

Dear Customer,

Thank you for purchasing the Check Mate Finger Unit manufactured by SPO Medical. By purchasing this pulse oximeter, you have chosen a high quality device. SPO is convinced you will be fully satisfied with your new Sport Pulse Oximeter. Please take time a few moments to review the following instructions before using the unit for the first time. If you still have questions, please contact your local dealer for assistance or you may contact us by email at [support@spomedical.com](mailto:support@spomedical.com).

**Statement of Use:** Spot-check pulse oximetry is a useful tool for sports enthusiasts and pilots interested in monitoring blood oxygen saturation (%SpO<sub>2</sub>) and pulse rate. The Check Mate Finger Unit works by shining both red and infrared light into the skin and detecting the amount of each reflected onto the photodetector. This signal is then analyzed by internal software that determines oxygen saturation and pulse rate. As an example, an oxygen saturation reading of 98 indicates that the 98 percent of the hemoglobin in your blood is saturated with oxygen. The table below shows the values for a healthy individual at various altitudes without supplemental oxygen. These values are approximations and are for reference only. Your actual reading may vary. These levels DO NOT indicate safe levels of blood oxygen saturation, especially as altitude increases.

Altitude	Sea Level	3,000 m 10,000 ft	6,000 m 20,000 ft	9,000 m 30,000 ft
Barometric Pressure (mmHg)	760	523	349	226
Partial Pressure of O <sub>2</sub> in air (mmHg)	159	110	73	47
Partial Pressure of O <sub>2</sub> in Alveoli	104	67	40	30
Arterial Oxygen Saturation	97 %	94 %	78 %	63 %

### Safety:

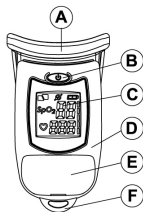
- Check Mate readings should be regarded as approximate measurements only and are not intended for medical use.
- Seek medical advice if you have a pre-existing medical condition before beginning any physical activity at altitudes higher than where you reside.
- Altitude-related illnesses may appear at lower altitudes, but become more likely above 8,000 feet, and are much more frequent at heights above 12,000 feet regardless of physical condition and acclimatization.
- Interpretation of your SpO<sub>2</sub> readings at high altitudes should be performed only with expert medical advice.
- The Check Mate is a precision electro-optical device that, with the exception of replacing the battery, the unit has no user serviceable or adjustable components inside.
- The Check Mate has no user serviceable or adjustable components inside.
- The Check Mate must be serviced by trained SPO Medical personnel only.
- If the Check Mate is mechanically damaged or the LCD presentation is blurred, the device must not be used and must be disposed of unless it is under warranty.
- If the elastic thimble changes color or is not elastic enough (the Check Mate falls from the finger) it is recommended not to use the unit.
- Check Mate is not waterproof. Water penetration invalidates the warranty.
- Please note that Check Mate includes a battery that should be disposed of in accordance with local environmental regulations.
- The device should only be used on intact skin
- Do not use cellular phones or other radio frequency producing devices near the working unit – it may interfere with proper operation of the unit.

### System parts:

- Check Mate unit
- Carrying strap
- Storage case (Optional sold separately)
- User Instructions

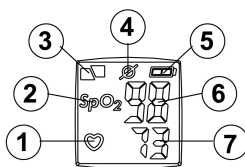
### Device components:

- A. Silicone elastic thimble
- B. Backlight-illumination button
- C. Liquid crystal display (LCD)
- D. Plastic casing
- E. Battery cover
- F. Carrying strap anchor



### Liquid Crystal Display indicators and symbols:

1. Pulsing heart indicator
2. SpO<sub>2</sub> legend
3. Sensor "OFF" indicator
4. "Weak signal" indicator
5. "Battery status" indicator
6. Saturation rate (%)
7. Heart pulse rate (bpm)



### Please note before use:

- All activity should be ceased prior to initiating measurements e.g. eating, drinking or smoking; since these among other activities, may affect the readings.
- Strenuous exercise, such as jumping or sprinting, may temporarily interrupt readings. Unit will recover within 20 seconds when the hand is held relaxed and still.
- Inserting the finger into the elastic thimble should be easy and comfortable, IF INSERTION IS TOO TIGHT OR DIFFICULT, USE A SMALLER FINGER.

**Damage caused by forcing will void the warranty.**

### Using the Check Mate:

- Gently place the forefinger (as seen in the diagram below) in the elastic thimble so that it feels comfortable, do not force; ensure that the display is facing upwards, i.e. on the nail side of the finger.
- Hold the hand relaxed and still. The SPO Legend will appear followed by a series of dashes. The Check Mate will initiate readings within 6-8 seconds.
- If you wish to illuminate the screen push the backlight button (# B in the diagram above) on the face of the Check Mate.
- Once a stable reading has appeared in the display, physical activity may be resumed.



### Turning off the unit:

- To turn off the unit, remove your finger and the display will show "OFF"

### Backlight:

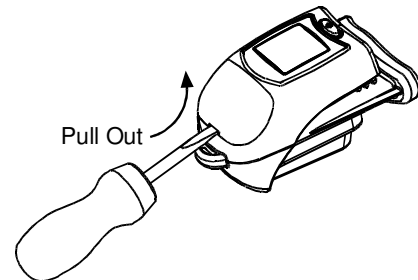
- A quick touch of the button on the face of the Check Mate will turn on the screen illumination.
- The screen illumination will automatically turn off after 10 seconds.

### Battery status:

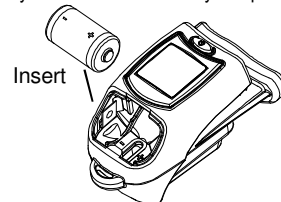
- The battery indicator displays the approximate power remaining in the battery.
- The display of a single battery bar indicates that the battery will soon need replacement.
- Battery requirements: 3.6V 1/2 AA Lithium (*Tadiran is recommended*)

### Battery replacement method:

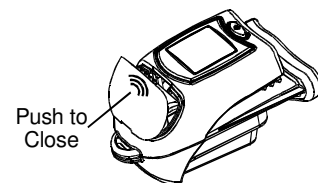
- Using a flat screwdriver, remove the battery cover on the front of the unit, as shown below.



- Carefully remove the old battery and discard according to local environmental regulations. Install a new battery. Please ensure that the battery polarization (+/-) is in accordance with the symbols inside the battery compartment.



- Replace the battery cover as shown in the figure.



### Check Mate cleaning instructions:

- Wipe exposed surfaces with a soft cloth or a pad moistened with a mild detergent solution or isopropyl alcohol solution (70%).
- Clean your Check Mate whenever you see any type of soil, dirt or obstruction in it.
- Clean the inside of the elastic thimble and the two optical elements inside with a cotton swab or equivalent moistened with a mild detergent solution or isopropyl alcohol solution (70%).
- Ensure that no dirt or blood is on the optical components inside the elastic thimble.

### Product specifications:

Effective measuring range	
Saturation	40 to 99%
Heart pulse rate	40 to 250 bpm
Resolution	1 digit
Accuracy (incl. minor motion and low perfusion)	
Saturation (70%-99%)	±2% or ±2 digits
Heart pulse rate	±3% or ±3 digits
Display	
Saturation	2 characters
Heart pulse rate	3 characters
Signal indications:	Sensor 'OFF' and 'Weak Signal'
	Flashing heart icon
Battery indication	Full power, 1/3 and near empty
Power requirements	3.6V Lithium battery, 1/2 AA size
Battery continuous life	1,000 Hrs or 40 days of continuous usage
Mechanical	
Overall dimensions	2.91" x 1.57" x 1.61" (74 x 40 x 41 mm)
Storage temperatures	-40° to 158°F
Operating temperatures	39° to 107°F
Weight	1.8 oz. (50 g.) including battery



Type BF Applied Part

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