Syner-Med VeraTemp™
Non-Contact Thermometer

READ ALL INSTRUCTIONS BEFORE USE
DESCRIPTION
The Syner-Med VeraTemp™ Non-Contact Thermometer is a hand held, battery powered device that is intended to be used for the intermittent measurement and monitoring of human body temperature of people of all ages. It measures the infrared energy emitted from the skin surface of the forehead. There is no need for contact with the skin. It can be used by consumers in the household environment.

INTENDED USE
The Syner-Med VeraTemp™ Non-Contact Thermometer is an infrared thermometer for body surface and forehead temperature measurement for infants and adults without contact to human body. It can be used by consumers in household environment and doctor in clinical as reference. It is manufactured in accordance with ASTM E1965-98 standard specification for infrared Thermometers for intermittent Determination of Patient Temperature

IMPORTANT SAFETY INSTRUCTIONS
Basic safety precautions should always be followed.
• Read instructions before use and use thermometer only as described in this manual.
• Do not drop or expose to electric shocks.
• Ambient temperature range for the thermometer is 10°C to 49°C (50°F to 120°F).
• Use in a clean and dry area where it will not become excessively cold or hot i.e. temperatures less than 10°C or greater than 60°C (less than 50°F or greater than 140°F).
• Do not use outdoors or near a fireplace or stove.
• Do not attempt to sterilize the thermometer. It is not intended to be used sterile.
• The lens of the infrared sensor is the most fragile part. Do not touch the glass of the infrared sensor with your fingers.
• If necessary, clean the glass surface of infrared sensor with a Q-tip dipped in 70% isopropyl alcohol.
• Do not use this thermometer if it is not functioning properly, or if it has been exposed to extreme conditions, damaged, immersed in water, or exposed to electrical shocks.
• The only part of the device that you can service is to change the batteries. When doing so follow the
instruction in this manual. Do not attempt to repair this device yourself. DO NOT dismantle the device. If a problem occurs with your device, call +44 (0) 208 655 6380 or visit www.syner-med-direct.com.

- Remove batteries if a long period will occur between uses.
- Dispose of batteries properly. Batteries may explode if overheated.

INTRODUCTION
Thank you for buying the Syner-Med VeraTemp™ Non-Contact Thermometer. The Syner-Med VeraTemp™ Non-Contact Thermometer has been developed using the latest infrared technology. This technology allows a forehead temperature to be taken from a distance of about 5-8 cm (2–3 inches). The Syner-Med VeraTemp™ provides a no risk, instantaneous and accurate temperature measurement.

As with all types of thermometers it is essential to use the Syner-Med VeraTemp™ Non-Contact Thermometer properly to obtain reliable results. You are advised to read this instruction manual and follow directions carefully.
The Syner-Med VeraTemp™ Non-Contact Thermometer is calibrated at the factory before shipping. No calibration is necessary.

If there is a significant change in the surrounding temperature, allow the thermometer to adjust to the “new” temperature for at least 15 minutes before use in order to obtain a reliable result.

It is important to allow at least 5 seconds before repeating, or taking a new temperature measurement. This is the approximate time that the result remains on the display after a reading is taken.

Body Temperature and Where It’s Measured
Body temperature is the measure of the body’s ability to generate and get rid of heat. In spite of large temperature variations in the environment, the body is able to control its temperature within a narrow range.
When one is hot, the blood vessels in the skin dilate and carry the excess heat to the skin surface. You begin to sweat and as the sweat evaporates it helps to cool the body. Conversely, when the body is cold, the blood flow to the skin is decreased allowing conservation of body heat. The involuntary act of shivering causes the muscles to generate more heat that can be conserved. Under normal conditions, these reactions of the body to heat and cold keep body temperature within a narrow safe range.

Body temperature can be measured in many locations of the body. Most commonly temperature measurements are taken in the mouth, ear, armpit or rectum. An ideal place to measure temperature is the forehead.

**Normal Body Temperature**
Most people think that an oral temperature of 37°C is the “normal” body temperature. It is considered to be the average normal oral body temperature. Your individual body temperature can be 1°C or more above,
### Examples of Body Temperature Measurement Ranges

<table>
<thead>
<tr>
<th>Method</th>
<th>Celsius</th>
<th>Fahrenheit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rectal</td>
<td>36.1°C – 38.0°C</td>
<td>97.9°F – 100.4°F</td>
</tr>
<tr>
<td>Tympanic (inner ear)</td>
<td>35.8°C – 38.0°C</td>
<td>96.4°F – 100.4°F</td>
</tr>
<tr>
<td>Oral</td>
<td>35.5°C – 37.5°C</td>
<td>95.9°F – 99.5°F</td>
</tr>
<tr>
<td>Axillary (Armpit)</td>
<td>34.7°C – 37.3°C</td>
<td>94.5°F – 99.1°F</td>
</tr>
<tr>
<td>Forehead</td>
<td>35.0°C – 38.0°C</td>
<td>95.0°F – 100.4°F</td>
</tr>
</tbody>
</table>

### Normal Body Temperatures and Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Celsius</th>
<th>Fahrenheit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 2 years</td>
<td>36.4°C – 38.0°C</td>
<td>97.5°F – 100.4°F</td>
</tr>
<tr>
<td>3 to 10 years</td>
<td>36.1°C – 37.8°C</td>
<td>97.0°F – 100.0°F</td>
</tr>
<tr>
<td>11 to 65 years</td>
<td>35.9°C – 37.6°C</td>
<td>96.6°F – 99.7°F</td>
</tr>
<tr>
<td>65 years and older</td>
<td>35.8°C – 37.5°C</td>
<td>96.4°F – 99.5°F</td>
</tr>
</tbody>
</table>
or below 37°C. Your body temperature is influenced by many things such as time of day, activity level, ambient temperature, and external factors.

Because of heat loss from various parts of the body that are not covered by clothing, the normal temperature measured on a person’s forehead is usually lower than covered parts of the body. The Syner-Med VeraTemp™ Non-Contact Thermometer’s internal software automatically adjusts the temperature to provide a reading which approximates to the body temperature.

American Society for Testing and Materials (ASTM) accuracy requirements in the display range of 98°F–102°F (37°C–39°C) for infrared thermometers is +/- 0.4 °F (+/-0.2 °C), whereas for mercury-in-glass and electronic thermometers, the requirement per ASTM Standards E667–86 and E1112–86 is +/- 0.2°F (+/-0.1 °C).

This infrared thermometer meets requirements established in ASTM Standard (E1965-98). Full responsibility for the conformance of this product to the standard is assumed by American Scientific Resources
OPERATING PRINCIPLES
All objects radiate infrared energy. The intensity of this infrared energy depends on the temperature of the object. The Syner-Med VeraTemp™ Non-Contact Thermometer measures the temperature of a person based on the energy they radiate. This measurement is taken by the external temperature probe on the device which constantly analyse and registers the ambient temperature. When the operator holds the thermometer about 5–8 cm (2–3 inches) from the forehead and activates the radiation sensor, the measurement is instantaneously taken.

Before using, familiarise yourself with the device.
- To measure a temperature, push the scan button
- The temperature will instantly be displayed on the screen
- The screen will be green when the measured temperature is between 36.3°C and 37.3°C (97.3°F to 99.1°F)
• The screen will be orange when the measured temperature is between 37.4°C and 37.9°C (99.3°F to 100.2°F)
• The screen will be red when the measured temperature is greater than 38°C (100.4°F)
• The temperature display will remain lit for about 5 seconds after the button is released. After the display has shut off another temperature reading can be taken.

Features
• Specially designed to take the body temperature of a person regardless of the room temperature.
• Screen color changes related to temperature.
• Last 32 readings are automatically stored in memory.
• Backlit LCD screen, easy to read in a dark room.
• Temperature displayed in either Celsius or Fahrenheit.
• Automatic off to prolong battery life.
• Small and convenient to use.
• Body mode: human body temperature measurement 32°C to 42.9°C. (90°F to 109°F)
Temperature is out of range (too low or too high)

Display background color:
- **Green**: Between 36.3°C to 37.3°C (97.3°F and 99.1°F)
- **Orange**: Between 37.4°C to 37.9°C (99.3°F and 100.2°F)
- **Red**: Greater than 38°C (100.4°F)

The colour change of the display is to alert the user of a potential increase of body temperature. Temperature reported on the display should be used for treatment decisions.

**NOTE**: The thermometer is set to “Body” mode at the factory.
**MODE:** Press to switch between Surface temp, Body and Room

°C/ °F: Press to switch between Celsius and Fahrenheit

**MEM:** Press to retrieve the last 32 readings, from most recent to oldest

**SCAN:** Press to view and record a temperature reading
Battery cover

Two AAA batteries. Note: orientation of battery polarity

Product label
Serial number
Model number
Practical Considerations When Taking Temperature

- To ensure accurate temperature measurements it is essential that each user has received adequate information about the device and its proper use.
- Take temperature in a neutral context. The patient must not have undertaken vigorous physical activity prior to temperature measurement. Also the room temperature should be moderate 10°C to 40°C (50°F to 120°F).
- When evaluating results consider the potential for daily variations in temperature:
  » In children less than 6 months of age daily variation is small.
  » In children 6 months to 2 years old the variation is about 1 degree.
By age 6 variations gradually increase to 2 degrees per day.
In adults there is less body temperature variation.

**To Receive a Stable Reliable Result**
- Push back any hair from the forehead.
- Wipe away any perspiration on the forehead.
- Avoid drafts.
- Allow a 5 second interval between temperature measurements.
- If there is a significant change in the surrounding temperature, allow the thermometer to adjust to the “new” temperature for at least 15 minutes before use.
**Initial Setup**

1. Remove battery door and install two AAA batteries. When batteries are new wait about 10 minutes before taking first reading.
2. Remove the display’s protective film.

**How to Take a Temperature**

1. Before taking temperature check the forehead if free of perspiration and that hair has been moved aside.
2. With the thermometer about 5–8 cm (2–3 inches), or about 3 fingers width away from the forehead, press the **scan** button. The temperature is displayed instantly.

⚠️ The reliability of body temperature measurement cannot be guaranteed if measured over another part of the body (i.e. arm, torso, behind ear, etc.)
5–8 cm (2–3 inches) away from forehead
Technical Characteristics

1. Operating Temperature Range: 10°C to 40°C (50°F to 120°F) and < 85% relative humidity
2. Temperature Measurement Ranges:
   » Body mode – human body temperature measurement 32.9°C to 42.9°C (90°F to 109°F).
3. Power: DC 3 volt (two AAA batteries)
4. Size: 49 mm x 161 mm x 41 mm (1.9 in. x 6.4 in. x 1.6 in.)
5. Weight: 85 g (3 oz.) without batteries
6. Display resolution: 0.1°C (0.1°F)
7. Precision: from 36°C to 39°C +/- 0.2°C (96.8°F to 102.2°F +/- 0.5°F)
8. Consumption: ≤ 50mW.
9. Accuracy: +/- 0.2°C (0.3°F).
10. Measuring distance: 5-8 cm (2–3 inches).
11. Automatic shut-off: 5 seconds after reading.
**NOTE:** Although the Syner-Med VeraTemp™ Non-Contact Thermometer can measure temperatures below 32°C and above 50°C (90°F to 109°F) these temperature are outside the range in which the precision is guaranteed.

**Accessories Supplied**
- User manual
- Quick start card
- Storage bag
- Two AAA batteries
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<table>
<thead>
<tr>
<th>PRODUCT CODES</th>
<th>DESCRIPTIONS</th>
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<tbody>
<tr>
<td>11-904</td>
<td>IR Thermometer, Syner-Med VeraTemp™, (NO SOUND)</td>
</tr>
<tr>
<td>11-907</td>
<td>IR Thermometer, Syner-Med VeraTemp™+ (NO SOUND)</td>
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