SPECIFICATIONS

Size: 94 mm x 154 x 135, Weight 1.7 kg (no chamber fitted), 2.0 kg (chamber fitted and filled with water).
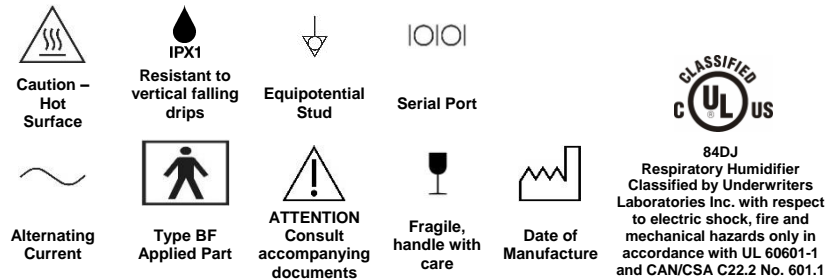
ELECTRICAL RATINGS:

Supply frequency: 60 Hz, Voltage: 115 V~, Current: 1.6 A max at 115 V~
Power Input: 200 VA, Heater plate: 150 W.
Heater wire: 22 V~, 1.36 A, 30 W, 60 Hz
Heater plate over temperature cut out 93 ± 6 °C
IEC 60601-1 Classification Class I, Type BF, IPX1

Representative Performance (Heater wire mode) (at 22°C ambient)

Breathing Circuit	Setting	Patient interface temperature (°C)	
		Flow range 5-20 L/Min	Flow range 5-60 L/Min
900MR810/ 900MR810E	Low	28 to 29	28 to 29
	Medium	28 to 30	28 to 31
	High	31 to 32	30 to 32

SYMBOL DEFINITIONS:

Caution – Hot Surface

IPX1 Resistant to vertical falling drips

Equipotential Stud

Serial Port

84DJ Respiratory Humidifier Classified by Underwriters Laboratories Inc. with respect to electric shock, fire and mechanical hazards only in accordance with UL 60601-1 and CAN/CSA C22.2 No. 601.1

Alternating Current

Type BF Applied Part

ATTENTION Consult accompanying documents

Fragile, handle with care

Date of Manufacture

185042330 Rev F 2019-03 © 2019 Fisher & Paykel Healthcare Limited

WARNING:

- The MR810 does not deliver body temperature saturated gases and is therefore not recommended for patients with bypassed airways.
- The use of breathing circuits, chambers, or other accessories which are NOT approved by Fisher & Paykel Healthcare, may impair performance or compromise safety.
- Refer to operating instructions for each accessory.
- Ensure maintenance of grounding integrity by connecting to an appropriately grounded "hospital grade" receptacle.
- Ensure that the humidifier is always positioned lower than the patient's airway.
- Ensure the humidifier is securely mounted.
- DO NOT use for flow <5 L/min.
- The operation of high frequency surgical apparatus, short wave or microwave equipment in the vicinity of the humidifier may adversely affect its function. If this occurs the humidifier should be removed from the vicinity of such devices.
- The serial port must not be used when the humidifier is in patient use. Equipment connected to the serial port must comply with the safety standard IEC60950 for Personal Computers.
- This device is not suitable for use in the presence of flammable anaesthetic mixes or nitrous oxide.
- Remove any sources of ignition: such as cigarettes, an open flame, or materials which burn or ignite easily at high oxygen concentrations.
- Keep oxygen regulators, cylinder valves, tubing connections and all other oxygen equipment away from oil, grease, or greasy substances. Spontaneous and violent ignition may occur if these substances come into contact with oxygen under pressure.
- Visually inspect equipment for damage before use.
- Hot surfaces may exceed 75 °C (167°F)
- California residents please be advised of the following, pursuant to Proposition 65: This product contains chemicals known to the State of California to cause cancer, birth defects and other reproductive harm. For more information, please visit: www.fphcare.com/prop65

RX Only

The Following Accessories are required:

Humidifier Chamber (e.g.: MR290)
Breathing Circuit (e.g.: Home use - 'Evatherm' 900MR810, Hospital use - RT219 / RT202)
Mounting Bracket (to suit ventilator)

Choice will depend on application. Please contact your local F&P Healthcare representative for recommendations.
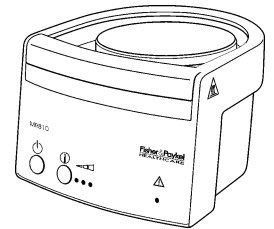

Indications for Use:

The Fisher & Paykel MR810 System is intended to provide therapeutic levels of heat and humidity to a patient's inspired respiratory gases, when using a continuous or intermittent non-invasive ventilator system or a continuous gas flow system. The MR810 System is intended for non-invasive therapies only. Addition of heat and humidity to the supply of cold and dry respiratory gases provided through non-invasive ventilation is beneficial to prevent drying of the patient airways.
The MR810 System is designed for use in hospitals, long term care facilities and homes under the prescription of a qualified medical professional.

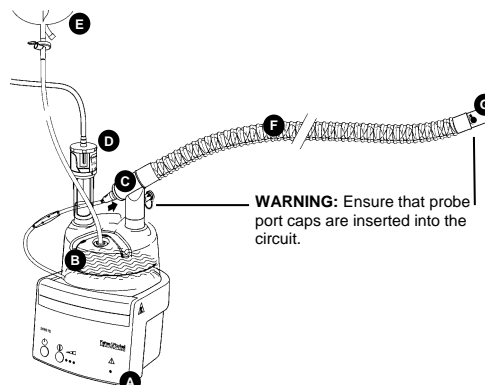### INSTRUCTION SHEET DO NOT DISCARD

810 RESPIRATORY HUMIDIFIER

PLEASE READ OPERATING INSTRUCTION WARNINGS BEFORE SETTING UP THE MR810

SET UP

1. Slide humidification chamber (**B**) onto humidifier base (**A**) and connect breathing circuit (**F**) (refer to humidification chamber and breathing circuit operating instructions for further details). Hang waterbag from a waterbag pole, if required for an auto-fill chamber (e.g. MR290) (**E**).
2. Connect oxygen tubing to the O₂ flow meter and to the air entrainer or ventilator, as required (**D**). Connect to patient interface (**G**).
3. HEATER WIRE MODE (e.g. 900MR810/900MR810E CIRCUIT)

   Insert heater wire adaptor to circuit (**C**). See "Heater Wire Mode Indicator".

WARNING: Ensure that probe port caps are inserted into the circuit.

4. The humidification system is now set up and ready for use. For maximum humidity delivery use the high setting.

   For other applications contact your local Fisher & Paykel Healthcare representative

TRANSPORT & STORAGE:
Temperature: -10 to 50 °C (14 to 122 °F)

OPERATING CONDITIONS
Recommended ambient temperature: 18 to 26 °C (64 to 79 °F)
Humidity Performance: > 10 mg/L, 5 L/min < flow < 60 L/min.
Humidity: 10 to 95% RH
Warm-up Time: < 60 minutes.
Mode of operation: Continuous

ELECTROMAGNETIC COMPATIBILITY:
The device complies with the electromagnetic compatibility requirements of IEC60601-1-2. A full technical report is contained in the Technical Manual available from your supplier of Fisher & Paykel Healthcare (REF 185042601). In certain circumstances the device may affect or be affected by nearby portable mobile radio frequency communication equipment, due to the effects of electromagnetic interference. If this should happen, try moving your device or the location of the equipment causing interference, or alternatively consult your healthcare provider.

DISPOSAL INSTRUCTIONS:
MR810 Disposal Instructions
This device contains electronics. Please do not discard as regular rubbish. Dispose of electronics according to local guidelines.
Consumable Disposal Instructions
Place the breathing tube and water chamber in a rubbish bag at the end of use and discard according to hospital protocol or local guidelines.

DIAGNOSTIC PORT:
The diagnostic port is not intended for use during operation - Factory use only.

CLEANING:
The MR810 Respiratory Humidifier is a multiple patient, multiple reuse device. Cleaning should be performed as required.
Disconnect from electrical supply and clean with a damp cloth using either normal dishwashing detergent or Isopropyl alcohol. Wipe clear of cleaning residue before use.
CAUTION: Do not immerse in liquid. Using other cleaning solutions or methods may cause damage.

ROUTINE MAINTENANCE AND SERVICING:
Refer maintenance and servicing to qualified service personnel. A full technical description including annual maintenance and service data is contained in the Technical Manual which is available from your supplier or Fisher & Paykel Healthcare (REF 185042601).

Fisher & Paykel
HEALTHCARE

OPERATION

Ambient Temperature Sensor

Monitors air temperature and adjusts the heater wire power to minimize breathing circuit condensate. Keep away from drafts and heat.

Power Button

Pressing this button turns the humidifier on or off (stand by).
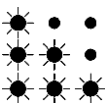**Note:** The MR810 defaults to HIGH when turned on.

Temperature & Humidity Control
Button & Indicator

Pressing this button cycles the humidifier setting between high, medium and low.

Temperature & Humidity Settings

Low
Medium
High

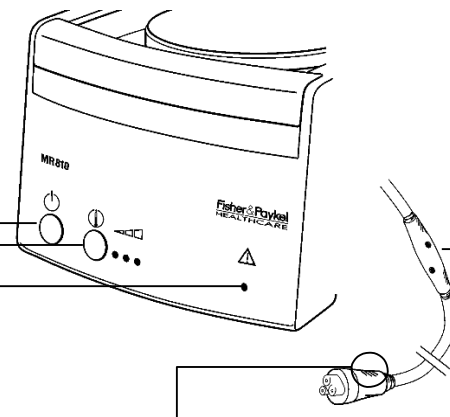**Note:** For maximum humidity delivery use the high setting.

See Manual Indicator
Humidifier Faulty

If the red light is illuminated, the humidifier and all accessories should be immediately removed and sent for servicing.

Heater Wire Mode Indicator

If the green light is illuminated, the heater wire is correctly connected to the heater wire circuit.

If the green light is off while connected to the heater wire circuit, there may be a fault with the heater wire circuit or heater base.

If not connected to a heater wire circuit, non-heater wire mode is initiated.