A&D Medical

Multi-function Infrared Thermometer

Model UT-801
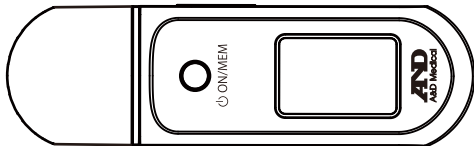
Instruction Manual *Original*	ENGLISH
Manuel d'instructions *Traduction*	FRANÇAIS
Manual de Instrucciones *Traducción*	ESPAÑOL
Manuale di Istruzioni *Traduzione*	ITALIANO
使用手冊 *翻譯*	中文
دليل التعليمات *ترجمة*	عربي

ⓘ ON/MEM

A&D Medical

1WMPD4003399

Contents

Dear Customers

Congratulations on purchasing a state-of-the-art A&D thermometer, one of the most advanced thermometers available today. Designed for ease of use and accuracy, this device will facilitate your health care regimen.

We recommend that you read through this manual carefully before using the device for the first time.

Preliminary Remarks

▢ This device conforms to the European Directive 93/42 EEC for Medical Products. This is proved by the CE conformity marking $C\epsilon$ 0120 (0120: The identification number of the Notified Body).

▢ Environment for use: This device is designed for use indoors.

▢ This device (the infrared ear/forehead thermometer) can measure the infrared heat generated by eardrum/temple area and surrounding tissues to reflect patient's body temperature accurately.

Precautions

▢ Precision components are used in the construction of this device. Extremes in temperature, humidity, direct sunlight, water, shock or dust should be avoided.

▢ There is no gender and age limitation for using the infrared thermometer.

▢ Do not let children use the device by themselves and do not leave the device in a place within the reach of infants.

▢ Intended operator: At least 11 years old (5 years intensive reading experience), no maximum.

- This thermometer has been designed for everyday use. It's not meant to replace a visit to the doctor. Please also remember to compare the measurement result to your regular body temperature. Please consult with doctor if you have health concerns.
- Wireless communication devices, such as home networking devices, mobile phones, cordless phones and their base stations, and walkie-talkies can affect this thermometer. Therefore, a minimum distance of 3.3 meters (11 feet) should be kept from such devices.
- Measurements may be distorted if the device is used close to televisions, microwave ovens, X-ray or other devices with strong electrical fields.
- There are small parts that may be a choking hazard if swallowed accidentally by infants.
- No AP/APG (not suitable for use in the presence of flammable anesthetics or oxygen)

Symbols

📖	Please read the instructions for use	CE 0120	EC directive medical device label
🧍	Type BF: Device	☒	WEEE label
IP22	Classification for water ingress and particulate matter	🏭	Manufacturer
EC REP	EU-representative	⚠	Caution
⏻ Stand-by		☒ Battery Recycling	♻ Paper Recycling

Parts Identification

Last memory icon

Last memory

Surface icon

Forehead icon

Ear icon

Battery icon

Unit icon

°C
°F

Memory icon

Mute icon

Cap

SCAN button

Stand-by
(ON/MEM button)

When first time using, please pull out
the isolation sheet.

ON/MEM

Display

Serial number :

SN Byymmxxxxx

B: fix
yy: year
mm: months
xxxx :production
          number

Isolation sheet

Battery cover

English 4
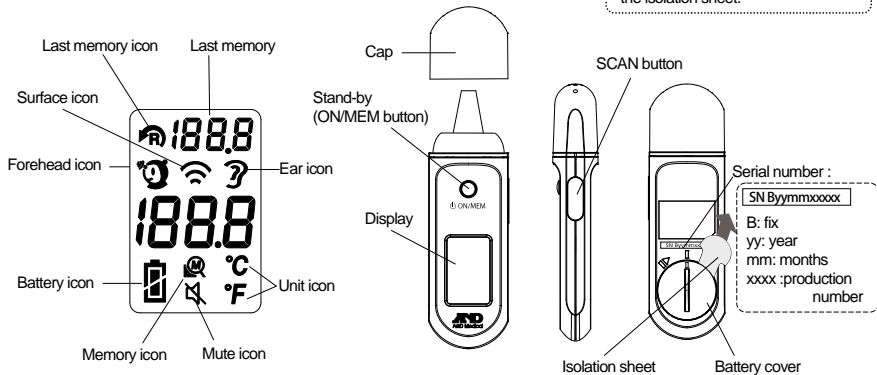
Functions

Ear temperature

This thermometer has been designed for everyday use. It's not meant to replace a visit to the doctor. Please also remember to compare the measurement results to your regular body temperature.

Forehead Temperature

This thermometer has been designed for everyday use. It's not meant to replace a visit to the doctor. Please also remember to compare the measurement results to your regular body temperature. Please consult with doctor if you have health concerns.

Room temperature

Suitable ambient temperature is important for the baby and patient. The thermometer always helps you recognize the room temperature.

Surface Mode

The surface mode shows the actual and undusted surface temperature which is different from the body temperature. It can help you monitor if the object temperature is suitable for the baby or patient, for example the baby's milk.

Fever Indication

If the thermometer detects a body temperature above 37.5℃, there will be a long beep followed by three short beeps to warn the user of potential fever.

Last Reading

When you get a new temperature reading in ear mode or forehead mode, the last reading will be shown on the screen (in the top right corner) with the last reading icon.

Memory Locations

There are a total of 25 memory sets for ear measurements. --- When powered on, press the "ON/MEM" button to see the temperatures stored with memory icon.

°C / °F Switch

In "Power Off" mode, press and hold the "SCAN" button, then press the ON/MEM button for 3 seconds. The temperature icon "°C" will switch to "°F". You can also use the same process to change from °F to °C.

Mute mode

The buzzer setting defaults to on. You can toggle the buzzer on/off in mute mode. With the power on, press and hold the "ON/MEM" button for 3 seconds. The mute icon will flash on the display. Release the "ON/MEM" button to turn on MUTE. Now you will not hear beeps. You can also use the same process to turn off the mute function.

NOTE: If you keep pressing the "ON/MEM" button for 5 seconds after the mute icon flashes, the device will turn off WITHOUT setting mute.

Installing/changing batteries

1. Open the battery cover: Make sure the thermometer is in "forehead mode". Insert a coin into the twist cover at the rear of the device and twist it clockwise. The battery is located under the cover.

2. Hold the device and flip the battery out with a small screwdriver.

3. Insert the new battery under the metal hook on the left side and press the right side of the battery down until you hear a click.

4. Replace the battery cover.
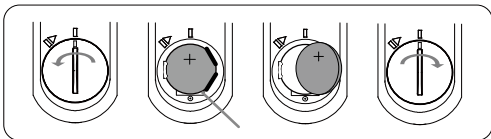
⚠ CAUTION

▫ Keep the battery away from children.(This device is supplied with one CR2032 lithium cell.)

▫ Keep the positive (+) side up and the negative (-) side pointed down.

▫ Comply with local regulations for the disposal of used batteries.

Measurement

1. Always make sure the probe is clean and undamaged.
2. Power on: Press the "ON/MEM" button.
3. Mode selection:

- ● Ear mode: Press the "ON/MEM" button, the default mode of thermometer is ear mode. The thermometer is can be used after you see the ear icon on the display and hear two beep sounds. In this mode, you can measure the body temperature by ear measurement.

- ● Forehead mode: After power on, press and hold the "ON/MEM" button, and press the "SCAN" button one time for forehead mode. The forehead icon will display and you will hear two beeps. In this mode, you can measure the body temperature by forehead measurement.

- ● Surface mode: After power on, press and hold the "ON/MEM" button, and press the "SCAN" button one time for surface mode. The surface icon will display. In this mode, you can measure surface temperature of an object.

4. Measuring temperature:

Ear temperature measuring. Points for attention:

(1) Gently pull the ear back to straighten the ear canal and snugly position the probe into the ear canal, aiming towards the membrane of the eardrum to obtain an accurate reading.

(2) Press and hold the "SCAN" button until you hear a beep sound. Remove the probe from the ear and read the temperature measurement on the LCD.
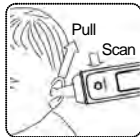
⚠ NOTES

○ It is recommended that you measure 3 times with the same ear. If the 3 measurements are different, select the highest temperature.

○ To avoid the risk of cross contamination, please clean the probe according to the "Care & Maintenance" section after each use.

○ Temperature varies in healthy persons and different parts of the body can have differences between 0.2 to 1°C.

Forehead temperature measuring: Points for attention:

(1) The temporal artery, a major artery of the head, is connected to the heart via the carotid artery. This thermometer is designed to measure the skin surface around the temporal artery.

(2) Place the thermometer on the temple (see picture). (You can choose left or right temple.)

(3) Press the "SCAN" button, and gently scan around the temple area. While scanning, you will hear a beep sound, which indicates the newest measurement is taking place. Measurement is complete when the forehead icon stops flashing after a short beep. Measurement time may be between 5 ~ 8 seconds and up to 30 seconds) depending on how much time the device needs to get the correct forehead temperature.

⚠ NOTES

○ Forehead temperature is displayed in oral mode. This mode converts the forehead temperature to display its "oral-equivalent" value.

○ Before measurement, please stay in a stable environment for 5 minutes and avoid exercise and bathing for 30 minutes.

○ Remember to keep the temple area clean and free from sweat and cosmetics and avoid scars while taking the temperature.

Measuring temperature in surface mode:

(1) When you press the "SCAN" button, you will get the real time temperature immediately. If you press and hold the "SCAN" button, the measurement will be continuously updated.

(2) Applications include temperature measurements of water, milk, cloth, skin or other objects.

⚠ NOTE

This mode shows actual, unadjusted surface temperatures, which are different from body temperature.

5. After measurement:

(1) Power off:

Device will automatically shut off to extend battery life if left idle for more than 1 minute. The device can only be powered off automatically. (In surface mode, you can manually turn the power off by pressing ON/MEM" button for 3 seconds.)

(2) Clean the probe after each use to ensure accurate readings and avoid cross contamination. (See the section on "Care & Maintenance" for details.)

⚠ NOTES

▫ This thermometer has been designed for everyday use. It's not meant to replace a visit to the doctor. Please also remember to compare the measurement result to your regular body temperature. Please consult with doctor if you have health concerns.

▫ Holding the thermometer too long may cause a higher ambient temperature reading of the probe. This could make the body temperature measurement lower than usual.

Troubleshooting

Error	Problem	Recommended Action
Er	Error 5 ~ 9, the system is not functioning properly.	Take out the battery, wait for 1 minute and reinsert it. If this message reappears, contact the retailer for service.
$Er\ 1$	Measurement before device stabilization.	Wait until all the icons stops flashing before measuring.
RbH	The ambient temperature is >40°C (104°F)	Allow the thermometer to rest in a room for at least 15 minutes at room temperature: 10°C to 40°C (50°F to 104°F).
RbL	The ambient temperature is <10°C (50°F)	
Hi	In ear/forehead mode: Temperature taken is higher than +42.2°C (108°F) In surface mode: Temperature taken is higher than +80°C (176°F)	Please select the target within specifications. If a malfunction still occurs, please contact the nearest retailer.
Lo	In ear/forehead mode: Temperature taken is lower than +34°C (93.2°F) In surface mode: Temperature taken is lower than –22°C (–7.6°F)	
	Device cannot be powered on to the ready stage.	Replace battery with a new one.

⚠ **CAUTION**

Do not open this device. If you cannot fix the problem using the troubleshooting instructions, contact the dealer or customer service.

Care & Maintenance

▢ After measurement, please use a cotton swab with alcohol (70% concentration) to clean the lens (on the inside of the probe).

▢ Allow the probe to fully dry for at least several minutes. Then reattach the cap.

▢ This device should be stored at a temperature between -20 to +50°C and humidity 85% or less.

▢ Keep this device dry and away from any liquids and direct sunlight.

▢ The probe should not be submerged into liquids.

⚠ NOTES

▢ The probe is the most delicate part of the thermometer. Use with care when cleaning the lens to avoid damage.

▢ Please check the device for damage if it is dropped. If you are unsure how to, please send the complete device to the nearest retailer for recalibration.

▢ Holding the thermometer too long may cause a higher ambient temperature reading of the probe. This could make body temperature measurement lower than usual.

Technical Data

Dimensions	125 mm × 37 mm× 22 mm
Weight	Approx. 41g, excluding the battery.
Temperature measurement range	Ear/Forehead mode: 34 to 42.2°C(93.2 to 108°F), Surface mode: -22 to +80°C(-7.6 to 176°F),
Operating temperature range	10 to 40°C (50 to 104°F) ,15 to 85%RH
Storage temperature range	Device should be stored at a room temperature between -20 to +50°C and humidity 85% or less. Transportation temp. shall be less than 70°C ,RH≦95%, Atmospheric pressure:800 to 1013hPa.
Accuracy	Ear/Forehead mode: ±0.2°C (0.4°F) within 35 to 42°C (95 to 107.6°F) (Ambient Temp: 15 to 35°C) ,±0.3°C (0.5°F) for other range. Surface mode: ±0.3°C (0.5°F) within 22 to 42.2°C (71.6 to 108°F) others ±4% or 2°C (4°F) whichever is greater.
Memory	25 memory slots and last memory.
Battery	CR2032×1

・This thermometer converts the forehead/ear temperature and displays the "oral equivalent".

・Comply with ASTM E1965-98, EN ISO 80601-2-56, IEC/EN60601-1-2(EMC), IEC/EN60601-1(Safety) standards, ISO10993, RoHS.

NOTE: Specifications are subject to change for improvement without prior notice.

Appendix: EMC Information

Guidance and manufacturer's declaration – electromagnetic emissions

The UT-801 is intended for use in the electromagnetic environment specified below. The customer or the user of the UT-801 should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The UT-801 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	The UT-801 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Guidance and manufacturer's declaration – electromagnetic immunity

The UT-801 is intended for use in the electromagnetic environment specified below. The customer or the user of the UT-801 should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	Not applicable	Portable and mobile RF communications equipment should be used no closer to any part of the UT-801, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d = 1,2 \sqrt{P}$ $d = 1,2 \sqrt{P}$ 80 MHz to 800 MHz $d = 2,3 \sqrt{P}$ 800 MHz to 2,5 GHz
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2,5 GHz	3 V/m	where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, a should be less than the compliance level in each frequency range b. Interference may occur in the vicinity of equipment marked with the following symbol: $\left(\left(\cdot\right)\right)$

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the UT-801 is used exceeds the applicable RF compliance level above, the UT-801 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the UT-801.
b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Guidance and manufacturer's declaration – electromagnetic immunity

The UT-801 is intended for use in the electromagnetic environment specified below. The customer or the user of the UT-801 should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	6 kV contact 8 kV air	6 kV contact 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	2 kV for power supply lines 1 kV for input/output lines	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	1 kV line(s) to line(s) 2 kV line(s) to earth	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 sec	Not applicable	Mains power quality should be that of a typical commercial or hospital environment. If the user of the UT-801 requires continued operation during power mains interruptions, it is recommended that the UT-801 be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE UT is the a.c. mains voltage prior to application of the test level.

Recommended separation distances between
portable and mobile RF communications equipment and the ME EQUIPMENT or ME SYSTEM

The UT-801 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the UT-801 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the UT-801 as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1.2 \sqrt{P}$	80 MHz to 800 MHz $d = 1.2 \sqrt{P}$	800 MHz to 2.5 GHz $d = 2.3 \sqrt{P}$
0.01	N/A	0.12	0.23
0.1	N/A	0.38	0.73
1	N/A	1.2	2.3
10	N/A	3.8	7.3
100	N/A	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

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