



CARESCAPE™ R860 Ventilator

O2 Therapy Quick Guide





Notice

The materials contained in this document are intended for educational purposes only. This document does not establish specifications, operating procedures or maintenance methods for any of the products referenced. Always refer to the official written materials (labeling) provided with the product for specifications, operating procedures and maintenance requirements. No diagnostic statements are inferred or included in this material. All clinical diagnoses should be made by a trained physician or clinician.

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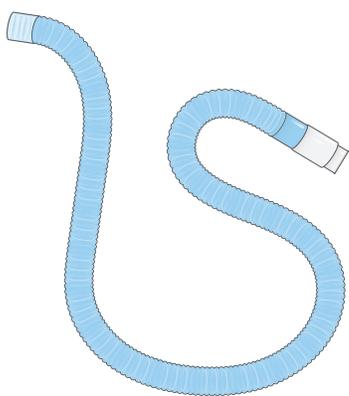


Note! Always refer to the User Reference Manual before use. Refer to the User Reference Manual for information on all warnings and precautions.

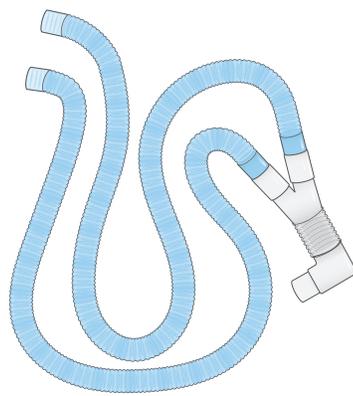
Oftentimes when a patient presents with acute respiratory failure, a clinician will decide what type of ventilatory support that should be used based on the severity of the patient's disease. Noninvasive respiratory support such as high flow oxygen therapy, noninvasive ventilation, and CPAP are alternatives to intubation and mechanical ventilation with patients who have respiratory failure. High flow oxygen therapy delivers heated humidified gas at a set FiO2 and flow rate through an unsealed patient interface. High flow oxygen therapy offers a number of physiological benefits such as pharyngeal dead space washout, work of breathing reduction, PEEP effect, constant FiO2 and improvement of mucociliary clearance and patient comfort. The CARESCAPE R860 Ventilator offers integrated high flow oxygen therapy, which allows clinicians to seamlessly transition from high flow oxygen therapy to mechanical ventilation and back again.

Equipment Required for High Flow Oxygen Therapy on the CARESCAPE R860 Ventilator

1. CARESCAPE R860 Ventilator
2. Single-limb or dual-limb circuit
3. Fisher & Paykel MR850 humidifier
4. Unsealed patient interface (F&P nasal cannula)



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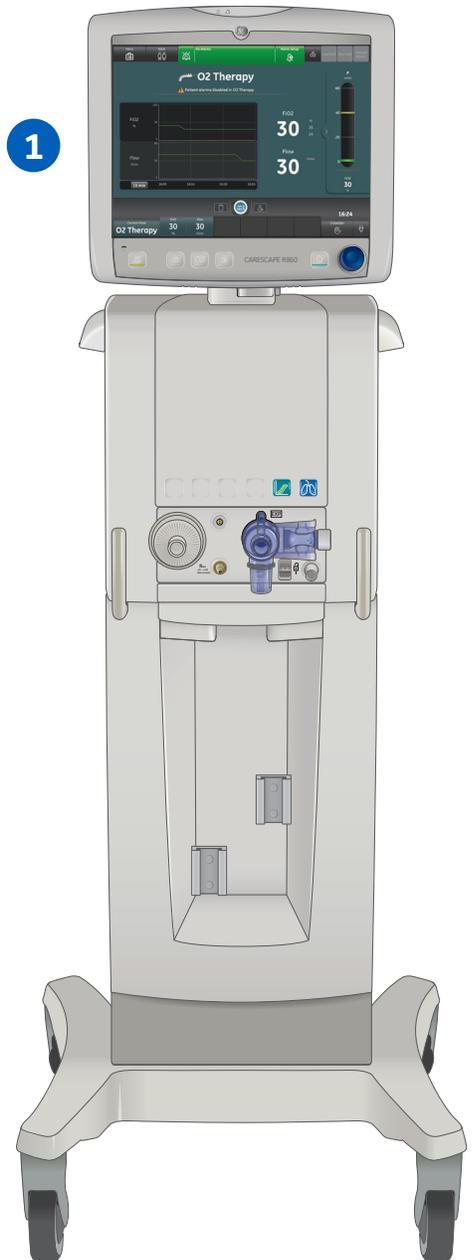
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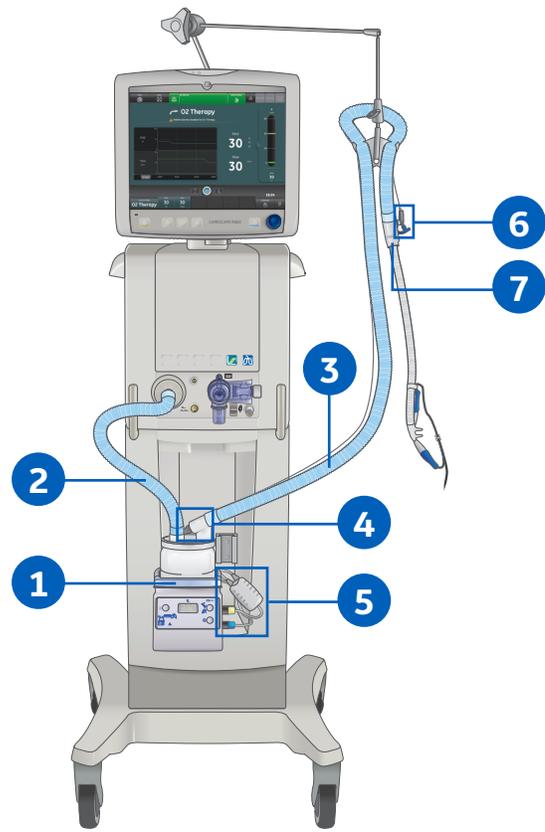
High Flow Oxygen Therapy Set-up on the CARESCAPE R860 Ventilator

Single-limb Circuit Set-up

1. Slide the humidification chamber onto the humidifier base.
2. Connect Circuit Dry Line to humidification chamber and Inspiratory Safety Guard.
3. Connect the breathing circuit to the humidification chamber.
4. Connect the heater wire adapter (shown) and chamber outlet temperature probe to the breathing circuit socket.
5. Connect the temperature probe plug to the blue socket and the heater wire adapter plug to the yellow socket to the humidifier base until an audible click is heard.
6. Connect the airway temperature probe to the breathing circuit.
7. Connect the patient interface to the breathing circuit.
8. Turn on the humidifier base and select the mode.

Note: The humidifier base should be plugged in.

Note: A continual feed of water should be going to the humidification chamber to prevent a water out alarm or a low humidity alarm.

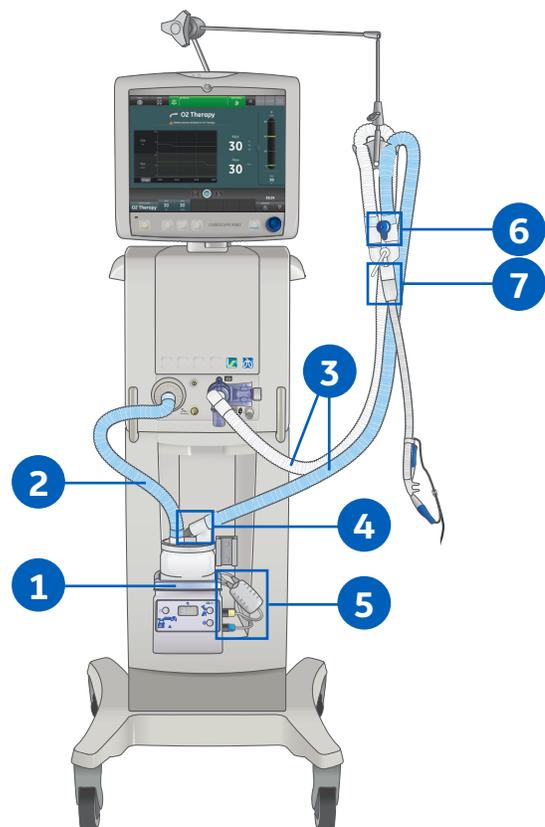


Dual-limb Circuit Set-up

1. Slide the humidification chamber onto the humidifier base.
2. Connect Circuit Dry Line to humidification chamber and Inspiratory Safety Guard.
3. Connect the inspiratory limb of the breathing circuit to the humidification chamber and the expiratory limb to the expiratory valve assembly (EVA).
4. Connect the heater wire adapter (shown) and chamber outlet temperature probe to the breathing circuit socket.
5. Connect the temperature probe plug to the blue socket, and the heater wire adapter plug to the yellow socket to the humidifier base until an audible click is heard.
6. Connect the airway temperature probe (not shown) to the breathing circuit.
7. Connect the patient interface to the breathing circuit using a 22 mm adapter at the wye of the breathing circuit.
8. Turn on the humidifier base and set the temperature.

Note: The humidifier base should be plugged in.

Note: A continual feed of water should be going to the humidification chamber to prevent a water out alarm or a low humidity alarm.



For additional information on the humidifier set-up and operation, please refer to the Fisher & Paykel MR 850 User's Manual.

High Flow Oxygen Therapy System Check

Be sure that the ventilator is prepared for mechanical ventilation in an emergency scenario. It is recommended that a full (dual-limb) system check be completed prior to use of the O2 Therapy feature with a single-limb configuration.

To ensure the proper function of the system, it is highly recommended to complete a **System Check** before use and between patients. Failure to complete a **System Check** may result in inaccurate delivery and monitoring.

Note: O2 Therapy is allowed even if the safety relief valve test fails during the system check.

Dual-limb Circuit

1. From Standby, select **SYSTEM CHECK**.

Note: The Run System Check menu shows.

2. Select the dual-limb circuit icon.

3. Attach the dual-limb breathing circuit and all accessories that will be used during O2 Therapy.

Note: An inspiratory safety guard must be installed on the inspiratory port and any accessories that will be used. Do not attach any accessories that prevent attachment of the patient wye to the occlusion port.

4. Occlude the patient wye using the occlusion port.

Note: The occlusion port sits below the exhalation valve assembly.

5. Select **Start**.

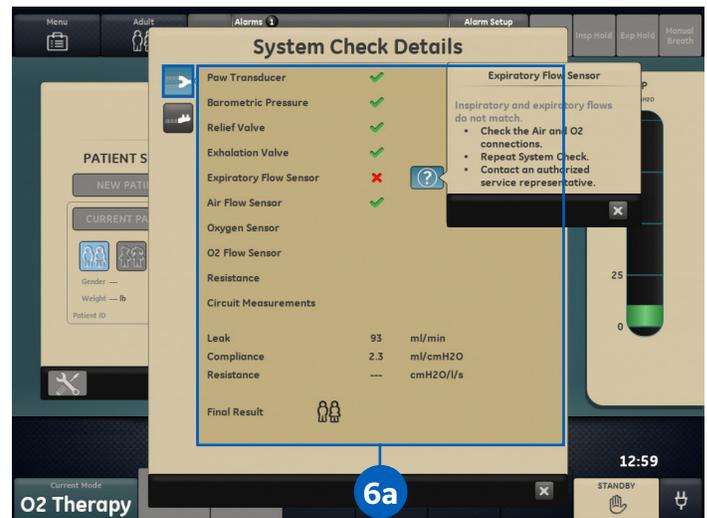
6. Select the information icon to see the System Check Details menu.

a. As the system check is running, the results of each check will be displayed.

Note: Follow all on-screen system check instructions. A green check mark will display if the check passes. If the check fails, a red X is shown, and a Help icon displays next to the failed check to provide possible causes and help for troubleshooting. The System Check results show the dual-limb circuit icon, the result of the check, and the date and time of the check.

7. Select **START O2 THERAPY** to begin delivery of Oxygen.

8. Confirm Oxygen is flowing through the patient circuit before connecting to the patient.



High Flow Oxygen Therapy System Check (cont.)

Single-limb Circuit

All checks run during a single-limb check are also run on a dual-limb system check. There is no need to perform a system check using a single-limb circuit if a dual-limb check was performed and passed.

1. From Standby, select **SYSTEM CHECK**.

Note: The Run System Check menu shows.

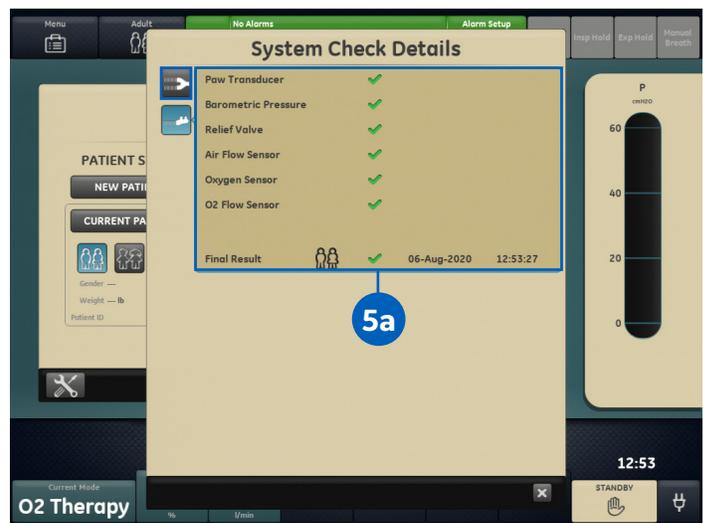
2. Select the single-limb circuit icon.
3. Attach the single-limb breathing circuit and all accessories that will be used during O₂ Therapy.

Note: An inspiratory safety guard must be installed on the inspiratory port and any accessories that will be used.

4. Select **Start**.
5. Select the information icon to see the System Check Details menu.
 - a. As the system check is running the results of each check will be displayed.

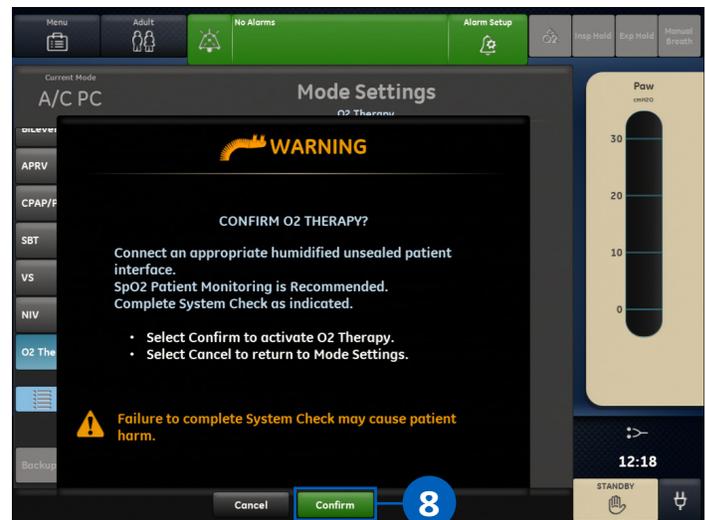
Note: Wait for the System Check to finish. A green check mark will display if the check passes. If the check fails, a red X is shown, and a Help icon displays next to the failed check to provide possible causes and help for troubleshooting. The System Check results show the dual-limb circuit icon, the result of the check, and the date and time of the check.

6. Select **START O₂ THERAPY** to begin delivery of Oxygen.
7. Confirm Oxygen is flowing through the patient circuit before connecting to the patient



Starting High Flow Oxygen Therapy After System Start-up

1. Confirm the appropriate patient circuit and humidified patient interface is connected to the inspiratory port.
2. Select **NEW PATIENT** to select the appropriate patient type and add any additional demographic data.
3. Select **Current Mode**.
4. Select **O₂ Therapy** from the list of modes.
5. Set the FiO₂%.
6. Set the Flow.
7. Select **Confirm** to confirm O₂ Therapy settings.
8. Select **Confirm** from the O₂ Therapy confirmation WARNING window.



Starting High Flow Oxygen Therapy After System Start-up (cont.)

9. Complete a **SYSTEM CHECK** for the appropriate circuit type.

10. Select **START O2 THERAPY**.

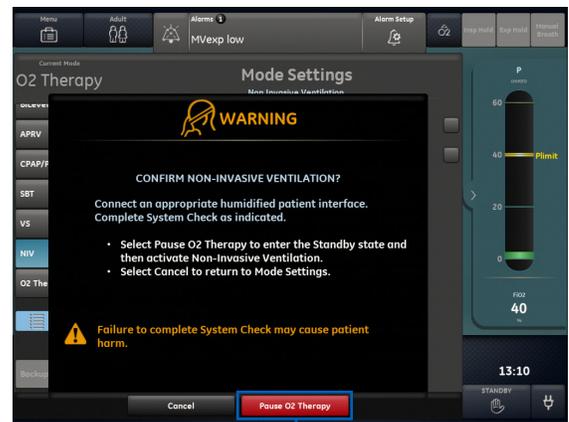
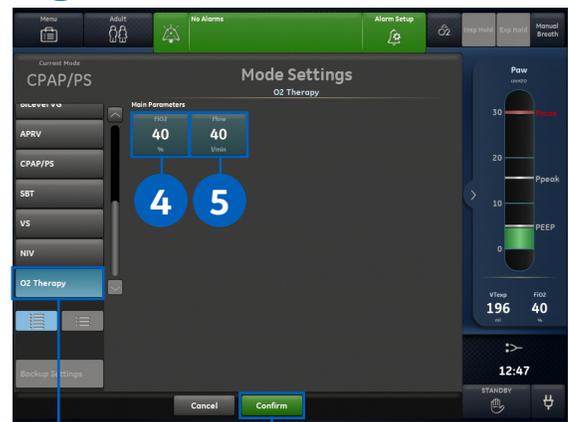
Note: The system delivers Oxygen and the O2 Therapy Present View shows.



Starting O2 Therapy from Invasive or Noninvasive Ventilation

1. Confirm the appropriate patient circuit and humidified patient interface is connected to the inspiratory port.
2. Select **Current Mode**.
3. Select **O2 Therapy** from the list of Modes.
4. Set the FiO2%.
5. Set the Flow.
6. Select **Confirm** to confirm O2 Therapy settings.
7. Select **Pause Ventilation** from the O2 Therapy confirmation WARNING window.
8. Confirm a **SYSTEM CHECK** has been completed for the appropriate circuit type.
9. Select **START O2 THERAPY**.

Note: The system delivers Oxygen and the O2 Therapy Present View shows.



Navigating O2 Therapy Present View

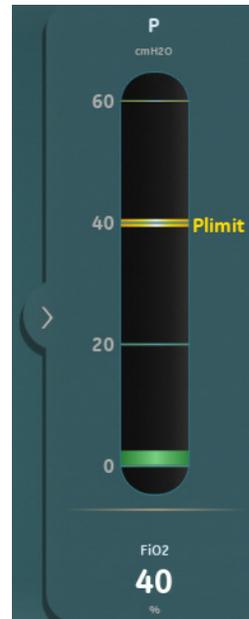
1. O2 Therapy. Patient alarms disabled in O2 Therapy message.
2. Current FiO2.
3. Pressure bar graph.
4. Standby.
5. Current Flow.
6. Flow setting.
7. FiO2 setting.
8. Current mode, O2 Therapy.

Note: To view patient trends, swipe to the right to the past/historical data workspace.



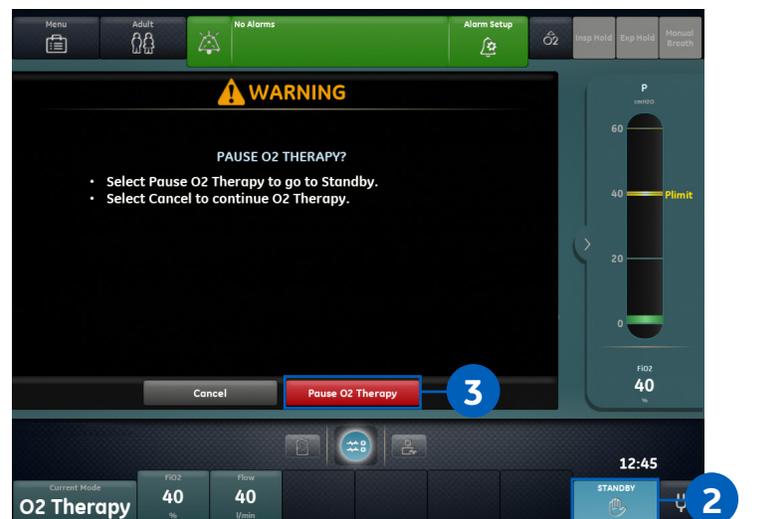
Circuit Pressure Bar Graph

The circuit pressure bar graph is not patient airway pressure. The pressure represents the resistance to flow provided by the cannula and the applied patient interface and may indicate an occlusion to the patient interface during oxygen therapy. Make sure the cannula size is appropriate for the patient. Incorrectly sized cannulas may cause a partially sealed patient interface resulting in higher reported pressures.



Stopping High Flow Oxygen Therapy

1. Safeguard the patient and remove nasal cannula.
2. Select **Standby**.
3. Select **Pause O2 Therapy** to go to Standby.



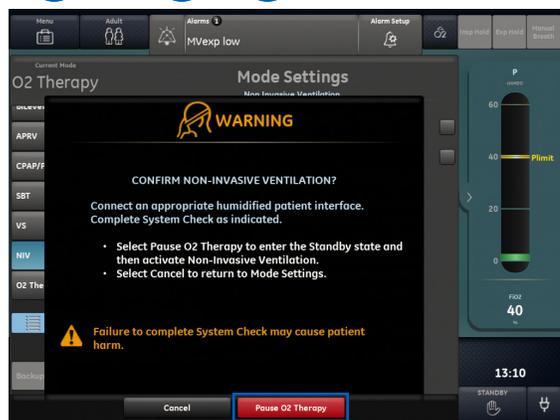
Stopping High Flow Oxygen Therapy to Begin Invasive or Noninvasive Ventilation

1. Safeguard the patient.
2. Select **Current Mode**.
3. Select a mode from the list of modes.
4. Adjust the ventilation mode settings as needed.
5. Select **Confirm** from the ventilation mode window.
6. Select **PAUSE O2 THERAPY** from WARNING window.
7. Confirm or complete a **SYSTEM CHECK** for the dual-limb circuit type.

Note: If using a single-limb circuit, remove the circuit and connect a dual-limb circuit to the ventilator.

8. Select **START VENTILATION**.

Note: A Neonatal Flow Sensor Calibration should be performed upon returning to Mechanical Ventilation, if the Neonatal Flow Sensor was not previously calibrated manually or automatically during a system check using a dual-limb circuit.



Conclusion

When used after mechanical ventilation, High Flow Oxygen Therapy has been shown to reduce the risk of reintubation.¹ The O2 Therapy mode of the CARESCAPE R860 Ventilator was designed to support clinicians in treating a variety of patients.

1. Maggiore SM, et al. Am J Respir Crit Care Med. 2014 Aug 1;190(3):282-8.

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