

# Adding a Nebulizer to the e700 Ventilator

## COMPATIBILITY AND TESTING



The e700 ventilator is compatible with in-line nebulizer use during CPAP and CPAP+PSV (BPAP) modes. A trial conducted with the O-Two Nebulizer confirmed that the ventilator maintained stable functionality and performance during nebulization. Key findings include:

- No moisture accumulation occurred in sensitive circuit components, particularly the mushroom valve and flow sensor adapter, during a 15-minute test period.

- The nebulizer effectively delivered aerosolized medication without disrupting CPAP pressure or flow delivery.

These results support the safe integration of nebulization into the patient circuit during the use of spontaneous ventilation modes.

### 1

## Setup and Connection Instructions:

To connect the nebulizer to the O-Two single-use patient circuit, follow these steps:



A

Attach the base of the T-piece to the top cover of the nebulizer.

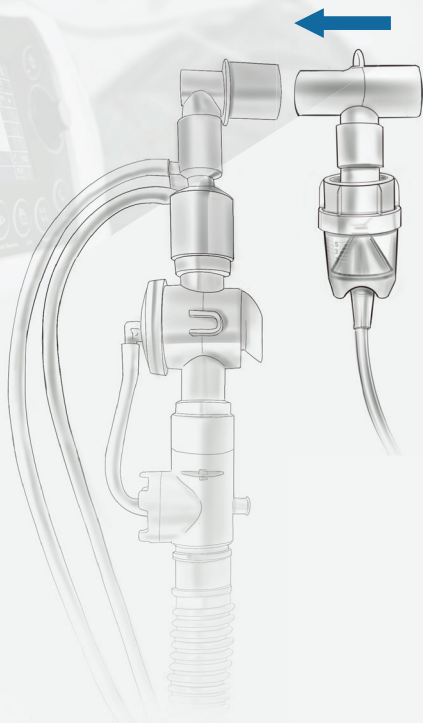


The proximal side of the oxygen supply tubing comes sealed to the bottom of the O-Two nebulizer.

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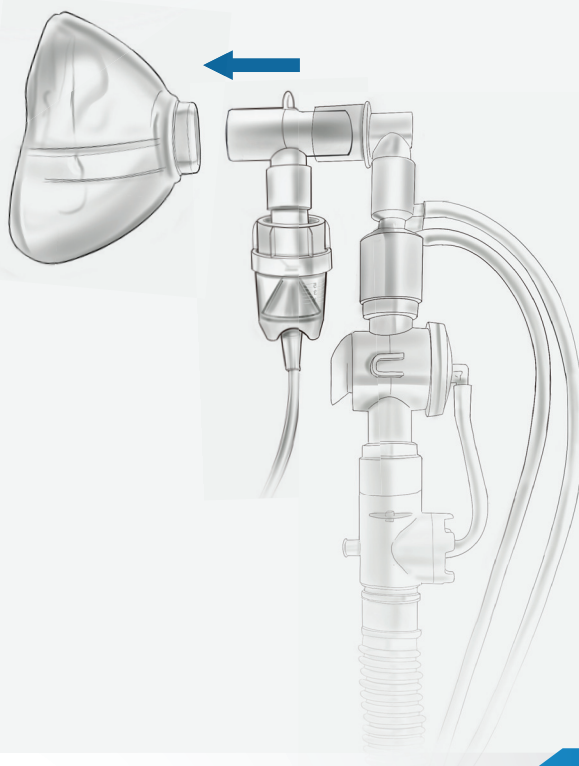
**B**

Connect one side of the T-piece to the elbow joint of the patient circuit



*Note:*

The elbow joint must always be present and securely connected. It plays a critical role in maintaining ventilation integrity and preventing circuit leaks.



**C**

Connect the opposite side of the T-piece to the patient's mask.

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D

Connect the other end of the nebulizer tubing to the oxygen flow regulator and ensure a secure and leak-free connection.



## CONNECTING THE OXYGEN SUPPLY



The O-Two Combined Flow & Pressure Regulator (01RO01023-B) is designed with three outlets to facilitate simultaneous oxygen delivery to multiple devices:



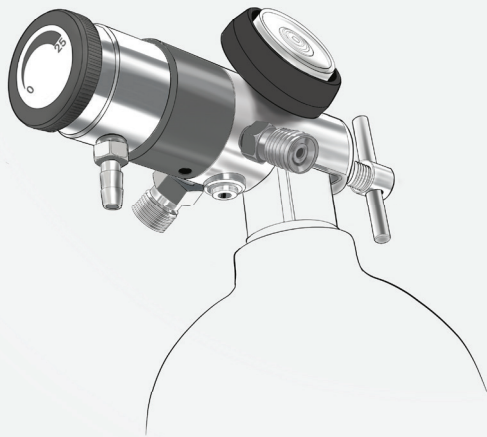
**TWO** 9/16" self-sealing  
DISS outlets

**ONE** barbed therapy flow outlet  
adjustable from 0 to 25 L/min

### Option 1 Using the O-Two In-Line Nebulizer

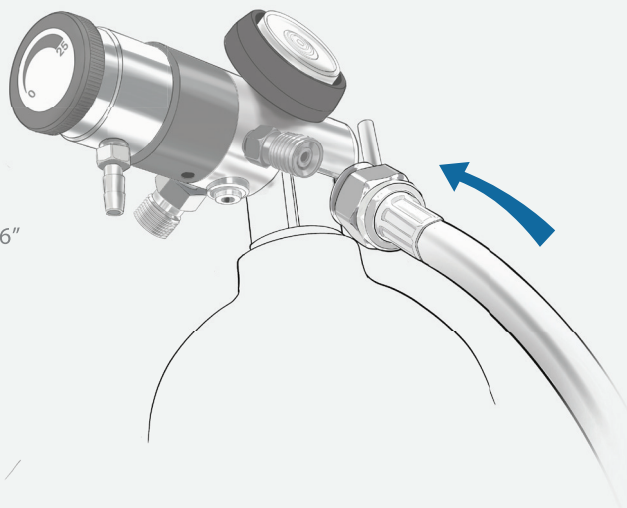
The O-Two in-line nebulizer operates at a fixed flow rate of 6 L/min. When used with the O-Two Combined Flow & Pressure Regulator, both the nebulizer and the e700 ventilator can share the same oxygen source, eliminating the need for additional oxygen supplies.

#### Setup Steps:



STEP  
1

Attach the O-Two Combined Flow & Pressure Regulator to the oxygen source.



STEP  
2

Connect the e700 ventilator's oxygen hose to one of the 9/16" self-sealing DISS outlets.



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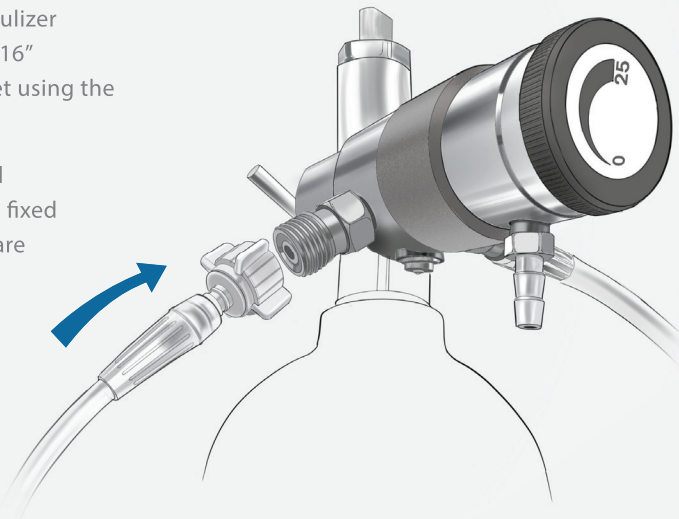
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STEP  
3

Attach the O-Two nebulizer tubing to the other 9/16" self-sealing DISS outlet using the attached nut.

Once connected, the nebulizer will automatically start operation at its fixed flow rate. No further adjustments are necessary.

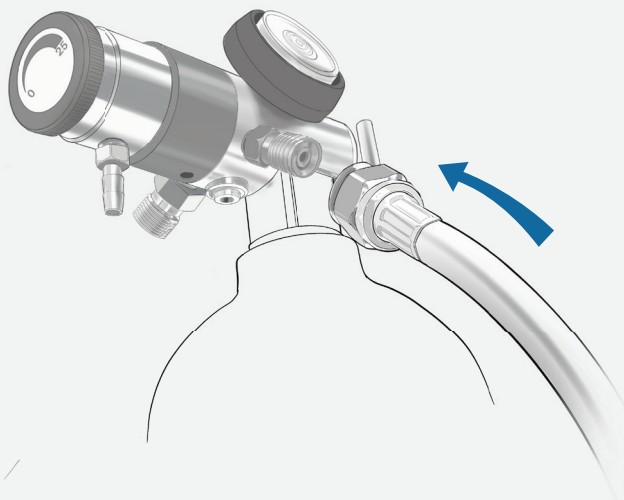


## Option 2 Using Other In-Line Nebulizers

When utilizing other in-line nebulizers, a separate oxygen source is typically required. However, if the O-Two Combined Flow & Pressure Regulator is available, both the ventilator and nebulizer can be connected to the same oxygen source.

STEP  
1

Connect the e700 ventilator's oxygen hose to one of the 9/16" self-sealing DISS outlets on the regulator.



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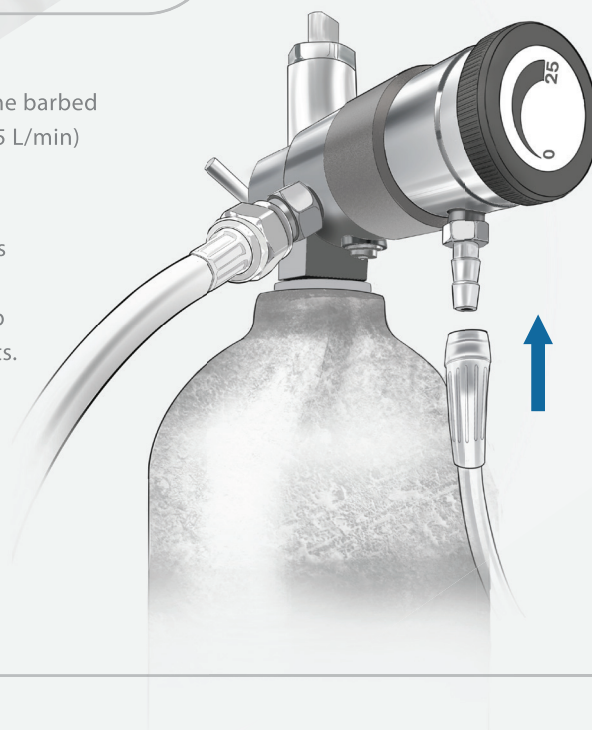
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STEP  
2

Attach the nebulizer to the barbed therapy flow outlet (0 - 25 L/min) on the regulator.

This configuration allows both devices to operate efficiently from a single oxygen source, streamlining the setup and reducing equipment requirements.



## CLINICAL USE RECOMMENDATIONS



- **Maintain the nebulizer in an upright position during operation.**

This vertical position ensures optimal aerosol generation and prevents medication spillage or pooling, which can compromise delivery efficiency.

- **Ensure all connections are secure throughout the nebulization process.**

Loose fittings can lead to leaks, reducing the effectiveness of therapy and potentially triggering ventilator alarms.

- **Regularly assess patient-ventilator synchrony.**

The addition of nebulized therapy can alter flow dynamics. Monitor and adjust ventilator settings based on the clinical presentation to maintain optimal patient comfort and ventilation efficacy.



## MONITORING AND ADJUSTING VENTILATION PARAMETERS

The integration of a nebulizer into the ventilator circuit can minimally influence various ventilation parameters. Continuous monitoring is essential to ensure patient safety and effective therapy:

- **Tidal Volume and Minute Ventilation (MV):**

The nebulizer's additional flow may cause slight increases in measured tidal volume and MV. It's important to interpret these values in the context of the patient's clinical condition and adjust ventilator settings if necessary.

- **Peak Airway Pressure (PAW Peak):**

Nebulization can lead to transient increases in peak airway pressure due to added flow. Monitor these changes to ensure they remain within acceptable limits and adjust ventilator settings as required.

- **Ventilator Alarms:**

The changes in ventilation parameters during nebulization may trigger alarms such as high PAW or high MV. Review and adjust alarm limits appropriately to prevent unnecessary alerts while ensuring patient safety.

**Disclaimer:** This O-Two Hands-On topic is intended for informational purposes only and is not a substitute for clinical judgment, institutional protocols, or professional medical evaluation, diagnosis, or treatment. It supports continuous learning by providing a quick reference for O-Two products' setup, settings, and optimal use. This guide does not replace official policies, or clinical judgment, or serve as a source of professional medical advice, diagnosis, or treatment. Healthcare providers should always rely on their clinical expertise, follow updated institutional protocols, and adhere to their facility's guidelines before making changes to patient care practices. For more information about the device, please refer to the product manual at <https://otwo.com/wp-content/uploads/2023/10/e700-IFU-REV18-JUL-2023.pdf>