ALPHAMED

UFR118
Infrared Thermometer

User Manual

Contents

Thank you for purchasing this Marsden UFR118 Automatic Wall Mounted Thermometer. This thermometer is designed for screening multiple individuals for high temperature, and can be used with individuals of all ages. To ensure accurate use of the UFR118, please read this user manual before use and keep for future reference.

Declaration of Conformity

- This product is approved under 93/42/EEC Medical Devices Directive.
- Full responsibility for the conformance of this product to the Standard is assumed by Shenzhen Urion Technology Co., Ltd, Floor 4-6th Floor Building D, Jiale Science & Technology Industrial Zone, No.3, ChuangWei Road, Heshuikou Community, MaTian Street, GuangMing New District, 518106 Shenzhen.

EN 60601-1-2:2015	Medical electrical equipment -- Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic disturbances - Requirements and tests
IEC 60601-1-2:2014	Medical electrical equipment -- Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic disturbances - Requirements and tests
EN 60601-1-11:2015	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 Clause 12 of IEC 60601-1-11
IEC 60601-1-11:2015	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 Clause 12 of IEC 60601-1-11
ISO 80601-2-56:2017	Medical electrical equipment —Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement Clause 202 of ISO 80601-2-56

This does not guarantee in any way that the device will not be affected by electromagnetic interference.
Avoid using the device in a high electromagnetic environment.

Classification

1.Internally powered equipment;
2. Type BF applied part;
3. Protection against ingress of water or particulate matter: IP21;
4. Not category AP/APG equipment;
5. Mode of operation: Continuous operation.

Note: the user must check that the equipment functions safely and ensure that it is in proper working condition before it being used.

Specification

Measurement Range	32.0°C~43.0°C(89.6°F~109.4°F)
Accuracy	±0.2°C/±0.4°F
Measuring Distance	1cm – 10cm
Display	LED
Response Time	1 second
Measuring localisation	Forehead
Installation Method	Nail hook, double sided sticking tape, bracket for stand
LED colour indicator	Green: Temperature <37.5°C(99°F) Red: Temperature ≥37.5°C(99°F)
Power	18650 lithium battery 2000mAh/Type-C
Device Weight	Approx.151g (without batteries)
Device Dimensions	140mm x 93mm x 93mm
Battery Life	Upto 300 temperature measurements
Operating Environment	Body mode: 10~40°C (50°F to 104°F)
Storage & Shipping Environment	Ambient temperature range：-20°C～+50°C; Relative humidity range：15%～95%RH; Handle with care and avoid heat, direct sunlight and water during transportation
Expected service life	Five years

Symbol Descriptions

The following symbols may appear in this manual, on the label, on the device or on accessories. Some of the symbols represent standards and compliances associated with the device and its use.	
⚠	WARNING: This alert identifies hazards that may cause serious personal injury or death
⚠	CAUTION: This alert identifies hazards that may cause minor personal injury, product damage or property damage
	Type BF applied part
	Manufacturer
SN	Specifies serial number
EC REP	Authorised representative in the European Community
CE 0123	CE Mark: conforms to essential requirements of the Medical Device Directive 93/42/EEC
	DISPOSAL: Do not dispose of this product as unsorted municipal waste. This product should be treated as electronic waste
	Direct current
	Follow instructions for use

Important Safety Instructions

Before using this device, please read the following instructions with care.

⚠ **WARNING:**
- This thermometer is not intended to substitute for a consultation with your physician. The forehead scan temperature serves as a reference only.
- Basic safety precautions should always be observed, especially when the thermometer is used on or near children and disabled persons.
- Please place the device out of reach of children.
- Avoid using or leaving the device in direct sunlight.
- Do not touch the lens.
- Do not attempt to modify the device.
- The swallowing of small parts like packing bag, battery, battery cover and so on may cause suffocation.

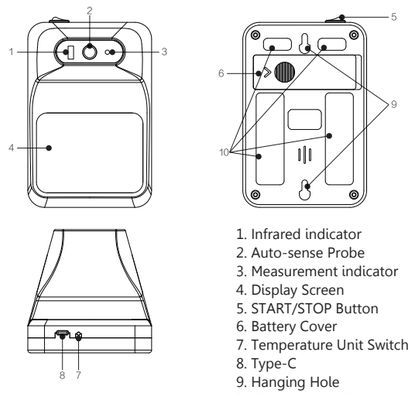
⚠ **CAUTION:**
- Please do not use a dilution agent, alcohol or petrol to clean the unit. Please use the device with care.
- Please do not immerse the device in liquid.
- Please remove the batteries if you do not intend to use the device for more than three months.
- Replace the batteries if the device shows a low battery symbol.
- Do not mix old and new batteries.
- Do not use the device during transportation.
- Please check that operation of the device does not result in prolonged impairment of patient blood circulation.
- Do not kink Type-C during use, it may block blood flow and cause injury to the user.

Disposal
- Do not dispose of electrical appliances as unsorted municipal waste: use separate collection facilities. Contact your local government for information. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into groundwater.

Care and Maintenance
- Keep the device in its box when not in use, and store in a dry location.
- Clean the device with a soft, dry cloth. Do not use any abrasive cleaners.
- Never immerse the device in water.
- NOTE: The manufacturer/supplier will not be responsible for any quality or technical issues that arise from improper use/maintenance as highlighted in this user manual.

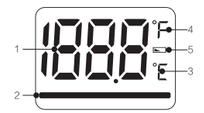
Parts Identification

BODY



1. Infrared indicator
2. Auto-sense Probe
3. Measurement indicator
4. Display Screen
5. START/STOP Button
6. Battery Cover
7. Temperature Unit Switch
8. Type-C
9. Hanging Hole
10.Double-sided Tape

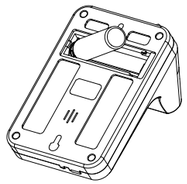
Display



1. Temperature reading
2. LED Indicator
3. Celsius/°C
4. Fahrenheit/°F
5. Low battery indicator

Battery Installation

1. Remove the battery cover from thebattery compartment.
2. Insert one 3.7V 18650 lithium battery, ensuringthe battery is facing the correct way. Positive (+) and Negative (-) are displayed on the back of battery cover.
3. Replace the battery cover.



4. If the low battery symbol appears on the display, you will need to charge the battery using the charger cable provided. To charge the battery, plug the cable into a Type-C port/socket or use a Type-C plug.The device will need upto eight hours to reach full charge. A green strip will appear on the display during charging, changing to a red strip when charging is complete.

⚠ WARNING:

Dispose of batteries in accordance with local laws. To avoid explosion or fire, do not burn or incinerate batteries.

Adapter usage(option)

1.When optional AC adapter should comply with the requirement of IEC 60601-1:2005.Furthermore all configurations shall comply with the requirements for medical electrical systems(see IEC 60601-1-1 or clause 16 of the 3Ed.of IEC 60601-1,respectively).Anybody connecting additional equipment to medical electrical equipment configures a medical system and is therefore responsible that the system complies with the requirements for medical electrical systems.Attention is drawn to the fact that local laws take priority over the above mentioned requirements.If in doubt, consult your local representative or the technical service department.
2.When using AC power,to avoid possible damage to the monitor,use only the exclusive AC adapter that can be purchased from authorized dealers.
3.Insert the adapter plug into the hole on the backside of the unit as picture.
4.Insert the other side of the adapter into the outlet with 100-240V.
5.To remove the AC adapter,disconnect the adapter plug from the outlet first and then disconnect the cord from the unit's socket.

Adapter technical features:
Output voltage:Type-C 5V±5%
Output current:At least 600 mA

About Normal Body Temperature and Fever

Forehead and temple area temperature differs from internal temperature, which can be taken orally or rectally.
Vasoconstriction, an effect which constricts the blood vessels and cools the skin, can occur during the early stages of a fever.
In this case, the temperature measured by the Infrared thermometer may be unusually low. If the measurement therefore does not match the patient's own perception or is unusually low, repeat the measurement every 15 minutes. As a reference, you can also measure the internal body temperature using a conventional oral or rectal thermometer.
Body temperature can vary from one individual/person to next.
An individual's temperature will also vary depending on location and time of day. The table below shows the statistical normal ranges from different sites.
Please keep in mind that temperatures measured from different sites, even at the same time, should not be directly compared. Fever indicates that the body temperature is higher than normal. This symptom may be caused by infection, overdressing or immunisation.
Some people may not experience fever even when they are ill.
These include, but are not limited to, infants younger than 3 months old, individuals with compromised immune systems, individuals taking antibiotics, steroids, or antipyretics (aspirin, ibuprofen, acetaminophen), or individuals with certain chronic illnesses. Please consult your physician when you feel ill even if you do not have fever.

Normal Temperatures According to Measurement Method

Mode	Normal Temp Range °C	Normal Temp Range °F
Rectal/Ear	36.6 to 38	97.8 to 100.4
Oral	35.5 to 37	95.9 to 98.6
Axillary	34.7 to 37.3	94.4 to 99.1

Note: Body Temperature at WebMD:
Website:http://firstaid.webmd.com/body-temperature; retrieved at 2010 Jan 7

Unit Setting

There is a small hole on the bottom of the device. Pusha 2mm diameter screwdriver into the hole to switch between °C and °F.

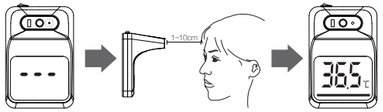
Celsius/°C Fahrenheit/°F

Operation

To use the thermometer, press the START/STOP button. All symbols will appear on the display, and you will hear one short beep.

Stand in front of the device with a distance of 1cm –10cm between your forehead and the sensor. The device will measure temperature automatically.

When measurement is complete, you will hear one long beep as the measurement appears on the display.



The thermometer will automatically go into standby mode after 10 seconds of inactivity.
If motion is detected by the sensor, the device will power on again.

Beep Alarm

1. 1 short beep when power is on and device is ready to begin measurement.
2. 1 long beep with green LED when measurement reading is below 37.5°C/99.5°F.
3. 10 short beeps with red LED when measurement reading is 37.5°C/99.5°F or higher.
4. 3 short beeps with red LED if the device is unable to measure temperature.

- Babies' skin reacts very quickly toambient temperature. Therefore, do not take their temperature during/after breastfeeding asthe skin temperature maybe lower than their internal body temperature.

Error Messages

Symbol	Correction
H °C	In Ambient Mode, measured temperature is above the measuring range of 40.0°C/104.0°F.
L °C	In Ambient Mode, measured temperature is below the measuring range of 0.0°C/32.0°F.
	Low battery, Please connect the Type-C charger or recharge the battery.
Err	Thermometer system fails or affected by electric magnetic field

Warranty

- The device is guaranteed to be free of defects in workmanship and materials under normal use for a period of 1 Year from the date of purchase.
- For repair under this warranty, our authorised service agent must be advised of the fault within the period of the warranty. This warranty only covers parts and labour service under normal operations. Any defect resulting from natural causes, eg.flood, hurricane etc, is not covered in this guarantee. This guarantee does not cover damage incurred by use of the unit not in accordance with the instructions, accidental damage, or being tampered or serviced by unauthorised service agents.
- The following will be excluded from this warranty: If the thermometer has been misused, abused, or there has been neglect in following the manual's instructions on purpose and unauthorised repair or modifications.

The device requires no calibration.

The device is not repairable and contains no user serviceable parts.

EMC Declaration

IEC 60601-1-2: 2014 ME EQUIPMENT and ME SYSTEMS identification, marking and documents for Class B product

The ME EQUIPMENT or ME SYSTEM is suitable for home healthcare environments and so on.

Warning: Do not use near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high.

Warning: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

Warning: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation."

Warning: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the Infra-red Ear Thermometer (TE-66, TE-68, TE-82), including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

If any: a list of all cables and maximum lengths of cables (if applicable), transducers and other ACCESSORIES that are replaceable by the RESPONSIBLE ORGANIZATION and that are likely to affect compliance of the ME EQUIPMENT or ME SYSTEM with the requirements of Clause 7 (EMISSIONS) and Clause 8 (IMMUNITY). ACCESSORIES may be specified either generically (e.g. shielded cable, load impedance) or specifically (e.g. by MANUFACTURER and EQUIPMENT OR TYPE REFERENCE).

If any: the performance of the ME EQUIPMENT or ME SYSTEM that was determined to be ESSENTIAL PERFORMANCE and a description of what the OPERATOR can expect if the ESSENTIAL PERFORMANCE is lost or degraded due to EM DISTURBANCES (the defined term "ESSENTIAL PERFORMANCE" need not be used).

Technical description

1.All necessary instructions for maintaining BASIC SAFETY and ESSENTIAL PERFORMANCE with regard to electromagnetic disturbances for the excepted service life.

2.Guidance and manufacturer's declaration -electromagnetic emissions and Immunity

Table 1

Guidance and manufacturer's declaration - electromagnetic emissions	
Emissions test	Compliance
RF emissions CISPR 11	Group 1
RF emissions CISPR 11	Class B
Harmonic emissions IEC 61000-3-2	Class A
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Compliance

Table 2

Guidance and manufacturer's declaration - electromagnetic Immunity		
Immunity Test	IEC 60601-1-2 Test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air
Electrical fast transient/burst IEC 61000-4-4	Power supply lines: ±2 kV 100 kHz repetition frequency	Power supply lines: ±2 kV 100 kHz repetition frequency
Surge IEC 61000-4-5	line(s) to line(s): ±0.5kV ±1 kV.	line(s) to line(s): ±0.5kV ±1 kV.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0% 0.5 cycle At 0º, 45 º, 90 º, 135 º, 180 º, 225 º, 270 º and 315 º 0% 1 cycle And 70% 25/30 cycles Single phase: at 0 0% 300 cycle	0% 0.5 cycle At 0º, 45 º, 90 º, 135 º, 180 º, 225 º, 270 º and 315 º 0% 1 cycle And 70% 25/30 cycles Single phase: at 0 0% 300 cycle
Power frequency magnetic field IEC 61000-4-8	30 A/m 50Hz/60Hz	30 A/m 50Hz/60Hz
Conduced RF IEC61000-4-6	150KHz to 80MHz: 3Vrms 6Vrms (in ISM and amateur radio bands)80% Am at 1kHz	150KHz to 80MHz: 3Vrms 6Vrms (in ISM and amateur radio bands)80% Am at 1kHz
Radiated RF IEC61000-4-3	10 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz	10 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz
NOTE UT is the a.c. mians voltage prior to application of the test level.		

Table 3

Guidance and manufacturer's declaration - electromagnetic Immunity							
Radiated RF IEC61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment)	Test Frequency (MHz)	Band (MHz)	Service	Modulation	Modulation (W)	Distance (m)	IMMUNITY TEST LEVEL(V/m)
	385	380 – 390	TETRA 400	Pulse modulation 18 Hz	1,8	0.3	27
	450	430 – 470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0.3	28
	710	704 – 787	LTE Band 13, 17	Pulse modulation 217 Hz	0.2	0.3	9
	745						
	780						
	810	800 – 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	2	0.3	28
	870						
	930						
	1720	1 700 – 1 990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217 Hz	2	0.3	28
	1845						
	1970						
	2450	2 400 – 2 570	Bluetooth,WLAN, 802.11 b/g/n,RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0.3	28
	5240	5 100 – 5 800	WLAN 802.11 a/n	Pulse modulation 217 Hz	0.2	0.3	9
	5500						
	5785						

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