Instruction for Use

Digital Thermometer

BT-A41CN-BT

Operating Instruction

INTENDED USE

The Digital Thermometers, Models BT-A41CN-BT, are intended for the measurement and monitoring of human body temperature by doctor or consumers in the hospital or home. It is used alone for human beings at all ages.

FEATURES

1. LCD displays the measured temperature.
2. With memory function the last measured temperature is shown on LCD.
3. With beeper to alarm the peak temperature.
4. Auto self-test and power auto shut-off.
5. With quick temperature response and high accuracy.
6. Comparing with mercury thermometer without problems of both mercury pollution and glass broken.

SPECIFICATIONS

Product Name	Digital Thermometer
Applied Models	BT-A41CN-BT
Temperature range	32.0-42.9℃（89.6-109.2℉）
Low temperature display	Temperature<32.0˚C (89.6˚F): display: Lo˚C (Lo˚F)
High temperature display	Temperature>42.9˚C (109.2˚F): display: Hi˚C (Hi˚F)
Accuracy	±0.1℃ 35.0-39.0℃ (±0.2℉ 95.0-102.2℉) ±0.2℃ the rest
Resolution	0.1℃ or 0.1℉
Sensor Type	Thermistor

Display type	Liquid Crystal Display
Memory	The last measured temperature is shown on LCD Display
Service life	Expected to be 5 years
Alarm	Approx.10 seconds of Bi voice while peak temperature is stable (for no voice model)
Working Environment	Temperature: 5~40°C Humidity: 15% to 85%RH 86Kpa to 106 Kpa
Storage Environment	Temperature: -20~55°C Humidity: ≤85%RH 86Kpa to 106 Kpa
Battery life	Approx.100 hours for continuous operation. Or approx.18 months while used 10 minutes per day. (for without backlight & voice type)
Power consumption	About 0.15mW (for without backlight & voice type)
Applied part type:	Type BF applied part
IP classification	IP22 (IP22: The first number 2: Protected against access to hazardous parts with a finger, and the jointed test finger of 12 mm Φ, 80 mm length, shall have adequate clearance from hazardous parts .And protected against solid foreign objects of 12,5 mm Φ and greater. The second number: Protected against vertically falling water drops when enclosure titled up to 15º. Vertically falling drops shall have no harmful effects when the enclosure is titled at any angle up to 15'' on either side of the vertical.
Mode of operation:	Continuous operation
Readout time	8 seconds readout time, with backlight and voice option

HOW TO USE

1. Press On/Off button then LCD displays 188. 8°FM (188. 8°CM) for 2 seconds. Keep pressing then displays last measurement, and releasing 98.6°F(37.0°C)for 1 second with °For°C flashing respectively.
2. If ambient temperature is higher than 111.2℉(44.0℃),LCD displays H ℉(H℃)and lower than 89.6℉(32.0℃) then displays L0℉(L0℃).
3. Disinfect the probe with alcohol then place the probe under/in:
   3.1 Oral use: Place the probe under tongue and close the mouth about 1minute till temperature is stable. Normal temperature is 98.6℉ (36.7℃).
   3.2 Axillary use: Wipe armpit with dry towel then place the probe in armpit firmly about 1 minute till temperature is stable. Normal temperature is 98.0℉(36.7℃).
   3.3 Rectal use: Lubricate the probe with water-soluble jelly like K-Y jelly. Do not use petroleum jelly like Vaseline for easier insertion.
   Insert the probe into rectum about 1 CM (lower than 1/2 inch) till the temperature is stable. Normal temperature is about 99.7℉ (37.6℃).
4. The peak temperature is first time and stable for 16 seconds, then alarm Bi voice for 4 seconds is followed.
   4.1 The power will be shut off automatically if no temperature rising

Notes:

1. Use the probe may result in 0.2℉(0.1℃)difference with real temperature.
2. It is suggested that rectal use t---thermometer does not use for axillary and oral use for the hygienic reason.

The Blue Tooth function model is BT-A41CN-BT

Operation Method:

★ Install the APK accordance with the communication protocol into the blue tooth signal receiving device such as mobile phone.

★ Activate the blue tooth signal receiving device such as mobile phone to match with the blue tooth of infrared thermometer

★ Start to measure according to the normal infrared thermometer operation method.

★ After measuring the result will be displayed on LCD and be sent to the blue tooth receiving device such as mobile phone.

The additional function of blue tooth infrared thermometer is to transmit the testing result to the APK in the receiving device via blue tooth technology.

1）This product needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided, and this unit can be affected by portable and mobile RF communications equipment.

2) Do not use a mobile phone or other devices that emit electromagnetic fields, near the unit. This may result in incorrect operation of the unit.

3) Caution: This unit has been thoroughly tested and inspected to assure proper performance and operation!

4) Caution: this machine should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, this machine should be observed to verify normal operation in the configuration in which it will be used

Guidance and manufacture's declaration – electromagnetic emission		
The BT-A41CN-BT *is* intended for use in the electromagnetic environment specified below. The customer of the user of the BT-A41CN-BT should assure that it is used in such an environment.		
Emission test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions CISPR 11	Group 1	The BT-A41CN-BT use 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 emission CISPR 11	Class B	The BT-A41CN-BT 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.

Guidance and manufacture's declaration – electromagnetic immunity			
The BT-A41CN-BT is intended for use in the electromagnetic environment specified below. The customer or the user of BT-A41CN-BT 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 floor are covered with synthetic material, the relative humidity should be at least 30%.
Power frequency (50Hz/60Hz) 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 U_T is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacture's declaration – electromagnetic immunity

The BT-A41CN-BT is intended for use in the electromagnetic environment specified below. The customer or the user of the BT-A41CN-BT 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 V_{rms} 150 kHz to 80 MHz	Not Applicant	Portable and mobile RF communications equipment should be used no closer to any part of the BT-A41CN-BT, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d = 1{,}2\sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1{,}2\sqrt{P}$ 80 MHz to 800 MHz $d = 2{,}3\sqrt{P}$ 800 MHz to 2,5 GHz 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 metres (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: 

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 BT-A41CN-BT is used exceeds the applicable RF compliance level above, the BT-A41CN-BT should be observed to verify normal

operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the BT-A41CN-BT.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between

portable and mobile RF communications equipment and the BT-A41CN-BT .

The BT-A41CN-BT is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the BT-A41CN-BT can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the BT-A41CN-BT 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	**0.12**	**0.12**	**0.23**
0.1	**0.38**	**0.38**	**0.73**
1	**1.2**	**1.2**	**2.3**
10	**3.8**	**3.8**	**7.3**
100	**12**	**12**	**23**

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (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.

FCC compliance statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.

PRECAUTIONS

1. Do not bite、 bend、drop or take apart the thermometer.
2. Keep the device out of the reach of children/pets to avoid inhalation or swallowing of small parts.
3. Do not expose it to direct sunlight、high temperature and moisture
4. Not intended to be sterilized. Prevent saliva or cleaning solution from penetrating the display window.
5. Clean the thermometer after of before use with soft cloth and cleaning solution listed below and store in the plastic case. Recommend to wipe with wit water soaked cloth for home use.
6. If LCD shows the symbol or LCD shows unclear it means the battery has run out. Please replace the battery within 10 minutes.

Warning:

1. No servicing/maintenance while the thermometer is in use .
2. Not for use in an OXYGEN RICH ENVIRONMENT
3. Before every use, check the device. Do not use the device or an electrode if it is damaged in any way. The continuous use of a damaged unit may cause injury, improper results, or serious danger.
4. If you have any problems with this device, such as setting up, maintaining or using, please contact with SERVICE PERSONNEL of Fudakang Industrial Co., Ltd.
5. Don’t open or repair the device by yourself.
6. Please report to Fudakang Industrial Co., Ltd. if any unexpected operation or events occur.
7. The main material of the case is ABS and the main material of the cuff is nylon. Be careful to the potential allergic reactions to these materials.
8. The typical service life of the new and unused batteries is 100 hours for continuous operation.
9. Protection against electric shock: Internally powered ME equipment
10. Protection against harmful ingress of water or particulate matter: IP22

CLEANING SOLUTION

It is suggested to wipe with soaked cloth or to wash with water.

Solution	Diluted with water	Method
Ethanol	70-80%	Wipe with soaked cloth Do not soak in solution

Note:
Any solution, dilution and method other than mentioned above might cause reliability problems with the thermometer. The patient is an intended operator.
The patient can measure, change batteries under normal circumstances and maintain the device and its accessories according to the user manual.

LIMITED WARRANTY

This thermometer is guaranteed for 5 years from the purchasing date under normal use .The warranty does not cover the damage of improper use or the battery running out. f the unit does not function properly due to defective parts or assembly, we will repair it free of charge or replace with a new one.

Explanation of Symbols:

Symbol for ‘CE”

Symbol for batch code

Symbol for manufacturer

Symbol for “electrical and electronic equipment”

Symbol for “TYPE BF APPLIED PART”

Symbol for “Follow operating instructions”

Symbol for “ RF transmitters”

IP22 Symbol for “the IP classification”

Symbol for Bluetooth

Manufacturer ： FUDAKANG INDUSTRIAL Co., Ltd

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