

Need Help?

For technical issues please visit rigelmedical.com and view the Application Notes in the Downloads tab. Application Notes are regularly updated and will most likely cover any common issues.

For further assistance please contact your Rigel Medical supplier or use the following contact details to speak to a member of the Rigel Medical team:

Sales and Delivery enquiries

Tel: +44 (0) 191 587 8730 **Fax:** +44 (0) 191 586 0227
Email: sales@rigelmedical.com

Technical enquiries

Tel: +44 (0) 191 587 8701
Email: support@rigelmedical.com

Service, Calibration and Repair

Tel: +44 (0) 191 587 8739 **Fax:** +44 (0) 191 518 4666
Email: info@calibrationhouse.com

Remember to activate your 2 year warranty* by registering your Rigel device

Go to rigelmedical.com/register-product

We offer a standard 12 month warranty against breakdown during normal use. This can be extended to a 24 month warranty if you register your product with us*



Rev 1.2

*Terms and Conditions apply

Rigel PULS-R Universal SpO2 Finger Simulator Quick Start Guide

Introduction

Welcome to your new Rigel PULS-R. This quick start guide tells you how to set up your Rigel PULS-R and make use of its key features. The Rigel PULS-R can only be used with the Rigel SP-SIM and UNI-SIM and is compatible with firmware version 3 or higher.

This firmware can be downloaded from the Rigel website and uploaded onto your device using a step by step guide in Application Note 0028 and the data transfer.exe program. These are all readily available from the Rigel medical website at the link below:

www.rigelmedical.com/rigel-downloads

Instruction Manual

This Quick Guide is designed to be used in conjunction with the full Rigel UNI-SIM or SP-SIM Instruction Manual.

The Rigel UNI-SIM Hand-Held Vital Signs Simulator and SP-SIM instruction manuals are now provided in electronic format only.

The manual is available as a download from rigelmedical.com/rigel-downloads

Technical Specification

Accuracy of simulation when used with the corresponding R-curves

Resolution	Range	Repeatability*
1% steps	30 - 59%	±5%**
1% steps	60 - 89%	±3%
1% steps	90 - 100%	±1%

* Based on using the same probe and monitor setup

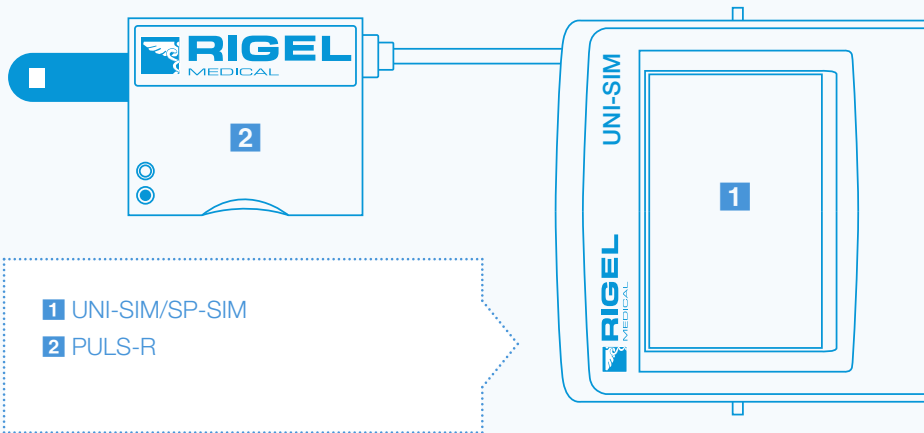
**Note that some monitor types might not be able to display low range sats

Heart rate setting	30-300 bpm***
Operating temperature	0-40°C
Dimensions	78 x 68 x 29 mm
Finger shape	40 x 18 mm

Part number 399A910

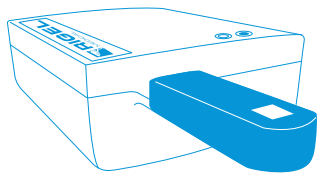
*** Subject to monitor capability

1 Getting to know your Rigel PULS-R



- 1 UNI-SIM/SP-SIM
- 2 PULS-R

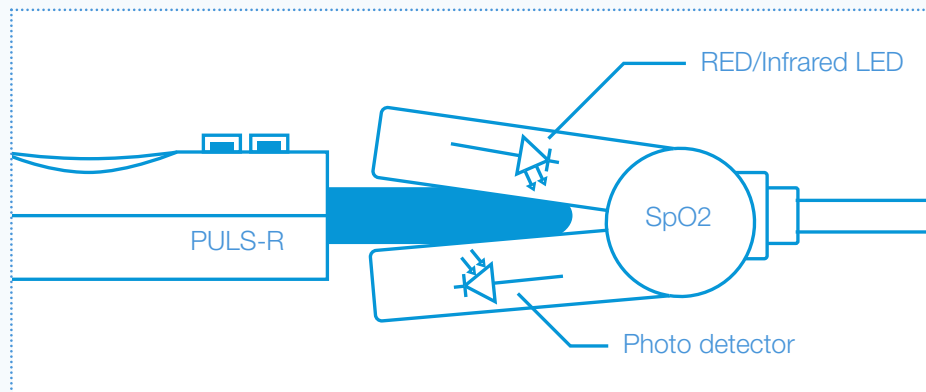
The Rigel PULS-R has status LEDs which light up to indicate whether a probe connection has been achieved. The table below shows connection status as indicated by the LEDs



LEDs	Probe Positioning
	X
	X
	✓

3 Performing SpO2 Simulation

The positioning of the SpO2 probe to the PULS-R is shown below. Ensure that the probe LEDs are aligned with the top of the finger and the photo detector with the bottom of the finger.



Parameters can be varied to validate the monitor and probe including:

- Technology. E.g.: PULS-R, Masimo, Nellcor...
- SpO2 (%) simulated
- Heart Rate

2 Getting Started

In this section we will identify some of the basic functions of the Rigel UNI-SIM Hand-held Vital Signs Simulator and SP-SIM with the PULS-R SpO2 simulator and how to get you started.

Switch on!

Turn on your Rigel UNI/SP-SIM by pressing and holding the green start button until you hear a "beep" and the Rigel splash screen appears.

The summary simulation screen appears displaying the settings from the previous simulation for all parameters and can be repeated by simply pressing the green start key .

Image 1 of the UNI-SIM shows NIBP, SpO2, ECG, IBP, Respiration and Temperature and Image 2 shows the same for the SP-SIM

Image 1

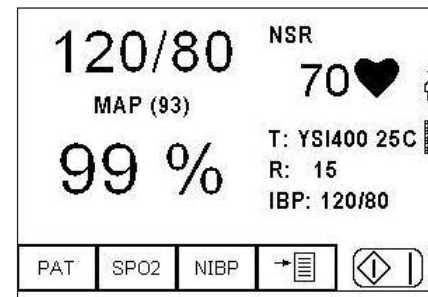
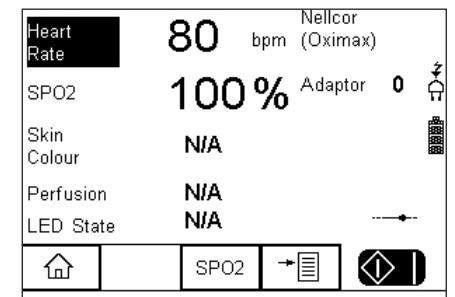


Image 2



For both the Rigel UNI and SP- SIM the user will need to select.

SpO2 Simulation

4 Supported default R-curves

- Beijing Choice
- Criticare
- GE Tuffsat
- Masimo
- Mindray
- Nellcor
- Nellcor Oximax
- Nihon Kohden
- Nonin
- Novametrix
- Philips / HP

Custom R-curves subject to availability