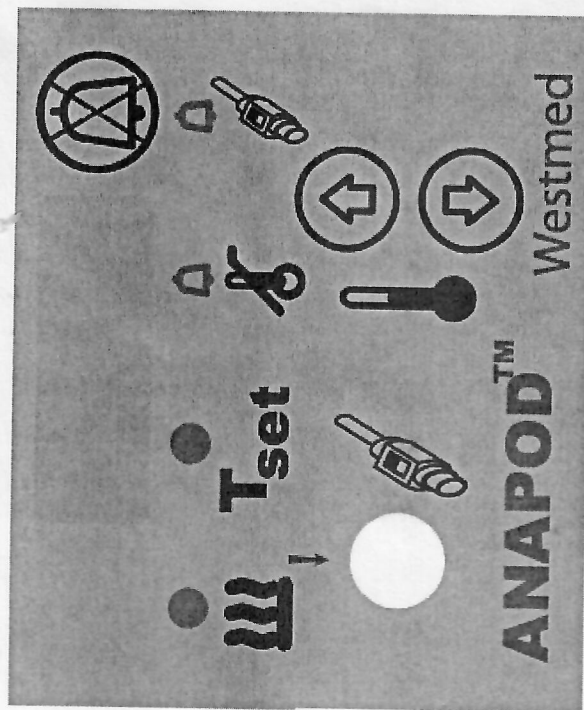


# ANAPOD™ Instructions For Use



Westmod

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### Description:

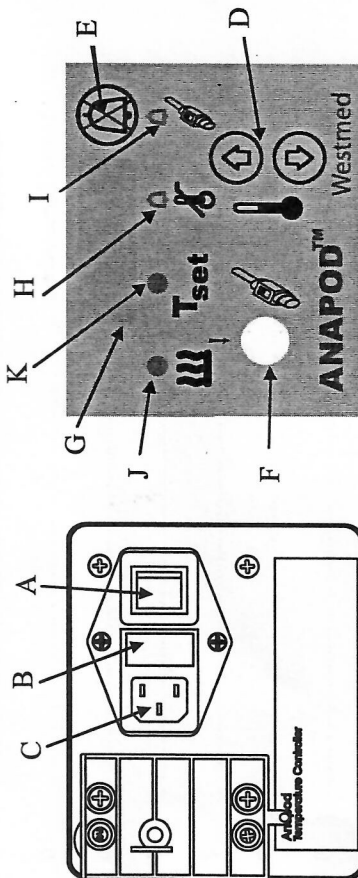
The ANAPOD™ Humidification System and associated breathing circuit is a wick-type anesthesia gas heated humidification system intended for use in an operating room setting, post anesthesia care unit setting, or for patient transport. The system is designed to heat and humidify cold dry medical gases.

### Overview:

The ANAPOD™ Humidification System consists of the ANAPOD™ Controller, ANAPOD™ Humi-Therm Heated and Humidified Breathing Circuit, Power Cable, Controller Cable.

1. **Controller:** (Figure A) The ANAPOD™ Controller is the electronic unit that controls the heated wick circuit and monitors the temperature of the system.

### Front and rear view of the ANAPOD™



(Figure A)

### Controls and Displays: (Refer to Figure A)

#### Rear panel

- A - Main power switch
- B - Fuse (2A, 250VAC, slow blow) for Domestic (A2003-1)
- Fuse (1A, 250VAC, slow blow) for International (A2003-2)
- C - AC power connection (includes AC power for International)

#### Front panel

- D - Temperature control buttons (34°C to 45°C)
- E - Audible alarm silence button
- F - Sensor cable connector

#### L.E.D. Indicators:

- G - Breathing circuit temperature display (degrees C)
- H - High Temp Alarm - "On" when temperature probe senses an overtemp conditions (47.5°C)
- I - Probe Failure Alarm - "On" when probe malfunction or circuit disconnect occurs
- J - Heater Power Indication - "On" when wick circuit is being heated (constant); and (blinking) when set temperature has been reached
- K - Temperature Set Indication - Illuminated to indicate the set temperature on the display

#### Display: (Refer to Figure A.)

Green LED is illuminated when power is applied to the heater in the wick circuit.

Green LED is illuminated when set temperature is displayed. When the temperature set is displayed, the Test LED will remain On for 2-3 seconds. Push UP arrow button or DOWN arrow button momentarily to display set temperature.

Yellow LED is illuminated when an overtemp condition is sensed at the patient end of the breathing circuit.

Yellow LED is illuminated when probe failure or circuit disconnect occurs.

Temperature Display illuminates breathing circuit temperature (°C).

#### Audible Alarm:

An alarm will activate when:

- Patient breathing circuit temperature exceeds 47.5°C
- A defective or damaged sensor is detected in the wick circuit.
- The cable assembly is damaged or disconnected from the controller.

### Controls:

- O I On/Off switch: Turns the power on and off for both ANAPOD™ Humidification System and heated wick circuit Temperature Controls buttons: Sets the desired temperature.



Alarm Silence button: Silences the audible alarm for 2 minutes.

### Alarms:



All alarms generate both a visual indication and an audible alarm, and are Low Priority alarms. The audible alarm can be silenced for 2 minutes by pressing the Alarm Silence button; however, the alarm LED will remain illuminated as long as the alarm condition exists. As a reminder, audible alarm will initiate again if condition is not resolved. All alarms will disable the heater in the wick circuit.



Probe Sensor Alarm: Indicates a probe failure or circuit disconnect. (To test this alarm, disconnect cable while controller is ON.)



Over Temperature Alarm: Indicates the wick circuit internal temperature probe has detected temperature at above 47.5°C.

### Temperature Measurement:

The ANAPOD™ uses one temperature sensor which is located inside each heated wick circuit. There are no external probes to attach. This probe is calibrated to measure the temperature of the flowing gas at the patient end of the wick circuit. As with all heated systems, there is a certain drop in temperature in unheated wyes, elbows, and ET tubes. You can expect a temperature drop of approximately 4 - 5°C from the wick circuit outlet to the inlet of the ET tube under normal operating room conditions. It may be necessary to overcome heat loss in the last few non heated inches of the tubing, cuff, patient wye, elbow and/or ET tube. You may also need to compensate for ambient temperatures and/or low airflows. Using the ANAPOD™ Humidification System outside of the operating temperature range of 16°C to 45°C has the potential to affect performance. It is recommended that it be kept within this temperature range during use. Testing shows the following typical temperature drops between wick circuit output and ET tube:

Displayed	Delivered at ET tube
37°C	34°C
41°C	37°C
45°C	40°C

### Specifications:

- Input Voltage: 120VAC +/- 10%, single phase, 50 – 60Hz for Domestic (A2003-1)
- 240VAC +/- 10%, single phase, 50 – 60Hz for International (A2003-2)
- Input Current: 2.0A AC rms for Domestic (A2003-1) (maximum at 12 Liters / Minute and 45°C.) 1.0A AC rms for International (A2003-2) (maximum at 12 Liters / Minute and 45°C.)
- Output Power – 50W max
- Current leakage: Double insulated, Designed to meet UL 544.
- Output Temperature Range: 34°C to 45°C (+/- 0.5°C) @95%+ R.H. (99% certainty)
- Maximum output temperature: 47.5°C
- Minimum Humidification output: 37mg H<sub>2</sub>O / Liters/Minute (at 34°C)
- Maximum Humidification output: 65mg H<sub>2</sub>O / Liters/Minute (at 45°C)
- Input Flow rate: 12 Liters per minute maximum
- Gas Path Resistance: 0 to 0.06 cm H<sub>2</sub>O / Liters/Minute (at maximum flow rate)
- Gas Path Compliance: 2.5 to 2.8 mL/cm H<sub>2</sub>O
- Warm up time: 15 min maximum
- Maximum system operating pressure: 70cm H<sub>2</sub>O
- Operating Temperature Range: 16°C to 45°C (9,500-ft or less)
- Gas Inlet Temperature Range: 16°C to 45°C
- While packed for transport or storage, equipment is capable of being exposed to a temperature range of -40°C to +60°C, 15% to 90% R.H.(9,500-ft or less)
- Power cord third conductor is only a functional earth

### Classification according to IEC 60601-1

- Classification of protection: Class II
- Type of applied part: BF (Breathing tube and patient-end connectors)
- Protection from ingress of water: none IPX0
- Mode of operation: capable of continuous operation
- No known potential for adverse effects 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:

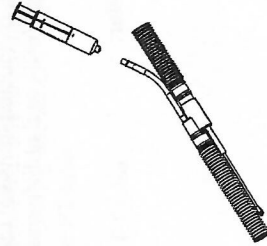
- Weight - 540g (1.19lbs)
- Height - 102mm (4.0")
- Length - 123mm (4.85")
- Width - 82.5mm (3.25")



### Starting and Stopping Treatment:

1. Ensure the ANAPOD™ Humidification System is set up correctly per the individual circuit product instructions for use. Specific instructions for use of the breathing circuits are provided in their individual packaging.
2. To add water remove screw cap from water bottle included with ANAPOD™ circuit. Aspirate 20 ml of water from the water bottle into syringe (Refer to Figure B). Attach syringe to the one-way valve and inject 20 ml of water into the tube and circuit. Aspirate another 20 ml into the syringe and inject into the tube for a total volume of 40 ml. There should be no pooling of water within the circuit. The water that was introduced into the circuit should be sufficient to provide up to 8 hours of operation at 2 LPM flow. If there is less than 6" of condensation visible within the inspiratory tubing, then add more water. Add approximately 12 cc of water for each additional hour of use. If you accidentally overfill the circuit, simply drain excess water at the end of the tube. The ANAPOD™ cable assembly connects to the front of the controller. The opposite end of the cable assembly has a white 4-pin plastic connector that connects to the 4-pin plastic connector on the heated wick circuit. These two connectors lock together with a "snap" and are "keyed" to prevent improper connection.
3. The heated wick circuit will remain at a constant temperature regardless of flow if you preheat the system. Condensation will form along the inside of the tubing. As the water in the wick circuit is depleted, the condensation will slowly dissipate beginning at the machine end of the circuit. When the last 6 inches of the breathing circuit shows condensation additional water should be added.
4. Turn the On/Off control on the back panel of the ANAPOD™ Humidification System to "ON".
5. Set gas flow to desired settings on the gas source equipment or flowmeter.
6. Set the Temperature Control to the desired temperature 34° – 45°C. To increase temperature, press UP arrow button, and to decrease temperature, press DOWN arrow button. Temperature setting can be achieved by momentarily pressing arrow button, or press and hold until the desired temperature is reached. Set temperature can be displayed at any time when the UP arrow button or DOWN arrow button is pushed.
7. Ensure the desired temperature setting in the heated wick circuit is reached before connecting the circuit to the patient airway. Confirm the temperature on the front panel display.
8. To stop treatment, turn the On/Off Control to "OFF". Disconnect the circuit from the cable assembly by depressing the latch on the white connector and separating the connectors.
9. Dispose of the used circuit when the procedure is completed (all disposable products should be treated as bio-hazard waste).

**NOTE: The cable assembly is designed to be reused, do not dispose with the breathing circuit.**



(Figure B)

### Indications:

- The ANAPOD™ Humidification System is used to heat and humidify dry gas as recommended by a physician.
- The ANAPOD™ Humidification System is intended for use with patients whose upper airways have been bypassed. It may also be used with patients whose upper airway have not been bypassed.
- The ANAPOD™ Humidification System will provide heat and humidified gas at flow rates up to 12 LPM.

### Contraindications:

- Do not use at a flow rate greater than 12 LPM. At flow rates greater than 12 LPM heat and humidification will be reduced.



### Caution!

1. Read all instructions prior to use.
2. Do not operate the Controller if damaged.
3. Do not use in the presence of flammable anesthetic agents or flammable supplemental gases.
4. The ANAPOD™ should be used by personnel trained in use of heated humidification in a gas delivery system.



### General Warnings!

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

- Use only with ANAPOD™ breathing circuits supplied by Westmed, Inc.
- Use only with cable assembly and power cable supplied by Westmed, Inc.
- Position the ANAPOD™ Controller such that the front panel controls and connectors, and rear panel are easily accessible. A pole mount bracket is provided.
- Unplug the AC power cable from ANAPOD™ Humidification System prior to cleaning. Do not immerse Controller in water or other liquid as this may cause damage.
- Use the ANAPOD™ Humidification System for its intended use ONLY as described in this manual.
- The ANAPOD™ Humidification System controller and Heated Breathing Circuit should only be used with delivery tubes or accessories recommended by Westmed Inc. Utilization of other delivery tubes or accessories could result in patient injury or damage to the device.
- Do not attempt to dismantle the ANAPOD™ Humidification System Controller. Repairs and internal servicing should only be performed by an authorized Westmed service representative.
- Do not operate the ANAPOD™ Humidification System 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 ANAPOD™ Humidification System to hang freely from the cable assembly.
- Explosion hazard - Do not use in the vicinity of flammable anesthetics or flammable supplemental gases.
- Follow all precautions when using supplemental oxygen.
- Do not use the ANAPOD™ Humidification System at an altitude above 9,500-ft or outside a temperature of 16°C to 45°C. Using the device outside the temperature range or above this altitude can affect the quality of the therapy or injure the patient.
- Covering breathing tubes with blanket or heating them in an incubator or with an overhead heater can affect the quality of the therapy or injure the patient.

**Servicing:**

Beyond the replacement of the back panel fuse or the controller cable, there are no user serviceable parts associated with ANAPOD™ Humidification System. Disconnect AC plug from AC power connection before replacing the fuse or performing any service related functions.

Replacing the main fuse (Refer to Figure A): To replace the (2) main fuses, locate the AC inlet and remove the power cord. The center section of the AC inlet houses the fuse holder and is opened by using a small standard screwdriver to gently pry the center section loose. Once the fuse holder has been dislodged, the fuse holder easily slides out and the fuse may be replaced. After replacing the failed fuse(s) with the same rated fuse, inset the fuse holder back into the AC inlet housing and plug in the AC power cord. Your ANAPOD™ Humidification System is now ready to use.

**NOTE:** Only trained Westmed service representatives can diagnose and/or repair your ANAPOD™ Humidification System. If your system needs either, contact your Westmed customer service representative to obtain a return material authorization.

**Cleaning:**

Periodically the ANAPOD™ Humidification System controller may be wiped off using a damp cloth with mild detergent.

**Preventive Maintenance:**

The ANAPOD™ Humidification System should be inspected by an authorized Westmed Inc. repair specialist five years from the date of manufacturing. Prior to this, the device is intended to provide safe and reliable operation provided it is operated and maintained in accordance with the instructions provided by Westmed Inc. As with all electrical devices, if any irregularity becomes apparent, take caution and have the device inspected by a Westmed Inc. repair specialist.

**Warranty:**

ANAPOD™ Controller is warranted to be free of defects in material and workmanship for a period of 1-year from the date of purchase.

**Disposal:**

☒ The controller is considered waste electrical and electronic per WEEE directive 2012/19/EU and should be recycled as such. For recycling purposes, the controller is RoHS compliant.

All disposable products should be treated as bio-hazardous waste. Controller should be treated per the WEEE directive, 2012/19/EU