

Disinfection & Cleaning

Caution: Do **NOT** steam autoclave or gas sterilize the Ultima Breath Sensor Interface. Do **NOT** immerse the enclosure in any liquids. Any of these cleaning practices will damage the product and void the warranty.

To clean the Ultima Breath Sensor Interface

1. To clean the Nellcor® BreathSensor™ Airflow Thermistor, consult the documentation supplied with the thermistor.
2. Use isopropyl alcohol pads to clean the Ultima Breath Sensor Interface.
3. Ensure that the sensor is completely dry before using.
4. For additional information, refer to the Association for Professionals in Infection Control and Epidemiology (APIC) guidelines for selection and use of disinfectants (American Journal of Infection Control. Vol. 18, No. 2, April 1990).

Troubleshooting

If you have difficulty using this product, check the following:

- The Ultima Breath Sensor Interface is properly attached to the patient and the recorder.
- The amplifier/recorder connections are functional.
- The sensitivity and filter settings, if necessary, are correct.
- The Nellcor® BreathSensor™ Airflow Thermistor is functioning properly.

If you still experience trouble with the product, contact Sandman technical support department:

- North America: 1-800-663-3336
- Outside North America: 1.613.238.1840

Please have the product model and serial number available when you call.

Warning: The Ultima Breath Sensor Interface is for diagnostic use only and is not intended as an apnea monitor. U.S. Federal law restricts this device to sale by or on the order of a physician.

Nellcor, Sandman and BreathSensor are trademarks of Nellcor Puritan Bennett Inc.

Warranty

BRAEBON MEDICAL CORPORATION warrants to the first consumer that this Ultima Breath Sensor Interface (the "Sensor"), when shipped in its original container, will be free from defective workmanship, performance and materials and agrees that it will, at its option, either repair the defect or replace the defective Sensor or part thereof at no charge to the purchaser for parts or labor for a time period of six months from the date of purchase. The battery (batteries) is not included in the warranty described herein. The warranty described herein shall be the sole and exclusive warranty granted by BRAEBON MEDICAL CORPORATION and shall be the sole and exclusive remedy available to the purchaser. Use of the Sensor constitutes total and complete acceptance of this warranty. Correction of defects, in the manner and for the time period described herein, shall constitute complete fulfillment of all liabilities and responsibilities of BRAEBON MEDICAL CORPORATION to the purchaser with respect to the Sensor and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall BRAEBON MEDICAL CORPORATION be liable, or in any way responsible, for any loss of revenues or damage, direct, incidental, or consequential, including property damage, loss of profit, or personal injury resulting from the use or misuse of, or the inability to use this product. Nor shall BRAEBON MEDICAL CORPORATION be liable, or in any way responsible, for any damages or defects in the Sensor which were caused by abuse, misuse, tampering, neglect, incorrect battery type, or repairs or attempted repairs performed by anyone other than an authorized servicer.

Note: Product specifications are subject to change without notice.

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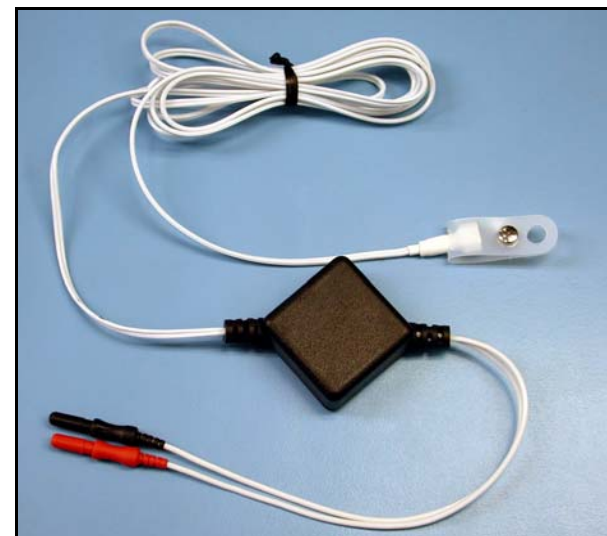
Outside North America call 1.613.831.6690

Ultima Breath Sensor Interface

User Guide

Model 0510BS

A BRAEBON MEDICAL CORPORATION PRODUCT



Intended Use

The Ultima Breath Sensor Interface is intended for use during sleep disorder studies as a qualitative measure of respiratory airflow for recording onto a data acquisition system.

The Ultima Breath Sensor Interface (Model 0510BS) is designed to work specifically with the Nellcor® BreathSensor™ Airflow Thermistor Models 971, 974, 978, and 976. The Interface converts the resistance change from the thermistor to an electrical signal for commercial multi-channel polygraphs.

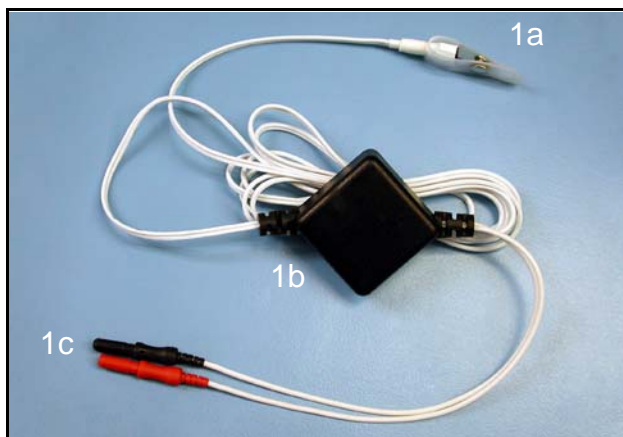


Figure 1: Components

Components

The Ultima Breath Sensor Interface consists of three components (See Figure 1):

1. Thermistor Interface Connector with security snap. See **1a**.
2. An enclosure containing the battery. See **1b**.
3. 1.5 mm touchproof safety pins. See **1c**.

Warnings and Cautions

Warning: The Ultima Breath Sensor Interface is for diagnostic use only and is not intended as an apnea monitor. U.S. Federal law restricts this device to sale by or on the order of a physician.

Warning: Connect the Interface to an electrically isolated input. Patient injury can occur if the cable is not connected properly.

Warning: The Interface has an internal lithium battery. Dispose of the Interface safely.

Caution: If the Ultima Breath Sensor Interface is damaged, replace the Interface with a new unit. Do **NOT** attempt to repair the Interface. Unauthorized repair will damage the product and void the warranty.

Caution: Braebon™ recommends replacing the Ultima Breath Sensor Interface (Part 0510BS) one year after the date of purchase.

Using the Ultima Breath Sensor Interface

Thermistors vary their resistance to changes in temperature. Since exhaled air is warmer than inhaled air, the resistance values reflect changes in air temperature. These resistance values are sent to the recording system as sinusoidal waveforms (normal airflow).

Warning: Wipe the Ultima Breath Sensor Interface with an isopropyl alcohol pad prior to first use.

To connect the Ultima Breath Sensor Interface to the thermistor and to the recording system

1. Choose the Nellcor® BreathSensor™ Airflow Thermistor to fit the patient.
2. Apply the thermistor to the patient as described in the Directions for Use supplied with the thermistor.

Caution: On the Nellcor® BreathSensor™ Airflow Thermistor Models 971, 974, 978, 976, do **NOT** fold the flat tab with circuitry printed on both sides. Keep the tab flat when you insert the tab into the Ultima Breath Sensor Interface.

3. Insert the plastic tab of the thermistor as far as it will go into the Thermistor Interface Connector on the Ultima Breath Sensor Interface.
The tab fits snugly inside the connector.
4. Place the security hole on the airflow thermistor over the male portion of the security snap. See Figure 2.



Figure 2: Placement of the BreathSensor™ Airflow Thermistor and the security snap

5. Close the snap securely. See Figure 3.



Figure 3: Security snap securely holds the BreathSensor™ Airflow Thermistor

6. Plug the 1.5 mm safety pins into the headbox of your recording system.

Technical Specifications

Output Type	AC Low Voltage
Maximum Output Range	2–3 mV
Typical Output Range	0.5mV
Weight in Grams (Including the battery)	15
Battery Type	Lithium
Auto-Off	Disconnect the thermistor to turn off the Ultima Breath Sensor Interface
Cable Length	5.75 Feet 190 centimeters
Life Expectancy	One year from Date of Manufacture