

# Homedics®

## non-contact infrared body thermometer



INSTRUCTION MANUAL AND WARRANTY INFORMATION

### 1-year limited warranty

HTD8813C | P/N: TIE-240A; TIE-240A-BABY | Doc# L-00683, Rev.7

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## INTRODUCTION

The Non-Contact Infrared Body Thermometer Operating Instructions intend to provide the necessary information for proper operation of HTD8813C TIE-240 Thermometer model.

General knowledge of Infrared Thermometer and an understanding of the features and functions of the HTD8813C Thermometer model are prerequisites for proper use. The Non-Contact Infrared Body Thermometer is a medical device and can be used repeatedly and has a 3-year life expectancy.

Please read the manual first before using it. If the usage is not fully understood, please stop using the thermometer.

Do not operate any of the model HTD8813C TIE-240 Thermometer without completely reading and understanding these instructions.

### NOTE:

Purchase or possession of this device does not carry any express or implied license to use with replacement parts which would, alone or in combination with this device, fall within the scope of one of the relating patents.

## SAFETY INFORMATION

This device may only be used for the purposes described in these instructions. The manufacturer cannot be held liable for damage caused by incorrect application.

The Non-Contact Infrared Body Thermometer is designed to minimize the possibility of hazards from errors in the software program by following sound and light Engineering Design Processes, Risk Analysis and Software Validation.

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## WARNING

 WARNINGS ARE IDENTIFIED BY THE WARNING SYMBOL SHOWN ABOVE.

- The Non-Contact Infrared Body Thermometer is to be operated by consumers in a home setting and primary care setting as a screening tool. This manual, accessories, direction for use, all precautionary information and specifications should be read before use.
- This product is designed to measure human body temperature on the forehead. DO NOT use it on any other body part.
- This product is intended for use in the home setting and primary care setting as a screening tool.
- DO NOT use the thermometer if it malfunctions or has been damaged in any matter.
- When the ambient temperature of the thermometer changes too much, such as moving the thermometer from one place of lower temperature to another place of higher temperature, allow the thermometer to remain in a room for 30 minutes where the temperature is between 59°F - 95°F (15°C - 35°C).
- Remove primary batteries if equipment is not likely to be used for a long time.
- This product is not waterproof. Do not immerse in water or other liquid for cleaning and disinfection. Please follow the "Care and Storage" section requirements.
- DO NOT touch the sensor of infrared detection with your fingers.
- If a cold compress is used on the forehead when a fever is present or when other measures are used to cool down, the temperature data will be low and will not be accurate when measuring the body temperature.
- When measuring the human forehead temperature, please select "body" mode. For measuring other objects, liquids, food and other temperatures, please select "surface" mode.
- This product must be operated in a stable environment. Refer to the "Care and Storage" section.
- DO NOT use near strong electrostatic or magnetic fields, thus avoiding the impact on the accuracy of the measurement data.
- DO NOT mix old and new batteries to avoid damage to the product.

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- The accuracy of the measurement may be affected when the forehead is covered by hair, perspiration, cap or a scarf.
  - Measurement results are for reference only. Contact your physician if you have or suspect you have a medical problem.
- ⚠ The device should be kept out of the reach of children and pets. When not in use, store the device in a dry room and protect it against extreme moisture, heat, lint, dust and direct sunlight. Never place any heavy objects on top of the thermometer.
- ⚠ DO NOT throw batteries into fire.
- ⚠ Only use recommended batteries. DO NOT use rechargeable batteries.
- ⚠ This thermometer is not intended to serve as a substitute for the advice of a physician or medical professional.
- ⚠ Do not drop, disassemble or modify the device.
- ⚠ Do not use this device if you think it is damaged or notice anything unusual.
- ⚠ This device is comprised with sensitive components and must be treated with care. Observe the storage and operating conditions described in the "Technical Specifications" section.
- ⚠ DO NOT perform service or maintenance while the thermometer is in use.
- ⚠ While in use, DO NOT touch the battery and the person at the same time.
- ⚠ DO NOT use the device if it is damaged, degraded, or loosened in any way. The continuous use of a damaged unit may cause injury, improper results, or serious danger.
- ⚠ Based on the current science and technology, other potential allergic reactions are unknown.
- ⚠ This equipment needs to be installed and put into service in accordance with the information provided in the ACCOMPANYING DOCUMENTS.

## OVERVIEW

### Intended Use

This Non-Contact Infrared Body Thermometer is designed to be used for intermittent measurements and monitoring of the human body temperature by consumers in the home setting and primary care setting as a screening tool.

### Description of Non-Contact Infrared Body Thermometer

- Device principle and introduction

The non-contact thermometer is a handheld, reusable, battery operated device, which can measure human body temperature on the forehead.

The operation principle is based on Infrared Sensor technology. The IR sensor can output different signals when measuring different object temperature or in different ambient temperature, and the ASIC can turn the signal from IR Sensor to a digital value and display it on the LCD.

## CONTROLS, INDICATORS AND SYMBOLS

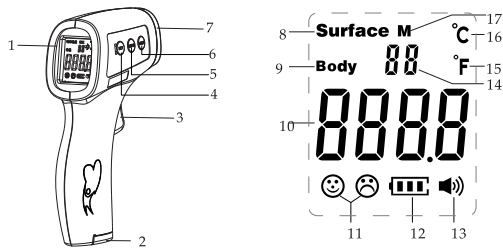


Figure 1: Infrared Body Thermometer

- |                                 |                                     |
|---------------------------------|-------------------------------------|
| 1. Liquid crystal display (LCD) | 10. Data indicator                  |
| 2. Battery Cover                | 11. Indicator of measurement result |
| 3. ON/measure button            | 12. Low Battery indicator           |
| 4. SET button                   | 13. Volume on/off indicator         |
| 5. MEMO button                  | 14. Memory Number                   |
| 6. MODE button                  | 15. Fahrenheit                      |
| 7. IR sensor                    | 16. Celsius                         |
| 8. Surface mode                 | 17. Memory indicator                |
| 9. Body mode                    |                                     |

### Thermometer Applications

Thermometer Model Number	Thermometer Style	Adult		Pediatric	
		Ear	Forehead	Ear	Forehead
HTD8813C	Non-Contact Infrared Body Thermometers		√		√

### Equipment Symbols

	Warning		Compliance with WEEE Standard
	Non sterile packaging		DO NOT THROW AWAY Intended for multiple use
	Consult instructions for use		Operating atmospheric pressure
	Operating Temperature		Serial number
	Operating Humidity		Recyclable
	Manufacturer		This device complies with Part 15 of FCC (Federal Communications Commission) Rules.
	IP22: The first number 2: Protected against solid foreign objects of $\phi$ 12.5 mm and greater. The second number: Protected against vertically falling water drops when enclosure tilted up to 15°.		

## TECHNICAL SPECIFICATIONS

Measurement Unit	°C/°F
Operating mode	Adjusted mode(Body mode) Direct mode(surface mode)
Measuring site	Forehead
Reference Body Site	Axillary
Rated output range	Body mode: 35.0°C-42.0°C/95.0°F-107.6°F Surface mode: 0.0°C-100.0°C/32.0°F-212.0°F
Extended output range	Body mode: 34.0°C-34.9°C/93.2°F-94.8°F, 42.1°C-42.9°C/107.8°F-109.2°F
Range	Body mode: 34.0°C-42.9°C/93.2°F-109.2°F Surface mode: 0.0°C-100.0°C/32°F-212°F
Accuracy	Body mode: 34.0°C-34.9°C:±0.3°C/93.2°F-94.8°F:±0.5°F; 35.0°C-42.0°C:±0.2°C/95.0°F-107.6°F:±0.4°F; 42.1°C-42.9°C:±0.3°C/107.8°F-109.2°F:±0.5°F; Surface mode:±2.0°C/±3.6°F
Display Resolution	0.1°C/0.1°F
Three-color Backlight (Color Alarm)	35.5°C-37.3°C / 95.9°F-99.1°F: Green (Normal Temperature); 37.4°C-38.0°C (Alarm point) / 99.3°F-100.4°F: Yellow (Slight Fever) 38.1°C-42.9°C / 100.6°F-109.2°F: Red (High Fever) Note: 1.Surface mode is always with Green backlight. 2. In body mode 34.0°C-35.4°C is with green backlight.
Auto Power Off Time	≤18s
Measuring Time	≤2S
Measuring Distance	1CM-5CM(0.4-2in)
Memories	50

### Power Supply Requirements

Batteries	1.5V (AAA) alkaline batteryX2 (IEC Type LR03)
Adaptable Range	2.6V~3.6V
Environmental	
Operating Condition	Operating Temperature: 15.0°C-35.0°C(59.0°F-95.0°F), Relative Humidity ≤85% atmospheric pressure: 70Kpa-106Kpa
Transport and Storage Condition	Storage Temperature: -20°C-+55°C / -4 - 131°F; Relative Humidity ≤93% atmospheric pressure: 70-106Kpa

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Dimension and Weighting	
Weight (without batteries)	90g
Size	L:138mm X W:95mm X H:40mm
Compliance	
Item	Compliant With
Equipment classification	Safety Standards: EN 60601-1: 2006+A1:2013, EN 60601-1-2: 2007
Type of protection	Internally powered equipment (on battery power)
Degree of protection	Non Applied part
Front panel and case labeling	EN ISO15223-1:2012
Temperature	EN ISO80601-2-56:2012
Home healthcare environment	EN 60601-1-11:2010

### Calculated values of the indicators according to ISO 80601-2-56

Indicators	Calculated value
Clinical bias, $\Delta_{\alpha}$	-0.027
Standard deviation, $\sigma_r$	0.14
Limits of agreement, $L_{\alpha}$	0.26
Clinical repeatability, $\sigma_c$	0.07

Note: the above value is calculated from clinical data of HTD8818A

### Safety classification of ME EQUIPMENT

Protection against electric shock	Internally powered ME equipment
Applied part	Non Applied part
Protection against harmful ingress of water or particulate matter	IP22
Mode of operation	Continuous operation

Note: Not intended to be sterilized. Not for use in an OXYGEN RICH ENVIRONMENT

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## OPERATION

### Battery installation

CAUTION: The Non-Contact Infrared Body Thermometer does not operate with dead batteries and does not input outer power. Install new batteries.

1. Pull the battery downward, toward the bottom of the Non-Contact Infrared Body Thermometer and remove the battery access door.
2. Install or replace using 2 AAA batteries in the battery compartment according to the "+" and "-".
3. Close the battery cover.

### How to Operate

#### Before Applying the Thermometer

Be sure to read and understand all warnings listed in the instructions before use.

- The thermometer is aligned with the middle of the forehead to measure body temperature (between the eyebrows center it above at the forehead level). Keep the vertical distance, press the On/Scan button, the temperature will display immediately, see Figure 2.

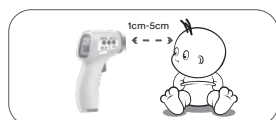


Figure 2: Measuring position and distance

- When the ambient temperature of the thermometer changes too much, such as moving the Thermometer from one place of lower temperature to another place of higher temperature, allow the thermometer to remain in a room for 30 minutes where the temperature is between 59°F to 95°F (15°C to 35°C).

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- The ambient temperature around the person should be stable, and be away from fans, air-conditioning vents, and so on.
- When moving the person from one place of lower temperature to another place of higher temperature, the person should remain in the new environment more than 5 minutes, to be consistent with the ambient temperature for the remeasurement.
- Wait at least 1 second for the next measurement. After 5 continuous measurements, it is recommended to wait at least 30 seconds and then continue measurement.
- DO NOT use the thermometer in a place where the sun is strong.
- If for some reason the forehead temperature is low, a body temperature can be taken behind the ears. See Figure 3.

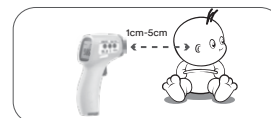


Figure 3: Align behind the ears to take measurement

### General Setup and Use

To take a measurement

1. Turn on the thermometer by pressing the On/measure button. The thermometer will perform a self-test displaying all segments for 2 seconds.
2. Align the thermometer with the forehead at the proper distance, and then press the On/measure button to start the measurement.
3. Read the data.

NOTE: You will hear 1 beep indicating the measurement is complete, if the result is a slight fever or high fever you will hear 4 beeps and the temperature will be displayed on the screen.

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Green - Normal temperature (95.9 - 99.1°F / 35.5 - 37.3°C). And the Green means ready for next measurement

Yellow - Slight fever (99.3 - 100.4°F / 37.4 - 38.0°C)

Red - High fever (100.6 - 109.2°F / 38.1 - 42.9°C)

When the result is a high fever, please consult your doctor or physician.

To ensure the accuracy of the measurement, wait at least 30 seconds after 5 consecutive measurements.

- Mode Conversion

When the device is running, pressing the MODE button to cycle between "body" mode and "surface" mode.

"body" mode is used for measuring human body temperature, the "surface" mode is used to measure the surface temperature. (The factory default is "body" mode).

- Recalling and Erasing Memory Data

The last temperature taken before the thermometer powers off is stored in memory, up to 50 measurements.

1. In the boot or shutdown state, short press the MEMO button to view the history of measured values.

2. If there are no memories, the display will show "---°F" or "---°C"

3. Temperature readings can be stored in memory. Up to 50 temperature readings can be stored into the memory cells and automatically overwrite historical data.

4. In boot mode, press and hold the MEMO button until the LCD displays "CLR" and you hear a beep. Once deleted, the memories cannot be restored.

- Parameter Setting

The thermometer can be adjusted according to the subjects of different colors and different environments data to meet the different characteristics of populations or individuals. Long press the MODE button to modify the measurement parameters.

1. Unit Set-F1

Under the boot mode long press SET button to enter F1, press the MODE or MEMO button to switch Celsius and Fahrenheit temperature units, and press the SET button to confirm the unit settings (factory default is °F).

2. Fever Alert Set-F2

Under F1 state, press SET button to enter the F2, press the MODE button to decrease 0.1 °C, press the MEMO button plus 0.1 °C, long press to accelerate the speed of temperature regulation, and finally press the SET button to save. (The factory default is 38.1°C)

3. Prompt Sound Settings-F3

Under F2 state, short press SET button to enter F3, press MODE or MEMO button to set voice switch, and press the SET button to confirm the settings. (The factory default is the voice prompt to open).

4. Overall Temperature Offset Value-F4









To meet the different colors and characteristics of the population or the environment caused by seasonal temperature change, is large that need for temperature detection and debugging.

Under F3 state, short press the SET button to enter F4, press the MEMO button to plus 0.1 °C, press the MODE button decrease 0.1 °C, long press fast subtraction temperature, and then SET button to confirm the parameter setting. Parameter adjustment range: -5°C and + 5°C (factory default is 0).

5. Exit Setting Mode

In the F4 mode, press the SET button and the screen will automatically turn off, exit setting.

## TROUBLESHOOTING

MESSAGE	SITUATION	SOLUTION
	Temperature taken in not within typical human temperature range. (34.0-42.9°C or 93.2-109.2°F).	Make sure the forehead thermometer is for forehead measurement, not other human body site.
	Measured over the distance: 1-5 cm (0.4-2in). Incorrect test position.	Optimum measurement distance is 1cm See Figure 2 measuring position and distance.
	Subject's forehead hair, Antipyretic stickers, head with sweat, etc.	Subjects sit quietly 5-10 minutes before the test.
	Some people's body temperature is lower than the general population.	The main concern fever temperature.
	F4 overall temperature offset is set incorrectly.	Adjust the temperature offset value.
	Operating temperature exceeds the range of specified temperature.	Move to a room within the operating range, wait 30 minutes before taking temperature.
	The screen flicker, automatic turn off.	Replace battery or the product has been damaged, needs repairs.
	Battery capacity is too low. Taking temperature is not allowed.	Install a new battery.
	Ambient temperature changes too fast.	Wait until the ambient temperature is stable.
	1- Power is off 2- Improper battery installation. 3- The battery is exhausted. 4- Display remains blank.	1- Press ON button again. 2- Check the battery polarity. 3- Replace with a new battery. 4- Contact the retailer or service center.



**NOTE:** Cleaning sensor dirt: If there are small foreign objects such as floating dust and droplets falling into the probe, it should be cleaned up in time. Please gently wipe the probe with a damp cotton swab first when cleaning, then dry it with a dry cotton swab, then let it sit for a few minutes for normal use.

Avoid corrosion of the product: Ensure that no liquid enters the interior of the thermometer, never use abrasive cleaning agents, thinners or benzene for cleaning and never immerse the instrument in water or other cleaning liquids.

## REPLACING THE BATTERIES

- Replace the batteries if the low battery symbol appears on the display, or when any button is pressed and nothing appears on the display.
- Open and release battery cover according to the indicator on the surface of the battery cover. Before changing the battery be sure the system is powered off.
- Remove the dead batteries and replace with 2 new AAA alkaline batteries. Make sure to align properly as indicated inside the battery cover.
- Slide the battery cover back in until it snaps in place.
- DO NOT dispose of used batteries in household waste. Take them to special local collection sites.
- If the device does not turn on, repeat step 1, take the batteries out, wait 30 seconds, then put them back in. If it still does not turn on, refer to the warranty.

### Warning

 DO NOT RECHARGE, DISASSEMBLE OR DISPOSE OF IN FIRE.

- The typical service life of the new and unused batteries is 2000 measurements for an operation time of 18s.
- Only use the recommended batteries, do not recharge non-rechargeable batteries and do not burn them.
- Remove the batteries if the thermometer is not to be used for a long period.
- Clean contacts on battery and in battery compartment with a soft, dry cloth each time you install batteries.
- Batteries are hazardous waste. DO NOT dispose of them together with household garbage.
- DO NOT dispose of batteries in fire. Batteries may explode or leak.
- Recycle or dispose of properly in accordance with local, state, province, and country regulations.
- Replace all batteries at the same time. Do not mix new and used batteries. Do not mix alkaline, standard, or rechargeable batteries. Use only the size and type of batteries specified.
- Ensure the batteries are installed correctly with regard to polarity (+/-).
- Keep batteries away from children.
- Batteries are small objects and could be ingested. If swallowed, contact a physician at once.
- Remove depleted batteries from the unit promptly. Dispose of used batteries safely.

## CLEANING, CARE AND STORAGE

- The lens is very delicate.
- It is very important to protect the lens from dirt and damage.
- Use a clean, soft cloth to clean the surface of the device and LCD. DO NOT use solvents or immerse the device into water or other liquids.
- Always keep the thermometer within the storage temperature range (-4°F to 131°F or -20°C to 55°C) and humidity range (≤ 93% non-condensing).
- It is recommended to store the thermometer in a dry location free from dust. DO NOT expose the thermometer to direct sunlight, high temperature/humidity or any extreme environment, otherwise the function will be reduced.
- When the ambient temperature of the thermometer changes too much, such as moving the thermometer from one place of lower temperature to another place of higher temperature, allow the thermometer to remain in a room for 30 minutes where the temperature is between 59°F to 104°F (15°C to 35°C).

## DISPOSAL

- Recycle or dispose of properly in accordance with local, state, province, and country regulations.
- At the end of its life, the appliance should not be disposed of in household rubbish. Inquire about the options for environmentally friendly and appropriate disposal. Follow local ordinances.

## CALIBRATION

- The thermometer is initially calibrated at the time of manufacture. If this thermometer is used according to the use instructions, periodic readjustment is not required. If at any time you question the accuracy of temperature measurements, please contact Consumer Relations.

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## WARRANTY

Homedics sells its products with the intent that they are free of defects in manufacture and workmanship for a period of one year from the date of original purchase, except as noted below. Homedics warrants that its products will be free of defects in material and workmanship under normal use and service. This warranty extends only to consumers and does not extend to Retailers.

To obtain warranty service on your Homedics product, contact a Consumer Relations Representative by telephone for assistance. Please make sure to have the model number of the product available.

Homedics does not authorize anyone, including, but not limited to, Retailers, the subsequent consumer purchaser of the product from a Retailer or remote purchasers, to obligate Homedics in any way beyond the terms set forth herein. This warranty does not cover damage caused by misuse or abuse; accident; the attachment of any unauthorized accessory; alteration to the product; improper installation; unauthorized repairs or modifications; improper use of electrical/power supply; loss of power; dropped product; malfunction or damage of an operating part from failure to provide manufacturer's recommended maintenance; transportation damage; theft; neglect; vandalism; or environmental conditions; loss of use during the period the product is at a repair facility or otherwise awaiting parts or repair; or any other conditions whatsoever that are beyond the control of Homedics.

This warranty is effective only if the product is purchased and operated in the country in which the product is purchased. A product that requires modifications or adoption to enable it to operate in any other country than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications is not covered under this warranty.

THE WARRANTY PROVIDED HEREIN SHALL BE THE SOLE AND EXCLUSIVE WARRANTY. THERE SHALL BE NO OTHER WARRANTIES EXPRESS OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OR ANY OTHER OBLIGATION THE PART OF THE COMPANY WITH RESPECT TO PRODUCTS COVERED BY THIS WARRANTY. HOMEDICS SHALL HAVE NO LIABILITY FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES. IN NO EVENT SHALL THIS WARRANTY REQUIRE MORE THAN THE REPAIR OR REPLACEMENT OF ANY PART OR PARTS WHICH ARE FOUND TO BE DEFECTIVE WITHIN THE EFFECTIVE PERIOD OF THE WARRANTY. NO REFUNDS WILL BE GIVEN. IF REPLACEMENT PARTS FOR DEFECTIVE MATERIALS ARE NOT AVAILABLE, HOMEDICS RESERVES THE RIGHT TO MAKE PRODUCT SUBSTITUTIONS IN LIEU OF REPAIR OR REPLACEMENT.

This warranty does not extend to the purchase of opened, used, repaired, repackaged and/or resold products, including but not limited to sale of such products on internet auction sites and/or sales of such products by surplus or bulk resellers. Any and all warranties or guarantees shall immediately cease and terminate as to any products or parts thereof which are repaired, replaced, altered, or modified, without the prior express and written consent of Homedics. This warranty provides you with specific legal rights. You may have additional rights which may vary from state to state. Because of individual state regulations, some of the above limitations and exclusions may not apply to you.

For more information regarding our product line in the USA, please visit: [www.homedics.com](http://www.homedics.com)

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## EMC DECLARATION


- This equipment needs to be installed and put into service in accordance with the information provided in the ACCOMPANYING DOCUMENTS;  
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.
- 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.
- CAUTION: this unit has been thoroughly tested and inspected to assure proper performance and operation!
- 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 manufacturer's declaration – electromagnetic emission		
The Non-Contact Infrared Body Thermometer is intended for use in the electromagnetic environment specified below. The customer of the user of the Non-Contact Infrared Body Thermometer should assure that it is used in such an environment.		
Emission test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The Non-Contact Infrared Body Thermometer 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 emission CISPR 11	Class B	The Non-Contact Infrared Body Thermometer is suitable for use in all establishments, other than domestic 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	

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Guidance and manufacturer's declaration – electromagnetic immunity			
The Non-Contact Infrared Body Thermometer is intended for use in the electromagnetic environment specified below. The customer or the user of Non-Contact Infrared Body Thermometer 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%.
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.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U <sub>n</sub> (-95% dip in U <sub>n</sub> ) for 0.5 cycle 40% U <sub>n</sub> [60% dip in U <sub>n</sub> ] for 5 cycles 70% U <sub>n</sub> [30% dip in U <sub>n</sub> ] for 25 cycles <5% U <sub>n</sub> (-95% dip in U <sub>n</sub> ) for 5 sec	Not applicable	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Non-Contact Infrared Body Thermometer requires continued operation during power mains interruptions, it is recommended that the Non-Contact Infrared Body Thermometer be powered from an uninterruptible power supply or a battery.
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 <sub>n</sub> is the a.c. mains voltage prior to application of the test level.			

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Guidance and manufacturer's declaration - electromagnetic immunity			
The Non-Contact Infrared Body Thermometer is intended for use in the electromagnetic environment specified below. The customer or the user of the Non-Contact Infrared Body Thermometer 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 Non-Contact Infrared Body Thermometer, 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 $d=2.3\sqrt{P}$ 80 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 metres (m).  Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey <sup>a</sup> should be less than the compliance level in each frequency range. <sup>b</sup>  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 Non-Contact Infrared Body Thermometer is used exceeds the applicable RF compliance level above, the Non-Contact Infrared Body Thermometer should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Non-Contact Infrared Body Thermometer.			
b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			

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Recommended separation distances between portable and mobile RF communications equipment and the Non-Contact Infrared Body Thermometer.			
The Non-Contact Infrared Body Thermometer is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Non-Contact Infrared Body Thermometer can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Non-Contact Infrared Body Thermometer 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.			

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## SUPPLIER'S DECLARATION OF CONFORMITY

**Product Description:** Non-Contact Infrared Body Thermometer  
**Model Numbers:** TIE-240A, TIE-240ABABY  
**Trade Name:** Homedics

### 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.

### U.S. Contact Information

**Company:** Homedics, LLC.  
**Address:** 3000 N. Pontiac Trail, Commerce Township, MI 48390  
**8:30am-7:00pm EST Monday-Friday 1-800-466-3342**

Homedics is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user 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 to 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.

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# Homedics

For service or repair, do not return this unit to the retailer.  
Contact Homedics Consumer Relations:

Email: [cservice@homedics.com](mailto:cservice@homedics.com)  
Phone: 1-800-466-3342  
Business Hours: 8:30am-7pm EST, Monday-Friday

In USA Distributed by:  
Homedics USA, LLC  
3000 N Pontiac Trail  
Commerce Township, MI 48390

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Town, Dongguan City, Guangdong  
Province, P.R.China

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Please visit [www.homedics.com/patents](http://www.homedics.com/patents).

Model: HTD8813C  
P/N: TIE-240A; TIE-240A-BABY  
IB-TIE240D