

# Quick Guide ON ALARMS e700 VENTILATOR



## HIGH PRIORITY

| ALARMS                                                                                                                     | What It Indicates                                                                                                                                                                   | Possible Causes                                                                                                                 | What To Do                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>BCI</b><br>Patient Circuit Disconnect | The ventilator detects a sustained loss of airway pressure and flow (~15 sec) → indicates an open circuit or loss of connection to the patient.                                     | Tubing disconnected; loose connectors; mask/ETT displaced; leaking filter/HME; flow-sensor tubing loose.                        | Reconnect/tighten all tubing; re-seat mask/ETT; verify cuff seal; secure adaptors.                                                                                                                                                                                               |
| <b>LOW PAW</b><br>Low Airway Pressure                                                                                      | The ventilator detects peak airway pressure (PAWpeak) reaching or dropping below the Pmin limit → suggests a leak or insufficient seal during breath delivery.                      | Circuit leak; disconnection; mask/ETT leak; cuff leak; low Vt/PEEP; Pmin too high.                                              | Assess chest rise; correct leaks; reinflate cuff; tighten mask; ensure Pmin is 5-10 cmH <sub>2</sub> O below expected PAWpeak.                                                                                                                                                   |
| <b>HIGH PAW</b><br>High Airway Pressure                                                                                    | The ventilator detects peak airway pressure (PAWpeak) reaching or exceeding Pmax → indicates increased airway resistance or obstruction.                                            | Kinked/occluded ETT/tubing; secretions; mucus plug; bronchospasm; patient biting; pneumothorax; Vt/PEEP too high; Pmax too low. | Check chest rise; remove kinks; suction; treat bronchospasm; drain water; consider bite block; use BVM to assess lung compliance, hard bag → lung problem; easy bag → circuit issue. Adjust Vt/PEEP/Ti or raise Pmax slightly if required. Monitor pressure waveform for spikes. |
| <b>LOW PAW</b><br>Low Airway Pressure                                                                                      | The ventilator detects peak airway pressure (PAWpeak) reaching or dropping below the Pmin limit → suggests a leak or insufficient seal during breath delivery.                      | Circuit leak; disconnection; mask/ETT leak; cuff leak; low Vt/PEEP; Pmin too high.                                              | Assess chest rise; correct leaks; reinflate cuff; tighten mask; ensure Pmin is 5-10 cmH <sub>2</sub> O below expected PAWpeak.                                                                                                                                                   |
| <b>LowMv</b><br>Low Minute Volume                                                                                          | The ventilator detects exhaled MVe dropped below the set MVmin → indicates inadequate overall Minute Volume.                                                                        | Apnea; weak effort; leaks; disconnection; ETT cuff leak; Vt or rate too low; MVmin set too high.                                | Check LOC, effort, chest rise; reconnect circuit; fix leaks; reinflate cuff; increase Vt or rate if truly hypoventilating; set MVmin ~20-30% below expected Mve.                                                                                                                 |
| <b>High Mv</b><br>High Minute Volume                                                                                       | The ventilator detects exhaled MVe exceeds MVmax alarm limit → indicates excessive ventilation (hyperventilation) or rapid breathing. Often from patient effort or auto-triggering. | Anxiety/pain; tachypnea; auto-triggering (Low Trig); High Vt/rate; MVmax set too low.                                           | Assess for distress; reduce trigger sensitivity (increase Trig); correct leaks, lower rate/Vt if overventilating; sedation/analgesia if fighting vent; set MVmax ~20-30% above expected Mve.                                                                                     |

# ⚠ HIGH PRIORITY

| ALARMS                                                                                                                     | What It Indicates                                                                                                                               | Possible Causes                                                                      | What To Do                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Blocked Airway</b>                                                                                                      | <p>The ventilator detects absence of airflow despite a delivered breath<br/>→ indicates airway obstruction</p>                                  | <p>Mucus plug, biting ETT, kinked tube, water accumulation, foreign body.</p>        | <p>Immediate airway checks; suction; straighten tubing; drain water, insert bite block.<br/>If airflow does not return → disconnect and BVM with 100% O<sub>2</sub>; If cannot bag → treat obstruction.</p> |
|  <b>Leak</b><br>≥40% Below Set Vt         | <p>The ventilator detects exhaled Vt 40% or more below set Vt → indicates a significant circuit or airway leak.</p>                             | <p>Mask leak; ETT cuff leak; loose connectors; sensor line leak; cracked tubing.</p> | <p>Reseat mask and tighten straps (CPAP/BPAP); inflate ETT cuff or reposition airway; secure connectors/sensor lines.</p>                                                                                   |
| <b>LowPi</b><br>Low Inspiratory Pressure                                                                                   | <p>The ventilator detects inability to reach the target inspiratory pressure → suggests loss of pressure or flow during inspiration.</p>        | <p>Major leak; damaged tubing; poor mask/ETT seal.</p>                               | <p>Fix leaks; restore mask/ETT seal; replace damaged circuit.</p>                                                                                                                                           |
|  <b>No Oxygen</b><br>(≤20 PSI)            | <p>The ventilator detects oxygen inlet pressure below operating threshold → O<sub>2</sub> supply to the device is critically low or absent.</p> | <p>Empty cylinder; disconnected O<sub>2</sub> hose; failed regulator.</p>            | <p>Switch to backup tank; reconnect O<sub>2</sub> source; verify pressure 45–87 psi. If no oxygen available → BVM with O<sub>2</sub>.</p>                                                                   |
|  <b>High Input Pressure</b><br>(≥90 PSI) | <p>The ventilator detects oxygen inlet pressure above the safe operating range.</p>                                                             | <p>Faulty regulator; incorrect O<sub>2</sub> outlet; over-pressurized supply.</p>    | <p>Disconnect O<sub>2</sub> source; use appropriate regulator/tank (45–87 psi). Use manual ventilation until corrected.</p>                                                                                 |
|  <b>APNEA</b>                           | <p>The ventilator detects absence of spontaneous breaths during the apnea interval (T apnea) → triggers backup ventilation (ACV).</p>           | <p>Sedation; overdose; severe fatigue; mask leak; flow-sensor disconnect.</p>        | <p>Assess breathing; reconnect flow-sensor lines; correct mask leak; evaluate need for intubation; ensure apnea time appropriate.</p>                                                                       |
|  <b>Empty Battery</b>                   | <p>The ventilator detects critically low battery charge → Vent shutting down immediately.</p>                                                   | <p>Long battery operation; insufficient charging time.</p>                           | <p>Connect to external power immediately; confirm charging. If power unavailable → BVM.</p>                                                                                                                 |

## ⚠ MEDIUM/LOW PRIORITY

| ALARMS                                                                                                              | What It Indicates                                                         | Possible Causes                                                                            | What To Do                                                         |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <br><b>Low Oxygen</b><br>(≤40 PSI) | Oxygen supply nearly depleted. Early warning before "No O <sub>2</sub> ." | Low tank, regulator issue (doesn't maintain the dynamic pressure range between 45-87 psi). | Replace/switch O <sub>2</sub> source; verify regulator function.   |
| <br><b>Low Battery</b>             | Battery running low but still functional.                                 | Extended battery use; not plugged in.                                                      | Connect to power as soon as possible; ensure charging light is on. |

## STANDARD ALARM RESPONSE

- 1 Assess patient: chest rise, airway patency, breath sounds, SpO<sub>2</sub>, ETCO<sub>2</sub>.
- 2 Inspect circuit: all connections tight, no leaks, no kinks, no water. Filters/adaptors/capno in place. Flow-sensor lines connected.
- 3 Verify O<sub>2</sub> source: cylinder open, dynamic Pressure 45-87 psi, regulator functioning.
- 4 Check Ventilator: Mode, settings, Alarm limits, Battery, Power.

### NOTE

If the issue is not resolved and ventilation is effected, use BVM with 100% O<sub>2</sub> until ventilation is restored.

### DISCLAIMER

This Quick Guide is intended as a simplified reference for EMS providers. It is not a substitute for the full User Manual. For complete instructions on operation, safety, contraindications, maintenance, and troubleshooting, always consult the official User Manual for each device. All O-Two devices must be operated only by trained personnel and in accordance with local EMS protocols, medical direction, and established clinical guidelines.

For full operational guidance, consult the complete manual at: <https://otwo.com/wp-content/uploads/2023/10/e700-IFU-REV19-JUL-2025.pdf>

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ventilation