

Trilogy EV300 evolution of care

simple, portable, reliable, adaptable

February 2020



Introduction The Trilogy EV300 ventilator provides:

Invasive and non-invasive positive pressure ventilation for the care of patients \geq 2.5 kg through adults.

The ventilator can measure, display, record, and alarm SpO_2 , FiO_2 , CO_2 , respiratory rate, and pulse rate data when integrated with the appropriate accessories.

The ventilator is suitable for use in the hospital transport setting^{*}



Simple Portable Reliable Adaptable



User-friendly platform

Patient-friendly performance

8" touchscreen



Quick access 100% oxygen flush button to deliver for 2 minutes



To prevent accidental therapy changes, use the **touchscreen lock**.

This is a temporary touchscreen lock, which can be changed back by tapping anywhere on the screen and following the onscreen instruction.

For automatic touchscreen lock, go to the Options screen then Device Options and select Automatic Touchscreen Lock On.



Quick start up. Ideal body weight (IBW) is calculated based on height and gender.

This information is used to establish default therapy and alarm settings, including tidal volume and alarms based on tidal volume. This information also limits setting ranges.

🚹 😳 .	: i 3		Adult	Ŷ	N
Adult Patient Male Ht: 173.0 cm		7 kg (151.5 lbs)		ent	
S/T Passive Prescription 1 + Add Prescription	IPAP 20 cmH20 FIO2 21 %	EPAP 8 cmH20	Breath Rate	insp. Time 1.0 s	
			To edit prescri	ption select र्द् Ventilation	3
			Start		 81
		Trilogy	y EV300	٠	1

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Adjust alarms as needed.





Trilogy EV300

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Simple Modes and settings: Trilogy 202 to Trilogy EV300

Trilogy 202	Trilogy EV300	Description
AC	– A/C - VC	Assist Control (Volume Control) mode provides volume-controlled mandatory or assist-control breaths. The set inspiratory time applies to all breaths.
CV	A/C - VC	If you want to replicate CV mode where the ventilator triggers and cycles all breaths then set the trigger type to OFF.
РС		Assist Control (Pressure Control) mode provides pressure-controlled mandatory or assist-control breaths. The set inspiratory time applies to all breaths. <i>Optional AVAPS</i> .
Т	− A/C - PC	If you want to replicate T mode where the ventilator triggers and cycles all breaths then set the trigger type to OFF.
SIMV	SIMV-VC	Synchronized Intermittent Mandatory Ventilation (Volume Control) mode is similar to SIMV-PC, but with volume control.
PC-SIMV	SIMV-PC	Synchronized Intermittent Mandatory Ventilation (Pressure Control) mode is a pressure control mode that provides a mixture of mandatory, assist-control and spontaneous breaths with optional pressure support. It guarantees one mandatory breath in each cycle. The breath rate determines the length of the cycle. Optional: Inspiratory Time min/max. for the spontaneous breaths.



Simple Modes and settings: Trilogy 202 to Trilogy EV300

Trilogy 202	Trilogy EV300	Description
S	PSV	Pressure Support Ventilation mode is patient-triggered, pressure-limited, and flow-cycled. The patient determines the breath rate and timing so it is recommended to set back-up ventilation. <i>Optional: AVAPS and Ti min/max</i> .
S/T	S/T	Spontaneous/Timed is a bi-level therapy mode where each breath is patient-triggered and patient-cycled, or ventilator-triggered and ventilator-cycled.
СРАР	СРАР	In Continuous Positive Airway Pressure mode , all breaths are spontaneous with the CPAP set pressure delivered in both inhalation and exhalation.
AVAPS-AE	AVAPS-AE	AVAPS-Auto EPAP mode automatically adjusts pressure support, to maintain the target tidal volume, and EPAP, to maintain a patent airway, within the set min/max ranges; and simplifies the set-up of the backup breath rate when set to auto. Note: auto back-up rate maximum is 20bpm. Optional: Inspiratory Time min/max.



Modes and settings: Trilogy 202 to Trilogy EV300

Simple

Trilogy 202	Trilogy EV300	Description
-	Inspiratory Time Min/Max	Once enabled, this setting treats inspiration time as a variable value for patient-initiated, patient-cycled breaths.
	·	It is available in S/T, PSV, SIMV-PC, SIMV-VC, and AVAPS-AE modes, under Advanced in the Prescription Settings window.
AVAPS Rate	AVAPS Speed	This sets the maximum rate of change in pressure between the min and max values while AVAPS is seeking a volume target.
-	PC Breath (AVAPS-AE)	Available in AVAPS-AE mode. When PC Breath is on, the set inspiratory time applies to all breaths.
Sigh	Sigh	In Trilogy EV300, available in A/C-VC mode under Advanced in the Prescription window. Sigh volume can be set between 1.5 – 2.5 times the set volume and the frequency every 50 – 250 breaths. While in Trilogy, sigh was fixed at 1.5 times the set volume every 100 breaths.
-	Back-up Ventilation	Available under Advanced in the Prescription window. When turned on an Apnea interval needs to be set in the alarm settings tab. Within the apnea interval; if no breaths are triggered by the patient, the vent delivers breaths at the set pressure of volume based on the Backup Rate and Backup Insp Time.

Simple Onscreen help

Entering a new prescription or placing a new circuit on the ventilator is simple thanks to the addition of onscreen help.

Simply tap the help icon ? for more information regarding that prescription setting or alarm situation.

PHILIPS RESPIRONICS dis S/T Passive 1 Adult 🖗 Prescription 1 V PIP **Rise Time** X Prescriptio 20.0 mH20 Rise Time is the amount of time it Circuit Vte takes the ventilator to change from P Passive 470 the Expiratory Pressure setting to the Inspiratory Pressure set Mode when the breath is triggere S/T RR 15 BPM 0 = Fastest Rise Time Advanced 6 = Slowest Rise Time MinVent 7.0 L/min **Rise Tim** T (s) 0 100%Oz A 12.45pm - 2 X Trilogy EV300

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Simple Onscreen battery indicator

During ventilation you can check the battery status.

Tap the battery icons in the toolbar to see the status of each battery.



Simple Portable Reliable Adaptable



Portable Ultimate Portability

15 hours of battery.*

Hot swappable detachable battery provides uninterrupted therapy.^{**}



*Nominal run time per method in International Electrotechnical Commission (7.5 hr/battery). Detachable battery charge time 0% to 80% is 2.5 hours, Internal battery charge time 0% to 100% is 3.5 hours. A/C-VC mode ActivePAP circuit, PEEP 3cmH2O and Vt 800ml.

** When the internal battery is charged, batteries can be replaced without the ventilator pausing therapy.

Simple Portable **Reliable** Adaptable





Reliable Low Total Cost of Ownership



Simple Portable Reliable Adaptable





Adaptable Seamlessly transition across care environments utilizing the same clinical technology





Adaptable Evolution of ventilator technology

- Oxygen blender, low flow oxygen connection and FiO₂ cell
- ✓ 5 prescriptions
- ✓ 4 circuits: single and dual limb
- Circuit Calibration
- Tubing Compliance Compensation
- ✓ Ti min/max

- ✓ Flow Trigger 0.5
- ✓ Rise Time 0
- V Dynamic Parameters
- ✓ AVAPS updates
- ✓ AVAPS-AE updates
- ✓ End-tidal CO₂ (optional)



Adaptable **Prescriptions**

Program up to 5 Prescriptions (presets).

Example:

Patient on A/C-VC mode undergoes daily weaning trials on CPAP

PHILIPS RESPIRONICS diB 6 A/C-VC Duai Limb Adult 👘 Prescription 1 PIP Prescrip V Swi erapy 34.7 cmH20 ٢ Δ FiO2 CPAP Trigger Sens. Circuit Trigger Type Vte 30% 5 cmH20 3 L/min Dual Limb Flow Trigger 509mL Flow Cycle Sens. Mode 25% CPAP RR 16_{BPM} Advanced MinVent Using Default Calibration (?) 7.6 L/min Circuit Type Circuit Size Active Infant Pediatr Passive Active PAP Humidification (9-13mm) (14-18mm) Adult/Pechatric On Active Flow (19 mm) 100%Q2 ∧ 12.45pm . e 0



Trilogy EV300





Adaptable Circuits



	Passive	Active PAP	Active Flow	Dual Limb
Infant (9-13mm)				~
Ped (14-18mm)	~	~	~	~
Adult/Ped (19mm)	~	~	~	~
Adult (20-22mm)	~	~	~	~
Min Set VT	50 ml	50 ml	35 ml	35 ml
External Flow Sensor Required			~	~

Adaptable Tubing compliance compensation

Trilogy EV300 excludes any losses in tidal volume due to the circuit.

Trilogy EV300 includes a default calibration providing automatic tubing compensation for the recommended circuits in the accessory guide.

PHILIPS RESPIRONICS 0 23 Standby Adult 🛈 Not Ventilating Prescription 1 Start Ventilation V ٩ \$ Tidal Volume EPAP IPAP Min/Max Insp. Time Circuit 10/20 cmH20 1.25 400 mL 5 cm H2O Passive Breath Rate Trigger Type Trigger Sens. Flow Cycle Sens. Mode 15 BPM Auto-Trak S/TAVAPS **Rise** Time AVAPS Speed Advanced 2 5 cmH20/min Using Default Calibration 2 Circuit Circuit Size Type Active Pediatric Passivo Humidification (14-18mm) Adult/Pediatric On (19 mm) A 12.45pm 100% ()2 -



Trilogy EV300

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Adaptable Circuit calibration

Volume losses in circuit tubing can be calculated and programmed into the Trilogy EV300 using the calibration method.

		Channel
	Adult 👘	Stand Not Ventilati
Circuit Calibration		~
c 🔶		
S/T Passive Prescription 1	04/05/201	Calibrated 9 12:45pm
	Set to Default Calibration	
1025Q2		2 2 1245
Caron		9 2 1 1245
Caroa		2 2 1 1 1 1 1 1 1 1 1 1
voxQ2	Trilogy EV300	• U
voxQ2	Trilogy EV300	• Uras

Adaptable Ti min/max

Available in S/T, PSV, SIMV-PC, SIMV-VC, and AVAPS-AE modes

Access under Advanced

Applicable to spontaneous breaths only

Control / mandatory breaths retain set Insp. Time

PHILIPS RESPIRONICS 🔅 d3 Standby Adult 🗍 Not Ventilating Prescription 1 V rapy 3 4 FiO2 EPAP IPAP Insp. Time Circuit 30% 8cmH20 20 cmH20 1.0 5 Passive Breath Rate Trigger Type. Trigger Sens. Insp. T Max Mode 0.3 15 BPM 3 L/min Flow Trigger S/T Flow Cycle Sens, **Rise Time** Adva 25 2 - 2 A 12.45pm 100% Oz X Trilogy EV300 0

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Adaptable Flow trigger

Flow trigger can be set to 0.5 L/min to offer increased sensitivity for your weakest patients.

PHILIPS RESPIRONICS 🔅 ci3 Standby Adult 🍈 Not Ventilating Prescription 1 V Accept Cancel ٢ \$ EPAP IPAP Insp. Time Breath Rate Circuit 15 cmH20 1.5 -15 BPM 5 cmH20 Passive Trigger Flow Cycle Sens. Rise Time Trigge Mode 0.5 20% 2 S/T Advanced ?) Trigger Sensitivity Lonin 0.5 + 0.5 - 2 ∧ 12.45pm 100%02



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Adaptable Rise Time

Rise Time is now even faster than Trilogy, and can be set to 0 to adapt to the needs of your patients.

Note: You can tap on the Help icon whenever it is visible and a screen will appear for information concerning that section.

PHILIPS RESPIRONICS 1 🔅 di³ Standby Adult 🗍 Not Ventilating X **Rise Time** Prescriptio Rise Time is the amount of time it Circuit takes the ventilator to change from P Passive the Expiratory Pressure setting to the Inspiratory Pressure set Mode when the breath is triggere S/T 0 = Fastest Rise Time Advanced 6 = Slowest Rise Time **Rise Tim** T (s) 0 100%Oz . A 12.45pm X Trilogy EV300

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Adaptable AVAPS

Available in A/C-PC, S/T, and PSV modes

AVAPS Speed

• Replaced AVAPS Rate (of change) on Trilogy

AVAPS Startup

- First minute not limited by Speed setting
- Next session starts with the previous sessions final inspiratory pressure

PHILIPS RESPIRONICS 0 d3 Standby Adult 🗊 Not Ventilating Prescription 1 Start Ventilation V 4 Tidal Volume EPAP IPAP Min/Max Insp. Time Circuit 1.2 5 550 mt 5 cmH20 10/20 cmH20 Passive Breath rate Trieger Type Trigger Sens. Flow Cycle Sens. Mode 15 BPM S/TAVAPS Auto Trak AVAP5 Speed Rise time Advanced 2 5 cmH20/min Mode A/C-PC AVAPS-AE PSV SIMV-PC AVAPS Off A/C-VC CPAP SIMV-VC - 2 A 12:45pm 100% 02



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Adaptable **AVAPS**

Available in A/C-PC, S/T, and PSV modes

Algorithm resets to pressure midpoint when:

- AVAPS restart icon (AVAPS) is tapped
- Changing to another pre-set prescription, then changing back

Algorithm does not reset to pressure midpoint when:

- Changing the target tidal volume
- Changing the insp. pressure ranges

PHILIPS RESPIRONICS dis S/T AVAPS Passive Adult 🌐 Prescription 1 V PIP Views. V 26.1 cm+120 Vte 10/20 cmH20 612 mL cmH2O RR 10 BDM D 20 40 60 MinVent 6.1 L/min



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IPAP Min/Max

Tidal Volume

550 ml

5 cmH20

Breath Rate

15 BPM

Insp. Time

100%02

(AVAPS)

12

FiO2 30 %

EPAP

Trilogy EV300

A 12:45pm

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Adaptable AVAPS-AE additional flexibility

PC Breath – On/Off

PHILIPS RESPIRONICS 1 🔅 di³ Standby Adult 🗍 Not Ventilating Prescription 1 V Start Ventilation ٢ 4 PS Min/Max Tidal Volume Max Pressure EPAP Min/Max Circuit 400 mL 30 cmH20 5/10 cmH20 5/15 cmH20 Passive PC Bre Insp. Time Breath Rate Trigger Type Mode Off 1.5 5 15 BPM Auto-Trak AVAPS-AE Trigger Sens. Rise Time AVAP5 Speed Advanced 2 5 cmH20 Auto-(?) PC Enable PC Breath On - 2 ▲ 12.45pm 100%O2 Ø Trilogy EV300 .

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Adaptable AVAPS-AE additional flexibility

PS Min/Max can go to 0

Please note that PS Min/Max will change to PC Min/Max when PC Breath is set to On.

PHILIPS RESPIRONICS 0 d3 公 Standby Adult Not Ventilatino Prescription 1 \sim Start Ventilation ()\$ Tidal Volume Max Pressure EPAP Min/Max Circuit PS Mir 5/1 400 mL 30 cmH20 5/10 cmH20 Passive PC Breath Insp. Time Breath Rate Trigger Type Mode Off 1.5 5 15 BPM AVAPS-AE Trigger Sens. Rise Time AVAP5 Speed Advanced 2 5 cmH20 Auto-(?) PS Min/Max (cmH2O) 57 _ + 5 15 ∧ 12.45pm 100% 02 -



Trilogy EV300

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Adaptable AVAPS-AE additional flexibility

Avaps Automatic algorithm restart

- AVAPS restarts at pressure midpoint
- EPAP returns to EPAPmin for 100 breaths
- AutoBUR (if enabled) restarts

PHILIPS RESPIRONICS 3 03 AVAPS AE Passive Adult Prescription 1 V PIP 🕞 Views. 🗸 26.1 cm + 20 Tidal Volume 600 mL Vte Max Pressure 612 mL 30 cmH20 cmH2O PS Min/Max RR 10/20 cmH20 10 BDM EPAP Min/Max 8/12 cmH20 20 D 40 60 Breath Rate MinVent Auto 6.1 L/min Insp. Time Auto FiO2 30 (AVAPS) 100%C - 2 A 12:45pm

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Trilogy EV300

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Adaptable

Dynamic parameters





%Spont Trig

AutoPEEP

0 cmH2O

V

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Estimate of the pressure (above PEEP) that exists in the patient airway at the end of exhalation.

Adaptable Dynamic parameters



	Passive	Active PAP	Active Flow	Dual Limb
Dynamic Parameters*	~		~	~
A/C-VC	~		~	~
A/C-PC	~		~	~
SIMV-VC	~		~	~
SIMV-PC	~		~	~

* During ventilator-initiated mandatory breaths and patient-initiated mandatory breaths



Adaptable Pediatric Trached Patient Example:

Pediatric patient with tracheostomy tube on Trilogy EV300 had an increase in resistance noted over a 300 second period that was resolved after suctioning.







Trilogy EV300



Intended Use (weight)	>2.5 kg patient intended use (15 mL pressure modes / 35 mL volume modes)	>5 kg patient intended use
Battery	~7.5 internal + ~7.5 detachable	~3 internal + ~3 detachable
Circuits	Passive, Active PAP, Active Flow, Dual Limb	Passive, Active PAP, Active Flow, (MPV)
Pre-sets	5 pre-set prescriptions	2 pre-set prescriptions
Standby	 ✓ 	×
Modes	Pressure - CPAP, S/T, PSV, A/C-PC, SIMV-PC, AVAPS-AE Volume - A/C-VC, SIMV-VC	Pressure - CPAP, S, S/T, T, PC, PC-SIMV, AVAPS-AE, PC-MPV Volume - AC, CV, SMIV, AC-MPV
AVAPS	First minute not limited by speed setting	Always limited by rate of change setting
Set Pressure (max)	60 cmH ₂ O	30 cmH ₂ O
Ti Min/Max	Spont. breaths (S/T, PSV, SIMV-PC, SIMV-VC, and AVAPS-AE modes)	Only set Ti
Flow Trigger	0.5 – 9 Lpm	1 – 9 Lpm

Trilogy 202





Rise Time 0 - 6 1-6 Х **Backup Ventilation** \checkmark Dynamic lung parameters with X Dyn C, Dyn R, P_{plat}, autoPEEP no insp/exp hold FiO₂ sensor Х \checkmark **Enhanced monitoring** Waveforms, SpO₂, EtCO₂ Waveforms Internal Memory (2GB) No internal memory Memory/Data transfer Data Transfer via USB Data Transfer via SD card Circuit and humidifier selection **Circuit compensation** X Circuit calibration (optional) **Touch Screen GUI** Touch Screen GUI Non-touch screen GUI

 Touch Screen GUI
 Touch Screen GUI
 Non-touch screen GUI

 On screen Alarm Guidance
 ✓
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 Service/Maintenance
 1 year interval (Inspection, cleaning and filter replacement only)
 10,000; 17,500; (alternating every 10K and 7.5K blower hrs)



Easy-to-learn user interface, configurable to the care environment

Portable

15 hours of battery life, mobile stand for easy transport, easily mounts on wheelchairs

Reliable

The most robust and durable device we've ever created

Adaptable

Stays with patients as their care settings and needs change

