

VG-900 **SpO₂ Sensor Test Unit.**

Operating Instructions.



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Quality Standards Accreditations :
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Introduction.

The VG-900 SpO₂ Sensor Test Unit assesses the functionality of pulse oximeter probes, electrically testing the essential components of the probe and shows a 'pass or fail' indication for each component.

The VG-900 is a hand held unit, designed for use in an environment where pulse oximeter sensors need to be tested, before use when suspected faulty or as part of a PPM schedule. Up to 80 fault conditions can be indicated.

Most pulse oximeter sensors contain three optical components; a dual light emitting diode (LED) and a detector. The dual LED package contains two emitters, one producing red light and the other infrared. Most probes also have an internal resistor or link wire.

Pulse oximetry sensors (and extensions) manufactured by Datascope, Datex-Ohmeda & Nellcor can be directly connected to the tester via the associated sockets on the facia.

Compatible manufacturers sensors can be directly connected to the VG-900 such as BCI, Nonin & Datex through the Nellcor and Auxiliary socket. Other manufacturers probes and extensions can be tested using adapter cables. Contact Viamed Ltd for availability of adapter cables.

Different types of pulse oximetry sensors can be tested such as reusable finger sensors (adult & paediatric), multisite 'Y' sensors, disposable sensors (adult, paediatric, infant & neonatal), ear sensors, DOT sensors and wrap sensors...

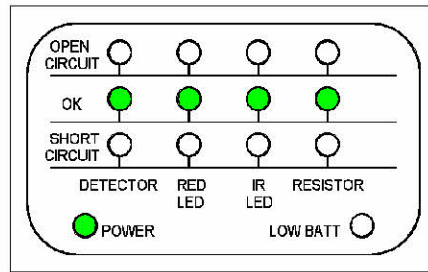
Operating the VG-900 SpO₂ Sensor Test Unit.

Step 1.

Connect the sensor (sensor / extension combination) to be tested to the respective manufacturers' socket on the facia of the VG-900. Ensure that any keyways between the sensor and socket line up.

Step 2.

Switch the VG-900 power switch to the ON (1) position and ensure that the green power LED is lit and the low battery LED is unlit.



Step 3.

Ensure that the four green LEDs are shown, for the detector, the red LED, the infrared LED and the resistor. This indicates the sensor under test is electrically OK (as above).

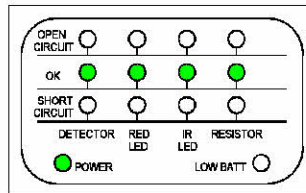
Step 4.

Switch the VG-900 power switch to the OFF (0) position. Disconnect the tested sensor (sensor / extension combination).

Display Indications.

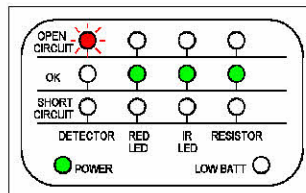
All sensor components good.

Four green 'OK' LEDs are lit.



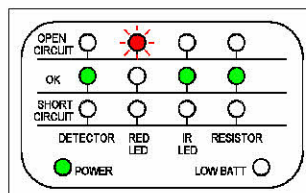
Open circuit detector.

Flashing red 'open circuit' LED.



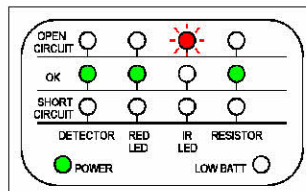
Open circuit red LED.

Flashing red 'open circuit' LED.



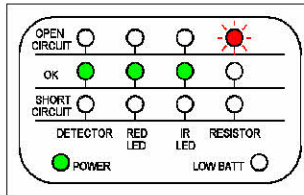
Open circuit infrared LED.

Flashing red 'open circuit' LED.



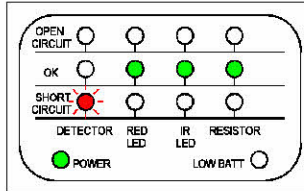
Open circuit resistor.

Flashing red 'open circuit' LED.



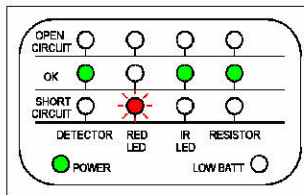
Short circuit detector.

Flashing red 'short circuit' LED.



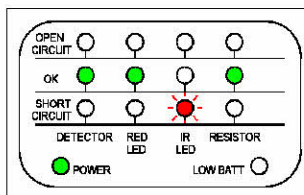
Short circuit red LED.

Flashing red 'short circuit' LED.



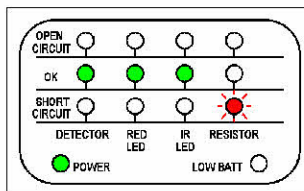
Short circuit infrared LED.

Flashing red 'short circuit' LED.



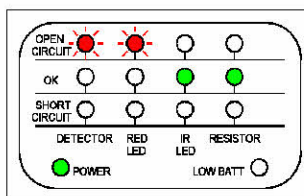
Short circuit resistor.

Flashing red 'short circuit' LED.



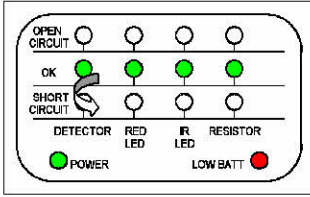

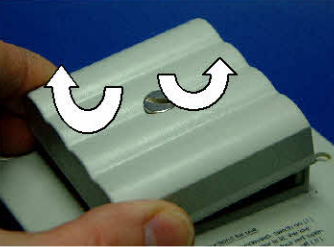

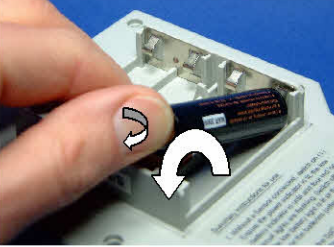
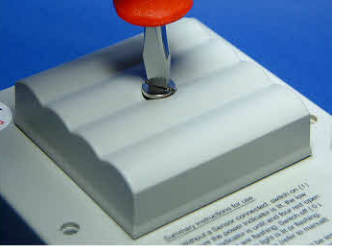
Multiple faults.

Eg. Open circuit detector and open circuit red LED.



Low battery warning / battery replacement.

Replace batteries when the 'Low Batt' LED is continuously lit.

1. A diagram of the VG-900 control panel. It features a row of four indicator lights labeled 'OPEN CIRCUIT', 'OK', 'SHORT CIRCUIT', and 'LOW BATT'. Below these are four buttons labeled 'DETECTOR', 'RED LED', 'IR LED', and 'REGISTER'. A legend at the bottom indicates that a green dot represents 'POWER' and a red dot represents 'LOW BATT'.
2. A photograph showing a red push-button being pressed into the top of the VG-900 unit.
3. A photograph showing a finger pressing a button on the side of the VG-900 unit. White curved arrows indicate the direction of the finger's movement.
4. A photograph showing a hand inserting a battery into the battery compartment of the VG-900 unit.
5. A photograph showing a finger pressing a button on the side of the VG-900 unit. White curved arrows indicate the direction of the finger's movement.
6. A photograph showing a red push-button being pressed into the top of the VG-900 unit.

Viamed Pulse Oximeter Sensor Repair Service.

For all types of fault conditions or suspected fault conditions, reusable sensors may be sent to Viamed for assessment by our pulse oximetry sensors repair department. Sensors are assessed free of charge. Charges are only made against actual repairs carried out. Viamed repairs both original equipment manufacturers' sensors and compatible sensors.

Batteries :

4 x 1.5V nominal, alkaline. MN1600 / AA or equivalent.
Approximately 6 hours usage.

Warranty :

1 year from date of purchase.

Cleaning :

Use a soft, lint free cloth with mild cleaning fluid if necessary.

Waterproofing :

The VG-900 is intended to be splash proof.