

1 YEAR
WARRANTY



Ω OMEGA™ User's Guide

*Shop online at
omega.com*

*e-mail: info@omega.com
For latest product manuals:
omega.com/en-us/pdf-manuals*

**OS820-Series
Non-Contact Body IR
Thermometer with 3 Color Alarm
Backlight Display**



omega.com info@omega.com

Servicing North America:

**U.S.A.
Headquarters:**

Omega Engineering, Inc.
800 Connecticut Ave. Suite 5N01, Norwalk, CT 06854
Toll-Free: 1-800-826-6342 (USA & Canada only)
Customer Service: 1-800-622-2378 (USA & Canada only)
Engineering Service: 1-800-872-9436 (USA & Canada only)
Tel: (203) 359-1660 Fax: (203) 359-7700
e-mail: info@omega.com

For Other Locations Visit omega.com/worldwide

QUICK START GUIDE

How to Take Body Temperature with OS-821

Battery Installation

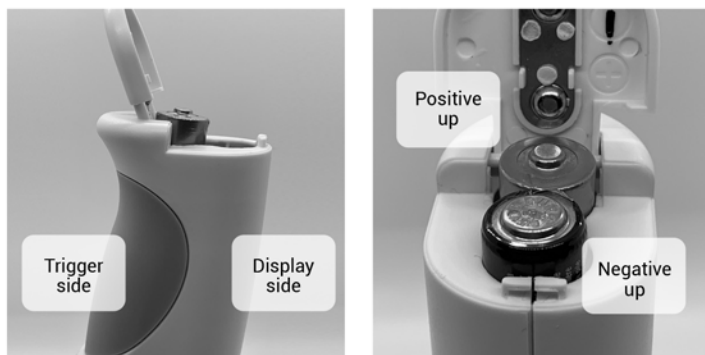
Open the battery compartment on the bottom of the device by pulling in the direction of the arrow and lifting the lid up.



Insert the battery with the positive side up (towards you) on the trigger side of the device (closest battery slot to hinge of the lid)

Insert the second battery with the negative side up (towards you) on the display side of the device

Once batteries are installed, close the lid down and push in opposite direction of arrow on the lid to lock in place.



Note: Positive side of the battery has a "+" mark and negative side has a "-" mark on the battery label.

How to turn on the unit

- Press the trigger of device to power on

How to change language

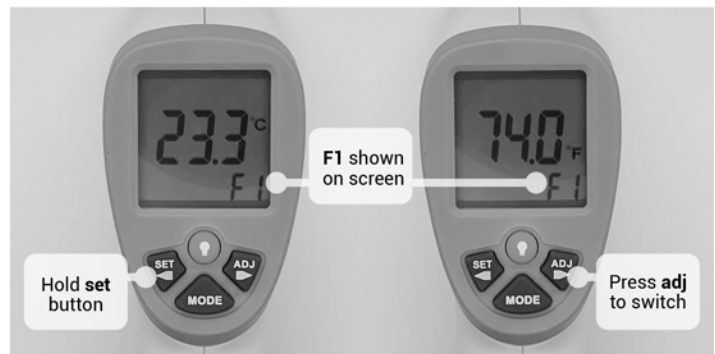
The default setting for this device is in English. If you need to switch between languages, see the following:

- Press and hold **MODE** button to switch between languages

Switch between Celsius and Fahrenheit

The default setting for the temperature unit is in Celsius. Please follow the below steps to change the temperature units to Fahrenheit.

- Press and hold «SET (left button) until you see "F1" appear in bottom right corner of screen
- Press »ADJ to switch from °C (Celsius) to °F (Fahrenheit)
- You should now see the temperature now displayed in °F (Fahrenheit)

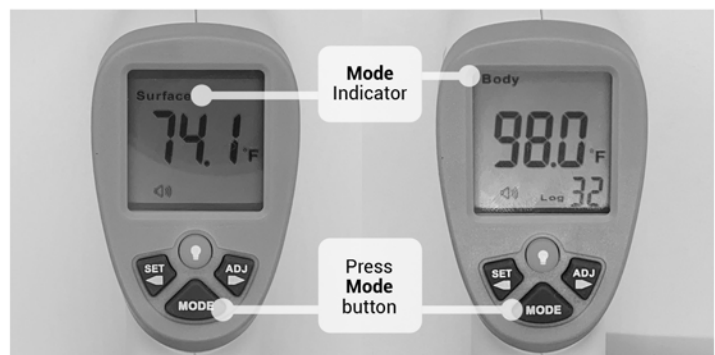


- Press trigger to go back to main screen

Switching from surface temperature mode to body temperature mode

The default mode setting is surface mode to switch to body temperature mode please see the following:

- Press **MODE** button to switch to Human **Body** Temperature measurement



- You should now see **Body** in the top left corner of the screen

How to take temperature measurement

- Point IR thermometer at individual's forehead at a distance 2-3.15 in (5-8 cm)
- Press the trigger to start taking temperature measurement



If you need technical support, please call 1.888.826.6342.
For additional information please refer to product page:
omega.com/en-us/p/OS820-Series

Non-Contact Body IR Thermometer with 3 Color Alarm Backlight Display

OS820-Series

User Manual

Features:

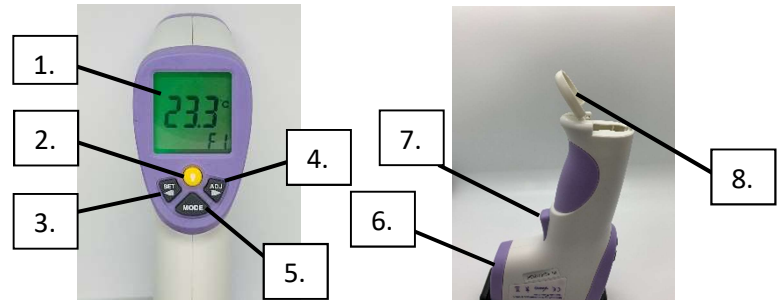
- Two measurement modes: Human body temperature and object surface temperature
- Data storage up to 34 temperature records
- 3-color alarm backlight display: green, orange and red

Product Introduction:

This product is a handheld non-contact infrared thermometer, with two possible measurement modes: human body temperature measurement and object surface temperature measurement modes. It features: temperature data storage up to 34 records, high temperature alarming, temperature range indication based on different backlighting color, and auto shut-off.

Product Description:

1. LCD Display: indicate measured temperature
2. Backlight button: turn on/off backlight (Hold to change)
3. Left Button: during the measurement mode, page up the stored temperature data records; activate the parameter setting mode; or during the parameter setting mode, navigate the settings menu
4. Right Button: during the measurement mode, page down the stored temperature data records; or during the parameter setting mode, adjust parameters.



5. Mode button: switch between measurement modes or switch between English and Chinese display.
6. IR sensor: point to the measuring object during measurement
7. Trigger: start measurement and turn on unit
8. Battery cover: open to change battery

Product Information:

Storage Temperature	14-140°F (-10-60°C)
Operating Temperature	50-104°F (10-40°C)
Battery Voltage	2x AA (1.5V x2) Batteries, not included
Product Weight	122g
Product Dimension	145 x 80 x 40 mm

Technical Specification:

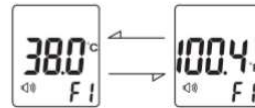
Human Body Temperature Measurement Range	89.6-108.5°F (32.0-42.5°C)
Human Body Temperature Measurement Accuracy	±0.6°F (±0.3°C)
Object Surface Temperature Measurement Range	32-212°F (0-100°C)
Object Surface Temperature Measurement Accuracy	±1°C (±1.8°F)
Resolution	0.1°C (0.1°F)
Response Time	0.5s
Distance to Measuring object	1.9-3.2" (5-8 cm)
Auto shut-off	7s

Function Settings:

Press and hold «**SET** (left button) until you see “F1” appear in bottom right corner of screen. Press «**SET** (left button) to navigate between the following setting menus: F1 (Unit) → F2 (Temperature Offset) → F3 (Audio On/Off) → Exit Setting Menu. See each setting section for more details:

Changing Temperature Units from C to F (F1)

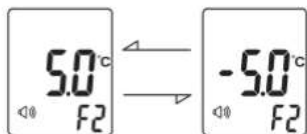
Press and hold «**SET** (left button) until you see “F1” appear in bottom right corner of screen. While showing F1 Symbol in bottom right corner of the display, press »**ADJ** to switch between °C and °F.



Temperature Offset Setting (F2)

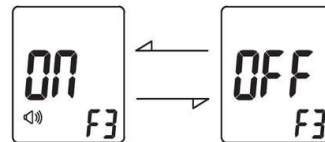
With F2 Symbol showing in bottom right corner of the display, press »**ADJ** (to increase) and **MODE** (to decrease) to adjust the temperature offset within the range of ±9°F (±5°C).

Note: This offset option only works for body temperature mode.



Audio ON/OFF Setting (F3)

With F3 Symbol showing in bottom right corner of the display, press »**ADJ** to turn on/off audio. During the parameter setting mode, press the trigger to directly exit from the setting mode.



Mode Switch

Press **MODE** button to switch between Human **Body** Temperature measurement and **Surface** Temperature Measurement modes.

Press and hold **MODE** button to switch between display languages.



Temperature Measurement

Point to the measuring object at a range of 1.9-3.2" (5-8 cm) and press the trigger to begin the measurement. The display screen will display the temperature immediately within the response time.

Body temperature measurement mode:

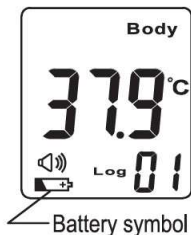
Press the trigger button once to take one measurement. The number on the button left corner shows the record number. The backlight color indicates the different temperature range as follows:

- Green: Below 99.5°F (37.5°C)
- Orange: 99.5-100.4°F (37.5°C-38°C)
- Red: Above 100.4°F (38°C)



Battery installation and replacement

When the battery is running low, the screen will display a battery symbol at bottom left corner.



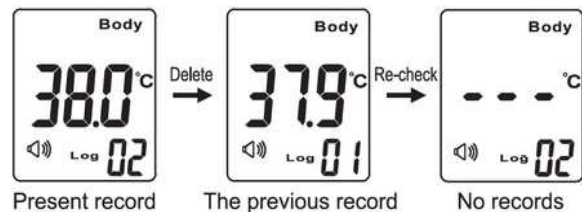
Surface temperature measurement mode:

Keeping the trigger pressed, the display will indicate the object surface temperature live with green backlight.

Data Record Management:

View Data Record

Press «SET (left button) and use »ADJ (right button) to page up and down among the data records.



Delete Data Record

Press and hold »ADJ (right button) to delete the current data record. If the audio is on, the device will beep once.

Precautions before first use

1. Install batteries before use
2. Before first use, warm up the device for about 10 minutes before installing the battery.
3. When using it for body temperature measurement point thermometer at the forehead. This is a non-contact thermometer and the suggested measuring distance to the forehead is 2" (5 cm). Press the trigger once to take one temperature measurement. Tip: temperature can also be measured at an earlobe.
4. When measuring body temperature, please make sure there are no obstacles between the IR sensor and forehead skin, e.g., move hair or sweat if obstructing measurement.

Warnings

- The glass protector in front of the IR sensor is a critical but very fragile element of the device.
- Use cotton and 70% rubbing alcohol for cleaning.
- Please only use qualified battery. Do not charge batteries that are not rechargeable.
- Do not use the thermometer under the sun or under water.

Maintenance

- Please follow the instruction manual for troubleshooting. If the issue is not listed in the manual, please contact our customer support.
- Warning sign "HI"
- When using the thermometer for measuring body temperature, the "HI" warning sign may come on. The warning sign indicates the temperature measured exceeds the maximum allowed threshold 108.5°F (42.5°C).
- Warning sign "LO"
- When using the thermometer for measuring body temperature, the "LO" warning sign may come one. The warning sign indicates the temperature measured exceeds the minimum allowed threshold 89.6°F (32.0°C).



Troubleshooting

- When using the thermometer in body temperature mode, if a "HI" or "Lo" warning sign is displayed and it is suspected that the temperature is incorrect please follow these steps:
 - 1.) Switch to surface temperature mode, measure temperature of any surface.
 - 2.) If the temperature looks correct, then go to menu (F2).
 - 3.) Check the offset, the offset should be set to 0°C (0°F).
 - 4.) If offset not set to 0°C (0°F), then set offset to 0°C (0°F).
 - 5.) Switch back to body temperature mode and measure body temperature again, body temperature should now be accurate.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

OMEGA is a trademark of OMEGA ENGINEERING, INC.

© Copyright 2019 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.

Where Do I Find Everything I Need for Process Measurement and Control? **OMEGA...Of Course!** *Shop online at omega.com*

TEMPERATURE

- Thermocouple, RTD & Thermistor Probes, Connectors, Panels & Assemblies
- Wire: Thermocouple, RTD & Thermistor
- Calibrators & Ice Point References
- Recorders, Controllers & Process Monitors
- Infrared Pyrometers

PRESSURE, STRAIN AND FORCE

- Transducers & Strain Gages
- Load Cells & Pressure Gages
- Displacement Transducers
- Instrumentation & Accessories

FLOW/LEVEL

- Rotameters, Gas Mass Flowmeters & Flow Computers
- Air Velocity Indicators
- Turbine/Paddlewheel Systems
- Totalizers & Batch Controllers

pH/CONDUCTIVITY

- pH Electrodes, Testers & Accessories
- Benchtop/Laboratory Meters
- Controllers, Calibrators, Simulators & Pumps
- Industrial pH & Conductivity Equipment

DATA ACQUISITION

- Communications-Based Acquisition Systems
- Data Logging Systems
- Wireless Sensors, Transmitters, & Receivers
- Signal Conditioners
- Data Acquisition Software

HEATERS

- Heating Cable
- Cartridge & Strip Heaters
- Immersion & Band Heaters
- Flexible Heaters
- Laboratory Heaters

ENVIRONMENTAL MONITORING AND CONTROL

- Metering & Control Instrumentation
- Refractometers
- Pumps & Tubing
- Air, Soil & Water Monitors
- Industrial Water & Wastewater Treatment
- pH, Conductivity & Dissolved Oxygen Instruments