Exergen TAT-2000C/Original

Quick Start Instructions

Your thermometer is the home version of the professional TemporalScanner used in thousands of hospitals and doctors’ offices, and is used by the same way as doctors and nurses use the professional model. As a technologically advanced instrument it must be used correctly. Follow the instructions below and read the user manual carefully.

Installing the Battery

1. Locate the battery compartment at the back of the thermometer.
2. Face the top of the thermometer toward you and place your thumb on the ridges.
3. Press down firmly and slide the cover away from you, toward the bottom of the thermometer.
4. Insert a 9-volt battery with the positive (small) terminal on the right.
5. Slide the battery compartment cover back into place.

Taking a Temperature

1. Remove protective cap.
2. Hold thermometer so that thumb or index finger is positioned over the SCAN button (DO NOT depress until step four).
3. Press and hold the SCAN button.
4. Lightly slide thermometer flush (flat) on the center of forehead.
5. Release the SCAN button.

Familiarize Yourself with the Instrument

To Scan: Depress the button. The instrument will continually scan for the highest temperature (peak) as long as the button is depressed. Beeping and LED flashing: Slow beeping indicates a rise to a higher temperature, similar to a radar detector. Slow beeping indicates that the instrument is still scanning, but not finding any higher temperatures.

Reading: The reading will remain on the display for 30 seconds after the button is released. To Restart: Depress the button to restart. It is not necessary to wait until the display is clear, the thermometer will immediately begin a new scan each time the button is depressed.

Removing the Cap

The cap has ridges. To remove it, push the button three times rapidly. A flashing F-CL will appear. This indicates that the mode has changed to °C.

To change from °F to °C Mode

1. Take a temperature.
2. Take a new temperature.
3. To change from the °C mode to the °F mode, repeat steps 1 and 2.

Selecting °F or °C Mode

Your TemporalScanner can display the temperature in either °F or °C, as indicated by the small °F or °C next to the temperature on the display. The original factory setting is °F. If you wish to change it to °C, follow the steps below:

1. Take a temperature.
2. Take a new temperature.
3. Press and hold the SCAN button.
4. Release the SCAN button.

Fascination on the neck is present on forehead:

1. Press and hold the SCAN button.
2. Place the probe on the neck just behind the ear lobe.
3. Release the SCAN button.

When Not in Use

1. Thermometer will shut off automatically after 30 seconds.
2. To turn off immediately, press and release the SCAN button quickly.

Replacing the Cap to protect the sensor when not in use.

Scanning the Temporal Artery (TA)

What you should know before scanning the TA: Measure only the side of the head exposed to the environment. Anything covering the area to be measured (hair, hat, wig, bandages) would insulate the area, resulting in falsely high readings. Slide the thermometer straight across the forehead, not deeper, and measuring there would result in falsely low readings. Measuring the TA is much millimeter below the skin, whereas at the side of the face, the TA is much deeper, and measuring there would result in falsely low readings. When taking the temperature behind the ear (if there is perspiration on the forehead), first push away any hair, exposing the area. Then, look the thermometer on the neck below the ear lobe, in the soft conical depression, (the place where perfume might be applied). Wait about 60 seconds before measuring the same person again to avoid excessive cooling of the skin. An infant is frequently swaddled in blankets and clothing covering the neck area. Always, one measurement at the TA area is typically all that is required. Should you feel the temperature is low, then push aside any clothing or blankets covering the neck area for ~30 seconds or so, and repeat the measurement on the neck behind the ear. Factors that may affect measurement accuracy: The patented Arterial Heat Balance (AHB) technology in your TemporalScanner actually makes two separate measurements (1) the temperature of the skin over the temporal artery, and (2) the temperature of the room. To determine the most accurate reading, it measures both temperatures some 1000 times a second as you sweep the TemporalScanner across the forehead. The AHB system then calculates how much the blood has cooled down during its journey from the heart to the skin over the temporal artery and makes allowance for this in the temperature it displays. The result is a highly accurate reading - delivered extremely fast and with no discomfort.

Important Safety Instructions

READ ALL INSTRUCTIONS BEFORE USING

When using the product, especially when children are present, basic safety precautions should always be followed, including the following:

- This product is intended for household use only. For information on thermometers for professional use, please see www.exergen.com.
- Use this product only for its intended use as described in this manual.
- Use of this product is not intended as a substitute for consultation with your physician. Consult your physician for abnormally high temperatures.
- Do not take temperature over scar tissue, open sores or abrasions. Because of this, the TemporalScanner should always be covered, especially when this product is used by, on or near children or invalids.
- The operating environmental temperature range for this product is 60 to 104°F (15.5 to 40°C).
- Always store this thermometer in a clean, dry place where it will not become excessively cold (-4°F to 20°C) or hot (122°F to 50°C).
- The thermometer is not shockproof. Do not drop it or expose it to electrical shocks.
- The thermometer is not intended to be sterile. Do not try to sterilize it. Follow cleaning instructions as described in the manual.
- Do not use this thermometer if it is not working properly, if it has been exposed to temperature extremes, damaged, been subject to electrical shocks or immersed in water.
- There are no parts that you can service yourself except for the battery, which you should replace when low following the instructions in this manual. For service, examination, repair, or adjustments, return your thermometer to Exergen.
- Do not operate while aerosol spray products are being used or where such products are being administered.
- Do not take temperatures with this thermometer near places that are very hot, such as fireplaces and stoves.
- Do not use this thermometer outdoors.
- Never drop or insert any object into any opening. If your thermometer will not be used regularly, remove the battery to prevent possible damage due to chemical leakage. If the battery leaks, remove carefully. Do not allow bare skin to touch leaking fluid.
- Dispose of used batteries properly. Do not wrap them in metal or aluminum foil. Wrap them in newspaper before disposing of them. Do not burn them. Battery may explode if overheated.

SAVE THESE INSTRUCTIONS.
Frequently Asked Questions

Why take temperature measurements at the skin surface over the temporal artery?

The best place to measure temperature is the center of the heart, but this can be done only under a doctor’s supervision. Doctors know that measurement of the blood temperature in a major artery accurately reflects true body temperature. The TemporalScanner Thermometer is designed to measure the temperature of the skin surface over the temporal artery, a major artery of the head. The temporal artery is connected to the heart via the carotid artery, directly leading from the aorta, the main trunk of the arterial system. It offers continuous and gentle pressure to the artery, if your temporal artery positioned close enough to the skin surface to provide the access needed to take an accurate measurement. It’s easy to use because it is ideally located at the front portion of the forehead. The TemporalScanner is easier and gentler to use than other types of measurement devices such as oral, rectal, umbilical and in-ear thermometers because it is truly non-invasive.

What is the correct technique?

When you use the TemporalScanner, make sure to start with a blank screen, then keeping the button depressed, touch the center of the forehead and scan horizontally in a straight line over to the hairline, before releasing the button. Do not curve down to the temple or you could miss the important part of the temporal artery which is up in the forehead and naturally trapped between the skin and the skull, so is never too deep. At the temple, the artery can go deep, even on an infant, and will not provide the correct temperature.

Why am I getting low readings?

Smudgy/dirty lens:
The most common reason for low readings is a smudgy/dirty lens. To resolve it, an alcohol dampened Q-tip or Otip should be twirled directly on the lens every 2-3 weeks. The little lens should be cleaned as follows below:

1. Use an alcohol dampened Q-tip (It has to be a Q-tip or other cotton tipped stick applicator for use on the TemporalScanner lens).  If you do not use the alcohol prep/swab to clean the lens as it will not provide the leverage needed.
2. Dampen the Q-tip with either an alcohol prep/swab, or dip the Q-tip in a little alcohol, but do not use the alcohol prep/swab to clean the lens as it will not provide the leverage needed.
3. Twirl the Q-tip directly on the lens in the center of the probehead.
4. Following the alcohol cleaning, wait about five minutes to let the infrared sensor behind the little lens recover from the coldness of the alcohol cleaning.

Sweat will cause low temperature readings. If the individual is sweated, the effect of evaporative cooling on the forehead will result in low temperatures when using the scanner. However, sweat is a sign the fever has broken and, as a result, the temperature is rapidly falling back to normal. If sweaty, wait until the forehead has dried before taking a temperature. Wiping the forehead will not work. However, when the individual is just beginning to sweat, taking the temperature in the forehead at the hairline on the neck just below the earlobe will work since we sweat last on the neck. But if both forehead and neck are wet/moist, wait until the sweating has subsided before taking a temp.

Why do the readings differ from rectal temperature?

Unlike rectal temperature, the TemporalScanner identifies a change in temperature immediately, since it is measuring the heat from the blood coming directly from the heart (a true core temperature). Even on an infant, when temperature is changing, it will take up to 60 minutes for rectal temperature to identify the change, and considerably longer on older children and adults.

Why am I getting a high reading?

The TemporalScanner is measuring a core temperature. Like a rectal temperature, temperature taken with the TemporalScanner, on average, will be about a degree Fahrenheit higher than an oral temperature. With the exception of an infant up to about 6 months, the TemporalScanner will give a high reading. However, when the individual is just beginning to sweat, taking the temperature in the forehead at the hairline on the neck just below the earlobe will work since we sweat last on the neck. But if both forehead and neck are wet/moist, wait until the sweating has subsided before taking a temp.

Should I believe my hand or the TemporalScanner?

Touching the forehead is just not an accurate method (although we all do it). Many studies have proven that the hand (or a kiss on the forehead) will be correct 98% of the time when there is no fever, but wrong half of the time when there actually is a fever. The reason that body heat is released or retained to keep our body temperature in the normal range. This contributes to the error in the measurement as felt by the hand or lips. The core body temperature stays normal by the release of heat (like opening the windows when the house is too hot) or by retention of the heat (closing the windows when the house is too cold).

Why do I get a different reading with each scan?

Multiple scans in rapid succession will change the temperature of the skin and result in variability of the readings. It is important to wait a full minute before repeating the scan to allow the skin over the temporal artery to recover from the cooler temperature of the probehead. The probehead is at room temperature about 30 degrees lower than body temperature.

Are there environmental effects?

As part of its Arterial Heat Balance system, the TemporalScanner measures the temperature of the surrounding room. For this measurement to be accurate, it needs to have become acclimatized to the temperature of the room in which it is to be used. If it is taken from a cold room into a hot room, or vice versa, allow it to acclimate for at least 30 minutes before using it. Avoid holding the TemporalScanner by the head, as it will mistrack the temperature of your hand for that of the room.

Display Messages

A flickering Son on display is visible during measurement. At completion, releasing the button will display and lock temperature on the screen for 30 seconds.

The target temperature measured is higher than 107.6°F(42°C).

The target temperature measured is lower than 60°F(15.5°C).

Temperature of the thermometer is higher than 104°F(40°C). Let the instrument acclimatize for about 30 minutes in a cooler area in which it will be used.

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Specifications

Clinical Accuracy: Meets ASTM E1965-98 and EN60601-1 standards for electronic and radiation thermometers to the extent applicable to thermometers which measure the surface of the skin over the temporal artery. EMRIRI Protection: Error message displayed. Calibration Protection: Error message displayed. Temperature Range: 15.5 to 42°C (60 to 107.6°F). Operating Environment: 15.5 to 40°C (60 to 104°F). Resolution: 0.1°C or °F. Response Time: Approximately 0.04 second. Time Displayed on Screen: 30 seconds before automatic shutdown. Battery Life: Approximately 1000-5000 readings depending on battery type. Size: 7.0 x 1.75 x 1.25. Net weight: 3.1 oz (89 grams). Total weight: 4.5 oz (130 grams) including battery. Display Type: High contrast LCD. Construction Method: Impact resistant casing, hermetically sealed sensing system. Storage Range: -4°F to 122°F (-20°C to 50°C). Laboratory Accuracy: +/-0.1°F (0.1°C) laboratory accuracy requirements in the display range of 37°F to 38°C (98°F to 100°F) for IR Thermometers is +/-0.2°F(+/-.1°C) for mercury- in-glass and electronic thermometers, the requirement per ASTM standards E867-86 and E1112 is 0.1°C (+/-0.1°C). Full responsibility for this product meeting applicable portions of this standard is assumed by Exergen Corporation. Watertown, MA 02472. Patents: Listed at www.exergen.com/patents.

Three Year Warranty

Exergen Corporation warrants each new Exergen TemporalScanner 2000CD against defects in materials or workmanship for a period of three years from the date of purchase, and agrees to repair or replace any defective product without charge. IMPORTANT: This warranty does not cover damage resulting from accident, misuse or abuse, lack of reasonable care, the affixing of any attachment not provided with the product or loss of parts or subjecting the product to any but the specified battery.* Use of unauthorized replacement parts will void this warranty. Exergen Corporation will not pay for warranty service performed by a non-authorized repair service and will not reimburse the customer for any service rendered by a non-authorized repair service. Non responsibility is assigned for any personal, incidental or consequential damages. For warranty service, call Exergen Corporation Customer Service, 818355-4000 or via email at rma@exergen.com. For a Return Material Authorization number (RMA). Then send the product, postage or shipping prepaid, to Exergen in accordance with the instructions given with the RMA number. NOTE: No other warranty, written or verbal, is authorized by Exergen Corporation. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion and limitations may not apply to you. Read enclosed instructions carefully.

Invented, designed, assembled, tested, and packaged in the USA by Exergen Corporation.