Physio® logic

Now you know™

ProScan™

Non-Contact Infrared Thermometer

Model: 016-660

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- Stores last 32 temperature readings
- Displays in °C or °F
- Auto shut-off conserves battery
- Longevity: 100,000 readings
- 3 year warranty
- 2 AA batteries included

INTRODUCTION

Congratulations, you now own the ProScan™ Non-Contact Infrared Thermometer, our latest infrared technology.

This innovative technology allows temporal artery (T.A.) temperature to be taken at a distance of about 3 cm - 5 cm away from the forehead. It has been demonstrated that this method of T.A. temperature reading is more precise than the tympanic thermometry and better tolerated than rectal thermometry[1,2]. This means accurate, reliable and safe readings in an instant.

As with any thermometer, it is essential to use the ProScan™ Non-Contact Thermometer properly to ensure accurate temperatures.

Intended Use: This non-contact IR thermometer is designed for body temperature measurement without contacting the human body.

The IR thermometer is indicated for home use for people aged 2 and up.

Please read these instructions carefully before using this product and keep the instructions and your ProScan™ thermometer in a safe place.

[1]Greenes D, Fleisher G. Accuracy of a Noninvasive Temporal Artery Thermometer for Use in Infants, Arch Pediatr Adolesc Med 2001; 155:376.

[2]Allegaert, Casteels, van Gorp, Bogaert, Tympanic, infrared skin, and temporal artery scan thermometers compared with rectal measurement in children: a real-life assessment. Curr Ther Res Clin Exp. 2014 May 8;76:34-8. doi: 10.1016/j.curtheres.2013.11.005.eCollection 2014.

ADVANTAGES OF TEMPORAL ARTERY (T.A.) TEMPERATURE

The ProScan™ Non-Contact Thermometer has been designed to produce an instant forehead temperature reading without any contact with the temporal artery. As this artery is quite close to the surface of the forehead skin, it allows precise reading of temperature. This artery is linked to the heart by the carotid artery which is directly linked to the aorta. It forms part of the main trunk of arterial system. The efficiency, speed and comfort of taking a temperature from this area make it ideal compared to other temperature reading methods.

SAFETY PRECAUTIONS

- This device may be used for professional purposes or for personal home use. It must only be used for the purposes described in this instruction manual.
- This device must only be used in an ambient temperature range of between 10°C and 40°C. Do not expose this thermometer to extreme temperature conditions of > 55°C or < -20°C.
- This device must always be kept in a clean, dry place.
- Do not drop the thermometer. Protect it from severe impact and shock.
- Do not expose the thermometer to sunlight or to water.
- Do not use this device in relative humidity higher than 85%.
- The protective glass over the lens is the most fragile part of the thermometer. Do not touch the glass with your fingers.
- Clean the glass with a cotton swab lightly moistened with 95% alcohol. Never use abrasive cleaning agents.
- Never use rechargeable batteries.
- Remove the batteries when thermometer is not used for an extended period of time to conserve battery life.
- Infrared thermometers should not be used on children under 2 years of age. For older children infrared thermometers should not be used to manage important health concerns.
- Use of this thermometer is not intended as a substitute for consultation with your healthcare professional.
- Infrared thermometers should not be used shortly after exercise, bathing or coming indoors.
- Do not disassemble the thermometer. Do not attempt to repair this device yourself. Should a problem occur, please contact A.M.G. Medical Customer Service.
- This thermometer should only be used under the supervision of an adult.
- Keep batteries out of reach of children.

IMPORTANT NOTES

- This thermometer is calibrated and ready to use.
- The reliability of the reading cannot be guaranteed if the body temperature is measured over any part of the body that is not the forehead temporal region.
- Body temperature increases by 0.5°C between 6:00 AM and 3:00 PM.
- Women have a temperature that is higher, on average, by around 0.2°C. Their temperature also varies in accordance with their ovarian cycle. It rises by 0.5°C in the second half of the cycle and at the early stages of pregnancy.
- When sitting, body temperature is lower by about 0.3°C to 0.4°C then when standing.

Age Range	Normal body Temperature	Fever	High Fever
24 - 36 months* (96.6°F - 100.5°F)	35.9°C - 38.0°C (100.6°F - 102.2°F)	38.1°C - 39.0°C (> 102.2°F)	> 39.0°C
> 3 years*	35.4°C - 37.7°C (95.7°F - 99.9°F)	37.8°C - 39.4°C (100.0°F - 103.0°F)	≥ 39.5°C (≥ 103.1°F)
11 - 65 years**	35.9°C - 37.6°C (96.6°F - 99.7°F)	≥ 37.7°C (≥ 99.8°F)	
> 65 years**	35.8°C - 37.5°C (96.4°F - 99.5°F)	≥ 37.6°C (≥ 99.6°F)	

*Herzog L, Phillips S. Addressing Concerns About Fever. Clinical Pediatrics. 2011; 50(#5) 383-390.

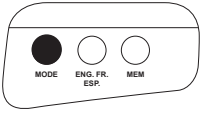
** Private field study, for information purposes only.

APPEARANCE, CONFIGURATION AND MENU FUNCTIONS

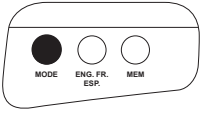
Choosing the Temperature Unit of Measure

Note: ProScan™ Non-Contact default is °C.

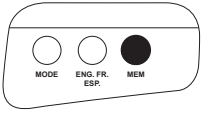
1. When the device is “on”, press **“MODE”** button for **2 seconds,** the screen will display “F1”.



2. Then press **“MODE”** button to switch between degree Celsius (°C) and Fahrenheit (°F).



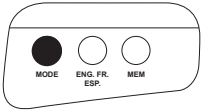
3. Press **“MEM”** button 3 times to confirm.



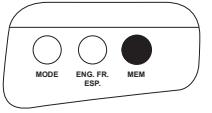
Audio Alert Set-up

Note: The audio alert threshold default value is 38°C (100.4°F) and is for body and surface temperature only. If the audio alerts threshold default settings are changed, only the audio alerts will be pertinent, not the colour alerts.

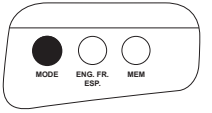
1. When the device is “on”, Press **“MODE”** button for **2 seconds,** the screen will display “F1”.



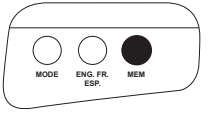
2. Then press **“MEM”** button once, the screen will display “F2”.



3. Press **“MODE”** button and choose the temperature for the alarm from 37.3 °C to 39.1 °C (99.1 °F to 102.4 °F).



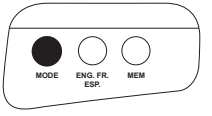
4. Press **“MEM”** button 2 times to confirm.



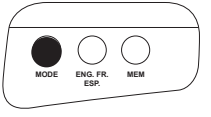
Choice of Default Display Mode: Body or Surface Temperature

Note: The ProScan™ Non-Contact IR Thermometer default is set to BODY mode.

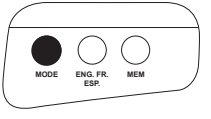
1. When the device is “on”, press the **“MODE”** button and the screen should display **Body...°C,** which means that it is set to read **“Body Temperature”.**



2. Press the **“MODE”** button again, the screen should display **Surface Temp....°C** This means it is in **“Surface Temperature Mode”.**



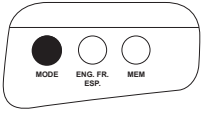
3. Press the **“MODE”** button again, if the screen displays: **Room...°C,** it is **“Room Temperature Mode”.**



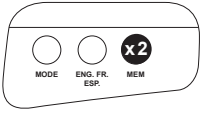
How to Calibrate the Thermometer

Note: The ProScan™ Non-Contact Thermometer default is 0.0°C as the thermometer is already calibrated at the factory. You can calibrate your thermometer, but we recommend not to modify this setting.

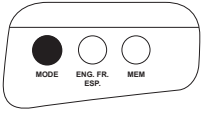
1. When the device is “on”, Press **“MODE”** button for **2 seconds.**



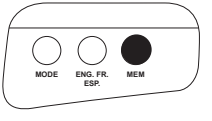
2. The screen will display “F1”, then press **“MEM”** button twice, the screen will display “F4”.



3. Press the **“Mode”** button to choose the offset value from -3 °C to 3 °C.



4. Confirm by pressing the **“MEM”** button.

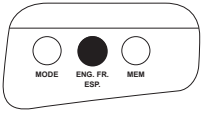


Note: If in doubt, do not modify this setting.

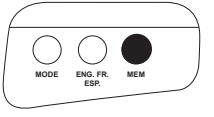
Each time there is a significant change in the ambient temperature due to a change in environment, allow the ProScan™ Non-Contact Thermometer to adapt to the new ambient temperature for at least 15 minutes before using it.

Audio ON/OFF & Language Selection

1. When the device is “on” press the **“ENG. FR. ESP.”** button to display a choice of three languages **(English, French and Spanish),** or **“Off”** to close the audio.



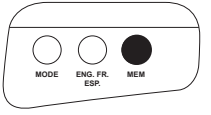
2. To confirm selection, press the **“MEM”** button.



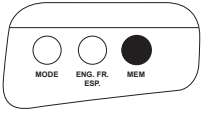
Note: Audio default is “ON”

DATA MEMORY

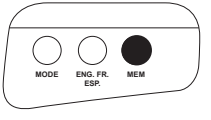
1. When the device is on, press the **"MEM"** button to display the last temperature and to view of the last 32 measurements.



2. When the device is on, press **"MEM"** button and hold for **5 seconds** to delete memory data.



3. Then press **"MEM"** button again, the display will show "CLr".

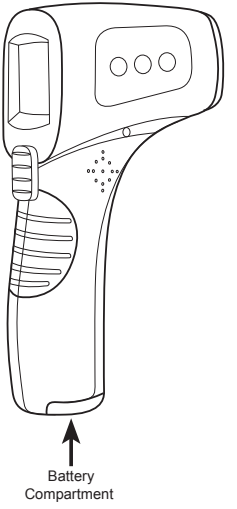


TEMPERATURE READING OPTIONS

1. The ProScan™ Non-Contact Thermometer has been specially designed to take the body temperature.
2. You can also use the ProScan™ Non-Contact Thermometer to measure the temperature of an object, food (baby food, etc.) or liquid (bath water, milk bottle, etc.)
3. Additionally you can use your ProScan™ Non-Contact IR Thermometer to measure the air temperature of the room.

CHANGING BATTERIES

1. When the battery symbol « ▬ » flashes on the display screen, the battery needs to be replaced.
2. Open the lid and change the batteries, ensuring that they are aligned properly as indicated inside the battery compartment. A mistake with this could cause damage to the device and compromise the guarantee of your ProScan™ Non-Contact Infrared Thermometer.
3. Never use rechargeable batteries.



HOW TO MEASURE TEMPERATURE

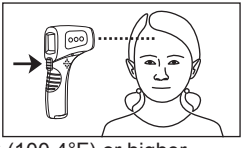
Note: If the thermometer has been stored at a very low or very high temperature, allow the unit to adjust to room temperature for at least 15 minutes before using the device.

1. Before taking temperature readings, make sure to avoid any drafts like air conditioning, etc.

2. Push back hair and wipe away any perspiration from the forehead temporal region.

3. Press the thermometer's measure key to turn on the device.

4. Aim at the center forehead, from a distance of about 3 cm - 5 cm, press the thermometer's measure key and the temperature will be instantly displayed.



If the temperature reading is 38°C (100.4°F) or higher, you will hear 5 beeps and the LCD backlight colour will turn red which means that you have a high fever.

If the temperature reading is between 37.4°C - 37.9°C (99.3°F - 100.2°F), you will hear 1 beep and the LCD backlight colour will turn orange which means that you have a low fever.

Otherwise, you will hear 1 beep and the LCD backlight colour will display a green light which means no fever.

5. Wait at least 5 seconds between consecutive readings.

6. The device will automatically shut-off after 30 seconds.

Note:

- If the audio alerts threshold default setting is changed, only the audio alerts will be pertinent, not the colour alerts.
- It is not recommended to drink, eat, smoke, shower or be physically active before/while taking a temperature reading. Please wait for at least 15 minutes prior to taking a measurement following any of the above listed items.

CLEANING & MAINTENANCE

- Before and after each use, wipe the thermometer with a soft, clean cloth and 75% Ethanol or Isopropyl alcohol.
- Clean the glass with a cotton swab lightly moistened with 95% alcohol. Never use abrasive cleaning agents.
- The protective glass over the lens is the most fragile part ofthe thermometer. Do not touch the glass with your fingers.
- Do not immerse or soak your ProScan in either alcohol or water.
- Do not use benzene, thinner, gasoline or other strong solvents to clean the thermometer or water.

SPECIFICATIONS

Normal usage conditions	• Ambient temperature: 10°C-40°C(50°F-104°F) • Relative humidity: ≤ 85%
Batteries	2 x AA alkaline batteries
Unit size	16 cm x 10 cm x 4 cm (6.3” x 4” x 1.6”)
Unit weight	105 g (without batteries)
Measuring range	Note: In body mode, there are 3 backlight colours: - Green: ≤ 37.3°C (99.1°F), means normal temperature - Orange: 37.4°C - 37.9°C (99.3°F - 100.2°F) means low fever - Red: ≥38°C (100.4°F), means high fever • Body mode: 32°C ~ 42.9°C (89.6°F ~ 109.2°F) • Surface mode: 0°C - 60°C (32°F - 140°F) • Air mode: 0°C - 40°C (32°F - 104°F)
Precision	Note: The ProScan™ Non-Contact Infrared Thermometer can take temperature readings below 32°C or above 42.9°C (89.6°F - 109.2°F) but precision is not guaranteed outside of this range. • 32.0°C - 34.9°C (89.6°F - 94.8°F) ± 0.3°C (± 0.6°F) • 35.0°C - 42.0°C (95°F - 107.6°F) ± 0.2°C (± 0.4°F) • 42.1°C - 42.9°C (107.8°F - 109.2°F) ± 0.3°C (± 0.6°F)
Consumption	≤ 450 mW
Measuring distance	3 cm - 5 cm (1.2” - 2”)
Automatic shut-off	30 seconds
Longevity	100 000 readings
Memory	32 readings
Standards	ASTM E1965
Warranty	3 years

Note: The manufacturer reserves the right to alter the specifications of the product without prior notification.

TROUBLESHOOTING

Note: If you have one of the following problems while using your thermometer, please refer to this guide to help resolve the problem. If the problem persists and the product is still under warranty, please contact A.M.G. Medical's Customer Service Team at 1-800-363-2381 between 8:30 AM and 5:00 PM EST.

Problems	Comments	Instructions
Green backlit screen reads "Lo".	• The measured temperature is less than 32°C (89.6°F) in Body mode. • The measured temperature is less than 0°C (32°F) in Surface or Air mode.	1. Turn the unit off for 15 - 60 seconds and then turn on again. 2. Retake temperature using proper technique (3 cm - 5 cm (1.2" - 2")) and proper settings (Body, Surface, Air Mode). 3. Ensure normal room temperature: 10°C - 40°C (50°F - 104°F). 4. Ensure there is no hair or perspiration hampering the reading if you are taking body temperature. 5. Ensure there are no air drafts or dramatic change in ambient temperature hampering the reading. 6. If the thermometer still reads "Lo", this indicates that the patient has a low body temperature. It could also mean that surface or air temperature is low. If it reads "Hi", this indicates that the patient has a high body temperature. It could also mean that surface or air temperature is high.
Red backlit screen shows "Hi".	• The measured temperature is superior to 42.9°C (109.2°F) in Body mode. • The measured temperature is superior to 60°C (140°F) in Surface mode. • The measured temperature is superior to 40°C (104°F) in Air mode.	

EMC DECLARATION

- This device should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, this device should be observed to verify normal operation in the configuration in which it will be used.
- Use of accessories other than those specified or provided by the manufacturer of this device could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
- 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 device, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
- All necessary instructions for maintaining BASIC SAFETY and ESSENTIAL PERFORMANCE with regard to electromagnetic disturbances for the expected service life should be followed. Portable and mobile RF communication equipment may affect the performance of the device; avoid strong electromagnetic interference when used, such as near mobile phones, microwave ovens, etc.

The above will not affect the basic safety and essential performance of the device,and the user can use it according to the instructions. If you want to avoid this, please use it according to the environment requirements specified in the manual.

Table 1	
Guidance and manufacturer's declaration on electromagnetic emissions	
Emmission 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

Table 2		
Guidance and manufacturer's declaration on electromagnetic immunity		
Immunity Test	**IEC 60601 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 / bust 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 50 H/z / 60 H/z	30 A/m 50 H/z / 60 H/z
Conduced RF 1EC 61000-4-6	Not applicable	Not applicable
Radiated RF 1EC 61000-4-3	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. mains voltage prior to application of the test level.		

Table 3

Guidance and manufacturer's declaration on electromagnetic immunity

	Test Frequency (MHz)	Band (MHz)	Service	Modulation	Modulation	Distance (m)	Immunity (MHz)
Radiated RF IEC 61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF Wireless communications equipment)	385	380-390	TETRA 400	Pulse 18 Hz	1.8	0.3	27
	450	430-470	GMRS 460 FRS 460	FM ± 5 kHz 1 kHz sine	2	0.3	28
	710	704-787	LTE Band 13.17	Pulse 217 Hz	0.2	0.3	9
	745						
	780						
	810	800-960	GMS 800/900 TETRA 800 iDEN 820 CDMA 850 LTE Band 5	Pulse 18 Hz	2	0.3	28
	870						
	930						
	1720	1700-1990	GMS 1800 CDMA 1900 GMS 1900 DECT LTE Band 1.3 4.25 UMTS	Pulse 217 Hz	2	0.3	28
	1845						
	1970						
	2450	2400-2570	Bluetooth WLAN 802.11 b/g/n RIID 2450 LTE Band 7	Pulse 217 Hz	2	0.3	28
	5240	5100-5800	WLAN 802.11 a/n	Pulse 217 Hz	2	0.3	9
	5500						
	5785						

LIMITED WARRANTY

The ProScan™ Non-Contact Thermometer is guaranteed for three years from the date of purchase. If the thermometer does not function properly due to defective components or poor workmanship,we will repair or replace it free of charge.

All components are covered by this warranty excluding the battery. The warranty does not cover damages due to improper handling of this thermometer.

To obtain warranty service, an original or copy of the sales receipt from the original retailer is required.

THIS DEVICE CONFORMS TO THE FOLLOWING STANDARDS:

AAMI/ANSI ES60601-1:2005/(R) 2012 and C1:2009/(R) 2012, Medical electrical equipment — Part 1-11: General requirements for basic safety and essential performance — Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral Standard: Electromagnetic disturbances - Requirements and tests; ASTM E 1965-98, Standard Specification for Infrared Thermometers for Intermittent Determination of Patient Temperature.

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