



# Clinical Practice Procedures: Assessment/Temperature – Masimo® TIR-1™

<b>Policy code</b>	CPP_AS_IRT_0924
<b>Date</b>	September, 2024
<b>Purpose</b>	To ensure a consistent procedural approach to the Masimo® TIR-1™.
<b>Scope</b>	Applies to Queensland Ambulance Service (QAS) clinical staff.
<b>Health care setting</b>	Pre-hospital assessment and treatment.
<b>Population</b>	Applies to all ages unless stated otherwise.
<b>Source of funding</b>	Internal – 100%
<b>Author</b>	Clinical Quality & Patient Safety Unit, QAS
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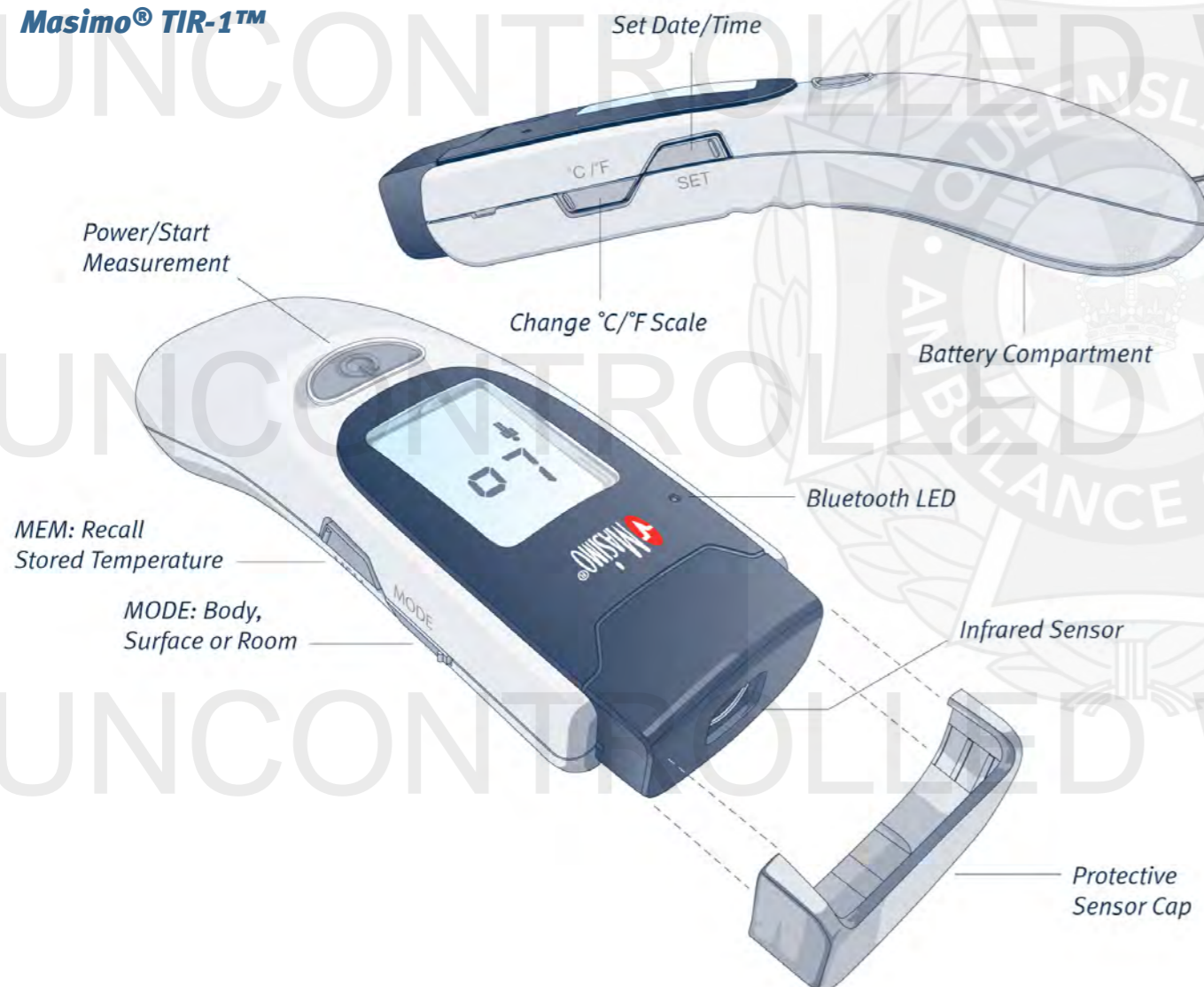
# Temperature – Masimo® TIR-1™

September, 2024

Accurate temperature measurement is an important component of patient assessment. It can aid the development of a provisional diagnosis, guide clinical management and identify the presence of systemic illness.

The Masimo® TIR-1™ thermometer is a non-invasive, infrared thermometer suitable for measuring temperatures in patients of all ages. Due to the simple non-contact one button operation, it reduces the risk for patient cross-contamination while reducing costs and waste by eliminating the need for probe covers and other disposables.

## Masimo® TIR-1™



## Indications

- Periodic measurement of human body temperature, when clinically indicated

## Contraindications

- Patients with scarred or damaged forehead tissue from significant skin disorders or trauma

## Complications

- Nil in this setting

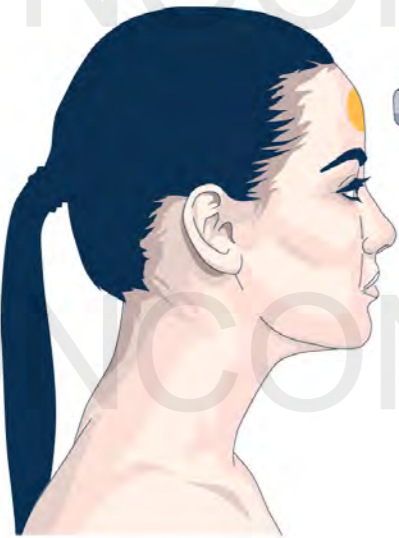


## Procedure – Temperature – Masimo® TIR-1™

1. Remove the protective cap and inspect the thermometer's sensor to ensure that it is free of debris.



2. Clear the patient's forehead 'target zone' of any hair, oil, dirt or perspiration.
3. With the thermometer held perpendicular to the patient's forehead, position the sensor 2–5 cm away from the skin surface 'target zone'.



4. Press and release the **Power/Start** measurement button. Hold the thermometer in place until a double 'beep' is heard and the temperature is displayed on the LCD with the body temperature icon.



5. Replace the sensor cap and store the thermometer in a dry cool location when not in use.

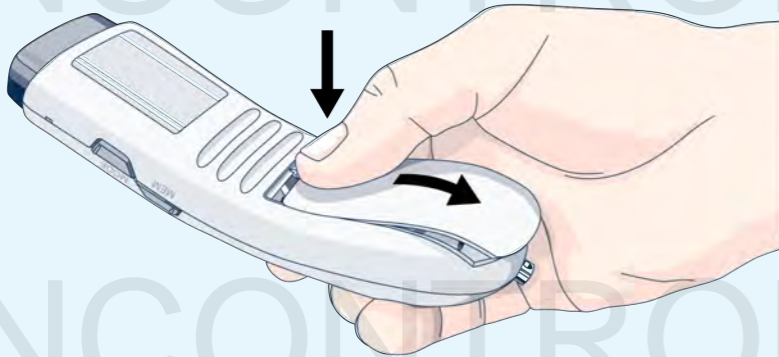
### + Additional information

- The routine measurement of a patient's temperature is not always necessary.
- Frail elderly patients can have a low normal body temperature and therefore be at risk of being incorrectly assessed as non-febrile.
- Body temperature measurements will vary according to the site from which it is taken. Therefore, measurements taken from different sites at the same time cannot be compared.
- The TIR-1™ must not be used during defibrillation.
- The TIR-1™ has no serviceable internal parts except for battery (AA) replacement.
- Ensure the MODE selector is set to 'body' before taking the patient's temperature.
- Cleaning of the thermometer should be carried out regularly and in accordance with the QAS infection Control Framework.
- The thermometer must be stored in its protective case when not in use.

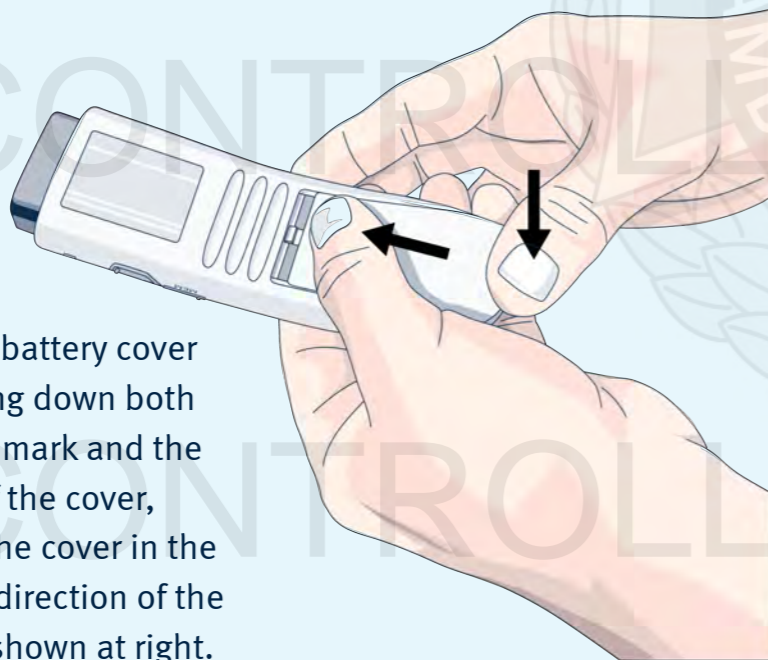
## Additional information *(cont.)*

### Installing batteries

1. To remove the Battery Cover, press down at the arrow mark and also on the centre of the cover; SLIDE it in the direction of the arrow as shown below.



2. Install (2) AA alkaline batteries with the polarity as shown in the battery compartment. All LCD display segments will briefly illuminate during self-test, and you will hear a 'beep'.



3. Close the battery cover by pressing down both the arrow mark and the bottom of the cover, SLIDING the cover in the opposite direction of the arrow as shown at right.






### Setting Date/Time (necessary at initial setup and when the batteries are changed).

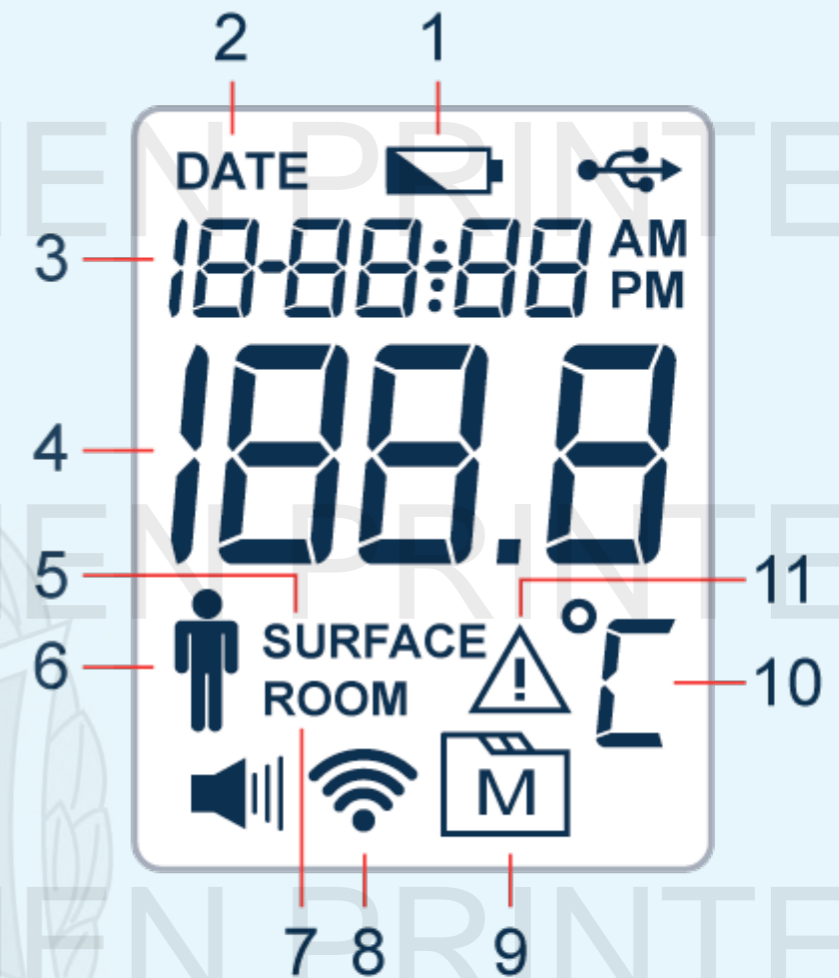
1. Press the **Power/Start Measurement** button to turn the TIR-1™ ON.
2. Press and hold the **SET** button until the set date screen displays. The 'months' digits will flash.
3. Press the **MODE** button to increase (+) the month or press the **°C/°F** button to decrease (-) the month.
4. Press the **SET** button to save the month and change the day. The "day" digits will flash.
5. Press the **MODE** button to increase (+) the day or press the **°C/°F** button to decrease (-) the day.
6. Press the **SET** button to save the day and change the year. The 'year' digits will flash.
7. Press the **MODE** button to increase (+) the year or press the **°C/°F** button to decrease (-) the year.
8. Press the **SET** button to save the year and change the hour and AM/PM. The 'hour' digits will flash and 'AM' or 'PM' displays.
9. Press the **MODE** button to increase (+) the hour or press the **°C/°F** button to decrease (-) the hour. The AM or PM setting is determined by the hour setting.
10. Press the **SET** button to save the hour and change the minutes. The "minutes" digits will flash.
11. Press the **MODE** button to increase (+) the minutes or press the **°C/°F** button to decrease (-) the minutes.
12. Press the **SET** button to save the date and time settings.
13. The TIR-1™ will automatically turn OFF.



## Additional information *(cont.)*

Error messages (if errors continue, contact Customer Care)

MESSAGE	MEANING	TROUBLE SHOOTING
	Low Battery	Replace batteries as soon as practical.
	Very Low Battery	Replace batteries prior to further use.
E-1 	Ambient temperature too LOW	Allow TIR-1 to warm to temperature above 50°F (10°C)
E-2 	Ambient temperature too HIGH.	Allow TIR-1 to cool to temperature below 104°F (40°C)
E-4 	Sensor error or ambient temperature unstable	<ul style="list-style-type: none"> <li>Allow TIR-1 to equilibrate to the current room temperature for 20 minutes.</li> <li>Contact Masimo Support if this error persists.</li> </ul>
LO	Body Mode temperature is below 108°F (34.4°C)	Remove Sensor Lens cap. Allow patient to warm up in ambient room temperature above 50°F (10°C).
HI	Body Mode temperature is above 108°F (42.2°C)	<ul style="list-style-type: none"> <li>Repeat the temperature.</li> <li>If this condition persists, the ambient temperature of the thermometer may be outside the acceptable limits. Allow to cool for 20 minutes.</li> </ul>
--	Displayed temperatures appear to be too low	<ul style="list-style-type: none"> <li>Remove sensor lens cap. Allow thermometer and patient to adjust to room temperature for 20 minutes.</li> <li>Remove perspiration, oil and makeup from forehead.</li> </ul>



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|---|-------------------------------|
| 1. Low battery indication               | 7. Room Temperature Indicator |
| 2. Date Indicator                       | 8. Bluetooth Indicator        |
| 3. Date/Time                            | 9. Memory Mode                |
| 4. Temperature Reading                  | 10. Unit of Measurement °F/°C |
| 5. Object Surface Temperature Indicator | 11. Error Warning             |
| 6. Body Temperature Indicator           |                               |