

# rainbow® Series Patient Cables

For Pulse Oximeters with rainbow Technology



---

Images	2
<b>en</b> English	3-5

---



# rainbow® Series Patient Cables

For Pulse Oximeters with rainbow Technology

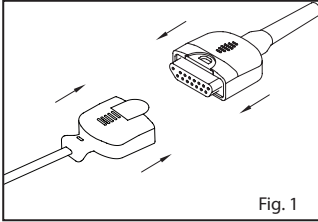


Fig. 1

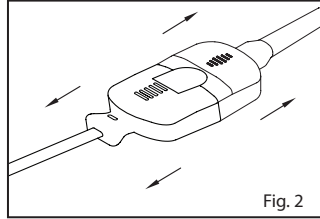


Fig. 2

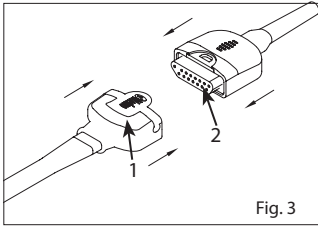


Fig. 3

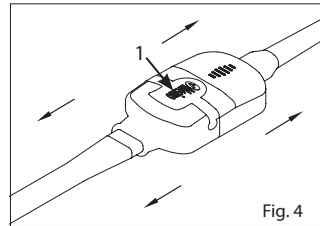


Fig. 4

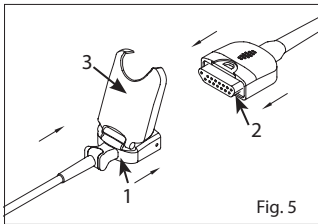


Fig. 5

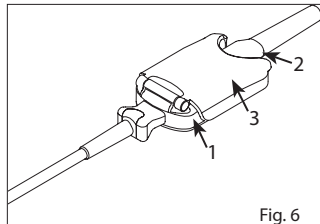


Fig. 6

# rainbow® Series Patient Cables

en

## For Pulse Oximeters with rainbow Technology

### DIRECTIONS FOR USE

Reusable



Not made with natural rubber latex



Non-Sterile

#### INDICATIONS

The rainbow® Series Patient Cable Series have the same indications for use as the applicable sensors. Please see the compatible sensor's directions for use for indications for use and prescribed information.

#### DESCRIPTION

The rainbow Series Patient Cables are used with Masimo® rainbow and M-LNCS™ Sensors. rainbow Series Patient Cables are for use only with devices containing Masimo rainbow SET™ technology Version 7.1 or higher or licensed to use rainbow compatible sensors. Consult individual oximetry system manufacturers for compatibility of particular sensor and device models. Each device manufacturer is responsible for determining whether their devices are compatible with each sensor model.

rainbow Series Patient Cables were verified using Masimo rainbow SET technology.

**WARNING:** Masimo sensors and cables are designed for use with devices containing Masimo SET® or Masimo rainbow SET oximetry or licensed to use Masimo sensors.

#### WARNINGS, CAUTIONS, AND NOTES

- Always refer to the oximeter module operator's manual for complete instructions or additional instructions.
- Ensure the cable is physically intact, with no broken or frayed wires or damaged parts. Visually inspect the cable and discard if cracks or discoloration are found.
- All sensors and cables are designed for use with specific monitors. Verify the compatibility of the monitor, cable and sensor before use, otherwise degraded performance and/or patient injury can result.
- Carefully route patient cable to reduce the possibility of patient entanglement or strangulation.
- Failure to properly connect the sensor or the oximeter module to the cable will result in intermittent readings, inaccurate results, or no reading.
- To avoid damage to the cable, always hold it by the connector rather than the cable when connecting or disconnecting either end.
- To prevent damage, do not soak or immerse the sensor or cable in any liquid solution. Do not attempt to sterilize the cable or sensor.
- Do not attempt to reprocess, recondition or recycle Masimo sensors or patient cables as these processes may damage the electrical components, potentially leading to patient harm.
- **Caution:** Replace the patient cable when a Replace cable or a persistent low SIQ message is displayed when the patient monitoring time is exhausted.
- **Note:** The patient cable is provided with X-Cal™ technology to minimize the risk of inaccurate readings and unanticipated loss of patient monitoring. The cable will provide 17,520 hours of patient monitoring time. Replace the cable when the patient monitoring time is exhausted.

#### CABLE AND SENSOR SELECTION

NOTE: The maximum length for the sensor, cable and extension cable combination is 15 feet.

Refer to the table below for correct examples:

Cable	Sensor		
Length	18 inches	3 feet	6 feet
1 ft	Yes	Yes	Yes
4 ft	Yes	Yes	No
12 ft	No	No	No

---

## INSTRUCTIONS

### A. Connect the rainbow patient cable to the Device

1. Connect the device connector of the patient cable to the mating connector of the device.
2. Ensure the patient cable connector is fully engaged with the device. A tactile or audible click of connection should be heard.

### B. Connect the rainbow patient cable to the Sensors

#### Connect the rainbow patient cable to an M-LNCS disposable sensor:

1. Refer to Fig. 1. Orient the sensor connector to the patient cable connector as shown.
2. Refer to Fig. 2. Insert the sensor connector completely into the patient cable connector until it locks in place as shown.

#### Connect the rainbow patient cable to a rainbow disposable sensor:

1. Refer to Fig. 3. Orient the sensor connector (1) to patient cable connector (2) as shown.
2. Refer to Fig. 4. Insert the sensor connector (1) completely into the patient cable connector (2) until it locks in place as shown.

#### Connect the rainbow patient cable to a reusable M-LNCS or a reusable rainbow sensor:

1. Refer to Fig. 5. Orient sensor connector (1) to patient cable connector (2) as shown.
2. Refer to Fig. 6. Insert the sensor connector (1) completely into the patient cable connector (2) until it locks in place.

### C. Disconnecting the rainbow patient cable from the Sensors

**NOTE:** Pull on the connectors only, do not pull the cables.

#### Disconnect the M-LNCS disposable sensor:

1. Refer to Fig. 2. Pull firmly on the sensor connector to remove it from the patient cable.

#### Disconnect the rainbow disposable sensor:

1. Refer to Fig. 4. While holding the sides of cable connector, place thumb on latch (1) and press to disconnect sensor connector from patient cable connector.

#### Disconnect the reusable M-LNCS or reusable rainbow sensor:

2. Refer to Fig. 5. While holding the sides of patient cable connector (2), lift sensor connector cover (3) from patient cable connector (2). Disconnect sensor connector (1) from patient cable connector (2).

---

## CLEANING

1. Remove the sensor from the patient and disconnect it from the patient cable.
2. Clean the surface of the cable by wiping it with a 70% isopropyl alcohol pad.
3. Wipe all surfaces of the cable.
4. Saturate another cloth or gauze pad with sterile or distilled water and wipe all surfaces of the cable.
5. Dry the cable by wiping all surfaces with a clean cloth or dry gauze pad.

### CAUTION:

- Do not immerse the connectors on the cable in any liquid solution.
- Do not sterilize by irradiation, steam, autoclave, or ethylene oxide.
- Do not clean with chemicals not approved above.


---

## ENVIRONMENTALS

Operating Temperature	41°F to 104°F (5°C to 40°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Relative Humidity	0% to 95% non-condensing

---

## COMPATIBILITY

 rainbow series patient cables are intended for use only with devices containing Masimo SET or Masimo rainbow SET technology and with compatible sensors. Consult individual oximetry system manufacturers for compatibility of particular devices and sensor models. Each device manufacturer is responsible for determining whether their devices are compatible with each sensor and cable model. Use of this cable with other devices may result in no or improper performance.

For Compatibility Information Reference: [www.Masimo.com](http://www.Masimo.com)

---

## WARRANTY

Masimo warrants to the initial buyer only that this product, when used in accordance with the directions provided with the Products by Masimo, will be free of defects in materials and workmanship for a period of six (6) months. Single use products are warranted for single patient use only.

THE FOREGOING IS THE SOLE AND EXCLUSIVE WARRANTY APPLICABLE TO THE PRODUCTS SOLD BY MASIMO TO BUYER. MASIMO EXPRESSLY DISCLAIMS ALL OTHER ORAL, EXPRESS OR IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE. MASIMO'S SOLE OBLIGATION AND BUYER'S EXCLUSIVE REMEDY FOR BREACH OF ANY WARRANTY SHALL BE, AT MASIMO'S OPTION, TO REPAIR OR REPLACE THE PRODUCT.

## WARRANTY EXCLUSIONS

This warranty does not extend to any product that has been used in violation of the operating instructions supplied with the product, or has been subject to misuse, neglect, accident or externally created damage. This warranty does not extend to any product that has been connected to any unintended device or system, has been modified, or has been disassembled or reassembled. This warranty does not extend to sensors or patient cables that have been reprocessed, reconditioned or recycled.

IN NO EVENT SHALL MASIMO BE LIABLE TO BUYER OR ANY OTHER PERSON FOR ANY INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOST PROFITS), EVEN IF ADVISED OF THE POSSIBILITY THEREOF. IN NO EVENT SHALL MASIMO'S LIABILITY ARISING FROM ANY PRODUCTS SOLD TO BUYER (UNDER A CONTRACT, WARRANTY, TORT OR OTHER CLAIM) EXCEED THE AMOUNT PAID BY BUYER FOR THE LOT OF PRODUCT(S) INVOLVED IN SUCH CLAIM. IN NO EVENT SHALL MASIMO BE LIABLE FOR ANY DAMAGES ASSOCIATED WITH A PRODUCT THAT HAS BEEN REPROCESSED, RECONDITIONED OR RECYCLED. THE LIMITATIONS IN THIS SECTION SHALL NOT BE DEEMED TO PRECLUDE ANY LIABILITY THAT, UNDER APPLICABLE PRODUCTS LIABILITY LAW, CANNOT LEGALLY BE PRECLUDED BY CONTRACT.

## NO IMPLIED LICENSE

Purchase or possession of this rainbow patient cable does not carry any express or implied license to use this cable with any device that is not an authorized device or separately authorized to use rainbow patient cables.


## CAUTION: FEDERAL LAW (U.S.A.) RESTRICTS THIS DEVICE TO SALE BY OR ON THE ORDER OF A PHYSICIAN.

For professional use. See instructions for use for full prescribing information, including indications, contraindications, warnings, precautions and adverse events.

### The following symbols may appear on the product or product labeling:

SYMBOL	DEFINITION	SYMBOL	DEFINITION
	Consult Instructions for Use		Separate collection for electrical and electronic equipment (WEEE).
 (blue background)	Follow Instructions for Use		Lot code
	Manufacturer		Catalogue number (model number)
	Date of Manufacture		Masimo reference number
	Use By YYYY-MM-DD		Body weight
	Do not discard	>	Greater than
	Non-Sterile	<	Less than
	Not made with natural rubber latex		Storage Humidity Range
R <sub>x</sub> Only	Federal law (USA) restricts this device to sale by or on the order of a physician	 +1060 hPa - +500 hPa 795 mmHg - 375 mmHg	Storage Temperature Range/ Storage Altitude Range
	Mark of Conformity to European Medical Device Directive 93/42/EEC		Keep Dry
	Authorized representative in the European community		Atmospheric Pressure Range
	Do not use if package is damaged		Instructions/Directions for Use/Manuals are available in electronic format @ <a href="http://www.Masimo.com/TechDocs">http://www.Masimo.com/TechDocs</a> Note: eIFU is not available for CE mark countries.

Patents: <http://www.masimo.com/patents.htm>

Masimo, SET, , and rainbow are federally registered trademarks of Masimo Corporation.

M-LNCS, rainbow SET and X-Cal are trademarks of Masimo Corporation.



© 2016 Masimo Corporation

 **Manufacturer:**  
Masimo Corporation  
40 Parker  
Irvine, CA 92618  
USA

[www.masimo.com](http://www.masimo.com)

EU Authorized Representative for Masimo  
Corporation:



MDSS GmbH  
Schiffgraben 41  
D-30175 Hannover, Germany



4523G-eIFU-0516