PHILIPS

RESPIRONICS

Trilogy EV300

Quick start guide for clinicians

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Overview





Available circuit options Passive circuit



A. Connect the bacteria filter on the circuit to the inspiratory port.

Active PAP circuit



- A. Connect the bacteria filter on the circuit to the inspiratory port.
- B. Connect the proximal pressure line (wider diameter than active exhalation valve line) to the proximal pressure port.
- C. Connect the active exhalation valve pressure line to the active exhalation valve line connection.

Available circuit options (continued) Active flow circuit



- A. Connect the bacteria filter on the circuit to the inspiratory port.
- B. Connect the proximal pressure line (wider diameter than active exhalation valve line) to the proximal pressure port.
- C. Connect the active exhalation valve pressure line to the active exhalation valve line connection.

- **D.** Connect the flow sensor cable to the flow sensor cable connector.
- E. Connect the flow sensor to the active exhalation valve on the circuit.

Dual-limb circuit



- A. Connect the bacteria filter and colored inspiration tube to the inspiratory port.
- **B.** Connect the proximal pressure line to the proximal pressure port.
- C. Install the active exhalation valve into the recessed AEV port. Press until both sides click into place.
- **D.** Connect the bacteria filter and clear expiration tube to the AEV.
- **E.** Connect the flow sensor cable to the flow sensor cable connector.
- F. Connect the flow sensor to the Y-shaped connector on the circuit.

Key menu windows Home standby window

The Home standby window loads after the device is turned on



Prescriptions

Therapy prescriptions are listed here for selection. A default prescription is present for a new patient

Touchscreen lock

To prevent accidental therapy changes, use the touchscreen lock. Lock the screen anytime with the status bar shortcut shown here. In the device options screen, you can activate automatic touchscreen lock, which will engage after 5 minutes of inactivity

Key menu windows (continued) Prescription settings window



Settings selection grid

Tap any setting in the selection grid to bring up the user control settings in the space below the grid **Start Ventilation** Tap **Start Ventilation** to deliver the prescription currently displayed

Options window

Tap the options icon to access the options menu window

다 않 in Options				Standby Not Ventilating
Device Options	>	Calibration & Setup	>	
Data Transfer	>	Alarm & Event Log	>	
Information	>			
			ÐŽ	▲ 12:45pm

Within the options menu window, change device options, run calibrations and tests, and view and work with data

Set up & deliver therapy Configure for a new patient

🔒 🕄 ්	B	Adult	Standby Not Ventilating
Prescriptions		New Patient	
S/T Passive Prescription 1	Fi02 IPAP 21 % 15 cmH20	EPAP Breath Rate 5 cmH2O 15 BPM	
+ Add Prescription	Insp. Time 1.5 s		
		To edit prescription settings, select 🔅	
100%O2			▲ 12:45pm
logge	1. New patient w Patient to clear d patient data and	2. Confirm fil Acknowledge th filter with the cir	ne use of a ba

Prescription settings: circuit

device for a new patient's use



Settings selection grid

Tap any setting in the selection grid to bring up the user control settings in the space below the grid. The **Circuit** setting is selected and displayed by default

Set up & deliver therapy (continued) Prescription settings: mode



Mode settings

Tap **Mode** to choose a therapy mode or to add **AVAPS**. An unsaved change indicator (****) is visible until you tap **Accept** to save the new values

Prescription settings: advanced

	ثن 🌻 🟠	3		Adult 🕻	}	Standby Not Ventilating
	Prescription 1	\sim	Start Ve	ntilation) 🕲 🛆	
	Circuit Passive	гю2 21%	Tidal Volume 400 mL	PC Min/Max 10/20 cmH20	PEEP 5 cmH20	-
	Mode A/C-PC AVAPS	Insp. Time 1.5 s	Breath Rate	Trigger Type Auto Trak	Trigger Sens. Auto	-
-•	Advanced	Rise Time 2	AVAPS Speed 5 cmH2O/min			
•	Advanced	,			?	
	Backup Ventilation	Sigh	Insp. T Min/Max			
	On Off	On (Off On	Off		
	100%O2				- Ž	▲ 12:45pm

Advanced settings

Tap **Advanced** to access specialized features, which vary by mode and circuit

	•	ر]	3			Adult)		Standby ntilating
Preso	ription	1	~		Accept	Cancel			
^{Circuit} Passive			FIO2 21%		Tidal Volume 400 mL	PC Min/Max 10/20 cmH20	PEEP 5 cmH20	-	
Mode A/C-PC	AVAPS		Insp. Time 1.5 s	٦	Breath Rate	Trigger Type Auto Trak	Trigger Sens. Auto		
Advanced			Rise Time 2		AVAPS Speed 5 cmH2O/min				
Ins	piratory	Time	(s)				LE Ratio 1:2.3 Exp. Time 2.8 s		
-• -	0.3	12	7			5.0	- +		
100%O2							• 2	^	12:45pm

Adjust the prescription parameters, then tap **Accept** to save the new values

Alarm settings

Therapy settings

🔂 🌻 đ	B		Adult)	Standby Not Ventilating
Prescription 1	\sim	Accept	Cancel		
Circuit Passive	Tidal Volume Off/Off m	MinVent 3.5/Off L/mi	Resp. Rate Off/45 BPM	Circuit Disconnect 10 s	Ī
Mode A/C-PC AVAPS					
Advanced					
Respiratory Rate	Alarms (BPM)		В	reath Rate 15 BPM	
		45 B	90 Off	- +	
100% \$ 2		1		- 2	▲ 12:45pm
Configure all user-s	ettable a	alarms (A. Low	threshold, B.	High threshol	.d)
Once all settings a	e configu	ired, tap Accei	ot to save the	new values.	

Then tap "Start Ventilation" to begin therapy

Appendix A

Additional features USB connections



USB connection

USB port for accessories:

- Pulse oximetry (SpO₂) / Pulse rate (PR)
- Capnography (EtCO₂)
- Data management

FiO₂ sensor



FiO₂ sensor compartment

An FiO₂ sensor may be installed here. See manual for details

G 🕸 🏄	•			Standby Not Ventilating
< Device Op	otions			
Language English	Alarm Volume Low	Screen Brightness 3	Light Bar Off	
Time and Format 12-Hour	Automatic Touchscreen Lock Off	Screen Saver Breath	Date and Format MM/DD/YYYY	_
FiO2 Sensor On	Device Units cmH2O, mmHg	Bluetooth Not Enabled		
			1	
				▲ 12.45pm
			= ė	▲ 12:45p

Under options, device options, tap the **FiO₂ Sensor** option and ensure the control is set to **"On"**

Appendix B

Monitoring Home window during therapy

During ventilation, the monitoring view appears in the home window



Spontaneous breath indicator

When the current breath is triggered by the patient, this indicator appears filled (dark green)

Change monitoring view



Monitoring (continued) Monitoring views

Each monitoring view shows parameters, a pressure bar, waveforms or a combination of these. The waveforms view is shown here



Inspiratory color-coding

The inspiratory phase of the waveforms is color-coded. Orange indicates a ventilatorinitiated breath, while blue indicates a patient-initiated breath

Appendix C

Additional prescriptions Adding another prescription

During therapy

Tap the **prescription** to open the prescriptions list Tap **Add Prescription**

🔂 🌻 đ	3		Adult 🛱	A	C-PC AVAPS Passive Prescription 1
Prescription 1	^	Start V	entilation	۵ ۵	PIP 21.1 cmH20
A/C-PC AVAPS Passiv	ve	Tidal Volume 400 mL	PC Min/Max 10/20 cmH20	PEEP 5 cmH20	Vte 400 mL
+ Add Prescription		Breath Rate 15 BPM	Trigger Type Auto Trak	Trigger Sens. Auto	RR
Advanced	Rise Time 2	AVAPS Speed 5 cmH2O/min			15 _{врм} MinVent
					6.0 L/min
100%O2				- 2	12:45pm

Or

During standby

In the home window, tap **Add Prescription** then select the name and edit as needed

්ර 😳 📩	3		Adu	ult 🛱	Not Ve	Standby entilating
Prescriptions			N	ew Patient		
S/T Passive Prescription 1	FiO2	IPAP 15 cmH20	EPAP 5 cmH2O	Breath Rate		
+ Add Prescription	Insp. Time 1.5 s	13 cmH20	3 cmH20	D BPM		
			To edit prescr	iption settings, select දි		
			Star	t Ventilation		
100%O2				- 2	^	12:45pm

Additional prescriptions (continued) Changing therapy

Prescription menu

In the home window, tap the prescription in the menu bar to access the prescription menu



Changing therapy in prescription settings

You can also change therapy in the prescription settings window. Select a prescription then tap

Switch Therapy

Switch Therapy

Circuit note

The circuit settings must be the same as the current prescription. If the circuit settings differ, place the device into standby to change the physical circuit. Then, select the prescription from the home screen to start ventilation

Appendix D Settable alarms

The following alarms are available within each prescription, depending on the therapy mode.

User-settable alarm	Range
Circuit Disconnect	Off; 5 to 60 seconds
Tidal Volume	
Low	Off; 10 to 2000ml (or High alarm setting value -5)
High	Off; 10 (or Low alarm setting value +5) to 2000ml
Minute Ventilation	
Low	Off; 0.2 to 30l/min (or High alarm setting value -0.1)
High	Off; 0.2 (or Low alarm setting value +0.1) to 301/min
Respiratory Rate	
Low	Off; 1 to 90bpm (or High alarm setting value -1)
High	Off; 1 (or Low alarm setting value +1) to 90bpm
Inspiratory Pressure	
Low	PEEP+1 to 89cmH $_{\rm 2}{\rm O}$ (or High alarm setting value -1)
High	10 (or Low alarm setting value +1) to 90cmH_2^0
Apnea Interval	5 to 60 seconds

Appendix D Settable alarms (continued)

The following alarms are available only when associated accessories are connected.

User-settable alarm	Range
SpO ₂	
Low	Off; 50 to 99% (or High alarm setting -1)
High	Off; 90 (or Low alarm setting +1) to 100%
Pulse Rate	
Low	Off; 18 to 300bpm (or High alarm setting value -1)
High	Off; 18 (or Low alarm setting value +1) to 300bpm
EtCO ₂	
Low	Off; 1 to 100mmHg (or High alarm setting value -1)
High	Off; 1 (or Low alarm setting value +1) to 100mmHg
FiO ₂	
Low	Off; 21 to 95% (or High alarm setting -1)
High	Off; 27 (or Low alarm setting +1) to 100%

Appendix E

Trilogy 202 to Trilogy EV300

Trilogy 202 setting	Trilogy EV300 equivalent	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.
с٧		If you want to replicate CV mode where the ventilator triggers and cycles all breaths then set the trigger type to OFF.
PC	A/C-PC	Assist Control (Pressure Control) mode provides pressure-controlled mandatory or assist-control breaths. The set inspiratory time applies to all breaths. Optional: AVAPS.
Т		If you want to replicate T mode where the ventilator triggers and cycles all breaths then set the trigger type to OFF.
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. Optional: AVAPS and Inspiratory Time min/max.
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.
CPAP	CPAP	In Continuous Positive Airway Pressure mode , all breaths are spontaneous with the CPAP set pressure delivered in both inhalation and exhalation.
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.
SIMV	SIMV-VC	Synchronized Intermittent Mandatory Ventilation (Volume Control) mode is similar to SIMV-PC, but with volume control.
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: outo back-up rate maximum is 20bpm. Optional: Inspiratory Time min/max.

Trilogy 202 to Trilogy EV300

Trilogy EV300 equivalent	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 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
	EV300 equivalent Inspiratory Time Min/ Max AVAPS Speed PC Breath

Available without a static maneuver for mandatory or assisted-breaths in A/C-PC, A/C-VC, SIMV-PC, or SIMV-VC modes with the passive, active flow, or dual-limb circuits.

New lung mechanics in Trilogy EV300	Description
Dyn C	Lung compliance is the ratio of the tidal volume to the alveolar pressure at the end of inspiration. In Trilogy EV300, Dyn C is an estimate of the static compliance of the pulmonary system (lung and chest wall) measured dynamically (without an inspiratory hold) in ml/cmH ₂ O.
Dyn R	Airway resistance is the opposition to the motion of gas within the airways. In Trilogy EV300, this value is Dyn R (dynamic resistance) and is an estimate of the change in pressure divided by the air flow through the airways measured in $cmH_2O/l/sec$.
Dyn Pplat	Plateau pressure is the maximum pressure applied to small airways and alveoli during positive-pressure mechanical ventilation. In Trilogy EV300, this value is Dyn Pplat (dynamic plateau pressure) and is the estimate of the maximum alveolar pressure during inspiration (volume/Dyn C) measured in cmH ₂ O.
AutoPEEP	AutoPEEP is the estimate of the any pressure (above PEEP) that exists in the patient airway at the end of exhalation. In Trilogy EV300, this value is AutoPEEP and is measured in cmH ₂ O.

Notes



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