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French
German
Spanish
Italian
Swedish
Portuguese
Russian
Dutch
Polish

⚠️ General Warnings!
A warning alerts you to possible injury. Specific Warnings and cautions appear next to the relevant instructions in the manual.

- Use the NeoPod T only for its intended use as described in this manual.
- The NeoPod T controller, and Lava Bed, should only be used with delivery tubes or accessories recommended by Westmed Inc. Connection of other delivery tubes or accessories could result in patient injury or damage to the device.
- Do not submerge the NeoPod T in water or other liquid as this may cause damage.
- Do not use water feed set during transport.
- Do not attempt to dismantle the NeoPod T controller. There are no userserviceable parts inside. Repairs and internal servicing should only be performed by an authorized service agent.
- Do not operate the NeoPod T if it is not working properly or if any part of the device has been damaged.
- Keep the cable assembly away from hot surfaces.
- Do not pull or allow the NeoPod T to hang freely from the cable assembly.
- Explosion hazard – do not use in the vicinity of flammable anesthetics or supplemental gases.
- Follow all precautions when using supplemental oxygen.

Disposal:

The controller is considered waste electrical and electronic equipment per directive 2002/96/EC and should be recycled as such. For recycling purposes, the controller is RoHS compliant.

All disposable products should be treated as bio-hazardous waste and the control should be treated per the WEEE directive.
Recommended separation distances between portable and mobile RF communications equipment and the EQUIPMENT

The EQUIPMENT is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the EQUIPMENT can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the EQUIPMENT as recommended below, according to the maximum output power of the communications equipment.

<table>
<thead>
<tr>
<th>Rated maximum output power of transmitter W</th>
<th>Separation distance according to frequency of transmitter M</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>150 kHz to 80 MHz</td>
</tr>
<tr>
<td></td>
<td>d = 1.2ÖP</td>
</tr>
<tr>
<td>0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>0.1</td>
<td>0.38</td>
</tr>
<tr>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>10</td>
<td>3.8</td>
</tr>
<tr>
<td>100</td>
<td>12</td>
</tr>
</tbody>
</table>

For transmitters rated at a maximum output power not listed above, the recommended separation distance \( d \) in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where \( P \) is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

ENGLISH

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Description:
The NeoPod™ T Transport Humidification System and associated breathing circuit is a wick-type respiratory gas heated humidifier system intended for infant use during transport in an appropriate transport incubator or isolette. The system is designed to heat and humidify dry medical gas of up to 100% oxygen.

Indications:
The NeoPod T with Lava Bed Humidifier Cartridge and associated breathing circuits are indicated for infants whose upper airways may have been bypassed and are being transported in an appropriate transport incubator or isolette. The NeoPod T Transport Humidification System is for use only as recommended by a physician.

Contraindications:
Breathing circuit and Lava Bed Humidifier Cartridge should not be used outside the Transport Incubator or isolette. Do not use at a flow rate greater than 10 LPM. Use only with recommended breathing circuit supplied by Westmed, Inc.

Components:
The NeoPod T Transport Humidification System consists of the NeoPod T Controller, Lava Bed Humidifier Cartridge, Power and Controller Cable (includes the Lava Bed Sensor and Airway Sensor), Pole Mount Bracket and Mattress Bracket.

1. Controller: (Figure A) The NeoPod T Controller is the electronic unit that controls the Lava Bed Humidifier Cartridge and monitors the temperature of the system.

![Low Temp Yellow Indicator](https://example.com/low-temp-yellow-indicator.png)
![Temperature Set Point](https://example.com/temperature-set-point.png)
![Alarm Silence](https://example.com/alarm-silence.png)
![On/Off Button](https://example.com/on-off-button.png)
![Lavabed Warming Indicator](https://example.com/lavabed-warming-indicator.png)
![40C Over Temperature Indicator](https://example.com/40c-over-temperature-indicator.png)
![Temp Probe Failure Indicator](https://example.com/temp-probe-failure-indicator.png)
![Green Indicator](https://example.com/green-indicator.png)

**Figure A.**

| Guidance and manufacturer’s declaration - electromagnetic emissions |
|---------------------------------|-------------------|-------------------|
| The EQUIPMENT is intended for use in the electromagnetic environment specified below. The customer or the user of the EQUIPMENT should assure that it is used in such an environment. |

<table>
<thead>
<tr>
<th>Immunity Test</th>
<th>IEC 60601 test level</th>
<th>Compliance Test</th>
<th>Electromagnetic environment-guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrostatic discharge (ESD)</td>
<td>±6 kV contact</td>
<td>±6 kV contact</td>
<td>Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.</td>
</tr>
<tr>
<td>IEC 61000-4-2</td>
<td>±8 kV air</td>
<td>±8 kV air</td>
<td></td>
</tr>
<tr>
<td>Electrical fast Transient/burst</td>
<td>±2 kV for power supply lines</td>
<td>±2 kV for power supply lines</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>IEC 61000-4-4</td>
<td>±1 kV for input/output lines</td>
<td>±1 kV for input/output lines</td>
<td></td>
</tr>
<tr>
<td>Surge</td>
<td>±1 kV differential mode</td>
<td>±1 kV differential mode</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>IEC 61000-4-5</td>
<td>±2 kV common mode</td>
<td>±2 kV common mode</td>
<td></td>
</tr>
<tr>
<td>Voltage dips, short interruptions and voltage variations on power supply input lines</td>
<td>&lt;5 % U_T (&gt;95 % dip in U_T) for 0.5 cycle</td>
<td>&lt;5 % U_T (&gt;95 % dip in U_T) for 0.5 cycle</td>
<td>Main power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>IEC 61000-4-11</td>
<td>40 % U_T (60 % dip in U_T) for 5 cycles</td>
<td>40 % U_T (60 % dip in U_T) for 5 cycles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>70 % U_T (30 % dip in U_T) for 10 cycles</td>
<td>70 % U_T (30 % dip in U_T) for 10 cycles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt;5 % U_T (&gt;95 % dip in U_T) for 5 sec</td>
<td>&lt;5 % U_T (&gt;95 % dip in U_T) for 5 sec</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: U_T is the a.c. mains voltage prior to application of the test level.
Guidance and manufacturer’s declaration - electromagnetic emissions

The EQUIPMENT is intended for use in the electromagnetic environment specified below. The customer or the user of the EQUIPMENT should ensure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Immunity Test</th>
<th>IEC 60601 Test Level</th>
<th>Compliance Test</th>
<th>Electromagnetic environment-guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conducted RF</td>
<td>IEC 61000-4-6 3Vrms</td>
<td>3 Vrms</td>
<td>Portable and mobile RF communications equipment should be used no closer to any part of the EQUIPMENT, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance = 1.20Pd = 1.20P 80 MHz to 800 MHz = 2.30P 800 MHz to 2.5 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol:</td>
</tr>
</tbody>
</table>
| Radiated RF   | IEC 61000-4-3 3V/m 80 MHz to 2.5 GHz | 3V/m | Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the EQUIPMENT is used exceeds the applicable RF compliance level above, the EQUIPMENT should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the EQUIPMENT.

Option 1 (available in select markets only)
For use with the accessory battery provided by Westmed Inc. (See instructions for use included with battery accessory pack).

Airway Temperature Sensor

Power Cable

DC Power Cable PN 9406
Max Length: 200CM (79”)

Option 2
For use with the Transport Incubator 12V Internal Battery Supply.

Airway Temperature Sensor

Lava Bed Sensor

Power Cable

DC Power Cable PN 9400
Max Length: 200CM (79”)

Caution!
Read all instructions prior to use.

Caution! The cable assemblies are sold separately. Please ensure the correct cable assembly is selected for your specific application.

1. Power and Controller Cable Assembly: The NeoPod T is powered by a 12 volt DC power source and can utilize three types of cable assemblies. These include the two separate types of the DC power cables and the AC power converter cable as shown below.

Option 1
For use with the accessory battery provided by Westmed Inc. (See instructions for use included with battery accessory pack).

Airway Temperature Sensor

Lava Bed Sensor

Power Cable

DC Power Cable PN 9406
Max Length: 200CM (79”)

Option 2
For use with the Transport Incubator 12V Internal Battery Supply.

Airway Temperature Sensor

Lava Bed Sensor

Power Cable

DC Power Cable PN 9400
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Caution!
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1. Power and Controller Cable Assembly: The NeoPod T is powered by a 12 volt DC power source and can utilize three types of cable assemblies. These include the two separate types of the DC power cables and the AC power converter cable as shown below.

Option 1 (available in select markets only)
For use with the accessory battery provided by Westmed Inc. (See instructions for use included with battery accessory pack).

Airway Temperature Sensor

Lava Bed Sensor

Power Cable

DC Power Cable PN 9406
Max Length: 200CM (79”)

Option 2
For use with the Transport Incubator 12V Internal Battery Supply.

Airway Temperature Sensor

Lava Bed Sensor

Power Cable

DC Power Cable PN 9400
Max Length: 200CM (79”)
Option 3 (available in select markets only)
For 120-240V AC to 12 Volt DC Power Cable, see “Instructions for Use” included with cable assembly.

2. The Lava Bed Power and Temperature Sensor. To provide power to and monitor the temperature of the Lava Bed Humidifier Cartridge.

3. The Airway Temperature Sensor. This optional sensor monitors the patient airway temperature when the Airway Temperature button is depressed and held.

Additional Component List
• 1 Pole Mount Bracket
• 1 Mattress Bracket

Set up Procedure:
Cable Assembly Attachments
1. Connect grey communication cable to the top left side of the NeoPod T with the flat portion of the connector facing forward and install the Lava Bed Sensor in the Lava Bed Humidifier Cartridge.
2. Attach the optional Airway Temperature Sensor probe to the temperature monitoring port of the circuit on the patient manifold.

Note: Airway Temperature Sensor is an optional connection. The NeoPod T Lava Bed Humidifier Cartridge will function normally without the Airway Temperature Sensor probe installed in the breathing circuit.
3. Connect the color coded terminals of the power cable to a 12 volt DC power source or Plug AC Adaptor into wall outlet.

Caution! The NeoPod T DC power supply cable connection is indicated by the red and black connectors. These must be connected to a 12 volt DC power supply in order to operate properly.

Warranty:
All Westmed products are warranted to be free of defects in material and workmanship for a period of ninety (90) days from date of purchase.

Classification according to IEC 60601-1
- Classification of protection: class II
- Powered by external 12 volt DC power supply
- No internal power supply
- No protective earth ground
- Type of applied part: BF
- Protection from ingress of water: none IPX0
- Mode of operation: capable of continuous operation
- No known potential for adverse affects from electromagnetic or other interference between this device and other known devices
- No known adverse effects on the performance of the humidification system when exposed to, electrocautery, electrosurgery, defibrillation, X-ray (gamma radiation), infrared radiation, conducted transient magnetic fields including magnetic resonance imaging (MRI), and radiofrequency interference.

Gross Dimensions of Controller:
Weight – 180 grams
Height – 83 mm
Length – 118 mm
Width – 43 mm

Guidance and manufacturer’s declaration - electromagnetic emissions
The EQUIPMENT is intended for use in the electromagnetic environment specified below.
The customer or the user of the EQUIPMENT should assure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Emissions Test</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF emissions CISPR 11</td>
<td>Group I</td>
</tr>
<tr>
<td>Harmonic emissions IEC 61000-3-2</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Voltage Fluctuations/ Flicker emissions</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

The EQUIPMENT is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
**Servicing:**
The NeoPod T should be inspected for proper function at a minimum of every 5 years. While Westmed can provide this service, an in house inspection can be performed once per year as follows:

**Connect the NeoPod T to the cable assembly**
Place the Lava Bed probe (not attached to the Lava Bed) in a temperature controlled environment. (Note the isolette may work for this purpose). Place a calibrated temperature probe in close proximity to the Lava Bed temperature probe. Note the probe must include 30 to 43 degrees C in its range.

Caution, the terminals inside the Lava Bed probe will be charged during this testing so do not allow any metal or electrical conductive items to short the terminals.

Set the temperature of the controlled environment to 30 degrees C and allow time for it to reach temperature. Verify the calibrated temperature probe shows 30 degrees C.

Set the temperature control of the NeoPod T to 30 degrees C and switch the power on. Observe the Green Heater LED flashes and is illuminated approximately 50% of the time and the green normal temperature LED is illuminated. All other LEDs should be extinguished. Set the temperature control of the NeoPod T to 37 degrees C and verify the Low Temp and the Green Heater LEDs are illuminated and all other LEDs are extinguished. Set the temperature controlled environment to 37 degrees C and allow time for it to reach temperature. Verify the calibrated temperature probe shows 37 degrees C. Set the temperature control of the NeoPod to 30 degrees verify high temp LED is illuminated full time and all other LEDs are extinguished. Set the temperature control of the NeoPod T to 37 degrees C. Observe the Green Heater LED flashes and is illuminated approximately 50% of the time and the green Normal temperature LED is illuminated.

If temperature controlled environment can be set to a minimum of 42 degrees and allow time for it to reach temperature. If not, disregard (Item 1 below).

1. As the calibrated temperature probe reaches 40 degrees the high temperature alarm LED and audible alarm on the NeoPod T should turn on. All other LEDs should be extinguished. Press the alarm silence button. Verify the high temperature LED is illuminated and the audible alarm turns off. All other LEDs should be extinguished.

2. This device is intended to provide safe and reliable operation provided that it is operated
drafted in accordance with the instructions provided by Westmed Inc. As with all
electrical devices, if any irregularity becomes apparent, you should take caution and have
the device inspected by a Westmed Inc. repair specialist.

**Specifications:**

- **Input Voltage:** 12VDC +2.5 / - 1.5
- **Input Current:** 1.7A (maximum at 10 Liters/Minute and 38°C)
- **Output Temperature Range:** 30 – 38°C @100% RH
- **Warm up time:** 15 min maximum
- **Water reservoir capacity:** 20ml
- **Maximum system operating pressure:** 70cm H₂O
- **Maximum system operating pressure:** 21-38°C
- **Compliance:** 0.66 ml/kPa full – 1.1ml/kPa empty

- **Flow Resistance:** 1 cm of H₂O at 20 Liters/Minute
- **Total System Leakage:** less than 60ml/min at 60 cm of H₂O
- **Water reservoir capacity:** 20ml

**Breathing Circuit Connections:**

1. Westmed Inc. supplies breathing circuits that are specified for use with the NeoPod T transport humidification system and are intended for use with a variety of ventilators, each circuit package contains a selection of connectors and adaptors to facilitate the connection the ventilator.
2. Refer to individual circuit product package instructions for use and performance specifications.
3. Ensure the correct circuit assembly is selected for your specific application.
4. Water Feed: The Lava Bed Humidifier Cartridge should be filled with 20 ml of sterile water using a syringe.

**Warning!** Potential unsafe condition could result if using other than Westmed Inc. specified breathing circuits or accessories with the NeoPod T Transport Humidification System.

**Caution!** Do not use a water feed set during transport. Motion or conditions that are not level can cause the cartridge’s water level float to malfunction.

**Caution!** If an excessive amount of water is supplied to the cartridge, the safety drain opens and drains the excess water out the bottom of the cartridge.

**Caution!** To avoid excessive condensation do not use the breathing circuit or Lava Bed Humidifier Cartridge outside of the transport incubator or isolette.

**Note:** Periodically observe water reservoir and if additional water is required during transport, add as required only with a syringe. To prevent excess water from entering the patient circuit, the cartridge incorporates a safety drain.
Cautions!
1. Do not operate the Controller if damaged.
2. Do not use in the presence of flammable anesthetic agents or supplemental gases.
3. Do not use a water feed set during transport.
4. Only use 20 ml Syringe to fill and refill Lava Bed.
5. NEO-POD T needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this manual.
6. Portable and mobile RF communications equipment can affect NEO-POD T.
7. The use of accessories, transducers and cables other than those specified by WESTMED, may result in increased EMISSIONS or decreased IMMUNITY of NEO-POD T.
8. The NEO-POD T should not be used adjacent to or stacked with other equipment and if adjacent or stacked use is necessary, the EQUIPMENT should be observed to verify normal operation in the configuration in which it will be used.

Starting and Stopping Treatment:
1. Ensure the NeoPod T is set up correctly per the individual circuit product instructions for use.
2. Fill the Lava Bed Humidifier Cartridge with no more than 20 ml of water.
3. Turn the On/Off control of the NeoPod T to “ON”.
4. Set the Temperature Control to the desired temperature 30 – 38°C. Set temperature should be no more than 1°C above isoket temperature.
5. Set ventilator or oxygen supply flow meter to desired settings.
6. Ensure the desired temperature setting in the Lava Bed Humidifier Cartridge is obtained before connecting the circuit to the patient’s airway. This will be confirmed when the green indicator light is on. (Please reference Components Section, 1, Controller, Figure A).

Controls:
- On / Off switch: turns the power on and off for both the NeoPod T and the Lava Bed Humidifier Cartridge Temperature control: Sets temperature of gas at the Lava Bed outlet port.
- Airway Temperature button: When pushed and held, displays the temperature at the Airway Temperature Sensor.
  Note: When the Airway Temperature Button is released the display will resume displaying the Lava Bed outlet temperature as explained below in B, C and D.
- Alarm Silence button: Silences the audible alarm for 90 seconds.

Alarms:
Any alarm will give both a visual indication and audible alarm. The audible alarm can be silenced for 90 seconds by pressing the Alarm Silence button; however, the alarm LED will remain illuminated as long as the alarm condition exists. Any alarm will disable the heater in the Lava Bed Humidifier Cartridge until the alarm condition is cleared.
- Probe Sensor Alarm: Indicates that the Lava Bed Humidifier Cartridge Sensor Airway Temperature Sensor has failed.
- 40°C Alarm indicates that either the Lava Bed Sensor, or if used the Airway Temperature Sensor has detected temperatures at or above 40°C.

Display: (Refer to Figure A.)
A) This Green LED is illuminated whenever power is being applied to the heater in the Lava Bed Humidifier Cartridge.
B) This Green LED is illuminated when the monitored temperature (Lava Bed Humidifier Cartridge or Airway) is within 1.5°C of the temperature set on the Temperature Control. This Yellow LED is illuminated when the monitored temperature (Lava Bed Humidifier Cartridge or Airway) is 1.5°C or more below the temperature set on the Temperature Control.
C) This Green LED is illuminated when the monitored temperature (Lava Bed Humidifier Cartridge or Airway) is within 1.5°C of the temperature set on the Temperature Control.
D) This Yellow LED is illuminated when the monitored temperature (Lava Bed Humidifier Cartridge or Airway) is 1.5°C or more above the temperature set on the Temperature Control.

Cleaning and Maintenance:
Periodically the NeoPod T controller may be wiped off using a damp cloth.

Warning!
Unplug the cable from the NeoPod T prior to cleaning. Do not put the Controller in water or other liquid as this may cause damage.