

Index 2

Pulse Oximeter Simulator

Technical Data



The Index 2 is the most versatile optical simulator for oximeters on the market today. This lightweight, portable tool includes preloaded manufacturers' R-curves and the ability to define other "makes" for most pulse oximeters.

Motion presets, player mode, transmission level control (TLC), and computer commands boost testing ability. The Index 2 can also be configured to include an optional electrical simulation feature with probe test. Optical and electrical simulations allow technicians to isolate problems quickly. The probe test identifies defective probes with quantitative test results.

Key features

- Portable
- 10 preloaded manufacturers' R-curves
- User-definable "makes" for most other manufacturers
- New R-curves for Masimo, Nonin and Philips Medical Systems (formerly Agilent / H-P) oximeters
- Six downloadable R-curve spaces available
- Simultaneous simulation of motion and arterial-oxygen levels
- Arterial wave-amplitude scale, calibrated in units of perfusion
- Tap/shiver motion simulations to explore the impact of motion
- RS-232 port for computer control
- Physiological finger for complete SpO₂ tests
- Electrical simulations with probe testing

Technical specifications

O₂

Range: 35 % to 100 %

Resolution: 1 %

Accuracy: 100 % to 75 %: ± 1 %
 \pm accuracy of the pulse oximeter under test; 74 % to 50 %: ± 3 % \pm the accuracy of the pulse oximeter under test; < 50 % unspecified

Repeatability: ± 1 standard deviation

Rate

Range: 30 BPM to 250 BPM

Resolution: 1 BPM

Accuracy: 1 % \pm 1 BPM

Pulse amplitude

Range: 0 % to 100 % of nominal pleth amplitude

Resolution: 1 %

Pulse amplitude is 20 % of maximum pass-through brightness

Probe test

Continuity/resistance

Test matrix: Measures all combinations of possible interconnections in an XX point matrix

Range: 250 Ω to 150 k Ω

Accuracy: ± 5 % of reading

Checksum

Sum of all locations in the program chip; for service use only

LED/detector voltage test

Test format: Measures voltage drop across Red LED, infrared LED, and photo detector when the internally generated test signal is applied

Test signal: Constant current source @ 1 mA

Open circuit: 2.5 V max

Measurement/display range:

0 V to 4 V

Accuracy: ± 5 % of reading, 0.4 V to 4 V

Dynamic test

Test format: Photodetector/diode response to both red and infrared light generated by the probe when pulsed by an internal test signal

Test signal: Pulsed between the two LEDs; constant current level @ 1 mA

Test results: Nominal range of 0 to 2000

Display

2-line x 24-character super twist LCD

Battery life

At least 4 hours of continuous use

Dimensions (WxDxH)

40.6 cm x 45.7 cm x 22.9 cm
(16 in x 18 in x 9 in)

Weight

4.5 kg (10 lb)

About Fluke Biomedical

Fluke Biomedical is the world's leading manufacturer of quality biomedical test and simulation products. In addition, Fluke Biomedical provides the latest medical imaging and oncology quality-assurance solutions for regulatory compliance.

Today, biomedical personnel must meet the increasing regulatory pressures, higher quality standards, and rapid technological growth, while performing their work faster and more efficiently than ever. Fluke Biomedical provides a diverse range of software and hardware tools to meet today's challenges.

Fluke Biomedical Regulatory Commitment

As a medical device manufacturer, we recognize and follow certain quality standards and certifications when developing our products. We are ISO 9001 certified and our products are:

- FDA Compliant
- CE Certified, where required
- NIST Traceable and Calibrated
- UL, CSA, ETL Certified, where required
- NRC Compliant, where required

Ordering information

Model Index 2_{XLF} Pulse Oximeter Simulator - Optical Finger Simulation

2250232 US 120 V
2395290 SHK 250 V
2399900 AUS 250 V
2399917 UK 250 V
2447476 JPN 100 V

Model Index 2_{XLFE} Pulse Oximeter Simulator - Optical Finger and Electrical Simulation with Probe Test

2250244 US 120 V
2395309 SHK 250 V
2399921 AUS 250 V
2399939 UK 250 V
2447465 JPN 100 V

Standard accessories

2226196 Operator's Manual
2521465 Battery Charger
Nellcor and Ohmeda Electrical Simulation and Probe Test Cable (for Index 2_{XLFE} only)

Optional accessories

2204282 Soft Vinyl Carrying Case
2200102 Interface Cable, medTester to Index 2 (RS-232; Female DB-25 to Female DB-9)

Index® 2_{XLF} and Index® 2_{XLFE} Pulse Oximeter Accessories

2521465 Battery Charger, 100 V ac to 250 V ac, 12 V, 500 MA Lead-Acid US Cord
2248899 Printer, Seiko DPU-414-30B, with 120 V (2235375) power supply
(Note: requires additional purchase of parallel printer cable 2238072)
2235375 Printer 120 V Power Supply
2238072 Parallel Printer Cable, D25M to C36M
2248737 DPU-414 and DPU-411 Printer Paper (minimum seven rolls)
2204282 Soft Vinyl Carrying Case
2248568 Multi-Purpose Hard-Sided Watertight Carrying Case (contains "pick and pluck" foam) (Dimensions: 17 in L x 11.75 in W x 6 in H)

Index® 2_{XLFE} Pulse Oximeter Accessory Cables - Electrical Simulation Cables

2225977 BCI™ (3101)
2391965 Criticare™ (504)
2413628 Criticare™ (with D-SUB Connector)
2391952 Datascope™ (Passport)
2226034 Datex
2226083 Hewlett Packard
2226029 Masimo
2226007 Nellcor (N100, N200 and N3000)
2431065 Nihon-Kohden™ (Lifescope)
2226052 Nonin
2391934 Novamatrix™
2226018 Ohmeda
2391918 Respironics™
2226076 Universal
2447418 Philips Medical (with D-Connector)

Index® 2_{XLFE} Pulse Oximeter Accessory Cables - Probe Test Cables

2225989 BCI™ (3101)
2225961 Criticare™ (504)
2413655 Criticare™ (with D-SUB Connector)
2225950 Datascope™ (Passport)
2226041 Datex
2226090 Hewlett Packard
2226104 Masimo
2225945 Nellcor (N100, N200 and N3000)
2431076 Nihon-Kohden™ (Lifescope)
2225945 Nonin
2391941 Novamatrix™
2225938 Ohmeda
2391929 Respironics™
2226065 Universal
2447452 Philips Medical (with D-Connector)

Fluke Biomedical.

Better products.

More choices.

One company.

Fluke Biomedical

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12/2007 2817868 D-EN-N Rev B