

Braun PRT2000 Age Precision Digital Thermometer User Manual

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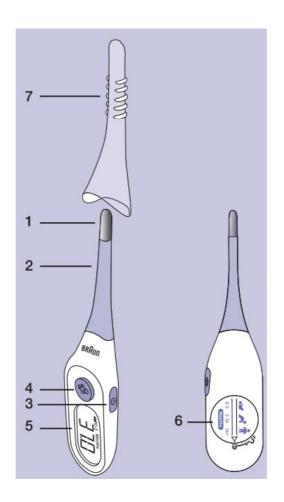
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Braun PRT2000 Age Precision Digital Thermometer



Description



- 1. Measuring sensor
- 2. Extra gentle flexible tip
- 3. On/Off button (side)

- 4. Age Precision™ button
- 5. Large display with colour-coded indicator lights
- 6. Battery compartment cover (back)
- 7. Protective cap

Warnings and Precautions

- Your Braun Digital Thermometer is a 3-in-1 thermometer suitable for underarm, oral or rectal use. Whichever
 method is used, it is recommended, for 15 minutes prior to use, to avoid eating or drinking any liquids,
 exercising, taking showers or baths, or smoking.
- This thermometer is intended for household use only. This product is not intended to diagnose any disease but is a useful screening tool for temperature. Use of this thermometer is not intended as a substitute for consultation with your physician.
- The Age Precision™ feature is not intended for pre-term babies or small-for-gestational-age babies.
- The Age Precision[™] feature is not intended to interpret hypothermic temperatures.
- Please consult your physician if the thermometer shows elevated temperature. High, prolonged fever requires medical attention, especially for young children.
- Parents/guardians should call the physician upon noticing any untoward sign(s) or symptom(s). For example, a
 child who exhibits irritability, vomiting, diarrhea, dehydration, changes in appetite or activity, even in the
 absence of fever, or who exhibits a low temperature, may still need to receive medical attention. Children who
 are on antibiotics, analgesics, or antipyretics should not be assessed solely on temperature readings to
 determine the severity of their illness.
- Temperature elevation as indicated by Age Precision™ may signal a serious illness, especially in neonates and infants, or adults who are old, frail, and have a weakened immune system. Please seek professional advice immediately when there is a temperature elevation and if you are taking temperature for:
 - Neonates and infants under 3 months. Consult your physician immediately if the temperature exceeds 37.4 °C (or 99.4 °F).
 - Patients over 60 years of age. Fever may be blunted or even absent in elderly patients.
 - Patients having diabetes mellitus or a weakened immune system (e.g. HIV positive, cancer chemotherapy, chronic steroid treatment, splenectomy).
 - Patients who are bedridden (e.g. nursing home patient, stroke, chronic illness, recovering from surgery).
 - A transplant patient (e.g. liver, heart, lung, kidney).
- Do not allow children under 12 to take their temperatures unattended.
- Do not allow children to walk or run during temperature taking.
- This thermometer contains small parts that can be swallowed or produce a choking hazard to children. Always keep the thermometer out of children's reach.
- Do not modify this equipment without the authorization of the manufacturer.
- The manufacturing date is given by the LOT number located at the back of the thermometer. The first three (3) digits represent the Julian date that the product was manufactured, and the next two (2) digits represent the last two numbers of the calendar year the product was manufactured. The last identifiers are the letters that represent the manufacturer.
- An example: 11614fam implies this product was manufactured on the 116th day of the year 2014.
- Consumer Card available on our website at www.hot-europe.com/after-sales

 Please see the last page of this manual to find the contact for the Kaz Authorized Service Center in your country.

What is new about the Braun Age Precision™ Thermometer?

- Clinical research shows the definition of fever changes with age. For example, what is a normal body temperature in a 4-year-old may be regarded as a fever in a newborn. Braun's Age Precision™ Thermometer is an age-adjustable thermometer with a color-coded display. It uses medical guidelines to interpret temperature and takes the guesswork out of interpreting temperature for the entire family.
- Temperature readings vary depending on the site of measurement. An oral temperature is generally 0.1 °C higher than underarm (axillary) temperature and rectal temperature is generally 0.6 °C higher than underarm temperature1,2. Braun's Age Precision™ feature is optimized for underarm temperature taking.
- Temperature readings vary from person to person. The best method to determine your own normal temperature is to use the thermometer when you are feeling well. Record your reading twice a day (early morning and late afternoon). Take the average of the two temperatures. This is considered your normal body temperature. Any variation from it may indicate some sort of illness and you should consult your physician. It is important to remember fever is a symptom, not a disease, and is just one of the many possible signs of illness. If your child exhibits signs of a serious illness, contact your physician.

How To Use

3 Simple Steps

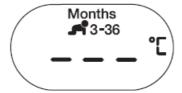
1. Switch on the thermometer by pressing the On/Off button 1

You will hear a short beep and a display segment check will be performed. After the segment check, the last temperature reading will be displayed for 2 seconds. Subsequently, the age icons and age range will cycle, until the Age Precision™ button is pressed.

2. Select the age by pressing the Age Precision™ button 🌲

When the Age Precision™ button is pressed, the age range icons will stop cycling, and stop on the age range icon that was showing when the button was pressed. Keep pressing the button until the desired age setting is displayed. The thermometer has 3 age settings:

- 0-3 months
- 3-36 months



36 months up to an adult

After the age is selected, the age range icon remains steadily lit. The display will show three dashed lines and the thermometer is ready to start the measurement.

3. Take the measurement by placing it on the measurement site.

Once temperature rise is detected by the thermometer in measurement mode, it will begin to measure.

If the thermometer doesn't measure a temperature rise, the age icon and three dashed lines will be shown until the thermometer automatically turns off. After measurement (generally, 8 seconds after temperature change is detected), the confirmation beep indicates that an accurate temperature measurement has been taken: 1 long beep for normal temperature, 10 short beeps for elevated and high temperature. The result will be shown on the display. Interpret the reading with the help of the color-coded display that uses medical guidelines to interpret temperature based on the patient's age.

Note: Users have to shut down the thermometer and start up again to take another measurement and/or change the age setting. The Braun Age Precision™ Thermometer turns off automatically 20 seconds after the measurement or after 90 seconds without measurement.

Reading the measurement with Age Precision™ color-coded display

Braun Age Precision™ color-coded display that offers a color indication along with the temperature readout and helps you better understand the temperature reading based on the patient's age. The associated color will display 5 sec after the temperature reading is completed.

- Green backlight indicates Normal temperature
- Yellow backlight indicates Elevated temperature
- · The red backlight indicates High temperature

The Age Precision™ color-coded display for interpreting of fever has been designed for use in the underarm mode only according to the table below.

Site	Age range	Green Normal temperature	Yellow Elevated temperature	Red High temperature
	0-3 Months	35.7 – 37.3 °C	\nearrow	> 37.3 °C
Underarm	3-36 Months	35.3 − 37.4 °C	37.5 – 38.4 ℃	> 38.4 °C
ň	36 Months- adult	35.3 – 37.4 °C	37.5 – 39.4 ℃	> 39.4 °C

If you use the thermometer in the oral or rectal mode by placing it at those sites, please do not use the display lights programmed into the thermometer for determining fever. Instead, refer to the oral and rectal tables respectively as shown below to determine if you have a fever.

Site	Age range	Normal tempera- ture	Elevated temperature	High temperature
	0-3 Months	35.8 − 37.4 °C		> 37.4 °C
Oral	3-36 Months	35.4 − 37.6 °C	37.7 – 38.5 ℃	> 38.5 °C
	36 Months- adult	35.4 − 37.7 °C	37.8 – 39.4 ℃	> 39.4 °C
Rectal	0-3 Months	36.3 – 37.9 °C	>><	> 37.9 °C
	3-36 Months	35.9 − 38.1 °C	38.2 – 39.0 ℃	> 39.0 °C
	36 Months- adult	35.9 − 38.2 °C	38.3 – 39.9 ℃	> 39.9 °C

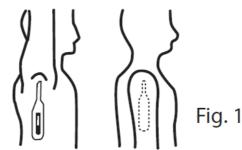
Note: Due to human physiology, temperature measurements taken from different sites on the same person show variability. For example, rectal readings tend to run higher than oral as well as underarm readings taken from the same person.

Tips for Measuring at Different Sites

Under-the-arm (axillary) use

This method is used for babies and young children.

- 1. Wipe the underarm with a dry towel.
- 2. Place the probe tip under the arm so the tip is touching the skin and position the patient's arm next to the patient's body (Fig. 1). With a young child, it is sometimes helpful to hug the child to keep their arm next to their body. This ensures that the room air does not affect the reading.



3. When the peak temperature is reached, beep signals will sound. The temperature is now confirmed. When the thermometer is removed from the measuring site, the associated color will display.

4. Turn off the thermometer and clean as recommended below.

Oral use

This method is suitable for children who are old enough to safely keep the thermometer inside their mouth. We recommend using a universal disposable (single-use) probe cover specifically intended for stick thermometers when taking an oral measurement. Such probe covers are generally available in stores from various manufacturers.

1. It is important to place the tip of the thermometer well under the tongue on either side to get a good, accurate reading. Place the sensor tip in areas marked with "√" under the tongue (Fig. 2). Keep the patient's mouth closed and make him/her sit still to help ensure an accurate measurement.



Fig. 2

- 2. When the peak temperature is reached, beep signals will sound. The temperature is now confirmed. When the thermometer is removed from the measuring site, the associated color will display.
- 3. Turn off the thermometer and clean as recommended below.

Rectal use

Commonly used for babies, young children, or when it is difficult to take an oral or underarm temperature.

- 1. Lubricate the thermometer's tip with a water-soluble jelly for easier insertion. Do not use a petroleum jelly. Read the label of the lubricant to be sure you are using the right kind.
- 2. Lay the patient on his/her side. If the patient is an infant, the proper position for a baby is to lay on its stomach with legs hanging down, either across your knees or at the edge of a bed or changing table. This positions the infant's rectum for safe and easy insertion of the thermometer.
- 3. Gently insert the tip of the thermometer NO MORE THAN 1.3 cm into the rectum. If you detect resistance, stop. Hold the thermometer in place during measurement.
- 4. When the peak temperature is reached, beep signals will sound. The temperature is now confirmed. When the thermometer is removed from the measuring site, the associated color will display.
- 5. Turn off the thermometer and clean as recommended below.

Memory

When the thermometer is turned on, the display will show a test, after which the last measured temperature will be shown for approximately 1 second. The letter "M" will be displayed next to the temperature reading.

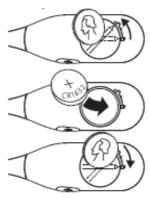
Care and Cleaning

- Clean the probe tip by washing it with soap and warm water or by disinfecting it with rubbing alcohol (70% isopropyl alcohol).
- · Wipe dry with a soft cloth.
- DO NOT BOIL OR CLEAN IN DISHWASHER. This will cause the thermometer to no longer function and will
 void the warranty.
- Do not wash the unit with any thinner or chemical solvent.
- Store your thermometer in a dry location, free from dust and contaminants and away from direct sunlight.

Replacing the Batteries

When the battery symbol on the LCD display twinkles continually , please replace it with a new battery.

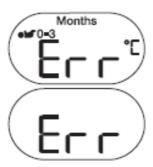
- 1. Insert the coin into the slot. Rotate the door until the slot is lined with the UNLOCK position.
- 2. Replace battery.
- 3. Rotate the battery door to the LOCKED position.



Errors and Troubleshooting

• When the measured temperature is higher than 42.9 °C, the LCD will display "Err °C" and the relevant age icon. The red backlight stays on for 5 seconds.

 When the ambient temperature is out of range (see Product specifications below) or other system errors occur such as short or broken circuits, the LCD will display "Err" to indicate system error. The red backlight on for 5 seconds.



Calibration

This device was designed and manufactured for long service life, however, it is generally recommended to have the device inspected once a year by the Authorized Service Center located in your country to ensure correct function and accuracy.

Note: The accuracy checking is not a free service and therefore we recommend that you contact the Authorized Service Center to get a quotation before you send out the product.

Product specifications

- **Displayed temperature range:** 32.0 °C − 42.9 °C (89.6 °F − 109.2 °F)
- Operating ambient temperature range: 10 40 °C (50 104 °F) and relative humidity range of 15%~95%
- Display resolution: 0.1 °C or °F
- Accuracy for displayed temperature range Maximum Laboratory Error 35.5 °C 42 °C (95.9 °F 107.6 °F): ± 0.1 °C (± 0.2 °F) at an ambient of 23±5 °C
- outside this range: ±0.2 °C/0.4 °F (within 32.0 °C 42.9 °C (89.6 °F 109.2 °F))
- Battery type: 3V DC, 1X CR1632
- Battery life: 500 times measurements within 2 years
- Service life: 2000 measurements
- Storage/Transport temperature -25 55 °C ± 2 °C and 15-95 RH% ± 5% and relative humidity: If the
 device is not used within specified temperature and humidity ranges the technical accuracy of the
 measurement cannot be guaranteed.

Explanation of Symbols



Type BF applied parts



See instruction for use



Operating temperature



Storage temperature

Keep dry

environment. IP22: Protected against solid foreign objects of 12.5 mm diameter and greater. Protected against vertically falling water drops when the device is tilted up to 15 degrees. This thermometer is specified to operate at 1 atmospheric pressure or at altitudes with an atmospheric pressure up to 1 atmospheric pressure (760-1060 hPa). Equipment with type BF applied parts. Subject to change without notice.

This appliance conforms to the following standards:

Standard Reference Edition Title: EN 12470-3: 2003 Clinical thermometers – Part 3: Performance of compact electrical thermometers (non-predictive and predictive) with the maximum device.

- EN 60601-1: 2006 Medical electrical equipment Part 1: General requirements for basic safety and essential performance.
- EN ISO 14971: 2012 Medical devices Application of risk management to medical devices.
- EN ISO 10993-1: 2009 Biological evaluation of medical devices Part 1: Evaluation and Testing.
- EN 60601-1-2: 2007 Medical electrical equipment Part 1-2: General requirements for basic safety and essential performance Collateral standard: electromagnetic compatibility Requirements and tests.
- EN 980: 2008 Symbols for use in the labeling of medical devices.
- EN 1041: 2008 Information supplied by the manufacturer of medical devices.
- EN 60601-1-11: 2010 Medical electrical equipment Part 1-11: General requirements for basic safety and essential performance Collateral standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment. This product conforms to the provisions of the EC directive 93/42/EEC.

MEDICAL ELECTRICAL EQUIPMENT needs special precautions regarding EMC. For a detailed description of EMC requirements please contact your authorized local Service Centre (See guarantee card). Portable and mobile RF communications equipment can affect MEDICAL ELECTRICAL EQUIPMENT. This product contains batteries and recyclable electronic waste. To protect the environment, do not dispose of it in the household waste, but take it to appropriate local collection points.

- 1. Herzog L, Phillips SG. Addressing concerns about fever. Clin Pediatr (Phila) 2011 May;50(5):383-90.
- 2. Sund-Levander M, Forsberg C, Wahren LK. Normal oral, rectal, tympanic and axillary body temperature in adult men and women: a systematic literature review. Scand J Caring Sci 2002 June;16(2):122-8.

Guidance and manufacturer's declaration – electromagnetic emissions

The PRT2000 equipment is intended for use in the electromagnetic environment specified below.

The customer or the user of the PRT2000 should ensure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic environment – guidance
RF Emissions CISPR 11	Group 1	The ME equipment uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions CISPR 11	Class B	Complies
Harmonic emissions IEC 61 000-3-2	Not Applicable	
Voltage fluctuations/flicker e missions	Not Applicable	The ME equipment is solely battery-powered.

Non-Life Support Equipment Separation Distance Calculation (3Vrms / 3V/m compliance)

	Separation distance according to the frequency of the transmitter (m)			
Rated maximum output pow er of the transmitter (W)	150 kHz to 80 MHz in IS M bands $d = 3.5 P$	80 MHz to 800 MHz $d = 3.5 P$ [E1]	800 MHz to 2.5 GHz $d = 7 P$ [E1	
0.01	/	0.12	0.23	
0.1	1	0.38	0.73	
1	/	1.2	2.3	
10	/	3.8	7.3	
100	/	12	23	

Guidance and manufacturer's declaration – electromagnetic immunity

The PRT2000 is intended for use in the electromagnetic environment specified below.

The customer or the user of the PRT2000 should ensure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic dis- charge (ESD) IEC 61000-4-2	±6kV Contact ±8kV Air	Complies	Floors should be wood, concrete, or ceramic tile. If floors are covere d with synthetic material, the relative humidity should be at leas t 30%.

Radiated RF IEC 61000-4	3 V/m 80MHz to 2.5G Hz	Complies	Field strengths outside the shielde d location from fixed RF transmitte rs, as determined by an electromagnetic site survey shoul d be less than 3 V/m.
			Interference may occur in the vicinity of equipment marked with the following symbol:
			((<u>^</u>)))
Conducted RF IEC 61000- 4-6	3Vrms 150kHz to 80M Hz	Not Applicable (no electrical cabling)	The separation distance calculation is provided above. If a known transmitter is present the specific distance can be calculated using the equations.
Electrical fast transient IEC 61000-4-4	±2kV power line ±1kV I/O lines	Not Applicable	
Surge IEC 61000-4-5	±1kV differential ±2kV common	Not Applicable	The ME equipment is solely battery-powered.
Power frequency magnetic field IEC 61000-4-8	3 A/m	Complies	Power frequency magnetic fields s hould be at levels characteristic of a typical lo cation in a typical commercial or h ospital environment.
Voltage dips, short interru ptions, and voltage variati ons on power supply input lines IEC 61000-4-11	>95% dip 0.5 cycle 60% dip 5 cycles 70% dip 25 cycles 95% dip 5 sec.	Not Applicable	The ME equipment is solely batter y-powered.

FAQs

What is the Braun PRT2000 Age Precision Digital Thermometer?

The Braun PRT2000 Age Precision Digital Thermometer is a reliable and accurate thermometer designed to measure body temperature for individuals of all ages, including infants, children, and adults.

How does the Age Precision feature work?

The Age Precision feature allows you to set the age of the person whose temperature you're measuring. The thermometer then provides guidance on whether the temperature reading is normal for that age or if it indicates a fever.

Is the thermometer suitable for use with infants?

Yes, the Braun PRT2000 is suitable for use with infants. It includes a pre-warmed tip to ensure accurate and comfortable measurements for babies.

Can I use the thermometer for oral measurements?

Yes, the thermometer can be used for oral temperature measurements. However, it's essential to follow the provided instructions for accurate results.

Is the Braun PRT2000 suitable for use in the ear (tympanic measurements)?

The Braun PRT2000 is designed for use under the arm (axillary measurements) and in the mouth (oral measurements). It is not intended for ear measurements.

What type of display does the thermometer have?

The thermometer typically features a digital display that shows the temperature reading clearly for easy interpretation.

Is it easy to switch between Celsius and Fahrenheit temperature scales?

Yes, you can usually switch between Celsius and Fahrenheit temperature scales on the thermometer for your preferred units of measurement.

Does the thermometer offer a fast reading time?

Yes, the Braun PRT2000 provides fast and accurate temperature readings, typically within seconds, making it convenient for quick assessments.

Can the thermometer store previous temperature readings?

The thermometer may include a memory function to store previous temperature readings, allowing you to track temperature changes over time.

Does the thermometer have a fever alert feature?

Yes, the thermometer often includes a fever alert that notifies you with a color-coded display or audible signal

if the temperature reading indicates a fever.

Is the Braun PRT2000 easy to clean and disinfect?

The thermometer is typically easy to clean. It is recommended to follow the cleaning and disinfection instructions provided in the user manual for maintaining hygiene.

Is there a warranty for the Braun PRT2000?

The Braun PRT2000 Age Precision Digital Thermometer typically comes with a warranty of 3 year from the date of purchase.

References: <u>Braun PRT2000 Age Precision Digital Thermometer – Device.report</u>

Manuals+,