

Airvo2

Humidified High Flow
Therapy

Why Use The Airvo2 For Your Patients?

- NO**-Emptying Drain Bags
- NO**-Cutting Tubing
- NO**-Noisy Compressors
- NO**-Weekly Circuit Changes
- NO**-Complex Setups



Trilogy workshop

A simplified solution for high flow humidification-call today for more information

**Humidified High Flow may
reduce escalation and improve
outcomes in patients with COPD
and tracheostomies.**

Storgaard, L. H., Hockey, H. U., Laurson, B. S., & Weimreich, U. M. (2018). Long-term effects of oxygen-enriched high-flow nasal cannula treatment in COPD patients with chronic hypoxemic respiratory failure. *International Journal of Chronic obstructive pulmonary disease*, 13, 1195-1205. doi:10.2147/COPD.S159566

Heated Humidification Improves Clinical Outcomes, Compared to a Heat and Moisture Exchanger in Children With Tracheostomies
David G McNamara, M Innes Asher, Bruce K Rubin, Alistair Stewart, Catherine A Byrnes
Respiratory Care Jan 2014, 59 (1) 46-53; DOI: 10.4187/respcare.02214





Trilogy Ventilator- What Does It Do?

Provides the right pressure at the right time for patient comfort and efficacy. It is most commonly used in Average Volume Assured Pressure Support Mode or "AVAPS- AE mode" for short. - This is a ventilatory support mode designed to treat patients with Respiratory Insufficiency such as COPD, Neuromuscular diseases and obesity hypoventilation in the LTC and homecare environments.

So, what does AVAPS AE do? Maintains a targeted tidal volume, maintains a patent upper airway and applies a backup rate as needed for the patient.

Which patients?

- **Obese hypoventilation patients:** Helps to compensate for changes in body position and assures their Tidal Volumes
- **COPD patients:** Helps to achieve a combination of ventilation comfort by automatically calculating the right pressures to provide support when needed and back off the support when the patient is doing well
- **Restrictive patients:** Provides the comfort and leak compensation of a pressure mode, and the safety of a guaranteed volume



Contraindications -If the patient has any of the following conditions, consult their health care professional before using the device in a non-invasive mode: • Inability to maintain a patent airway or adequately clear secretions • At risk for aspiration of gastric contents • Diagnosed with acute sinusitis or otitis media • Epistaxis, causing pulmonary aspiration of blood • Hypotension



Trilogy and Trachs-

The Trilogy can be used in the facility in a non-life-support mode. The trilogy cannot be used on a patient with a trach, once a trilogy is placed on a trach it becomes an invasive ventilator.

What to know BEFORE you order-

Prior to accepting residents with Trilogy Ventilator, the following criteria must be met:

- The Trilogy prescription MUST be written stating it is being used non-invasively and in a ventilatory support mode (AVAPS-AE).
- The order must be written on a Maverick Order and Maverick will send to SHC corporate office for approval.
- You must have a complete order. All blanks on the order form should be filled in.
- Ensure all staff are trained and comfortable with using the Trilogy ventilator. Multiple in-service options are available. (Online 24/7, Instant In-Service QR Code, Phone Support, and On-site)

Humidification



Unless specifically ordered, the Trilogy will not be delivered with a separate humidifier.

Many patients don't use humidification, but should the order request it, the Fisher and Paykel HC150 humidifier and accessories will be sent with the Trilogy. Using the HC150 humidifier requires the addition of an 18inch pap tube and water chamber. The humidifier uses distilled or sterile water and water should be changed daily. (see cleaning schedule below)

Best Practice Cleaning Schedule

While you should always follow your individual facilities policy regarding the cleaning and replacement of supplies for respiratory equipment, the following represents one example of standard care and cleaning practices.

Daily cleaning

Mask:

Remove the mask/nasal pillows from the headgear. Clean with warm, soapy water. Rinse. Air dry.

Tubing:

Wash in warm soapy water, then rinse and air dry.

Humidifier:

- Empty the humidifier and let it air dry.
- Change the water in the humidifier.
- Always use distilled water in the humidifier to avoid mineral deposit build-up.

Weekly cleaning

Filter:

Clean the gray/black foam filter in your machine with warm soapy water. Rinse. Allow to dry. Reinstall.

Headgear:

Wash headgear by hand with warm, soapy water. Rinse and let air dry.

Machine:

Wipe the machine with a soft, damp cloth.

Humidifier:

Clean the humidifier chamber with white vinegar to prevent mold growth. Be sure to rinse thoroughly with distilled or sterile water before using the humidifier.

Replacing Supplies

Mask:

Replace the whole mask every 2-3 months of use, or immediately if damaged.

Tubing:

Replace tubing every 2-3 months or immediately if damaged.

Humidifier Chamber

Replace chamber every 2-3 months, sooner if not using distilled water.

Mask Types

Full Face



Total Face



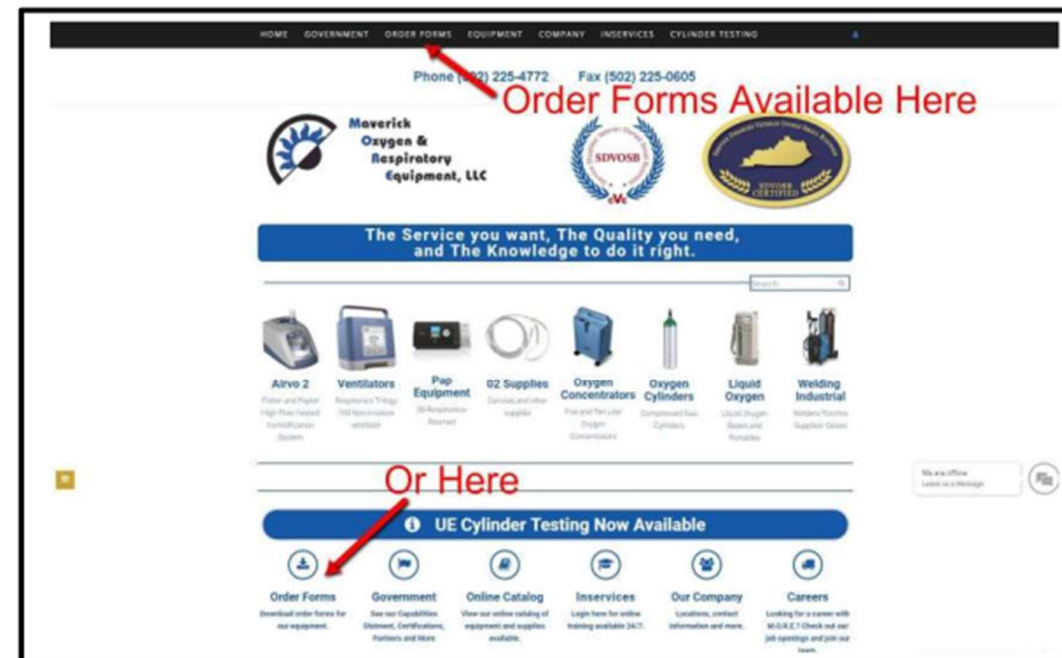
Nasal Pillows



Nasal



Full Face masks are commonly considered the most effective style when using the Trilogy.



Order Forms-

Print off a copy of the order form from the Maverick Oxygen Website. The form is located under "order forms" at both the top of and around the center of the page.

Placing an order for a Trilogy-

Delivery of the Trilogy is typically done by overnight shipping. There is a 3 p.m. EST cutoff for next day

1. Verify your order for completeness
2. Call Maverick to confirm details
3. Fax/Email completed order on Maverick order form
4. Delivery

Equipment D/C

If the resident has permanently left the facility- call Maverick during regular business hours to request a pickup. The equipment should be placed in a secure location that will prevent damage.

If the resident has left the facility and you believe they may return in the next few days- call Maverick during regular business hours to inform us of the status of the equipment.

Typical settings for the Trilogy-

Settings for Trilogy will be determined by the prescribing practitioner. All settings must be filled out on the order form. We cannot deliver a unit until all settings have been filled out.

Settings: AVAPS-AE

Tidal Volume: _____

Max Pressure: _____

PS Max (pressure support max): _____

PS Min (pressure support minimum): _____

EPAP Max: _____ EPAP Min: _____

Rate (if rate= "auto" then "N/A"): _____

Humidification Needs

Mask Type and Size



Trilogy Ventilator
Order Form
Fax to 502-265-2126

Step 1: Complete the box below corresponding to your desired ventilation mode:

AVAPS- AE Mode:

VT: _____ ml Respiratory Rate: _____ PS min: _____ PS max: _____ EPAP min: _____

EPAP max: _____ AVAPS rate: _____ Max pressure: _____

OR

ST W/ AVAPS

VT: _____ ml Respiratory Rate: _____ IPAP Min: _____ IPAP Max: _____ EPAP _____ Rise Time _____

AVAPS Rate _____

Step 2: Check the boxes corresponding to additional equipment requested:

Humidification:	Nasal Mask	Interface/Mask:	Full Face Mask
<input type="checkbox"/> Heated Humidifier	<input type="checkbox"/> Small	Select both mask style and size	<input type="checkbox"/> Small
<input type="checkbox"/> No Humidifier Needed	<input type="checkbox"/> Medium		<input type="checkbox"/> Medium
	<input type="checkbox"/> Large		<input type="checkbox"/> Large

Step 3: Fill out the following information in its entirety and fax to us- There is a 3pm EST. cut-off for next day delivery.

Patient Name: _____ Room #: _____

Facility Name: _____ Contact Name: _____

Contact Phone #: _____ Contact Email: _____

Shipping Address _____

Please Note: The box that corresponds with the requested ventilation mode must be filled out in its entirety. A single blank space will prohibit the setting of the machine, delay your order and require you to consult with the practitioner for complete settings.

Form: MAVNTORD2017

Sizing/fitting the mask

One of the most important parts of a successful setup with the patient using the Trilogy is a good mask fit. Using a size guide is the single most important step in ensuring a good fit.

There are several scenarios that could occur regarding the patient and proper mask selection.

1. The mask size and type may be specified on the order- if there is information regarding mask type and size, be sure to note that information on the order form so we can send the correct mask and size.
2. The resident may bring their mask from home or hospital. If the patient has brought a well-fitting mask from home or hospital, we recommend that it be cleaned thoroughly prior to be placed into use. **It's important to note that some masks used in the hospital are NON-VENTED and are not compatible with the Trilogy ventilator. If you are unsure, it's safest to use a new mask.**
3. The size and type are unknown and requires a mask to be fit to the patient. This is the most common scenario and requires the nurse to assess the size of the mask needed. If you are unable to determine the size of mask, Maverick will deliver a "kit" of the three most common sizes (small, medium, large) and a mask sizing guide that can be used to properly fit the patient.



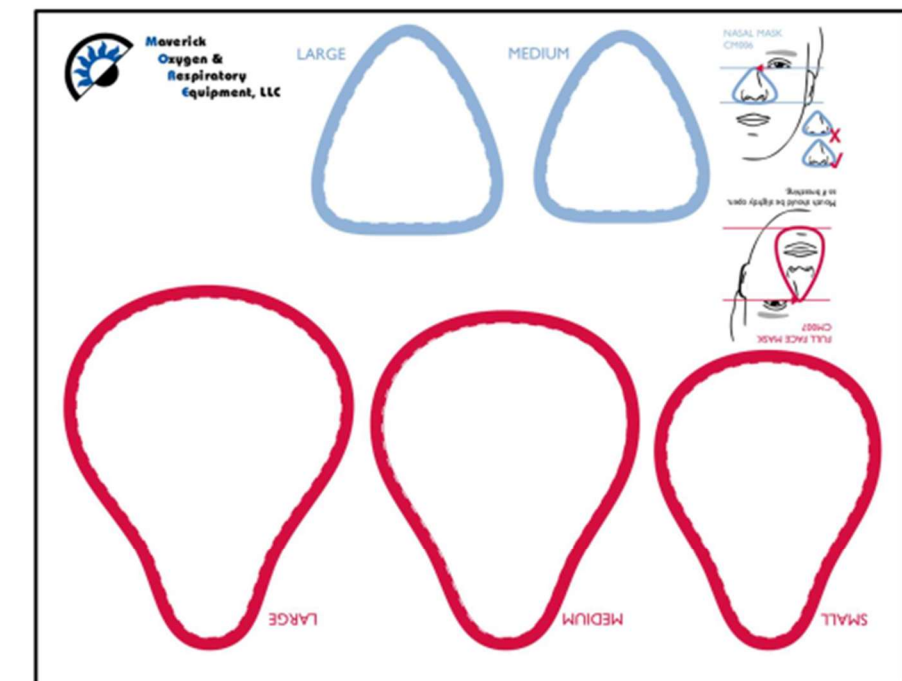
Training and In-Services

Web based training modules are available 24/7 on www.MAVERICKOXYGEN.com

The new "Instant In-Service" QR code is found on every Trilogy ventilator and links to a training video and copy of the user manual for the Trilogy Ventilator- NO LOGIN REQUIRED

On-site in-services available (advance notice/scheduling required)

Phone support is available for questions or assistance



Supplemental Oxygen

Oxygen is bled into the Trilogy using a small adaptor in the back. If the adaptor is broken or missing, an Oxygen Enrichment Adaptor used for a CPAP/BiPAP may be used.

! Supplemental oxygen should be ordered as a liter flow, not an FIO2 or percentage.



Oxygen adaptor is located here

Overview



User Interface

The Trilogy has the ability to display either a simple screen for patients and or an expanded "detailed" screen. The Display may appear as either one below.



Assembling the circuit -No Humidifier



Six Foot Tube



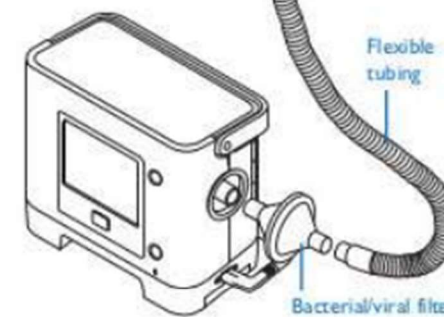
Mask with integrated leak



Bacteria Filter



Flexible tubing



Pap Mask



Whether you are setting up a Trilogy with or without a humidifier, Maverick will ship the appropriate kit for your situation- it will include the parts needed to complete the setup for your patient in one package.

Alarms

Types of alarms

System alarms

- High/low pressure alarms (BiPAP only)
- Check circuit
- Low circuit leak
- Power alarms
- Ventilator inoperative
- Loss of power

Patient alarms

- High/low pressure alarm (volume only)
- High/low RR
- High/low minute ventilation
- Circuit disconnect
- High/Low V_{ti}, V_{te}
- Apnea

When an alarm condition occurs

- The alarm LED indicator on the Alarm Indicator/Audio Pause button lights
 - Red flashing indicator: When the device detects a high priority alarm, the Alarm Indicator/Audio Pause button flashes red.
 - Yellow flashing indicator: When the device detects a medium priority alarm, the Alarm Indicator/Audio Pause button flashes yellow.
 - Yellow solid indicator: When the device detects a low priority alarm, a solid yellow light appears on the Alarm Indicator/Audio Pause button.
- The audible alarm sounds
- A message appears on the screen describing the type of alarm

When the ventilator detects an alarm, the Alarms and Messages screen is displayed showing a description of the alarm condition. The Audio Pause or Alarm Silence button will silence the alarm for one minute. You can 'pre-silence' alarms that have not yet occurred by pressing the Alarm Indicator/Audio Pause button while no alarms are active. The LED and display will still show the alarm, but the audible alarm will not sound.

Once the situation causing the alarm has been corrected, you can press Reset to clear the alarm from the display. Trilogy100 also has informational messages and confirmation alerts that notify you of conditions that may need attention but are not alarms.

Messages

Trilogy also displays informational and directional messages that alert you of conditions or directives that require attention or confirmation.

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 Important-Remember to always address the patient first, THEN the alarms.



Power Options

Internal AC/DC power supply

External 12V/24V battery

- Not recharged through vent

Detachable lithium ion battery

- 3 hours
- Easily hot swapped
- Recharges as long as it is plugged in

Internal lithium ion battery

- 3 hours
- Recharges as long as it is plugged in

Completely discharged detachable and internal batteries will take eight hours to recharge.

Power source indicators

Battery	Symbol	LED	Battery capacity
Internal battery		LEDs are lit	80-100% capacity
		4 LEDs are lit	60-79% capacity
		3 LEDs are lit	40-59% capacity
		2 LEDs are lit	20-39% capacity
Detachable battery		1 LED is lit	10-19% capacity
		1 LED flashes	1-9% capacity
External battery		0 LEDs are lit	0% capacity



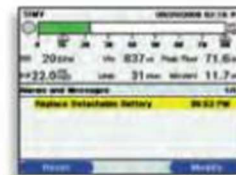
! Important- The TrilogY should remain plugged in at all times to allow it to charge properly.

The amount of charge left on the batteries will display on the monitoring screen. The detachable battery also has a set of LEDs that indicate the amount of charge left on the battery.

Battery cycle time

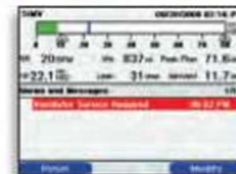
Detachable battery > 500 cycles

"Replace detachable battery" – Low priority alarm – Alarm repeats in one hour if Reset key is pressed



Internal battery > 475 cycles

"Ventilator service required" – Urgent service alarm – Alarm repeats in one hour if Reset key is pressed



TrilogY100 ventilator

Name _____

Goals	Date goals met	Trainer
The caregiver will be able to:		
1. Understand basic indications for ventilator usage.		
2. Explain the buttons, indicators, and/or connectors on the front, rear, and side panels of TrilogY. Front panel <input type="checkbox"/> Start/stop button <input type="checkbox"/> Audio pause button <input type="checkbox"/> Up, down button <input type="checkbox"/> Left, right button <input type="checkbox"/> A/C power LED <input type="checkbox"/> Yellow alarm LED <input type="checkbox"/> Red alarm LED Rear and side panel <input type="checkbox"/> A/C power inlet <input type="checkbox"/> Breathing circuit connection <input type="checkbox"/> SD data card slot <input type="checkbox"/> O ₂ connector <input type="checkbox"/> Air inlet and filter <input type="checkbox"/> Detachable battery slot <input type="checkbox"/> Cord retainer		
3. Connect to A/C power.		
4. Attach O ₂ source and discuss O ₂ safety.		
5. Assemble and connect: <input type="checkbox"/> Patient circuit <input type="checkbox"/> Filter <input type="checkbox"/> Tubing <input type="checkbox"/> Patient connector <input type="checkbox"/> Humidifier (if ordered)		
6. Turn ventilator on and off		