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- the equipment is used in accordance with the operations manual.

Spacelabs Medical will make available, on request, such circuit diagrams, component part lists, descriptions, calibration instructions or other information which will assist appropriately qualified technical personnel to repair those parts of the equipment which are classified by Spacelabs Medical as field repairable.

Spacelabs Medical is committed to providing comprehensive customer support beginning with your initial inquiry through purchase, training, and service for the life of your Spacelabs Medical equipment.

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Caution:

Rx Only

US Federal law restricts the devices documented herein to sale by, or on the order of, a physician.

⚠️ Before use, carefully read the instructions, including all warnings and cautions.
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### Appendix A — Symbols
## Introduction

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<td>4</td>
</tr>
</tbody>
</table>

### Overview

The Flexport® system interface provides access to monitoring data at the patient bedside. It enables data from compatible third-party peripheral devices such as ventilators, multigas analyzers, pulse oximeters, NIBP monitors, IV pumps, incubators, and capnographs to be displayed on Spacelabs Medical monitors.

The Flexport system interface provides current numeric data, alarm information, and selected waveforms to the Spacelabs Medical monitor, enables you to print the current display, and can support data transfer via the Data Shuttle® option (refer to Supporting Data Transfer on page 1-3).

Once device data is in the Spacelabs Medical monitor, it becomes an integral part of the monitoring system and can be communicated over the network to other locations providing alarms, centralized display, trending, and documentation capabilities at remote locations.

### Flexport System Interface Basics

The interface uses RS-232 serial communications to collect data and then transmits the data, via synchronous data link control (SDLC) communications, to the Spacelabs Medical monitor.

The Flexport system interface has a male, 9-pin, SDLC connector at one end and either a female, 6-pin, modular jack or a female, 8-pin receptacle at the other end (refer to Figure 1-1). The interface contains no operator controls. Power to the interface is provided by the Spacelabs Medical monitor through the SDLC connection.

![Figure 1-1: Flexport system interface](image)
Setup

The Flexport system interface uses two cables:

- The "L-shaped" SDLC cable connects the Spacelabs Medical monitor to the Flexport system interface.
- The modular cable has modular connectors (similar to U.S. telephone connectors) at each end and connects the Flexport system interface to the peripheral device.

![Diagram of SDLC cable, transition connector, and SDLC terminator]

The transition connector adapts the modular cable to the peripheral device.

The SDLC terminator is used at one end of the SDLC cable when the SDLC cable is not used to connect additional Spacelabs Medical products to the Spacelabs Medical monitor.

**Note:**

- After receiving your Flexport installation kit, contact your Field Service Engineer or your Biomedical Department to install your SDLC cable and terminator on your monitor or module housing.
Introduction

Connecting the Flexport System Interface

The Flexport system interface connects to a peripheral device such as a ventilator, IV pump, multigas analyzer, or capnograph as shown in Figure 1-3.

**Note:**
Your device setup may differ from the graphic shown here. Refer to the chapter corresponding to your peripheral device for specific setup information.

![Figure 1-3: Flexport system interface connections](image)

**Caution:**
Attach only Spacelabs Medical-approved accessories to RS-232 connectors.

Supporting Data Transfer

If you use the interface with a Spacelabs Medical monitor that includes a multi-parameter module with the Data Shuttle option, you can use that module’s data transfer capability to pass data from one monitor to another. To ensure the integrity of your data, you must finish data collection before you begin the transfer process. To end data collection, disconnect the modular cable from the interface.

For further information on the Data Shuttle option, refer to the Bedside/Transport Monitors chapter in the Ultraview Care Network Operations Manual (P/N 070-1150-XX, located on CD-ROM 084-1101-xx)
Help Messages

If you are in doubt about a key, touch the monitor HELP key, and then touch the key in question. The monitor will display a brief description of its function.
SenTec Digital Monitor

Directory of Keys
(with PCO₂/SpO₂/PR parameters enabled on SenTec device)

SDM - MENU
- ALARM LIMITS
- SETUP
- FREEZE
- ON
- OFF
- VIEW ALARMS
- PRINT

SDM - SETUP
- SIZE
- SWEEP SPEED
- LARGE TXT
- SMALL TXT

SDM - SETUP - SIZE
- WAVEFORM
- ON
- OFF
- SIZE
- ↑
- ↓

SDM - SETUP - SWEEP SPEED
- 50 mm/sec
- 25 mm/sec
- 12.5 mm/sec
- 6.25 mm/sec
- 3.12 mm/sec
- 1.56 mm/sec
- 0.78 mm/sec
- 0.39 mm/sec

SDM - ALARM LIMITS
- PCO₂
- SPO₂
- PR

SDM - ALARM LIMITS - PR
- ON
- OFF
- HI = XX
- LO = XX

SDM - ALARM LIMITS - SPO₂
- ON
- OFF
- HI = XX
- LO = XX

SDM - ALARM LIMITS - PCO₂
- ON
- OFF
- HI = XX
- LO = XX
Directory of Keys
(with only PCO₂ parameter enabled on SenTec device)

These keys appear on the bedside monitor only.
Overview

The 90442A-03 Flexport system interface enables information from a SenTec Digital Monitor (SDM) to be displayed on Spacelabs Medical monitors.

Configure the SDM as shown in Table 1. Consult the SDM manual for additional configuration setup procedures.

Table 1: SenTec Digital Monitor Configuration

<table>
<thead>
<tr>
<th>Baud Rate</th>
<th>Minimum Software Revision</th>
<th>Installation Kit Part Number</th>
<th>Transition Connector Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>9600</td>
<td>v06.10</td>
<td>045-0162-xx</td>
<td>131-1972-xx (9 pin)</td>
</tr>
</tbody>
</table>
Connecting the Flexport System Interface

To connect the Flexport system interface to the SDM, complete the steps listed in the following Quickstart.

To connect the Flexport system interface:

- Connect the SDLC cable to the 9-pin male connector on the Flexport system interface as shown in Figure 1-3 on page 1-3.
- Plug one end of the modular cable into the modular jack on the Flexport system interface.
- Plug the other end of the modular cable into the transition connector.
- Plug the transition connector into the 9-pin connector on the back of the SDM serial port.

The Spacelabs Medical monitor is now ready to display information from the SDM. To control other interface functions, refer to the sections that follow.

Note:

During the warm-up phase, the PCO$_2$ values display in grey on the device and the monitor displays question marks (???). Once the device is sufficiently warmed up, PCO$_2$ values will display normally.

Display Detail

When you power ON a Spacelabs Medical monitor that is properly connected to a Flexport system interface, the monitor provides the following information from the SDM.

![Figure 2-1: Bedside monitor, large text screen with PCO$_2$/SpO$_2$/PR enabled](image)

Figure 2-1: Bedside monitor, large text screen with PCO$_2$/SpO$_2$/PR enabled
Figure 2-2: Bedside monitor, large text screen with only PCO$_2$ enabled

Figure 2-3: Bedside monitor, small text screen with PCO$_2$/SpO$_2$/PR enabled

Figure 2-4: Bedside monitor, small text screen with only PCO$_2$ enabled

Figure 2-5: Central monitor, split screen with PCO$_2$/SpO$_2$/PR enabled
Enabling Alarms

The **Alarm Limits** menu allows you to enable alarm limits for each parameter. When an alarm is turned ON and that parameter value exceeds an alarm limit, all of the following occur:

- an alarm tone sounds,
- the SDM key flashes,
- the alarm limits key for that parameter flashes, and
- the alarm bell flashes.

When all parameter alarms are turned OFF, alarm status messages will still cause the SDM key to flash. Alarm settings default to ON.

**Note:**
- *Turning Flexport system interface alarms ON or OFF does not affect alarm settings on the SDM.*
- *Alarm limits can only be adjusted at the SDM. Alarm violation is detected at the SDM, and the Flexport system interface reports the alarm if it is turned ON for that parameter.*
- *Alarm tones on the SDM can be selectively enabled or disabled. If alarm tones are also disabled at the Spacelabs Medical monitor(s), alarm violations will be reported visually only.*
To turn alarms ON or OFF from the Spacelabs Medical monitor:

- Touch SDM.
- Select ALARM LIMITS.
- Select an alarm parameter.
- Touch the parameter alarm ON/OFF key.

Viewing Alarm Settings

The VIEW ALARMS key enables you to display the current alarm settings for the SDM’s parameters (refer to Figure 2-7, Figure 2-8, Figure 2-9, and Figure 2-10). If alarms for all parameters are turned OFF, the Spacelabs Medical monitor displays SDM ALM OFF to the right of the SDM key. If alarms are turned ON for any parameter, a bell is displayed. The alarm bell flashes when an alarm limit is violated.

To view alarm settings:

- Touch SDM.
- Touch VIEW ALARMS.

---

**Figure 2-7:** View Alarms screen, large text, PCO₂/SpO₂/PR enabled

**Figure 2-8:** View Alarms screen, small text, PCO₂/SpO₂/PR enabled
Entering Setup Information

Changing setup information is helpful in optimizing the monitor display. The SETUP key controls the functions described below and affects only the monitor at which these adjustments are made.

Turning Waveforms ON or OFF

You can turn waveforms OFF and display only the numeric values. When waveforms are OFF, the SIZE ↑ and SIZE ↓ keys, the SWEEP SPEED key, and the FREEZE ON/OFF keys are disabled.

The default setting is WAVEFORM ON.

When PCO2 is the only parameter enabled on the SDM device, the WAVEFORM ON/OFF key, the SWEEP SPEED key, and the FREEZE ON/OFF keys are not displayed on Spacelabs Medical monitors.

To turn the waveform display ON or OFF:
- Touch SDM.
- Touch SETUP.
- Touch SIZE.
- Select WAVEFORM ON/OFF.
Adjusting the Waveform Size

If the waveform is too large to fit within the display zone, use the waveform size keys to adjust the display size.

Note: The WAVEFORM ON/OFF key must be set to ON for the size keys to appear and function.

To adjust waveform size:
- Touch SDM.
- Touch SETUP.
- Touch SIZE.
- Touch SIZE ↑ or SIZE ↓ to adjust the waveform size.

Selecting a Sweep Speed

The sweep speed determines the speed at which the waveform trace moves across the display. Available sweep speeds are: 50, 25, 12.5, 6.25, 3.12, 1.56, 0.78, and 0.39 mm/second.

The default setting is 12.5 mm/second.

To select a sweep speed:
- Touch SDM.
- Touch SETUP.
- Touch SWEEP SPEED.
- Select the desired speed.

Selecting a Display Format

Two display formats are available for the bedside monitor (refer to Display Detail on page 2-4).

The default setting is LARGE TXT.

To select a display format:
- Touch SDM.
- Touch SETUP.
- Select LARGE TXT or SMALL TXT.
Freezing the Waveform on the Display

The FREEZE ON key enables you to freeze the waveform on the display. When you freeze the waveform, the Flexport system interface continues to process, update, and display numeric information.

The default setting is FREEZE OFF.

To freeze the waveform on the display:
- Touch SDM.
- Select FREEZE ON.

Printing the Current Display

Touch the PRINT key to print the information shown on the current display. Each recording is identified by the bed name, patient name, time, and date.

Note:
- The patient name you enter in the Spacelabs Medical monitor is the name that appears on the printout.
- The PRINT key does not print the waveform. A waveform recording is obtained by touching the monitor RECORD key.

To print the SDM display:
- Touch SDM.
- Touch PRINT.

Status Messages

The message COMMUNICATION LINK LOST indicates a problem with the SDM or cabling. If the monitor displays this message, perform the following troubleshooting steps:
- Verify that the SDM is powered ON.
- Verify that all cables are secure.

Note:
- When powering OFF the SDM with all cables attached, do NOT power the SDM back ON until after the Flexport channel has disappeared from the Spacelabs Medical monitor (approximately one minute).
Table 2 lists the status messages that the Flexport system interface reports for the SenTec Digital Monitor during Flexport system interface operation.

**Table 2: Status Messages**

<table>
<thead>
<tr>
<th>Message Text</th>
<th>Indication</th>
<th>Alarm Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONITOR FAULT</td>
<td>Monitor faulty, do not use — contact qualified service personnel.</td>
<td>Yes</td>
</tr>
<tr>
<td>CONNECT SENSOR</td>
<td>Sensor is not detected — if sensor is connected, replace, do not use.</td>
<td>Yes</td>
</tr>
<tr>
<td>SENSOR FAULT</td>
<td>The system detected a severe sensor fault. Sensor is shut down — do not use.</td>
<td>Yes</td>
</tr>
<tr>
<td>TEMP. LIMITER ACTIVE</td>
<td>Temperature surveillance detected a temperature problem.</td>
<td>Yes</td>
</tr>
<tr>
<td>GAS LEAK IN DOCKING STATION</td>
<td>Docking station (DS) surveillance detected a leak in the DS chamber (for example, polluted by sensor gel).</td>
<td>Yes</td>
</tr>
<tr>
<td>SENSOR OFF PATIENT</td>
<td>The sensor was dropped or is removed from the patient and calibration is needed.</td>
<td>Yes</td>
</tr>
<tr>
<td>CALIBRATE SENSOR</td>
<td>Sensor is removed from the docking station and calibration is needed.</td>
<td>Yes</td>
</tr>
<tr>
<td>DOCKING STATION FAULT</td>
<td>Docking station surveillance detected a severe DS fault (for example, the gas pressure too high).</td>
<td>Yes</td>
</tr>
<tr>
<td>GAS BOTTLE EMPTY</td>
<td>Gas bottle on the docking station is empty.</td>
<td>Yes</td>
</tr>
<tr>
<td>SPO2 STABILIZING</td>
<td>SpO₂ and pulse rate are not stable.</td>
<td>No</td>
</tr>
<tr>
<td>LOW SIGNAL</td>
<td>Low pulse signal.</td>
<td>No</td>
</tr>
<tr>
<td>MOTION ARTIFACT</td>
<td>Motion artifact detected.</td>
<td>No</td>
</tr>
<tr>
<td>SITE TIME ELAPSED</td>
<td>Check measurement site, and if necessary, relocate the sensor to prevent skin irritation.</td>
<td>Yes</td>
</tr>
<tr>
<td>REMEMBRANCE SENSOR</td>
<td>The sensor needs to be remembrance.</td>
<td>Yes</td>
</tr>
<tr>
<td>BATTERY LOW</td>
<td>Battery capacity is low (&lt;10%) while the power supply cable is unplugged or the power supply is plugged in and charging.</td>
<td>Yes</td>
</tr>
<tr>
<td>PCO2 STABILIZING</td>
<td>PCO₂ measurement is not yet stable after sensor application. PCO₂ values do not yet reflect patient data.</td>
<td>No</td>
</tr>
</tbody>
</table>
### Table 2: Status Messages (continued)

<table>
<thead>
<tr>
<th>Message Text</th>
<th>Indication</th>
<th>Alarm Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>READY FOR USE</td>
<td>This sensor is removed from the docking station and calibration is NOT needed</td>
<td>No</td>
</tr>
</tbody>
</table>
Appendix A — Symbols

The following list of international and safety symbols describes all symbols used on Spacelabs Medical products. No one product contains every symbol.

HELP Key
Keyboard Connection

SPECIAL FUNCTIONS Key
Mouse Connection

RECORD Key
START/STOP Key

NORMAL SCREEN Key
START/STOP

MONITOR SETUP Key
STOP or CANCEL Key

ALARMS Key
CONTINUE Key

PREVIOUS MENU Key
ENTER Key

ON — Power Connection to Mains
OFF — Power Disconnection from Mains

ON Position for Push Button Power Switch
OFF Position for Push Button Power Switch

ON/OFF

Television; Video Display
Video Output

ON — Part of the Instrument Only
OFF — Part of the Instrument Only
### Appendix A — Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="#" alt="Standby" /></td>
<td>Standby</td>
</tr>
<tr>
<td><img src="#" alt="Power ON/OFF Key" /></td>
<td>Power ON/OFF Key</td>
</tr>
<tr>
<td><img src="#" alt="PAUSE or INTERRUPT" /></td>
<td>PAUSE or INTERRUPT</td>
</tr>
<tr>
<td><img src="#" alt="Slow Run" /></td>
<td>Slow Run</td>
</tr>
<tr>
<td><img src="#" alt="Alarm Reset" /></td>
<td>Alarm Reset</td>
</tr>
<tr>
<td><img src="#" alt="Power Indicator LED" /></td>
<td>Power Indicator LED</td>
</tr>
<tr>
<td><img src="#" alt="Alarm Audio ON" /></td>
<td>Alarm Audio ON</td>
</tr>
<tr>
<td><img src="#" alt="Alarm Audio OFF" /></td>
<td>Alarm Audio OFF</td>
</tr>
<tr>
<td><img src="#" alt="Alarm Audio Paused" /></td>
<td>Alarm Audio Paused</td>
</tr>
<tr>
<td><img src="#" alt="Activate Telemetry Recorder" /></td>
<td>Activate Telemetry Recorder</td>
</tr>
<tr>
<td><img src="#" alt="Indicator — Remote Control" /></td>
<td>Indicator — Remote Control</td>
</tr>
<tr>
<td><img src="#" alt="Indicator — Local Control" /></td>
<td>Indicator — Local Control</td>
</tr>
<tr>
<td><img src="#" alt="PRINT REPORT Key" /></td>
<td>PRINT REPORT Key</td>
</tr>
<tr>
<td><img src="#" alt="Indicator — Out of Paper" /></td>
<td>Indicator — Out of Paper</td>
</tr>
<tr>
<td><img src="#" alt="Partial ON/OFF Recorder" /></td>
<td>Partial ON/OFF Recorder</td>
</tr>
<tr>
<td><img src="#" alt="Recorder Paper" /></td>
<td>Recorder Paper</td>
</tr>
<tr>
<td><img src="#" alt="Normal Screen" /></td>
<td>Normal Screen</td>
</tr>
<tr>
<td><img src="#" alt="Return to Prior Menu" /></td>
<td>Return to Prior Menu</td>
</tr>
<tr>
<td><img src="#" alt="Clock/Time Setting Key" /></td>
<td>Clock/Time Setting Key</td>
</tr>
<tr>
<td><img src="#" alt="TREND/TIMER Key" /></td>
<td>TREND/TIMER Key</td>
</tr>
<tr>
<td><img src="#" alt="HELP (Explain Prior Screen) Key" /></td>
<td>HELP (Explain Prior Screen) Key</td>
</tr>
<tr>
<td><img src="#" alt="Keypad" /></td>
<td>Keypad</td>
</tr>
<tr>
<td><img src="#" alt="Activate Recorder for Graphics" /></td>
<td>Activate Recorder for Graphics</td>
</tr>
<tr>
<td><img src="#" alt="Indoor Use Only" /></td>
<td>Indoor Use Only</td>
</tr>
<tr>
<td><img src="#" alt="START (NIBP) Key" /></td>
<td>START (NIBP) Key</td>
</tr>
<tr>
<td><img src="#" alt="Auto Mode (NIBP)" /></td>
<td>Auto Mode (NIBP)</td>
</tr>
<tr>
<td><img src="#" alt="Output (Non-terminated)" /></td>
<td>Output (Non-terminated)</td>
</tr>
<tr>
<td><img src="#" alt="No Output (Terminated)" /></td>
<td>No Output (Terminated)</td>
</tr>
</tbody>
</table>
Appendix A — Symbols

- **Data Input/Output**
- **Input**
- **Menu Keys**
- **Monitor Setup**
- **Select Program Options**
- **Set Initial Conditions Menu**
- **Access Special Function Menu**
- **Return Unit to Monitor Mode**
- **Serial Port 1**
- **Serial Port 2**
- **External Marker Push Button Connection**
- **Arterial Pulse**
- **Gas Exhaust**
- **Enlarge, Zoom**
- **PCMCIA Card**
- **Keep Dry**
- **Environmental Shipping/Storage Altitude Limitations**
- **Environmental Shipping/Storage Temperature Limitations**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Data Input/Output" /></td>
<td>Data Input/Output</td>
</tr>
<tr>
<td><img src="image" alt="Input" /></td>
<td>Input</td>
</tr>
<tr>
<td><img src="image" alt="Menu Keys" /></td>
<td>Menu Keys</td>
</tr>
<tr>
<td><img src="image" alt="Monitor Setup" /></td>
<td>Monitor Setup</td>
</tr>
<tr>
<td><img src="image" alt="Select Program Options" /></td>
<td>Select Program Options</td>
</tr>
<tr>
<td><img src="image" alt="Set Initial Conditions Menu" /></td>
<td>Set Initial Conditions Menu</td>
</tr>
<tr>
<td><img src="image" alt="Access Special Function Menu" /></td>
<td>Access Special Function Menu</td>
</tr>
<tr>
<td><img src="image" alt="Return Unit to Monitor Mode" /></td>
<td>Return Unit to Monitor Mode</td>
</tr>
<tr>
<td><img src="image" alt="Serial Port 1" /></td>
<td>Serial Port 1</td>
</tr>
<tr>
<td><img src="image" alt="Serial Port 2" /></td>
<td>Serial Port 2</td>
</tr>
<tr>
<td><img src="image" alt="External Marker Push Button" /></td>
<td>External Marker Push Button</td>
</tr>
<tr>
<td><img src="image" alt="Arterial Pulse" /></td>
<td>Arterial Pulse</td>
</tr>
<tr>
<td><img src="image" alt="Gas Exhaust" /></td>
<td>Gas Exhaust</td>
</tr>
<tr>
<td><img src="image" alt="Enlarge, Zoom" /></td>
<td>Enlarge, Zoom</td>
</tr>
<tr>
<td><img src="image" alt="PCMCIA Card" /></td>
<td>PCMCIA Card</td>
</tr>
<tr>
<td><img src="image" alt="Keep Dry" /></td>
<td>Keep Dry</td>
</tr>
<tr>
<td><img src="image" alt="Environmental Shipping/Storage Altitude Limitations" /></td>
<td>Environmental Shipping/Storage Altitude Limitations</td>
</tr>
<tr>
<td><img src="image" alt="Environmental Shipping/Storage Temperature Limitations" /></td>
<td>Environmental Shipping/Storage Temperature Limitations</td>
</tr>
</tbody>
</table>

**Additional Symbols:**
- **Input/Output**
- **Reset**
- **Waveform/Parameter Keys**
- **SDLC Port**
- **Electrocardiograph or Defibrillator Synchronization**
- **Foot Switch**
- **Delete**
- **Event**
- **Fragile; Handle with Care**
- **This Way Up**
- **Environmental Shipping/Storage Humidity Limitations**
Appendix A — Symbols

- Open Padlock
- Closed Padlock
- Down Arrow
- Up Arrow
- Hard Drive
- Power Indicator LED
- Antenna
- Mermaid Connector
- Microphone
- Omnidirectional Microphone
- Audio Output, Speaker
- Universal Serial Bus
- Network Connection
- Oxygen reference gas port
- Gas Sampling Port
- Gas Return Port
- Low Priority Alarm
- Nurse Call
- High Priority Alarm
- Medium Priority Alarm
- Alarms Paused
- Nurse Alert Interface
- Battery Status
- Alarm OFF
- Battery
  - Replace only with the appropriate battery.
- Low Battery
Appendix A — Symbols

All batteries should be disposed of properly to protect the environment. Lithium batteries should be fully discharged before disposal. Batteries such as lead-acid (Pb) and nickel-cadmium (Ni-Cd) must be recycled. Please follow your internal procedures and or local (provincial) laws regarding disposal or recycling.

Caution - hazardous voltages. To reduce risk of electric shock, do not remove the cover or back. Refer servicing to a qualified field service engineer (U.S.A.). DANGER - High Voltage (International)

Replace only with the appropriate battery. (+ / - signs may be reversed)

This symbol indicates that the waste of electrical and electronic equipment must not be disposed as unsorted municipal waste and must be collected separately. Please contact an authorized representative of the manufacturer for information concerning the decommissioning of your equipment.

Protective Earth Ground

Functional Earth Ground

Replace Fuse Only as Marked

Fuse

Power supply jack polarity. (+ / - signs may be reversed)

Equipotentiality Terminal

Alternating Current

Direct Current

Both Direct and Alternating Current

AC/DC Input

Amperes

Hz

Hertz

Volts

W

Watts

IEC 60601-1 Type B equipment. The unit displaying this symbol contains an adequate degree of protection against electric shock.

IEC 60601-1 Class II equipment, double-isolated. The unit displaying this symbol does not require a grounded outlet.
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Person]</td>
<td>IEC 60601-1 Type BF equipment which is defibrillator-proof. The unit displaying this symbol is an F-type isolated (floating) patient-applied part which contains an adequate degree of protection against electric shock, and is defibrillator-proof.</td>
</tr>
<tr>
<td>![Heart]</td>
<td>IEC 60601-1 Type CF equipment. The unit displaying this symbol is an F-type isolated (floating) patient-applied part providing a high degree of protection against electric shock, and is defibrillator-proof.</td>
</tr>
<tr>
<td>![Loop Filter]</td>
<td>Loop Filter</td>
</tr>
<tr>
<td>![ETL]</td>
<td>ETL Laboratory Approved</td>
</tr>
<tr>
<td>![Risk of Explosion]</td>
<td>Risk of Explosion if Used in the Presence of Flammable Anesthetics</td>
</tr>
<tr>
<td>![Note]</td>
<td>Note</td>
</tr>
<tr>
<td>![Warning]</td>
<td>Warning About Potential Danger to Human Beings</td>
</tr>
<tr>
<td>![Noninvasive Blood Pressure]</td>
<td>Noninvasive Blood Pressure (NIBP), Neonate</td>
</tr>
<tr>
<td>![Fetal Monitor Connection]</td>
<td>Fetal Monitor Connection (Analog)</td>
</tr>
<tr>
<td>![RS-232]</td>
<td>Fetal Monitor Connection RS-232 (Digital)</td>
</tr>
<tr>
<td>![Happy Face]</td>
<td>Happy Face</td>
</tr>
<tr>
<td>![Sad Face]</td>
<td>Sad Face</td>
</tr>
<tr>
<td>![Magnifying Glass]</td>
<td>Magnifying Glass</td>
</tr>
<tr>
<td>![File Cabinet]</td>
<td>File Cabinet</td>
</tr>
</tbody>
</table>

IEC 60601-1 Type BF equipment. The unit displaying this symbol is an F-type isolated (floating) patient-applied part which contains an adequate degree of protection against electric shock. |

IEC 60601-1 Type CF equipment. The unit displaying this symbol is an F-type isolated (floating) patient-applied part providing a high degree of protection against electric shock.

Note Attention - Consult Operations or Service Manual for Description |

Warning About Potential Danger to Human Beings |

Caution About Potential Danger to a Device |

Operates on Non-Harmonized Radio Frequencies in Europe |

Canadian Standards Association Approved |

List of Rooms |

Compression |
Appendix A — Symbols

- Arrows
- Recycle
- Non Sterile
- Latex-Free
- Radio transmitting device; elevated levels of non-ionizing radiation
- Batch Code
- Date of Manufacture
- UL recognized component in Canada and United States
- Nellcor Oxisensor II Compatible
- Nellcor OxiMax Compatible
- Spacelabs Compatible
- Masimo SET Compatible
- PVC-Free
- Do Not Reuse; Single Use Only
- Reusable
- Catalog Number
- Nellcor OxiMax Compatible
- Spacelabs TruLink Compatible
- Air
- Diversity Antenna System 1
- Diversity Antenna System 2
- Arrhythmia Net 1
- Arrhythmia Net 2

Abbreviations used as symbols are shown below.

1 - 32 Access Codes 1 Through 32
ANT 1 Diversity Antenna System 1
ANT 2 Diversity Antenna System 2
AIR Air
Arr1 Arrhythmia Net 1
ArrNet2 Arrhythmia Net 2
# Appendix A — Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH</td>
<td>EEG, EMG, or ECG Channel</td>
</tr>
<tr>
<td>ch</td>
<td>EEG Channels - CH1, CH2, CH3, CH4</td>
</tr>
<tr>
<td></td>
<td>EMG Channel - CH5</td>
</tr>
<tr>
<td>C.O.</td>
<td>Cardiac Output</td>
</tr>
<tr>
<td>CO</td>
<td>Cardiac Output</td>
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<tr>
<td>co</td>
<td>Cardiac Output</td>
</tr>
<tr>
<td>ECG</td>
<td>Electrocardiogram</td>
</tr>
<tr>
<td>ecg</td>
<td>Electrocardiogram</td>
</tr>
<tr>
<td>EMG</td>
<td>Electromyogram</td>
</tr>
<tr>
<td>emg</td>
<td>Electromyogram</td>
</tr>
<tr>
<td>EXT</td>
<td>External</td>
</tr>
<tr>
<td>FHR1</td>
<td>Fetal Heart Rate, Channel 1</td>
</tr>
<tr>
<td>FHR2</td>
<td>Fetal Heart Rate, Channel 2</td>
</tr>
<tr>
<td>HLO</td>
<td>High-Level Output</td>
</tr>
<tr>
<td>hlo</td>
<td>High-Level Output</td>
</tr>
<tr>
<td>NIBP</td>
<td>Noninvasive Blood Pressure</td>
</tr>
<tr>
<td>nbp</td>
<td>Noninvasive Blood Pressure</td>
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<tr>
<td>O2</td>
<td>Oxygen</td>
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<tr>
<td>PRESS</td>
<td>PRESS</td>
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<td>press</td>
<td>PRESS</td>
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<tr>
<td>PRS</td>
<td>PRESS</td>
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<tr>
<td>RESP</td>
<td>Respiration</td>
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<td>resp</td>
<td>Respiration</td>
</tr>
<tr>
<td>SPO2</td>
<td>Arterial Oxygen Saturation</td>
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<tr>
<td>SpO2</td>
<td>Arterial Oxygen Saturation</td>
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<tr>
<td>SpO2</td>
<td>Arterial Oxygen Saturation</td>
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<td>SaO2</td>
<td>Arterial Oxygen Saturation</td>
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<td>TEMP</td>
<td>Temperature</td>
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<tr>
<td>temp</td>
<td>Temperature</td>
</tr>
<tr>
<td>cmH₂O</td>
<td>Centimeters of Water</td>
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<tr>
<td>DIA</td>
<td>Diastolic</td>
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<tr>
<td>dia</td>
<td>Diastolic</td>
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<tr>
<td>EEG</td>
<td>Electroencephalogram</td>
</tr>
<tr>
<td>eeg</td>
<td>Electroencephalogram</td>
</tr>
<tr>
<td>ESIS</td>
<td>Electrosurgical Interference Suppression</td>
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<tr>
<td>FECG</td>
<td>Fetal Electrocardiogram</td>
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<tr>
<td>GND</td>
<td>Ground</td>
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<tr>
<td>gnd</td>
<td>Ground</td>
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<tr>
<td>Multiview</td>
<td>Multi-Lead Electrocardiogram</td>
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<tr>
<td>N₂O</td>
<td>Nitrous Oxide</td>
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<tr>
<td>PRESS</td>
<td>Pressure</td>
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<td>press</td>
<td>Pressure</td>
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<tr>
<td>PRS</td>
<td>Pressure</td>
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<tr>
<td>SDLC</td>
<td>Synchronous Data Link Control</td>
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<tr>
<td>SVO2</td>
<td>Mixed Venous Oxygen Saturation</td>
</tr>
<tr>
<td>SV02</td>
<td>Mixed Venous Oxygen Saturation</td>
</tr>
<tr>
<td>SvO2</td>
<td>Mixed Venous Oxygen Saturation</td>
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<tr>
<td>T1</td>
<td>Temperature 1</td>
</tr>
<tr>
<td>T2</td>
<td>Temperature 2</td>
</tr>
<tr>
<td>T3</td>
<td>Temperature 3</td>
</tr>
<tr>
<td>T4</td>
<td>Temperature 4</td>
</tr>
<tr>
<td>UA</td>
<td>Uterine Activity or Umbilical Artery</td>
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<tr>
<td><strong>VAC</strong></td>
<td>Vacuum Connection</td>
</tr>
<tr>
<td>---------</td>
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</tbody>
</table>

Appendix A — Symbols