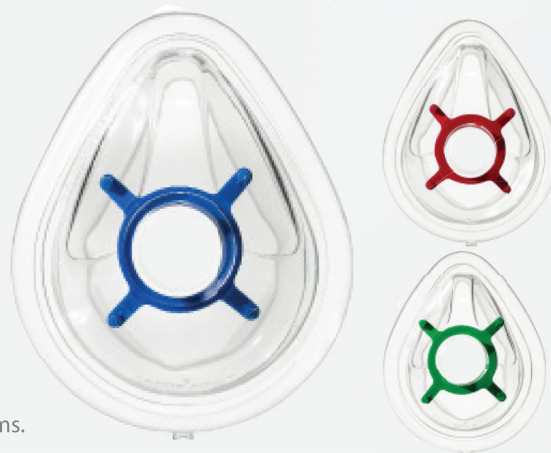


CPAP Setup with the e500 Ventilator

This guide outlines best practices for using the e500 ventilator in CPAP mode during prehospital care. It is designed for EMS clinicians providing non-invasive ventilation in the field.

1 Mask Selection

- Use only a sealed (non-vented) full-face mask.
 - o This keeps the CPAP pressure constant and prevents leaks that reduce oxygenation and therapy effectiveness.
- Do not use vented masks.
 - o Vented masks allow loss of pressure, reduce therapeutic effectiveness, and may trigger ventilator alarms.



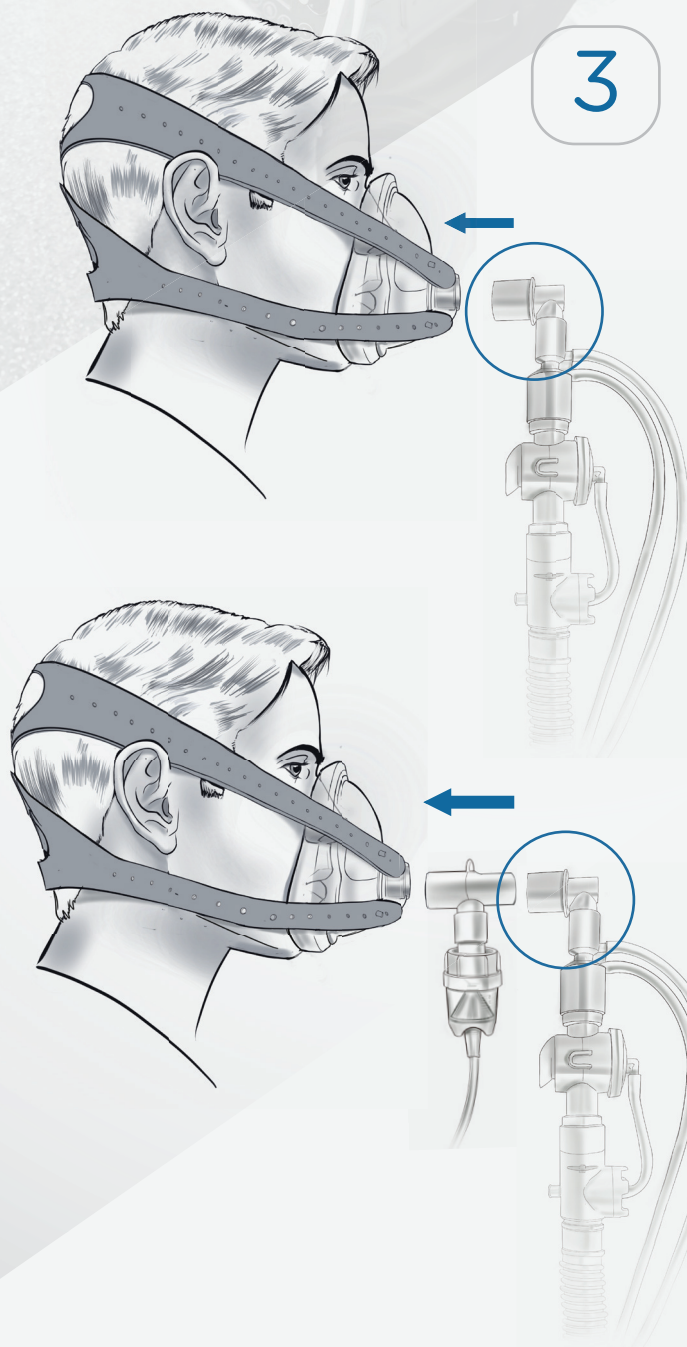
2 Patient Circuit

- The supplied O-Two patient circuit is compatible with all e500 ventilation modes:
 - o Invasive ventilation (ET tube)
 - o Non-invasive ventilation (CPAP/BPAP with sealed mask)
- No circuit change is required for CPAP mode.

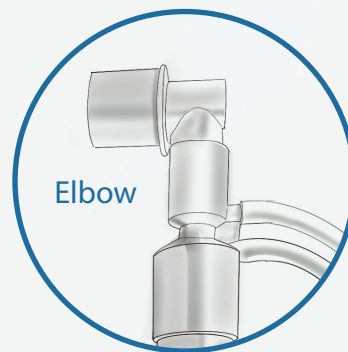


3

Circuit and Mask Connection



- Connect the mask directly to the circuit elbow adapter.
- The elbow adapter is part of the system, and it must always be in place to ensure proper flow and ventilator performance.



- To deliver a nebulized medication, place the nebulizer inline between the mask and elbow.
- Confirm all connections are tight before starting therapy.

Field Tip: Ensure a proper mask seal before increasing CPAP pressure. Reposition straps if needed, but avoid overtightening to reduce risk of skin breakdown.

4 Patient Positioning



Semi-upright (30–45°) is the standard Position for Prehospital CPAP.

- Improves comfort and tolerance of CPAP, decreasing anxiety and resistance to the mask.
- Enhances oxygenation and ventilation by increasing functional residual capacity (FRC) and improving diaphragmatic excursion.
- Reduces the risk of aspiration and gastric insufflation compared with supine positioning during positive-pressure support.
- Promotes upper airway patency, lowering the risk of obstruction
- Enhances secretion clearance and allows easier patient assessment during transport.

5 Circuit Management

- Keep the circuit supported so it doesn't pull on the mask or patient.
- Avoid kinks or twisting in the tubing.
- Secure the tubing along the stretcher (side rail, strap, or clip) to keep it stable during transport.
- Make sure everything is easy to disconnect quickly if you need to manage the airway.



6 Troubleshooting in the Field

- **Low pressure/Leak alarms:**
Check mask seal and tubing connections.
- **Patient fighting the mask:**
Reassure, reposition, or decrease CPAP in 2–3 cmH₂O steps while monitoring clinical response.
- **Heavy secretions or vomiting:**
Stop CPAP immediately, clear the airway, and reassess if CPAP remains appropriate.
- **During transport:**
Secure the ventilator and circuit to avoid accidental disconnection.

Quick Checklist for EMS



- ✓ Sealed, non-vented mask selected
- ✓ O-Two circuit with elbow attached
- ✓ Mask secured (nebulizer inline if needed)
- ✓ Patient positioned semi-upright (if safe)
- ✓ Circuit supported and free of kinks
- ✓ Continuous monitoring: respiratory rate, SpO₂, and ETCO₂.
- ✓ Always reassess: Mental status, work of breathing, patient comfort, and blood pressure (particularly in patients at risk of hypotension).

Important Note: The information provided in Hands-On is intended as a quick guide for the setup, settings, and uses of O-Two products only. For comprehensive details, always refer to the official product manual. Additionally, adherence to institutional healthcare policies and guidelines is essential, as they may vary and are critical for safe and effective application.