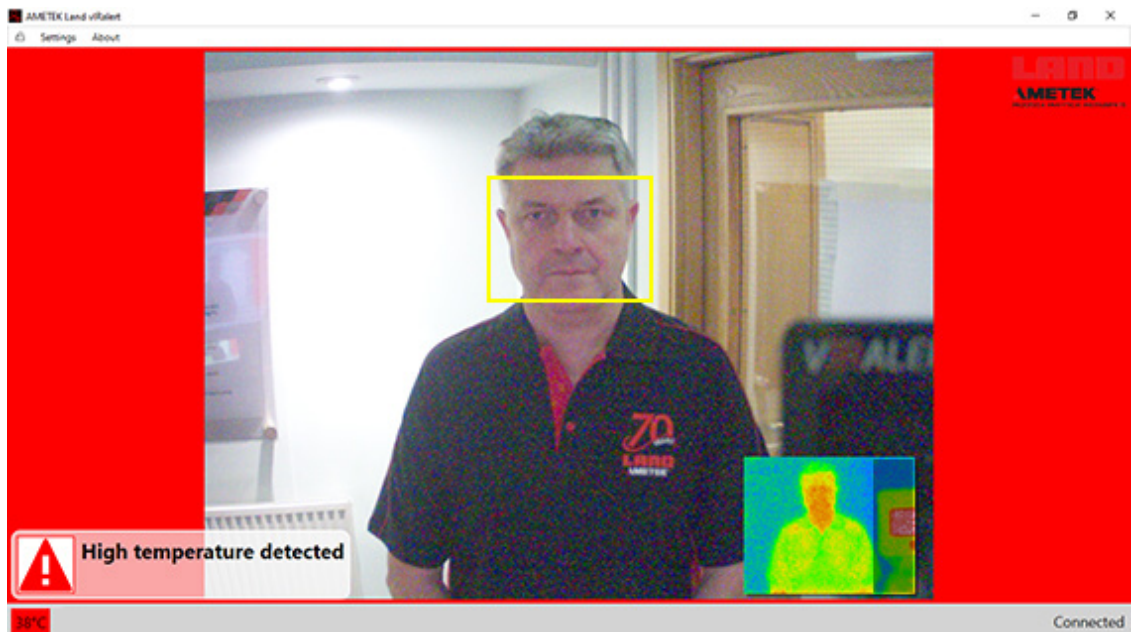


Fig. 4-7 VIRALERT 3 Software Elevated Body Temperature display

- 5) Access to the **Settings** menu, in which you can adjust the temperature alarm value and units of measurement, is password protected.  
The default (factory-set) password is **0000**.

**WARNING**

The threshold for an elevated body temperature alarm is a critical parameter for use of VIRALERT 3.

You should consult a medical advisor for assistance in setting the appropriate alarm point. The factory default value is 38 °C (100.4 °F)

For more information on the Settings menu and other features of the software, refer to the Section 5 of the VIRALERT 3 User Guide.

## 5 SPECIFICATION

Operating temperature	10 to 50°C / 50 to 122°F
Measurement Range	30 to 45°C / 86 to 113°F
Measurement uncertainty	±0.5°C / 0.9°F
Combined stability over temperature range and drift over 12 months	±0.2 °C / 0.3°F
Safety Compliance	IEC 61010-1:201
Electromagnetic compatibility	Meets all relevant European and North American standards
System weight	0.75 kg / 1.6 lb (without cables)
System dimensions	350 x 110 x 90mm / 14 x 4.4 x 3.6 in



## 6 CALIBRATION & MAINTENANCE

Calibration should be checked every 12 months by an appropriately trained person. This ensures that the instrument operates with accuracy and reliability. Contact your local AMETEK LAND service centre for more information.

The VIRALERT 3 System is designed to be largely maintenance-free, but it is recommended to check all system connections periodically.

The instrument can be cleaned using soft, lint-free cloth, moistened with a little water if required.

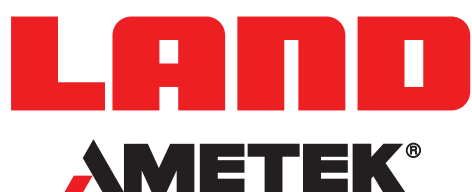
## DISCLAIMER

Human skin temperature is affected by a wide number of environmental and physiological factors. Elevated facial skin temperature may signify a raised body core temperature; correspondingly, an elevated core temperature may not be accompanied by a raised facial skin temperature. VIRALERT systems are accurate scientific systems that must be operated strictly in accordance with the manufacturer's operating manual. VIRALERT systems are not intended, nor designed, to diagnose or detect medical conditions including, but not limited to, viruses or other illnesses. AMETEK Land thermal imaging products should only be used to detect variations of surface temperature. If elevated skin temperature is detected, the finding should be confirmed by other means, for example, an approved medical thermometer. The absence of an elevated skin temperature does not exclude a fever.

Public health officials should determine the significance of any fever or elevated temperature based on the skin temperature measurement using VIRALERT 3. Images shown in this document are for illustrative purposes only.



# VIRALERT 3 HUMAN BODY TEMPERATURE SCREENING SYSTEM



## CONTACT US



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VIRALERT 3 System Quick Start Guide, Issue 3, 28 July 2020