SECTION

English .............................................................................. A

Français .............................................................................. B

Español .............................................................................. C

PACKAGE CONTENTS

A

[Image of product with package contents: 2 x, 1 x, 1 x, 1 x, 1 x]

B

[Image of product with package contents: 1 x, 1 x, 1 x]

230UM-3L-185043325F 3
# SleepStyle™ 200 Series

HUMIDIFIED CPAP SYSTEMS

The SleepStyle™ 200 Series are a range of CPAP systems designed for use in the home for the treatment of OSA.

For further assistance, please contact your local F&P office – see reverse for addresses. Please keep this manual for future reference.

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<tr>
<td>15. Appendix</td>
<td>A-10</td>
</tr>
</tbody>
</table>

Please read all instructions before initial use.

Caution: USA Federal Law restricts this device for sale by or on the order of a physician.
1. SYMBOL DEFINITIONS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type BF</td>
<td>Applied Part</td>
</tr>
<tr>
<td>ATTENTION</td>
<td>Consult accompanying documents</td>
</tr>
<tr>
<td>IPX1</td>
<td>Drip Proof</td>
</tr>
<tr>
<td>Alternating</td>
<td></td>
</tr>
<tr>
<td>Class II</td>
<td>Double Insulated</td>
</tr>
<tr>
<td>Standby or On/Off</td>
<td></td>
</tr>
<tr>
<td>CE 0123</td>
<td></td>
</tr>
</tbody>
</table>

2. WARNINGS

PLEASE NOTE: This manual refers to the SleepStyle™ 200 Series CPAP unit as "the device".

1. The device should only be used with masks, connectors and delivery tubes recommended by Fisher & Paykel Healthcare, or by your physician or respiratory therapist.
2. Never operate the device if:
   a) it has a damaged power cord or plug, b) the tube has been damaged with holes, tears or kinks, c) it has been dropped or damaged, d) it has been dropped into water, e) it is not working properly, f) it is connected to a PC during CPAP treatment.
   Return the device to an authorised service center for examination and repair.
3. Do not use the device when the room temperature exceeds 35°C (95°F) as this may lead to an elevated airflow temperature which may give rise to an irritation of the airways.
4. Ensure an air filter is fitted when operating your device.
   * 5. Remove the humidification chamber before filling.
   * 6. Do not fill the chamber with boiling water.
   * 7. When handling the device with chamber and water avoid tilting the device to prevent any chance of water entering the device enclosure.
   * 8. Place your device on a level surface lower than your head height to prevent water entering the respiratory tubing should the device be knocked over.
   9. Do not store or use your device where it can fall or be dropped or damaged, d) it has been damaged with holes, tears or kinks, c) it has been dropped into water.
10. Never block the air openings of the device or place it on a soft surface such as a bed or couch, where the filter area may be blocked. Keep the air openings free of lint, hair or the like.
11. Ensure the device is dry before plugging into the power socket.
12. A mask should not be used unless the device is switched on, and operating properly. The vent hole(s) associated with the mask should never be blocked.
13. Due to the operating temperature of the heater plate, avoid making contact to the exposed heater plate or chamber base.
14. At low CPAP pressures, the flow through the mask may be insufficient to clear all exhaled gas from the tubing, and consequently some re-breathing may occur.
15. Adjusting the pressure control can result in ineffective therapy. The pressure control must only be adjusted by a healthcare professional.
16. Never drop or insert any object into any opening or tube.
17. Always switch off the device and unplug the power cord from the power socket before cleaning.
   * 18. Empty all the water from the chamber before transporting your device.
   19. Refer all maintenance to qualified service personnel except as outlined in this manual.

* Only applicable to integrated CPAP devices

3. OXYGEN USE WARNINGS

If supplemental oxygen is used with the device, the oxygen flow must be turned off when the device is not operating. This ensures that oxygen will not flow through the tube and accumulate in the device enclosure.

- The device should be located in a position where ventilation around the device is not restricted.
- It is recommended that supplemental oxygen be administered at the mask.
- Oxygen should not be used while smoking or in the presence of an open flame.
- The use of oxygen in therapy requires that special care be taken to reduce the risk of fire. Any materials which will burn in air and some that will not are easily ignited and burn rapidly in high concentrations of oxygen. Accordingly, for safety it is necessary that all sources of ignition be kept away from the product and preferably out of the room in which it is being used.
- A spontaneous and violent ignition may occur if oil, grease or greasy substances come in contact with oxygen under pressure. These substances must be kept away from oxygen regulators, cylinder valves, tubing and connections, and all other oxygen equipment.
- At a fixed flow rate of supplemental oxygen flow, the inhaled oxygen concentration will vary, depending on the pressure settings, patient breathing pattern, mask selection and leak rate.

4. INTENDED USE

The device is used to assist with patient breathing while sleeping, for the purpose of treating Obstructive Sleep Apnea (OSA). This is done by the delivery of Continuous Positive Airway Pressure (CPAP) in order to prevent airway obstruction. The addition of heated respiratory humidification to the device relieves the drying and irritating effects on the patient airways which usually arises from use of a CPAP system. The CPAP device is for use on adult patients at home or in the sleep lab. Please refer to the HC230-Series Product range listed in the Appendix section of this manual.
5. DESCRIPTION OF THE DEVICE

5.1 Important Parts of Your Device - Standard Range

FILTER HOLDER  POWER CORD  DISPLAY
AIR FILTER  SERIAL PORT

5.2 Important Parts of Your Device - Integrated Range

FILTER HOLDER  POWER CORD  ON/OFF BUTTON
AIR FILTER  SERIAL PORT  DISPLAY
HEATERPLATE  CHAMBER GUARD  WATER CHAMBER
WATER LEVEL LINE  FUNNEL

5.3 Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion Kit – Cold Humidification</td>
<td>HC013</td>
</tr>
<tr>
<td>Conversion Kit – Heated Humidification</td>
<td>HC014</td>
</tr>
<tr>
<td>Standard Humidification Chamber</td>
<td>HC385S</td>
</tr>
<tr>
<td>Extended Life Humidification Chamber</td>
<td>HC355*</td>
</tr>
<tr>
<td>Connector</td>
<td>900HC010</td>
</tr>
<tr>
<td>Tube</td>
<td>900HC221</td>
</tr>
<tr>
<td>Filter</td>
<td>900HC240</td>
</tr>
<tr>
<td>Compliance Maximizer Software</td>
<td>900HC230</td>
</tr>
<tr>
<td>Compliance Download Serial Cable</td>
<td>900HC232</td>
</tr>
<tr>
<td>Titration Maximizer Software</td>
<td>900HC236</td>
</tr>
<tr>
<td>Isolated Serial Adaptor</td>
<td>900HC236</td>
</tr>
<tr>
<td>Lead Extension Kit</td>
<td>900HC226</td>
</tr>
</tbody>
</table>

*Not available in all countries
6. CLEANING & MAINTENANCE

1. Switch off the device and unplug from the power socket.

2. Wipe the exterior of the device with a clean, damp (not wet) cloth and mild dishwashing detergent. Do not use harsh abrasives or solvents, as these may damage the device.

3. DAILY
   Clean chamber and tube.
   • Remove the breathing tube from the chamber.
   • Rinse the tube with soapy water. Hang up hose with hose ends pointing to floor to dry.
   • Remove the chamber by pushing down the finger guard and pulling out the chamber.
   • Pour out & discard the remaining water.
   • Clean the chamber with soapy water, rinse and dry.

4. WEEKLY
   Thoroughly clean the chamber.
   • Soak the inside of the chamber for 10 minutes in a solution of one part white vinegar to two parts water.

5. Replace the air filter when it becomes significantly discoloured, at least once every 3 months or after 1000 hours machine running time.
   • Remove the filter holder from the back of the device and take out the filter.
   • Replace the old filter with a new filter: Ensure the vertical black line is facing towards the device.

7. SETUP INSTRUCTIONS

HOW TO SET UP YOUR SYSTEM

1. Remove your device from its packaging.

2. Place the device on a low shelf or on the floor beside your bed, so that the device is positioned below head height.

3. Chamber Setup (only applicable to integrated CPAP devices)
   a. Remove one water chamber from the packaging.
   b. Remove the blue caps and discard them (Fig.1).
   c. Fill the chamber up to the water filling line with distilled water only (Fig.2).
   Never fill the chamber while it is attached to the device.
   When moving your device, ensure that the water chamber is empty.
   Device failure due to water damage is not covered by warranty.
   d. To attach the water chamber to the device, press down the finger guard and slide the chamber on (Fig.3) (Fig. 4).
   e. When the chamber is fitted correctly, the finger guard will click into place.

4. One end of the tube has a white plastic connector. Push this onto the outlet on top of the chamber (Fig.5) or CPAP outlet (Fig.5a).

5. Connect the other end of the tube to the mask.

6. Plug the device power cord into your household power socket and into the rear of the device.

7. Switch on the device by pressing the on/off button (See Fig.6).
   The current humidity setting is displayed.

8. For changing the setting refer to section 8 “Controls and Display”.

Your device is now ready for use.
8. CONTROLS AND DISPLAY - INTEGRATED CPAP RANGE

8.1 DISPLAY DESCRIPTION AND FUNCTIONS

### KEY
- **ON/OFF**
  - **FUNCTION & DESCRIPTION**: Switches the device ON & OFF
  - **OPERATION**
    - TO SWITCH “ON”
      - Press button briefly
      - The device will default to display the humidity setting.
    - TO SWITCH “OFF”
      - Remove your mask
      - Press button briefly

- **RAMP**
  - **FUNCTION & DESCRIPTION**: Reduces pressure to a lower level to help you fall asleep. The pressure will gradually return to full operating pressure over 20 minutes
  - **OPERATION**
    - TO START THE RAMP
      - Press the button
      - NB: to reset ramp during a cycle the device must be switched off first
    - TO SWITCH “OFF”
      - Press the button

- **INCREASE/DECREASE**
  - **FUNCTION & DESCRIPTION**: Adjusts settings up or down
  - **OPERATION**
    - Press the and button to raise or lower settings

- **MODE**
  - **FUNCTION & DESCRIPTION**: To step through options
  - **OPERATION**
    - Press sequentially to step through and view options available

### PATIENT MENU
- **DISPLAY**
  - For viewing of CPAP settings, humidity, compliance data, altitude and pressure settings
  - **TO VIEW ITEMS**
    - Press the button to sequentially view:
      - **Humidity Setting** (default display)
        - For adjusting humidity levels to minimize upper airway side effects from CPAP use. Press and buttons to raise or lower settings
      - **Total run hours**
        - Displays the total number of hours the device has been switched on (includes hours without mask use)
      - **Average compliance hours per night**
        - Displays average number of hours the device has been used at night with the mask on
      - **Checksum**
        - Displays information for medical practitioner or dealer use to check compliance
      - **Altitude setting**
        - Displays altitude setting
      - **Pressure setting**
        - Displays pressure setting

### PATIENT MENU - ADDITIONAL SETTINGS
- **DISPLAY**
  - To access additional settings:
    - From the Default setting “HUMIDITY” press the key for 3 seconds
    - To view subsequent items:
      - Press the key
  - **TO VIEW ITEMS**
    - **Altitude**
      - Select “m” for metres or “ft” for feet using the and keys
      - Press to exit menu
      - NOTE: Failure to select correct altitude setting (for any given location) will have an adverse effect on delivered pressure.
    - **Actual Pressure**
      - Displays actual pressure
      - NOTE: Only available on devices with Automatic Altitude Adjustment/Leak Compensation feature

- **NOTE**: Manual adjustment of altitude is not featured on units where there is the Automatic Altitude Adjustment/Leak Compensation feature
- **NOTE**: Only available on devices with Compliance Monitoring.
8.2 Patient Menu Summary - Integrated CPAP Range

- Press to activate Ramp
- Increase
- Decrease
- Press once to switch device on/off
- Display

- MODE

*Only available on devices with Compliance Monitoring.*

8.3 Patient Menu - Additional Settings Summary - Integrated CPAP Range

- Warning: Failure to select correct altitude setting (for any given location) will have an adverse effect on delivered pressure.
9. CONTROLS AND DISPLAY - STANDARD CPAP RANGE

9.1 DISPLAY DESCRIPTION AND FUNCTIONS

<table>
<thead>
<tr>
<th>KEY FUNCTION &amp; DESCRIPTION</th>
<th>OPERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON/OFF</td>
<td>TO SWITCH “ON”</td>
</tr>
<tr>
<td></td>
<td>• Press button briefly</td>
</tr>
<tr>
<td></td>
<td>• The device will default to display the humidity setting.</td>
</tr>
<tr>
<td></td>
<td>TO SWITCH “OFF”</td>
</tr>
<tr>
<td></td>
<td>• Remove your mask</td>
</tr>
<tr>
<td></td>
<td>• Press button briefly</td>
</tr>
<tr>
<td>RAMP</td>
<td>TO START THE RAMP</td>
</tr>
<tr>
<td></td>
<td>• Press the button</td>
</tr>
<tr>
<td></td>
<td>NB: To reset ramp during a cycle the device must be switched off first</td>
</tr>
<tr>
<td>INCREASE/DECREASE</td>
<td>• Press the and button to raise or lower settings</td>
</tr>
<tr>
<td>MODE</td>
<td>• Press sequentially to step through and view options available</td>
</tr>
</tbody>
</table>

### PATIENT MENU - DISPLAY OPERATION

For viewing of CPAP settings, humidity, compliance data, altitude and pressure settings

<table>
<thead>
<tr>
<th>DISPLAY</th>
<th>OPERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Type (default display)</td>
<td>Displays model type as default setting</td>
</tr>
<tr>
<td>Total run hours</td>
<td>Displays total number of hours the device has been switched on (includes hours without mask use)</td>
</tr>
<tr>
<td>Average compliance hours per night*</td>
<td>Displays average number of hours the device has been used at night with the mask on</td>
</tr>
<tr>
<td>Checksum*</td>
<td>Displays information for medical practitioner or dealer use to check compliance</td>
</tr>
<tr>
<td>Altitude setting</td>
<td>Displays altitude setting</td>
</tr>
<tr>
<td>Pressure setting</td>
<td>Displays pressure setting</td>
</tr>
</tbody>
</table>

### PATIENT MENU - ADDITIONAL SETTINGS

- To access additional settings:
  - From the Default setting
  - Press the key for 3 seconds
- To view subsequent items:
  - Press the key.

<table>
<thead>
<tr>
<th>DISPLAY</th>
<th>OPERATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altitude</td>
<td>Select “m” for metres of “f” for feet using the and keys</td>
</tr>
<tr>
<td>3000</td>
<td>- Set the altitude level by pressing the and keys</td>
</tr>
<tr>
<td></td>
<td>- Press to exit menu</td>
</tr>
<tr>
<td>Actual Pressure</td>
<td>Displays actual pressure</td>
</tr>
</tbody>
</table>

*NOTE: Manual adjustment of altitude is not featured on units where there is the Automatic Altitude Adjustment/Leak Compensation feature
* Only available on devices with Automatic Altitude Adjustment/Leak Compensation feature

*Only available on devices with Compliance Monitoring.
9.2 Patient Menu Summary - Standard CPAP Range

- Press to activate Ramp
- Press once to switch device on/off
- Increase/Decrease
- Display

MODE

**Models HC231 HC232**

- Model Type (default) → Total Run Time hr → Average Hours per night * hr/
- Check sum* → Altitude Setting → Pressure Setting cmH2O → RETURN TO DEFAULT

**Model HC236**

- Model Type (default) → Total Run Time hr → Average Hours per night * hr/
- Check sum* → Pressure Setting cmH2O → RETURN TO DEFAULT

* Only available on devices with Compliance Monitoring.

9.3 Patient Menu - Additional Settings Summary - Standard CPAP Range

- MODE

**Models HC231 HC232**

- ADVANCED PATIENT MENU → (ft or m) → 3000 → RETURN TO DEFAULT
- Select Units for Altitude
- Increase/Decrease altitude Level

**Model HC236**

- ADVANCED PATIENT MENU → ACTUAL PRESSURE cmH2O → RETURN TO DEFAULT

* Warning: Failure to select correct altitude setting (for any given location) will have an adverse effect on delivered pressure.
10. FREQUENTLY ASKED QUESTIONS

- For integrated CPAP devices:
  a. When I wake up in the morning, my nose and throat feel dry. What can I do?
     Try increasing your humidity setting. If this does not help, please contact your clinician for advice.
  b. How do I prevent condensation in the tubing?
     The humidity setting enables adjustment of humidity, so that there should be fine misting in the six inches (183cm) of the breathing tube closest to your face. If the humidity setting is too high for the conditions, condensation may occur in the breathing tube.
     Note: Using greater than 6’ (183 cm) of tubing will increase condensation.
     There are several ways of reducing condensation in the tube:
     i. Ensure the device is not positioned in a cool draft.
     ii. Decrease the humidity setting on your device slightly. Gradually decrease the setting until the condensation no longer occurs.
     iii. Warm the air in the room.
  c. Do I have to use distilled water with my device?
     The use of distilled water will maximize the life of the water chamber. Water from the faucet will often contain minerals which can damage the chamber, causing pitting in the base, even if the water is passed through a filter.
  d. When do I replace my water chamber?
     Replace the chamber if the plastic walls of the chamber become cracked or cloudy or the chamber base becomes pitted. (Note: If the chamber leaks at all, it should be replaced immediately).

- Can I use my device in other countries?
  Yes. Simply use the appropriate electrical socket adaptor and the device will automatically adapt to any voltage supply.
  Note: When moving your device, ensure that the water chamber is empty. Machine failure due to water damage is not covered by warranty.

- Can I use supplemental oxygen with my device?
  Yes, oxygen can be administered at the mask. Turn the device on before turning on the oxygen. Ensure that the oxygen source is turned off before turning off the device to avoid oxygen accumulating in the machine.

11. SPECIFICATIONS

<table>
<thead>
<tr>
<th>DIMENSIONS:</th>
<th>275mm x 170mm x 140mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEIGHT:</td>
<td>1.9kg (4.2lbs)</td>
</tr>
<tr>
<td>ELECTRICAL RATINGS</td>
<td></td>
</tr>
<tr>
<td>Supply Frequency:</td>
<td>50-60 Hz</td>
</tr>
<tr>
<td>Supply Voltage and Current</td>
<td>100-115V~ (1.2A, 1.3A max), 220-240V~ (0.8A, 1.8A max)</td>
</tr>
<tr>
<td>DC to AC Inverter requirements:</td>
<td>115V - 200W/300W surge 230V - 300W/500W surge</td>
</tr>
<tr>
<td>Heater Plate:</td>
<td>85W max</td>
</tr>
<tr>
<td>Heater Plate Temperature:</td>
<td>65°C (149°F) max</td>
</tr>
<tr>
<td>PRESSURE RANGE:</td>
<td>4 to 20 cmH2O</td>
</tr>
<tr>
<td>ALTITUDE RANGE:</td>
<td>0 to 3000m, or 0 to 9000 ft</td>
</tr>
</tbody>
</table>

STANDARDS COMPLIANCE
Designed to conform to the requirements of: EN / IEC 60601-1
UL60601-1
CSA C22.2/No.601.1
AS3200.1.0

The device complies with the electromagnetic compatibility requirements of IEC 60601-1-2. In certain circumstances, the device may affect or be affected by nearby equipment due to the effects of electromagnetic interference. If this should happen, try moving your unit or the location of the device causing interference, or alternatively consult your homecare provider.
12. **Operating Conditions:**

**Ambient Temperature:** 5 - 35°C  
**Humidity:** 10 - 95% RH  
**Altitude:** 0 - 3000m (9000 ft)  
Above 1500m (4500 ft) the maximum operating pressure will be reduced.

13. **Storage and Transport Conditions:**

The device should be stored and transported in environmental conditions of: -10 to 60°C.

14. **Troubleshooting:**

If you feel that your device is not operating correctly, consult your homecare dealer.  
Do not attempt to repair the device yourself.

Fisher & Paykel Healthcare have a policy of continued product improvement and reserve the right to alter specifications without notice.

15. **Appendix**

The following table lists the main difference in features across the HC230 Product Range.

<table>
<thead>
<tr>
<th>Features</th>
<th>Product Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard CPAP</td>
<td>HC231</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fully Integrated CPAP with Heated Humidification</td>
<td>✓</td>
</tr>
<tr>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Patient Compliance Monitoring (LCD &amp; Full Download)</td>
<td>✓</td>
</tr>
<tr>
<td>Auto Altitude Adjustment</td>
<td>✓</td>
</tr>
<tr>
<td>Leak Compensation</td>
<td>✓</td>
</tr>
<tr>
<td>Ambient Tracking PLUS</td>
<td>✓</td>
</tr>
<tr>
<td>Proportional Ramp</td>
<td>✓</td>
</tr>
</tbody>
</table>

Note:

- Some models may not be available for sale in certain countries