The Philips Respironics V680 Two Ventilators in One
Philips Respironics V680
Value summary

- Easy to use
- Versatile operation
- Fast turnaround
- Enhance patient care
Easy to use
Simple, familiar operation

- Based on the Philips Respironics V60 screen layout
- If you have a V60, your training time is greatly reduced with V680
Simple, familiar operation

- Status bar
- Graphs and loop window
- Settings window
- Power and help
- Patient data window
- eSYS cartridge

Easy to use

Not available in USA
Auto-Trak+

- Auto-Trak+ virtually eliminates frequent adjustments
- Enhances patient-ventilator synchrony
- Leaves more time with your patients and not on the machine

Easy to use
Versatile operation
Expanded pediatric range

Versatile operation

Pediatrics 5kg – 20 kg

Adult > 20 kg
Single-limb noninvasive ventilation

- Same NIV modes as V60
- Auto-Trak+
- Enter Mask Leak value directly
- Escalating alarms
Dual-limb invasive ventilation

- Simple, familiar operation
- Dual-limb
  - No proprietary valves or sensors
- Active exhalation valve
- Escalating alarms
- Emergency ventilation
- Respiratory mechanics
- Loops
Enhanced monitoring features

Nine live patient data points can be configured from a selection of up to 23 parameters.
Respiratory mechanics

When selected, measures inspiratory effort during first 100 ms on next breath.

When selected, changes to square flow delivery for measurement.

Versatile operation
Fast turnaround
Simple circuit

- No proprietary flow sensors or diaphragms
- Change the circuit, test, and go

Not available in USA
eSYS cartridge

- Self-contained exhalation cartridge
- No need to change if pre-filtered
- Easy to remove for autoclaving
Pre-use check

Prompts to guide the user

**Short self test (SST)**
- Approximately 30 seconds

**Extended self test (EST)**
- Approximately 3 minutes
• Similar to the V60
• Enter mask leak value
• Enter exhalation port
• Start ventilation
Enhance patient care
Enhance patient care

Alarms and back-up ventilation

- Advanced alarm management
- Emergency ventilation mode
- Apnea back-up
Auto-escalating alarm volume

Enhance patient care

- Inaudible high priority alarm = No response
- Max volume = Response

- Elapsed time:
  - 0 seconds
  - 40 seconds
  - 60 seconds

Not available in USA
Emergency ventilation mode

**Problem**
- Defective eSYS flow sensor or valve stuck closed
- Exhalation limb occlusion

**Solution**
- Open leak solenoid
- Continue ventilation with oxygen at patient settings
Apnea back-up ventilation is available in CPAP mode with alarm.

**Single-limb**
- CPAP
- PSV
- SIMV-VCV

**Dual-limb**
- SIMV-PCV
Precise pressure regulation

- eSYS engages active exhalation valve
- Voice-coil technology
- Relieves excessive pressures in circuit
Philips Respironics V680
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Philips Respironics V680 v1.30 software
What has changed from v1.20?
What is different with v1.30 software

- Simplified screen operation
- Workflow enhancements
- Nuisance alarm eliminations and reductions
- Flow-Trak automatic flow delivery in Volume Control
  - If Peak Flow is too low, patient can draw additional flow
- Flow-Volume and Pressure-Volume Loop Overlay
  - Up to five loops can be saved, time and date stamped, and displayed over each other
Screen changes

You can now see and silence alarms in Configuration Screen.

Weight labels removed.

Easier to see where to touch to confirm filters.

v1.20 Software

v1.30 Software
Changes to EST and SST

- EST has it all.
- You no longer have to run the SST and then EST between patients.
- Only run the EST.
- Use SST for circuit changes only.

- SST will pass a wider range of circuits and filters.
- Always run SST with all filters, humidifiers and adapters.

*With the v1.30 SW cross-calibration feature requires O₂ connection for EST and SST.*
Screen changes
(v1.30 SW start up settings)

v1.20 SW start up settings for O₂% and PEEP

O₂ now starts at 40% and PEEP starts at 5 cm H₂O

Adult starts in Volume Control
Peds starts in Pressure Control

v1.20 Software

v1.30 Software
Screen changes
(Apnea settings simpler)

v1.20 Software

v1.30 SW button label simply reads Apnea Settings

Users found this label confusing
Screen changes
(100% O2 Button always displayed)

v1.20 Software

v1.30 Software
Screen changes
(Loop save and overlay)

v1.20 SW Software

v1.30 SW controls for saving and deleting loop overlays

Save up to 5 loops with date and time stamps for trending. Button Color matches loop color for easy identification.

v1.30 Software
Other screen changes
(Common settings retained)
Other screen changes
(Escalating alarm volume)

v1.20 Software
Enabled and disabled in Loudness Menu tab.
Time delay was 40 seconds.

v1.30 Software
Enabled and disabled in Diagnostic Screen System Settings.
User informed time delay is now 15 seconds.

v1.30 Software
Enabled and disabled in Diagnostic Screen System Settings.
Other screen changes

- V680 GUI is now in 11 languages.
- Chinese, Japanese and Russian languages added.

PRVC MaxP and MinP are relative to PEEP now. Before they were absolute.
Other screen changes
(small but important)

v1.30 Software

v1.30 Software
Other screen changes
(Single limb set up)

EST status now displayed to show why you cannot advance out of config. screen.

If Auto-Trak+ settings are changed, label is displayed on mode status bar.
Other screen changes
(Single limb set up)

If mask and port selection is not allowed, message will alert user. Before, user could not advance to next screen but did not know why.

If Leak 1 and DEP are selected, no port test is required. SST button is available for Remote Alarm Test only.
Other screen changes
(Single limb set up)

If V680 is set up for Single limb ventilation, but a dual limb circuit is attached, the user will see the following alarm:

"Low Min Volume Alarm will delay at startup until the required number of breaths is obtained."

v1.30 Software

![Image of v1.30 Software screen changes for single limb set up]
Flow-Trak provides additional flow on demand if the set Peak Flow is not high enough to satisfy the patient’s inspiratory flow requirements.

**v1.20 Software without Flow-Trak**

- Patient tries to draw more inspiratory flow.
- No added flow delivered.

**v1.30 Software with Flow-Trak**

- Patient tries to draw more inspiratory flow.
- Flow-Trak activated and more flow delivered.
Philips Ventilator Open Interface (PVOI)

- V680 Expanded communications protocol
- Available to all monitor and EMR providers for driver creation
V680 v1.30 software enhancements

Patient configuration

• FiO₂ and PEEP default settings are now 40% and 5 cmH₂O
• SST and EST are now combined
• Failed EST is noted in Single Limb
• Patient weight ranges removed
• Message alerts when incorrect mask with exhalation port is selected
• Press YES to confirm filters

During Ventilation

• The Manual Breath and 100% are fully visible even during active alarms.
• Touch sound is fixed and not linked to alarm volume adjustment
• Save and recall up to 5 loops with date and time stamps
• Additional languages added: Simplified Chinese, Japanese, and Russian
• Batch setting labels are bolder yellow
V680 v1.30 software enhancements

**Dual Limb**
- When changing breath type Apnea mode will match and the label now reads “Apnea Settings”
- Eliminated Low Minute Volume nuisance alarm at start-up
- Default settings updated and common ventilator settings retained when changing modes
- Flow-Trak Demand Flow ensures that the patient’s inspiratory demand flow is met in volume ventilation
- PEEP is relative in PRVC

**Single Limb**
- Auto-Trak+ displayed when settings have been changed from “Normal”
- Notification if a dual limb circuit is in place when Single Limb ventilation selected

**Auto escalation alarm**
- Abled and disabled through diagnostic mode and displays in Menu tab under “Loudness”
- Time to volume escalation is now 15 seconds