DHF
标准品样稿
SIZE：80*140MM 黑白印刷/整本
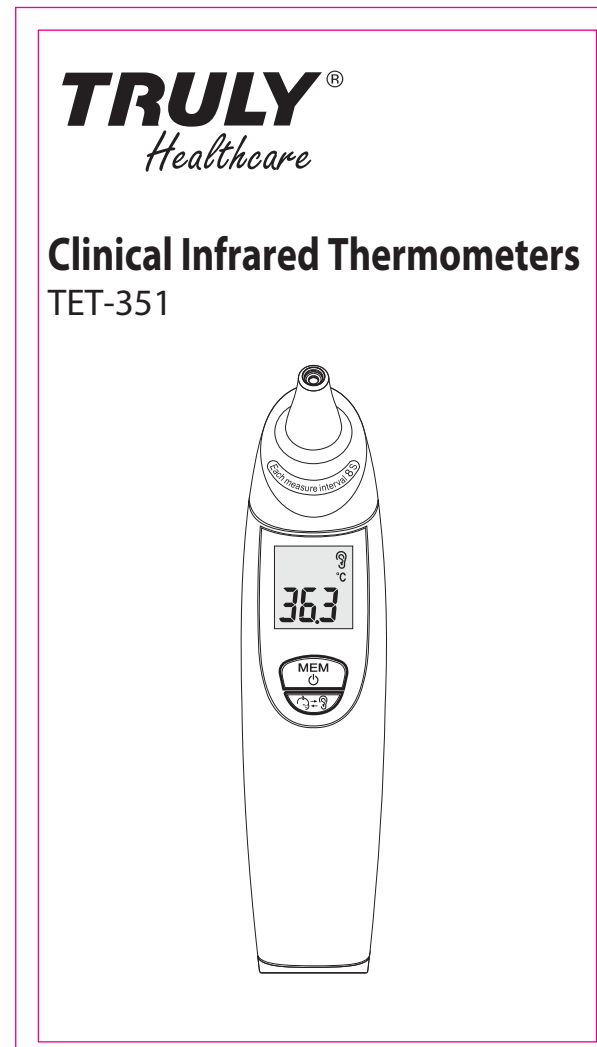
TRULY®
Healthcare

Clinical Infrared Thermometers
TET-351

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Contents

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Statement
If replacing the original parts with parts not provided by the manufacturer may cause measurement errors. When the unit or accessories in the end of the service life, it should be handled in accordance with local regulations or returned to the manufacturer, and cannot be discarded at will.

Intended use
The TRULY infrared Thermometer TET-351 is an electronic clinical thermometer using an infrared sensor to detect human body temperature from the auditory canal and from the forehead in the neonatal, pediatric and adult population used in the home setting.

EC REP	Authorized Representative in the European Community
CE 0123	CE Mark: conforms to essential requirements of the Medical Device Directive 93/42/EEC.
IP22	IP is short for Ingress Protection which means that Protection's level.
⬐	Date of manufacture.
🏭	Manufacturer
SN	Specifies serial number
🏃	Type BF applied part
⎓	Direct current
🔲	The device should not be used after the end of the shown or the day
🗑	DISPOSAL: Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.
⚠	Caution
📖	Follow instructions for use

FCC ID:2ABG7 -TET-351

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Thank you for purchasing the electronic thermometer. Please read through this manual before using the product.

Cautions
1. Please handle the unit with care. Do not drop or shock the unit.
2. Do not expose the unit under the sunlight. Do not immerse the unit in water.
3. Keep the device out of reach of infants, children or pets, since inhalation or swallowing of small parts (e.g. carpet feet, batteries) can be dangerous or even fatal.
4. Avoid touching the lens with bare hands.
5. Do not use in areas with strong electromagnetic interference.
6. When the measurement data exceeds the normal temperature of the human body, please consult your doctor.
7. If the unit is not working properly, please contact customer service.
8. Do not disassemble the unit. Open the battery cover only when replacing batteries. Dispose of the replaced battery in accordance with local waste battery recycling requirements.
9. If the unit needs to be scrapped after the expiration date, please dispose of it properly according to local regulations.
10. Please contact manufacturer if the unit enter calibration mode.
11. Use the thermometer at room temperature, or within10-40℃.
12. Do not store the unit long period of time under -25℃ or above 70℃, or relative humidity above 90%.
13. For other precautions, please follow "Cleaning and Care" in this manual.
14. The device is not suitable for use in the presence of flammable anesthetic mixtures with air or with oxygen or nitrous oxide.
15. The operator shall not touch battery compartment and the patient simultaneously.
16. Manufacturer will provide circuit diagrams, component part lists, descriptions, calibration instructions to assist to SERVICE PERSONNEL in parts repair.

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Warning:
1. When the body has a fever or the ambient temperature is low, the exposed forehead is affected by the low temperature of the environment. The human body will have a high body temperature and a low forehead temperature. If the digital thermometer tests the forehead with low value, please test the temples, ear roots or other parts of the human skin covered with clothing with higher temperature.
2. The detector may not be directly point to the eardrum due to the small ear holes of children, the curved ear holes of adults, or affected by earwax and ear hair. If the digital thermometer tests the ear temperature with low value, please test the temples, or other parts of the human skin covered with clothing with higher temperature.
3. The human body is a very complex biological integrated system. Affected by the environment and human body, the electronic thermometer may sometimes display abnormal body temperature (such as when body fever but forehead temperature or ear temperature show low value). Test the armpit temperature by mercury thermometer and consult a doctor in time.
4. Please do not test children's ear temperature continuously. Insert the probe into child in the ear canal, can lead to infrared sensor temperature rise and cause each measurement data inconsistency, Wait a while after each measured test, which can guarantee the accuracy of temperature measurement.

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Correct use is the key to accuracy of measurement , otherwise it may cause measurement error. Since infrared measurement has higher requirements on the surrounding environment, please follow the instructions as below

1. When measuring ear temperature ,it's best to try to aim at the eardrum. It helps measure the temperature more accurately.
2. When the person to be measured comes from a place with a large temperature deference from the measurement environment, it should stay in the test environment for at least 5 minutes, and then measure after the temperature is consistent with the environment, otherwise it will affect the measurement result.
3. When the instrument is taken from a place with a large temperature deference from being measured and used, the instrument should be placed in the used environment for 20 minutes before use.
4. The surrounding environment of the person to be tested must be stable, and it cannot be tested in places with large arrows such as fans and air outlets of air conditioners.
5. Do not use the instrument in strong sunlight.
6. When measuring, it is recommended to measure about 3 times each time, the most displayed set of data shall prevail.

Special Features
1. Measurement Range: Body: 32~43℃.
2. Accuracy ±0.2℃. (Outside 35~42℃ measurement range, accuracy ±0.3℃).
3. 1 second measurement time.
4. LCD display.
5. Red,orange and green backlight reminder
6. Ear temperature and forehead temperature can store 30 latest measured values each.
7. Automatic power off when thermometer is not in use after 1 minute.
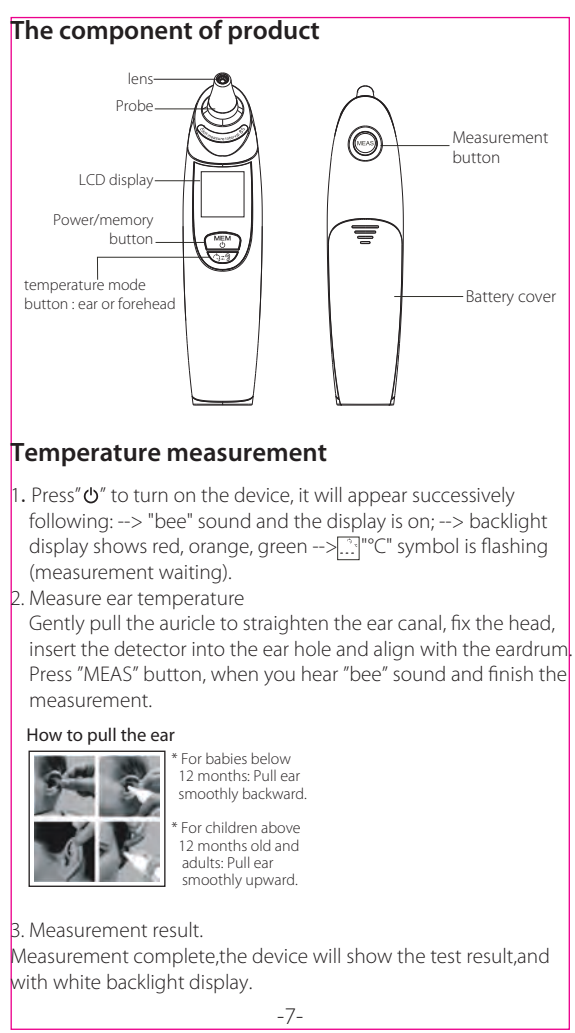8.Unit of Measurement: ℃/℉.

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Measurement Principle
All objects, solids, liquids and gases radiate infrared energy to the surrounding world. The energy that the human body radiates to the outside world is basically based on infrared radiation. The electronic thermometer can accurately measure the body temperature by accurately measuring the weak infrared energy released by the human body, and then through complex calculation processing and various compensation corrections. The product is composed of a built-in infrared probe head and related hardware and software, can sense, analyze and record the temperature of the measured object and the environment.

The infrared radiation sensor is activated when the user places the thermometer near certain parts of the body and space presses the Power/Measure button. The thermal energy generated by the arterial blood flow is quickly detected by the infrared sensor, so that the body temperature is accurately measured.

Product scope
For measurement of body temperature through eardrum and forehead.

Normal body temperature range according to World Health
BODY TEMPERATURE:

Measurement site	Normal temperature
Ear temperature	35.8℃~38℃
Forehead temperature	34.7℃~37.8℃
Oral temperature	35.5℃~37.5℃
Armpit temperature	34.7℃~37.3℃
Anal temperature	36.6℃~38℃

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The component of product

lens
Probe
LCD display
Power/memory button
temperature mode button : ear or forehead
Measurement button
Battery cover

Temperature measurement
1. Press"Φ" to turn on the device, it will appear successively following: --> "bee" sound and the display is on; --> backlight display shows red, orange, green -->[℃]"℃" symbol is flashing (measurement waiting).
2. Measure ear temperature
   Gently pull the auricle to straighten the ear canal, fix the head, insert the detector into the ear hole and align with the eardrum. Press "MEAS" button, when you hear "bee" sound and finish the measurement.

How to pull the ear

* For babies below 12 months: Pull ear smoothly backward.
* For children above 12 months old and adults: Pull ear smoothly upward.

3. Measurement result.
   Measurement complete,the device will show the test result,and with white backlight display.

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Green: 35.8℃~37.3℃
Orange: 37.4℃~38.0℃
Red: 38.1℃~43℃,high temperature, please consult your doctor.
No backlight:32℃~35.7℃

4. Interval Between Measurements
If you need to take another measurement, allow an interval of 8 seconds until the signal "℃ / ℉" flashes. If you press the measurement button within 8 seconds, the beep signal will be sounded.And there is no measurement result displayed.
5. The temperature is automatically recorded.
   * Push Power/memory button until The "OFF" signal is displayed
   * the thermometer will turn off Automatically without use for 1 minute.

Forehead measurement
1. Turn on the thermometer.
2. Press the button to select the forehead mode.
3. Place the detector at the position of the eyebrow, press the measurement button, and the measurement is completed after hearing the sound "bee".
4. While taking the temperature, the screen indicates and audible bips sound.
5. Release the measurement button, wait for the validation sound beep before removing the thermometer.
6. Read the temperature on the screen.
7. The temperature is automatically recorded.
8. Interval time is same to the ear mode.

Note:
When the ambient temperature is low, the skin temperature of the forehead is quite different, and the detector is not aligned with the eyebrow, which will cause the forehead temperature measurement temperature to be low.

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This temperature reading must be considered as an estimation. The temperature reading of the forehead can be influence by environmental conditions because the probe is more sensitive to perspiration, sebum,physical activity and environmental temperature.

It is recommended that you wipe the forehead before taking a reading, In case of important differences of in any doubt, the ear measurement must be pointed out, we remind you that there is a significant difference between an ear temperature reading and a forehead temperature reading.

When the Measurement Result is Abnormal
1. Possible causes for high temperature:
   * After exercise, meal, or crying.
   * Prolong is staying in high temperature environment.
   * Thermometer is taken out from low temperature environment. Keep the thermometer in room temperature for at least 30 minutes before using.
2. Possible causes for low temperature:
   * The probe is dirty.
   * Just exposed in cold temperature environment before taking measurement.
   * Forehead: The probe is not facing forehead in straight.
   * The thermometer is pulled out from the ear before measurement complete.
   * The probe is not fitted snugly into the ear canal.
   * The probe is not facing the ear drum or is not placed in a corrective position in the canal. See "Correct Measurement Method".
   * Excess ear wax build-up.
3. Temperatures measured from left and right ears are different: There could be slight difference in temperatures when taking from both ears. Therefore, always take the temperature from the same ear.

℃ / ℉ unit conversion formula
℉=1.8x℃+32

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Unit(℃ / ℉) Switch
When the product is in off state,press and hold "power/memory" Button for 10 seconds until the display shows " ℃" or " ℉" alternately.
Release the button when the display is showing your desired unit.

Correct Measurement Method
1. Ensure the probe is facing eardrum In straight line. Otherwise, the measured temperature will be lower than the actual body temperature.
2. For accurate result, clean the probe with cotton bud before measuring.

36.8℃   Lower measured temperature

Memory function
This thermometer stores the last 30 temperature readings.
* When power on, press power/memory button to recall first reading.
* Repeat pressing power/memory button to recall the next reading.
* Delete memory:
  Press both power/memory and measurement buttons and hold for 3 seconds. The signal "Clr" displayed and the memory will be deleted.

Replacing the Batteries
This thermometer is powered by 2 AAA batteries. When the power is low, the low battery signal is displayed. To replace batteries:
1. Press and push the battery cover to open it.
2. Remove the old batteries and replace with new ones. Make sure the batteries are in right polarity direction.
3.Close the battery cover.

Note:
To protect the environment, dispose of empty batteries at your retail store of at appropriate collection sites according to national or local regulations.

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Disposal

This product includes removable parts and accessories, and cannot be disposed with household waste. All users must return electrical and electronic equipment to a separate waste collection and collection center that specializes in electrical and electronic equipment for disposal in order to comply with 2002/96 / EC . Otherwise, you can recycle it for the retailer you purchased. Violations of this rule will result in severe penalties.

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact you local government for information regarding the collection systems available. If electrical appliances are disposed of in land_lls or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

Cleaning and Maintenance
When using the product, please follow the prompts when you find the following conditions.
1. External dirt: Wipe the dirt with a clean soft cloth with water, or use a cotton swab with medical alcohol. Wiping with medical alcohol can also have sterilization purpose. Take care not to add too much water or alcohol to prevent damage to the inside of the instrument.
2. Internal dirt: The black glass lens of the internal probe is an important device. Do not touch or press with your fingers or other objects, otherwise it will affect the accuracy of the measurement. When the glass lens surface is dirty, please wipe the lens surface with 95% anhydrous alcohol with a cotton swab.
3.Storage: Keep in a dry, dark place out of direct sunlight.

Note:
Do not wipe the lenses with 75% sterile alcohol (residual water marks).
Do not use other chemical agents to wipe the lens (damage the lens).

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Display Message

Display message	Situation	Solution
Er	Ambient temperature is out of operating range (10-40℃) or the environment temperature is not stable.	Allow the thermometer to remain in room temperature (10-40℃) for 30 minutes.
h1	Temperature measured is higher than normal human temperature (above 43℃)	Check the measured object and take a new measurement.
Lo	Temperature measured is lower than normal human temperature (below 32℃)	Check the measured object and take a new measurement.
🔋	Low battery	Replace batteries

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Product specification

Project	Content
Measuring type	Infrared Thermometer
Measuring mode	Ear/Forehead temperature
Accuracy	±0.2℃（Surrounding：16℃~35℃）
Measurement range	32℃~43℃
Indicator Functions	LCD display
Low voltage tip	< 2.6V±0.1V
Display resolution	0.1℃
Unit	℃，℉
Operation Environment	Ambient temperature:10℃~40℃ ; Relative humidity :15% to 90% ; Atmospheric pressure : 70kPa ~ 106kPa
Storage temperature	Ambient temperature:-25℃~70℃ ; Relative humidity : ≤90%; Atmospheric pressure : 70kPa ~ 106kPa
Automatic shutdown	1 minute after not being used
Memory	30 groups memory
Battery	2 x AAA
Used Life Span of Battery	1000 times
Service life	5 Year
Software version	A01
Contents of the packaging	batteries.manual
Size	152x52x36 mm
Weight	About 66g (Not including batteries)

Note: Subject to modification without prior notice.

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Normative references
1. TET-351 needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the ACCOMPANYING DOCUMENTS;
2. Portable and mobile RF communications equipment can affect TET-351.

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	Not applicable
Voltage fluctuations/flicker emissions IEC 61000-3-3	Not applicable

Normative references (Continued)

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	Not applicable	Not applicable
Surge IEC 61000-4-5	Not applicable	Not applicable
Voltage dips, short interruptions and voltage variations on power supply Input lines IEC 61000-4-11	Not applicable	Not applicable
Power frequency magnetic field IEC 61000-4-8	30 A/m 50Hz/60Hz	30 A/m 50Hz/60Hz
Conducted RF IEC61000-4-6	Not applicable	Not applicable
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 U₁ is the a.c. mains voltage prior to application of the test level.

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Normative references (Continued)

Guidance and manufacturer's declaration - electromagnetic Immunity

Radiated RF IEC61000-4-3 /Test specification 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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1 Main safety features of infrared electronic thermometer
1.1 Type of anti-shock: Internal power supply
1.2 Type of anti-shock: BF type application
1.3 Degree of protection against ingress: Not applicable
1.4 degree of safety when used under flammable anesthetic gas mixed with air or flammable anesthetic gas mixed with oxygen or nitrous oxide: Non AP/APG type.
1.5 operating mode: Continue to operate
1.6 Rated voltage: d.c. 3V
1.7 Input power: Not applicable
1.8 The thermometer has no application part with protection against defibrillation discharge effects
1.9 The thermometer has no signal output section or input section
1.10 The thermometer is a portable device

2 The Temperature sensor is treated as the applied part.

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Connect device via Bluetooth

1. Installation
Prior to first use, Download and install" 🔲 TRULY Healthcare " application on your device. (Bluetooth 4.0 capabilities,e.g.ios 11.0 ,or Android 7.0).
download link
IOS https://www.pgyer.com/1gi
Android heps://www.pgyer.com/sp3J
Login account:Moblie account
Install password :123456

2. Open " 🔲 TRULY Healthcare" application Pressure icon on Measurement screen.

3.Turn on Bluetooth"Allow";
4.Click"Thermometer".
5. Press the "Start" button.
6. When the measurement is complete, the temperature will display on Thermometer monitor & press "Save" Measurement data.
7. All the measurement data will be saved in the app.

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FCC 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.

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

This equipment should be installed and operated with a minimum distance of 0mm between the radiator and your body.

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