

**PHILIPS**

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# The Philips Respironics V680 Two Ventilators in One

innovation ✨ you



# Philips Respironics V680

## Value summary

Easy  
to use

Versatile  
operation

Fast  
turnaround

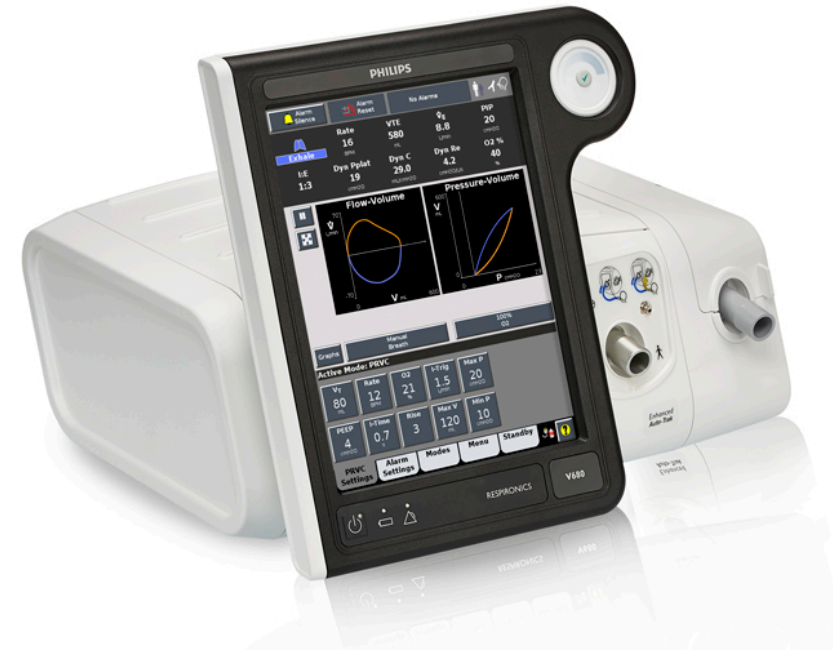
Enhance  
patient care



Easy to use

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

Easy  
to use

## Simple, familiar operation





Easy  
to use

## Auto-Trak+



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



Versatile  
operation

Versatile  
operation

## Expanded pediatric range



Pediatrics 5kg – 20 kg

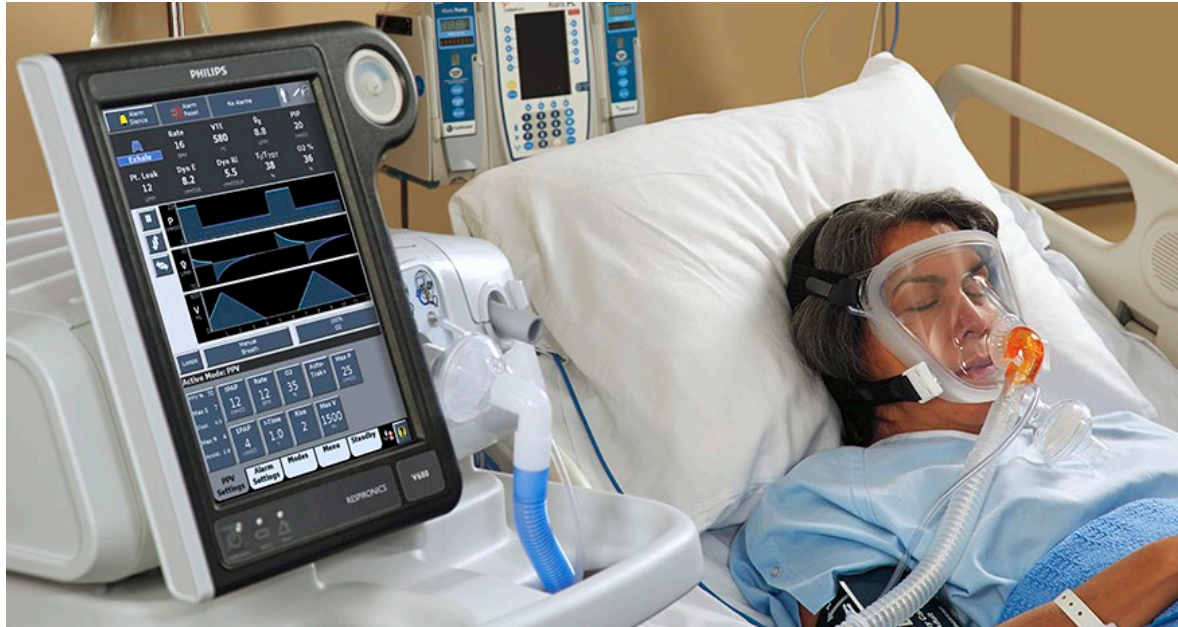


Adult > 20 kg

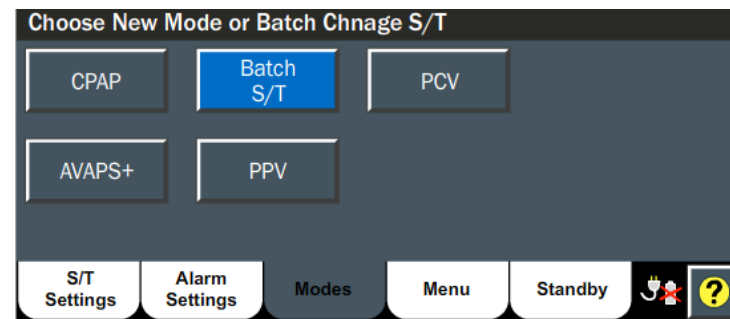


Versatile  
operation

# Single-limb noninvasive ventilation



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

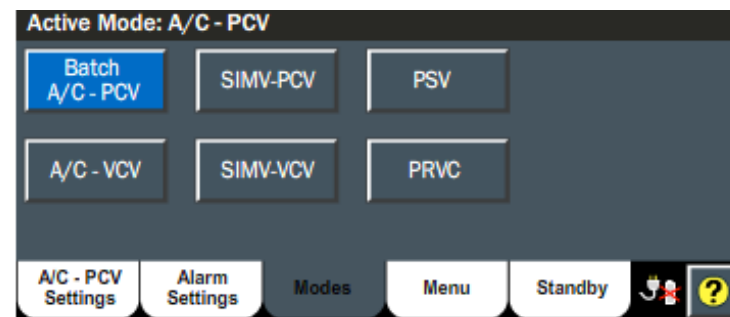


Versatile  
operation

## Dual-limb invasive ventilation

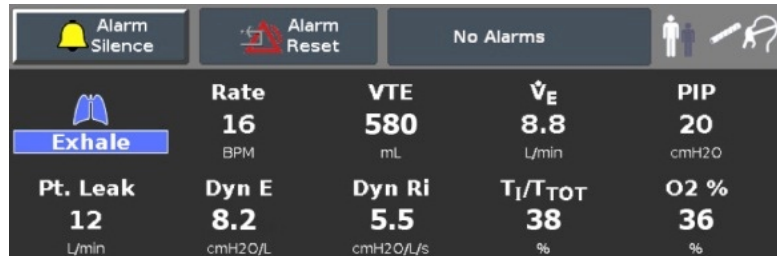


- Simple, familiar operation
- Dual-limb
  - No proprietary valves or sensors
- Active exhalation valve
- Escalating alarms
- Emergency ventilation
- Respiratory mechanics
- Loops



Versatile  
operation

## Enhanced monitoring features



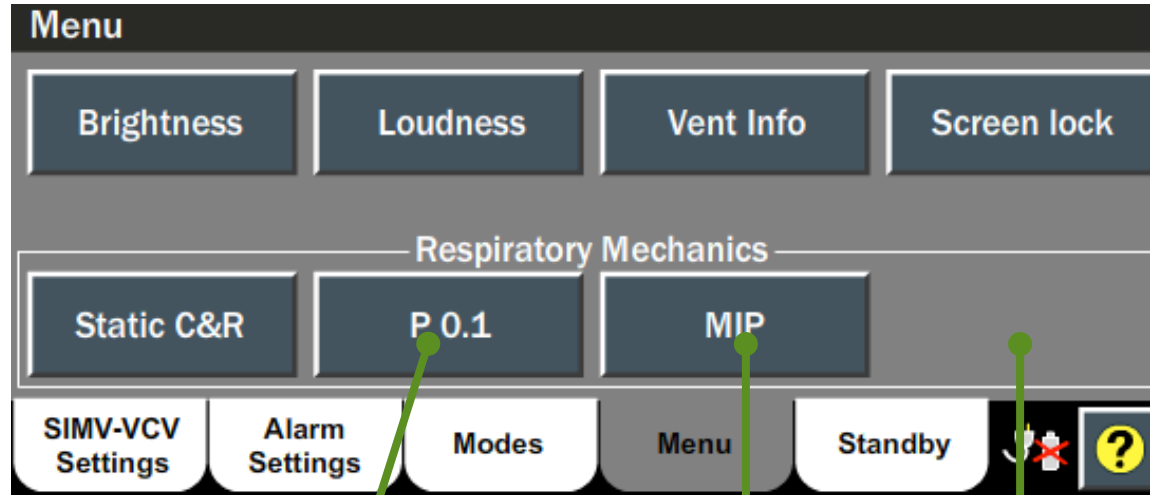
Nine live patient data points can be configured from a selection of up to 23 parameters

Select new parameter and press Close

Mechanics		Rate		Volume		Pressure		Weaning	
Dyn C 21 mL/cmH2O	O2 % 30 %	Rate 12 BPM	VTE 525 mL	VTI 600 mL	PIP 25 cmH2O	Pt. Trig 42 %			
Dyn Ri 8.4 cmH2O/L/s	Dyn Re 3.9 cmH2O/L/s	Spont R 4 BPM	Spont VTE 120 mL	Spont $\dot{V}_E$ .48 L/min	PEEP 5 cmH2O	$T_I/T_{TOT}$ 34 %			
Dyn Pplat 23 cmH2O		Te 4.0 s	Mand VTE 525 mL	$\dot{V}_E$ 7.2 L/min	MAP 10 cmH2O	RSBI 0 f/vt			
Dyn E 38.1 cmH2O/L		I:E 1:4.0	Pt. Leak 2 L/min						
				Restore Defaults		Close			

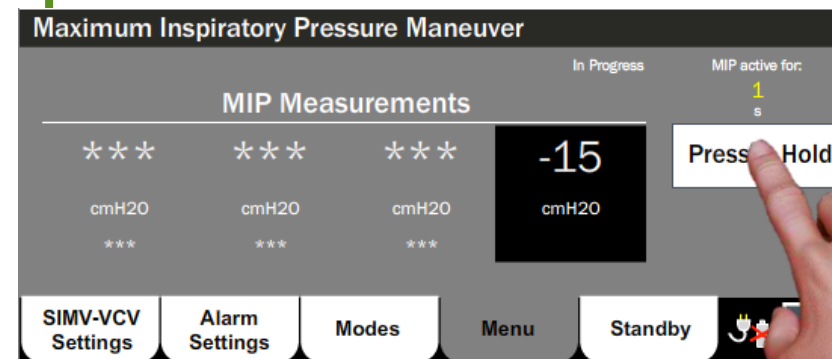
Versatile  
operation

# Respiratory mechanics



When selected,  
changes to square  
flow delivery for  
measurement

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







Fast turnaround

Fast  
turnaround



## Simple circuit

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



Not available in USA

Fast  
turnaround

## eSYS cartridge



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

Fast  
turnaround

## Pre-use check



△Not Ventilating Dual Limb SST	△Not Ventilating Dual Limb EST
1. Patient Disconnect Test <input checked="" type="checkbox"/>	1. Patient Disconnect Test <input checked="" type="checkbox"/>
2. Circuit Compliance and Leak Test <input checked="" type="checkbox"/>	2. Sensor and System Test <input checked="" type="checkbox"/>
3. Remote Alarm Test <input checked="" type="checkbox"/>	3. Alarm Speaker and LED Test <input checked="" type="checkbox"/>
Self Test Completed Successfully	4. Exhalation Valve Calibration Test <input checked="" type="checkbox"/>
	5. FiO2 Sensor Calibration <input type="checkbox"/>
	FiO2 Sensor Calibration FiO2 sensor not detected
<input type="button" value="Exit Tests"/>	<input type="button" value="Exit Tests"/>

Prompts to guide the user

### Short self test (SST)

- Approximately 30 seconds

### Extended self test (EST)

- Approximately 3 minutes





Fast  
turnaround




## Selecting mask and exhalation port





**1. Patient Type**

Adult: >20kg  Pediatric: 5-20kg 

**2. Circuit Type**

Dual Limb - INV  Single Limb - INV  Single Limb - NIV 

**3. Humidity Management**

Heated  None 


**4. Mask/Patient Interface**

Check Respiration Mask for Leak Symbol and Value

K1 K2 K3 K4 Other

◀ K1 ▶

**5. Exhalation Port**

Respiration Disposable Exhalation Port (DEP) 

Whisper Swivel Port

DEP PEV Other None

◀ DEP ▶

- Similar to the V60
- Enter mask leak value
- Enter exhalation port
- Start ventilation



Enhance  
patient care

Enhance  
patient  
care

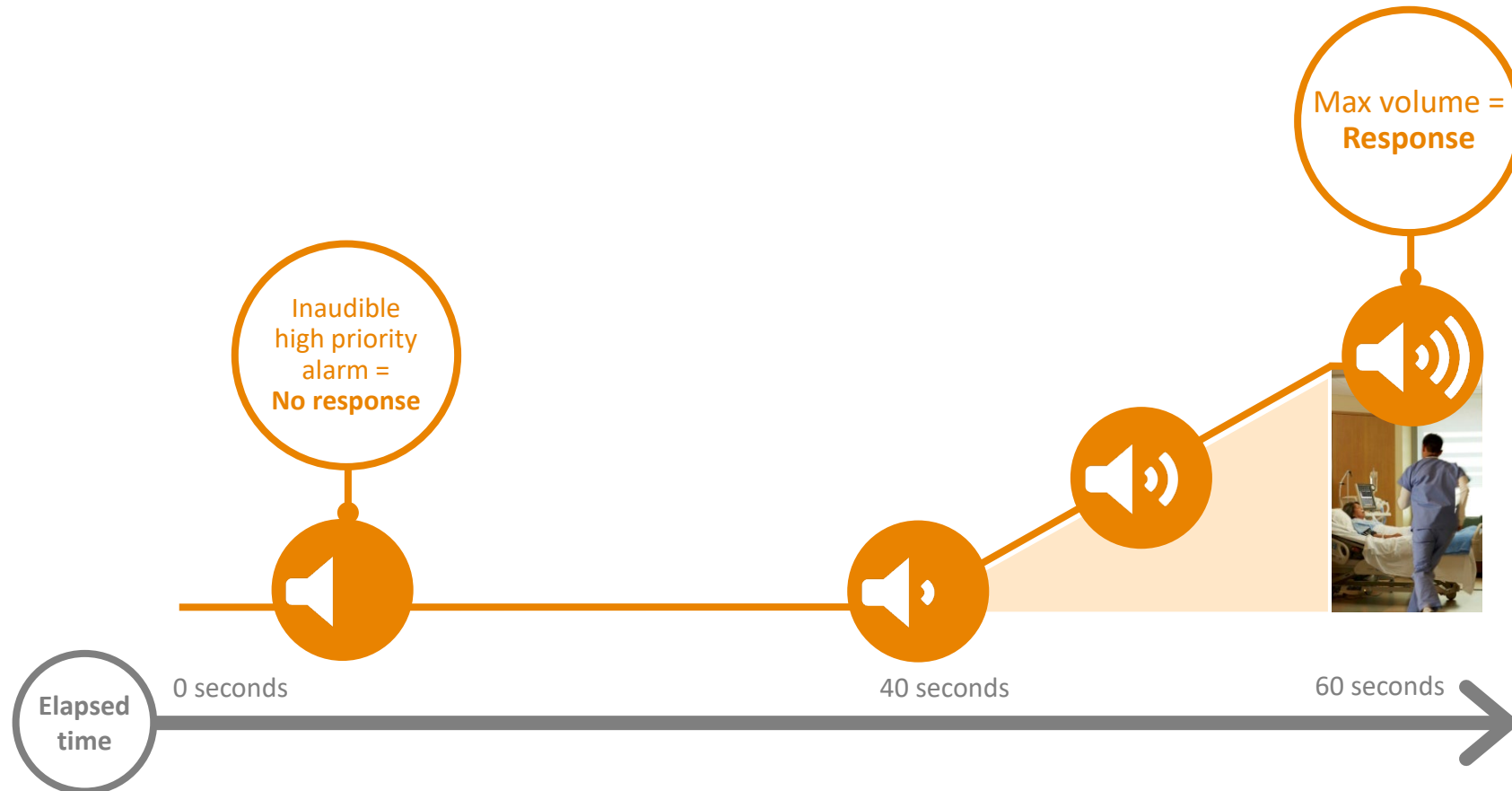
## Alarms and back-up ventilation



- Advanced alarm management
- Emergency ventilation mode
- Apnea back-up

Enhance  
patient  
care

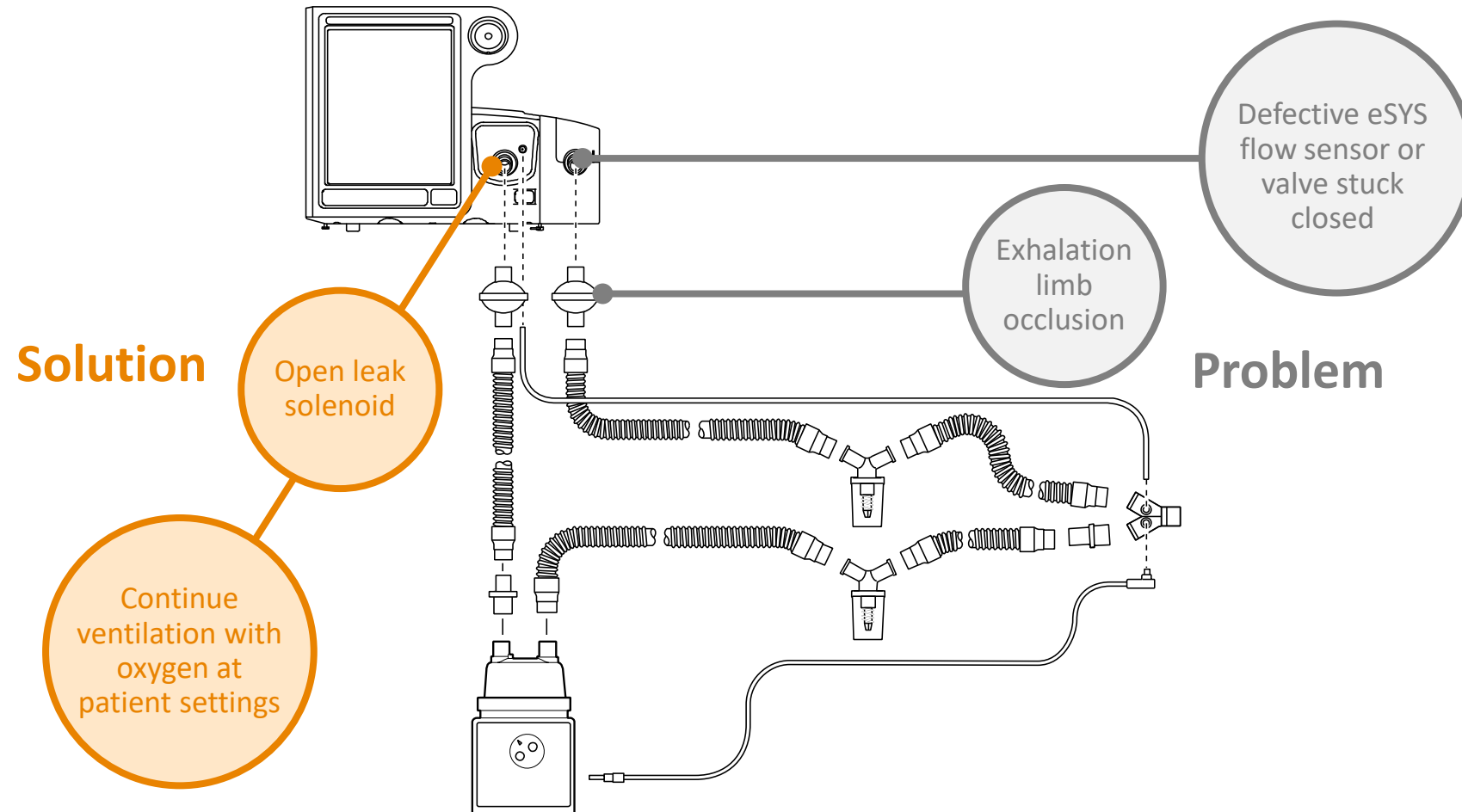
## Auto-escalating alarm volume





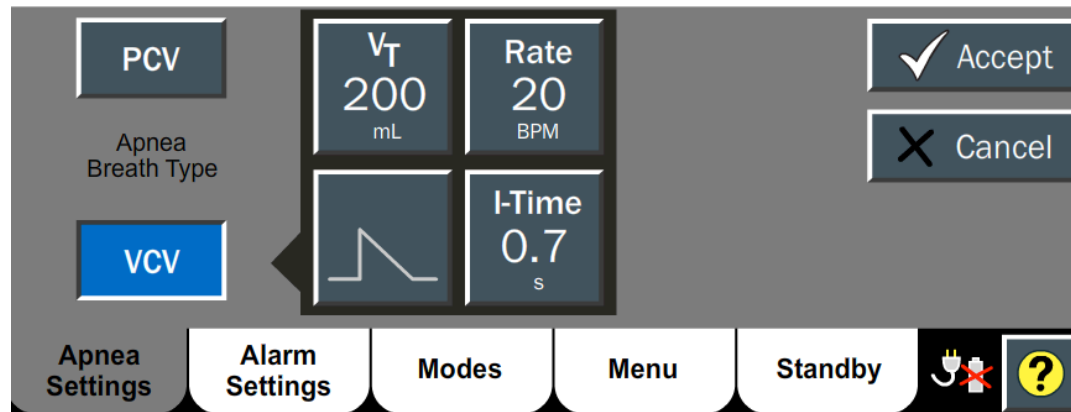
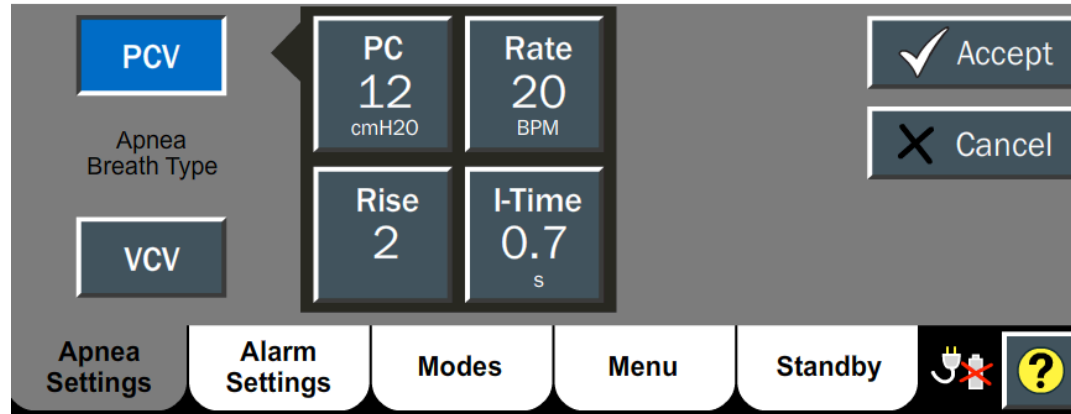
Enhance  
patient  
care

## Emergency ventilation mode



Enhance  
patient  
care

## Emergency ventilation mode



Apnea back-up ventilation is available in CPAP mode with alarm.

### Single-limb

- CPAP
- PSV
- SIMV-VCV

### Dual-limb

- SIMV-PCV

Enhance  
patient  
care

## Precise pressure regulation



- eSYS engages active exhalation valve
- Voice-coil technology
- Relieves excessive pressures in circuit



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# Philips Respironics V680 v1.30 software

## What has changed from v1.20?

**Hans Durinck**

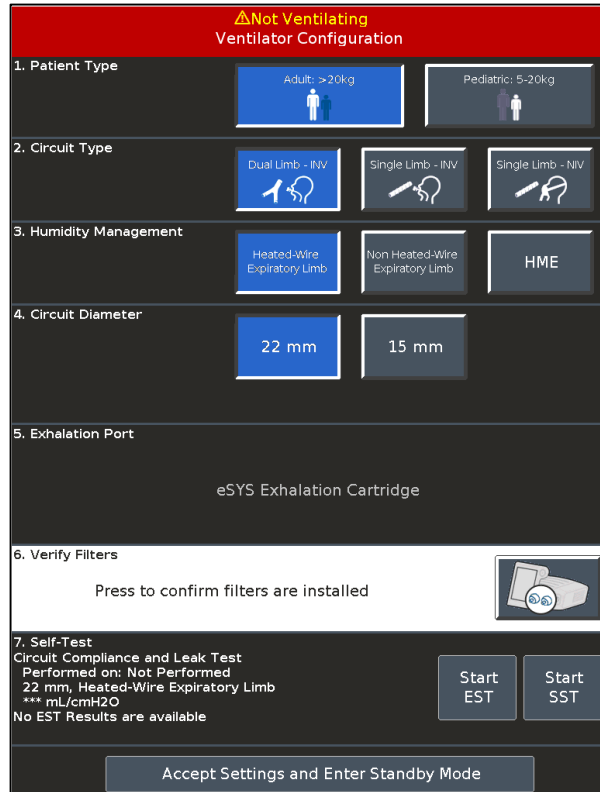
Clinical Marketing Manager, HRC

June 2019

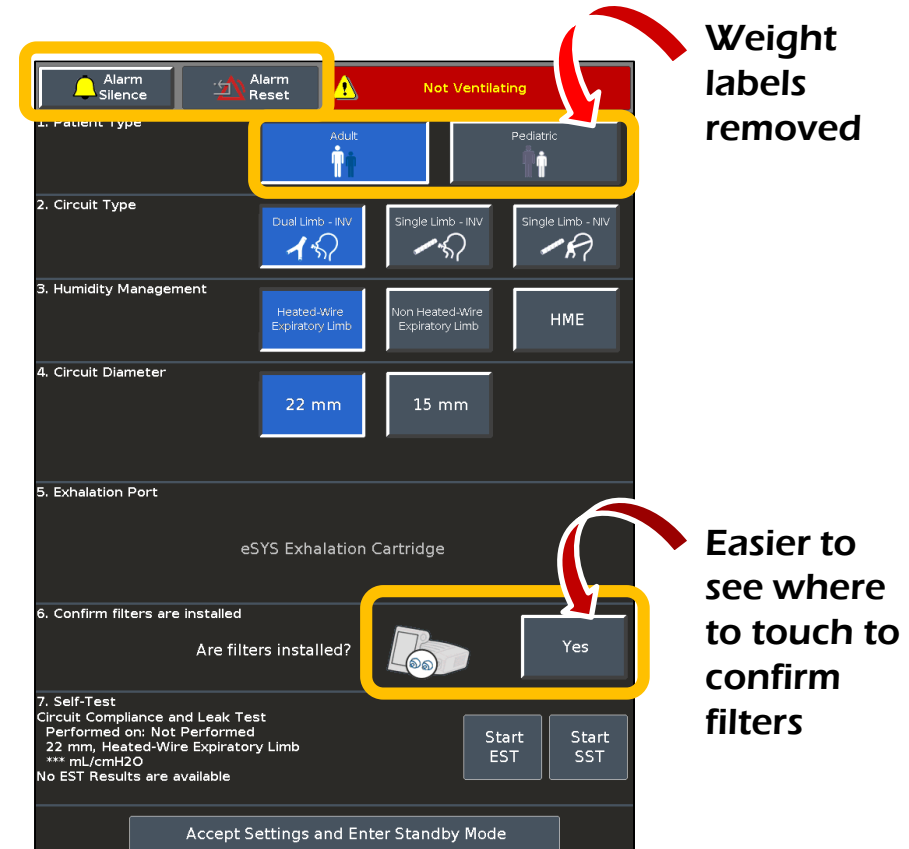
# What is *different* with v1.30 software

- 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



**v1.20 Software**



**v1.30 Software**

# Changes to EST and SST

⚠ Not Ventilating  
Dual Limb EST

1. Patient Disconnect Test

2. Sensor and System Test

3. Circuit Compliance and Leak Test

4. Alarm Speaker and LED Test

5. Exhalation Valve Calibration

6. Oxygen Sensor Calibration

7. Remote Alarm Test

Patient Disconnect Test

Assemble patient circuit exactly as it is intended to be used, including: water trap, filter(s), heated humidifier or HME. Then connect to the ventilator.

Verify O2 is connected.  
Verify the patient is disconnected before proceeding, then press 'Start Test'.

Start Test

- 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.

⚠ Not Ventilating  
Dual Limb SST

1. Patient Disconnect Test

2. Circuit Compliance and Leak Test

3. Remote Alarm Test

Patient Disconnect Test

Assemble patient circuit exactly as it is intended to be used, including: water trap, filter(s), heated humidifier or HME. Then connect to the ventilator.

Verify the patient is disconnected before proceeding, then press 'Start Test'.

Start Test

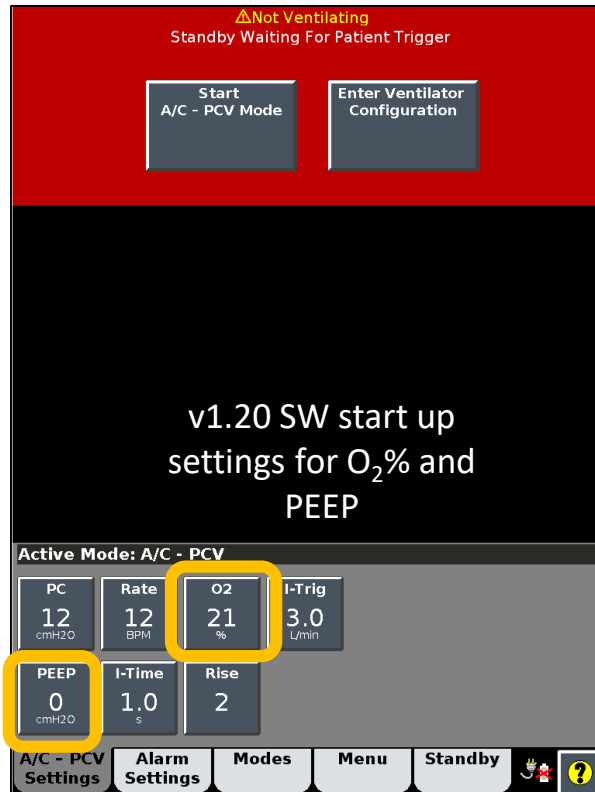
- SST will pass a wider range of circuits and filters.
- Always run SST with all filters, humidifiers and adapters

**With the v1.30 SW  
cross-calibration feature  
requires O<sub>2</sub> connection  
for EST and SST.**

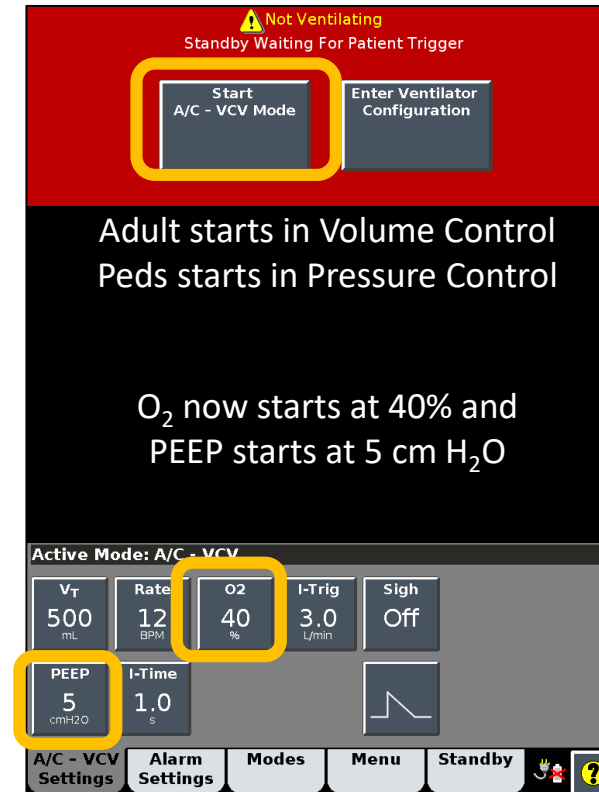


# Screen changes

## (v1.30 SW start up settings)



**v1.20 Software**

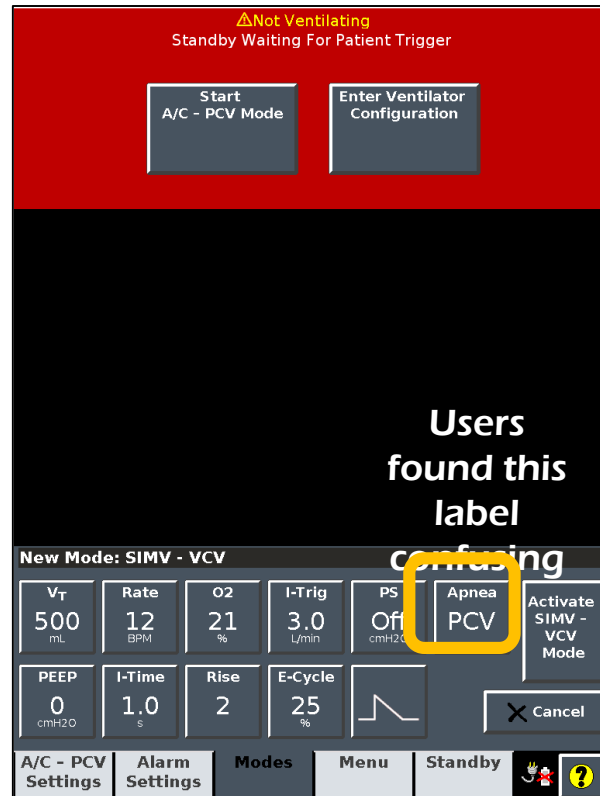


**v1.30 Software**

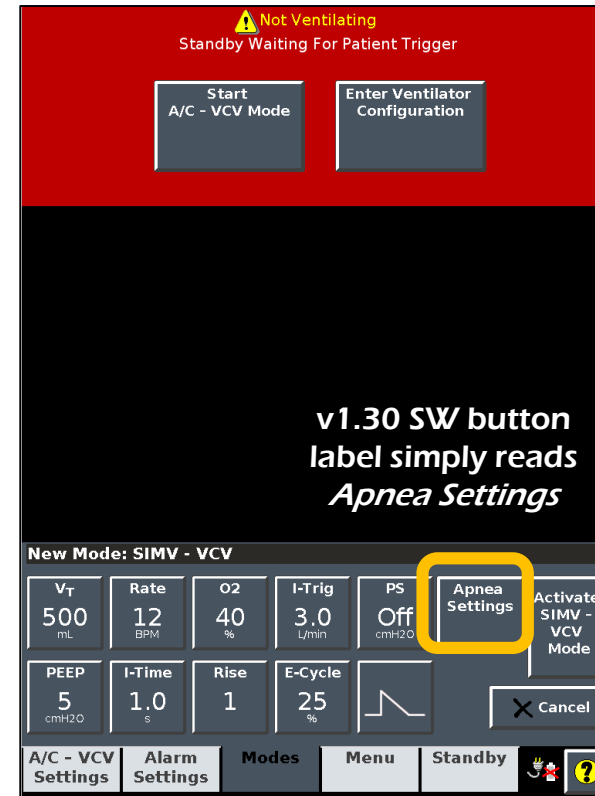


# Screen changes

## (Apnea settings simpler)



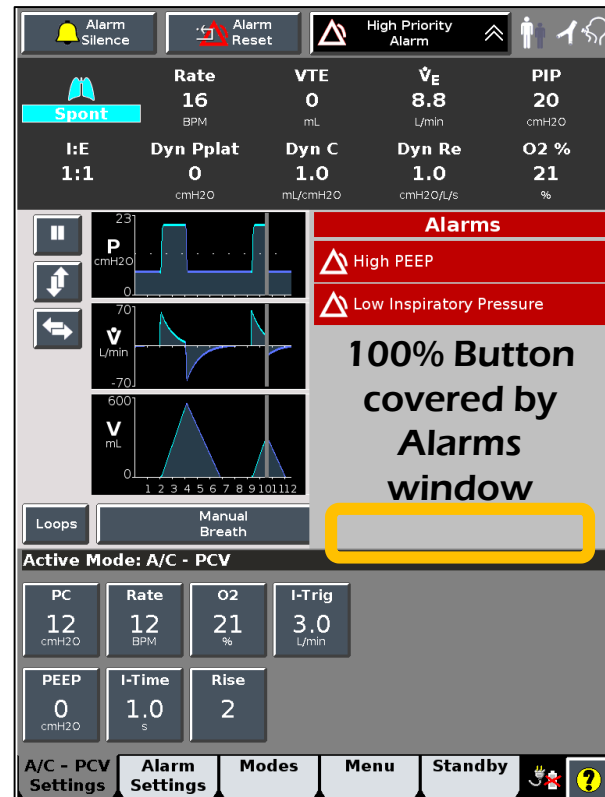
**v1.20 Software**



**v1.30 Software**

# Screen changes

## (100% O2 Button always displayed)

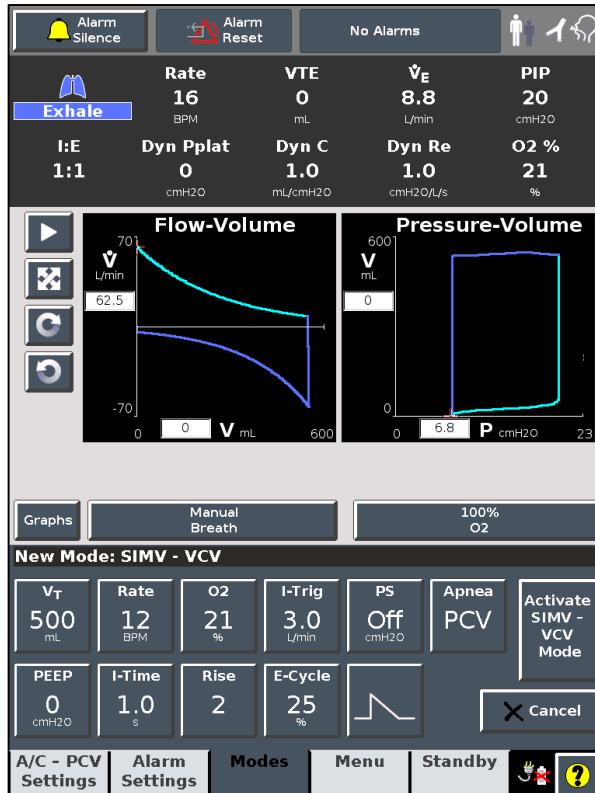


v1.20 Software



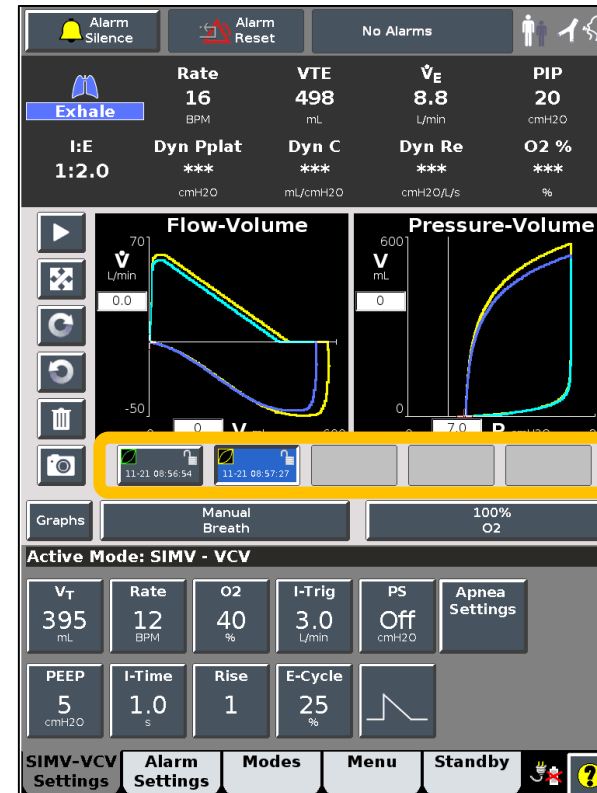
v1.30 Software

# Screen changes (Loop save and overlay)



**v1.20 SW Software**

v1.30 SW controls for saving and deleting loop overlays

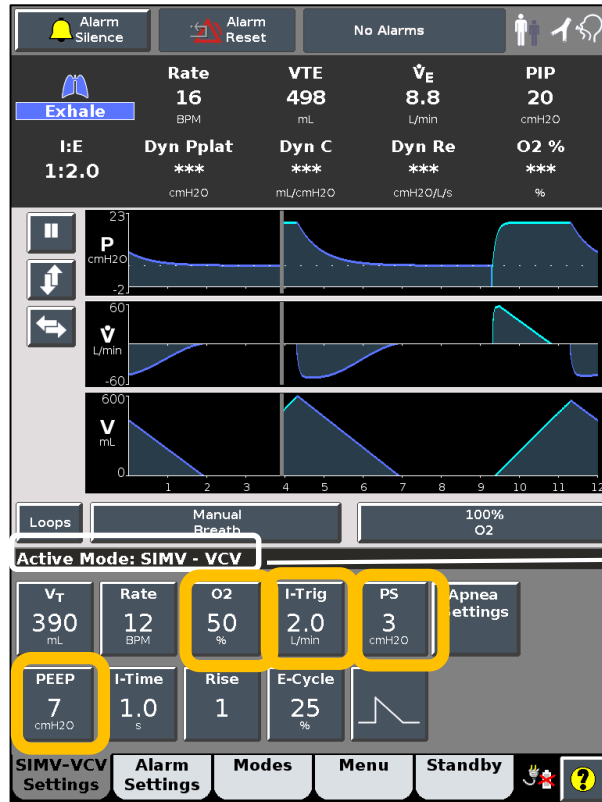


**v1.30 Software**

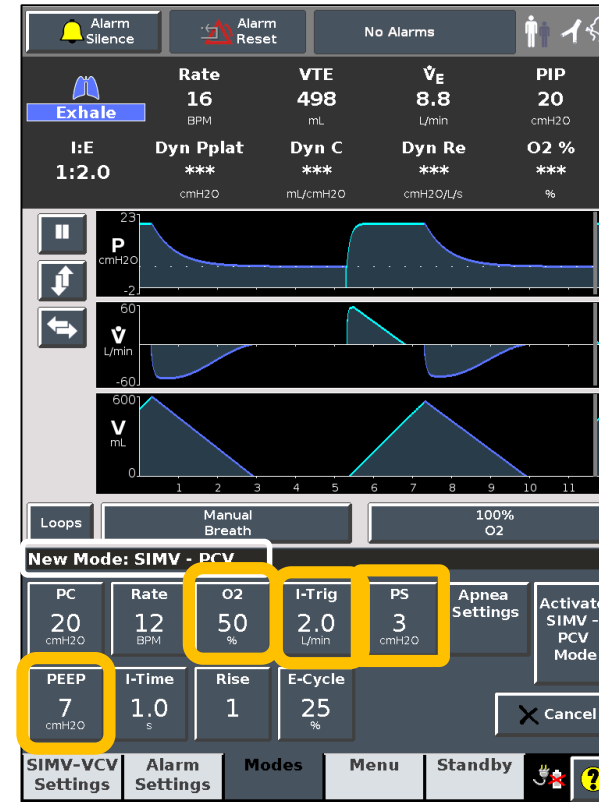
Save up to 5 loops with date and time stamps for trending. Button Color matches loop color for easy identification.

# Other screen changes

(Common settings retained)

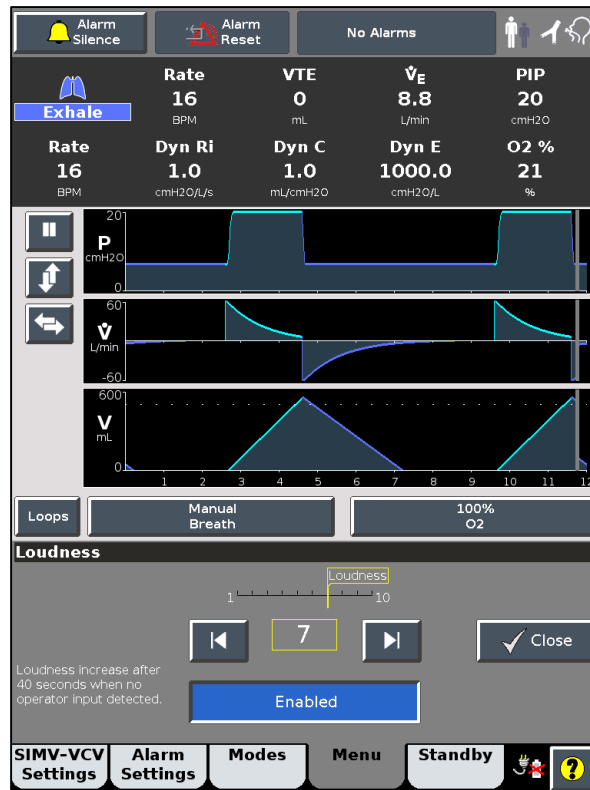


v1.30 Software



v1.30 Software

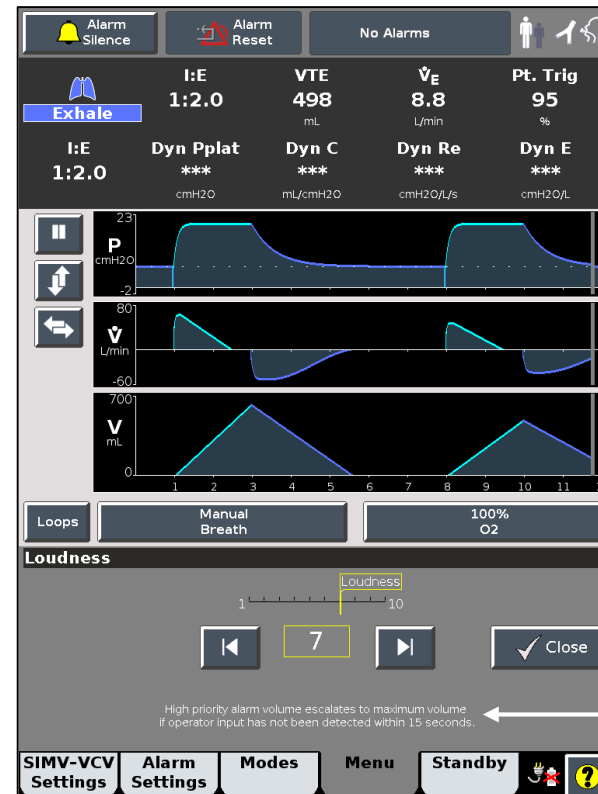
# Other screen changes (Escalating alarm volume)



**v1.20 Software**

Enabled and disabled in Loudness Menu tab.

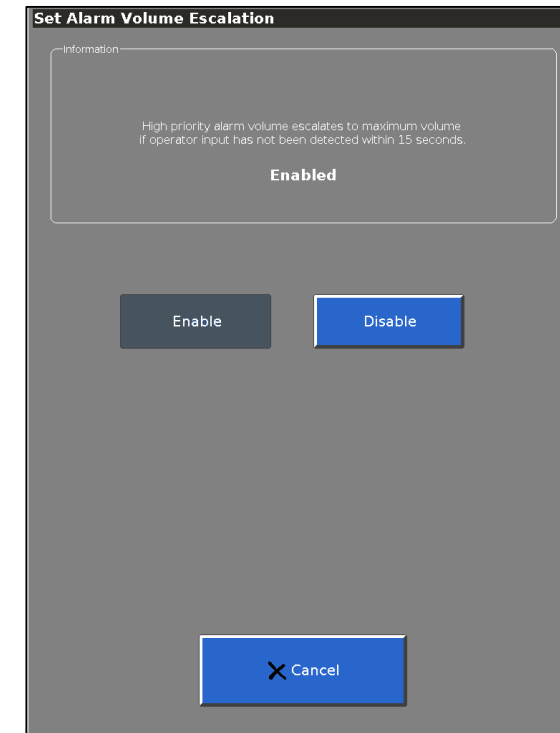
Time delay was 40 seconds.



**v1.30 Software**

Enabled and disabled in Diagnostic Screen System Settings.

User informed time delay is now 15 seconds.

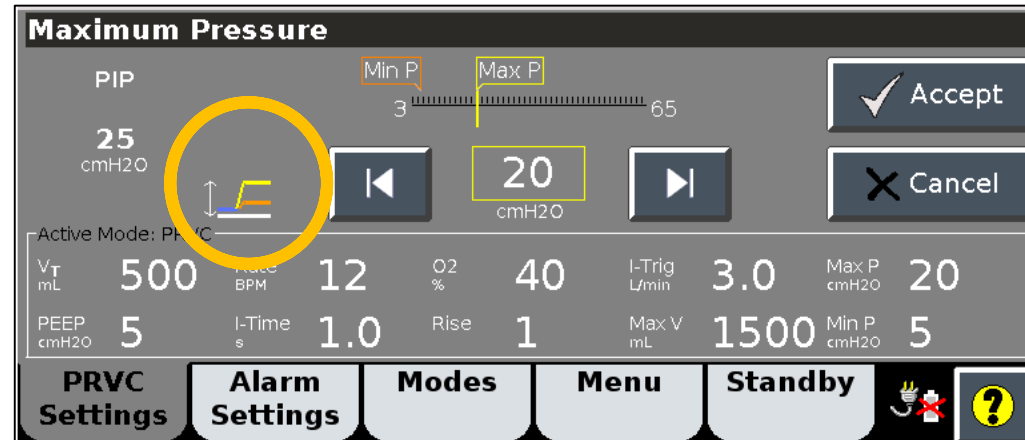


**v1.30 Software**

Enabled and disabled in Diagnostic Screen System Settings.

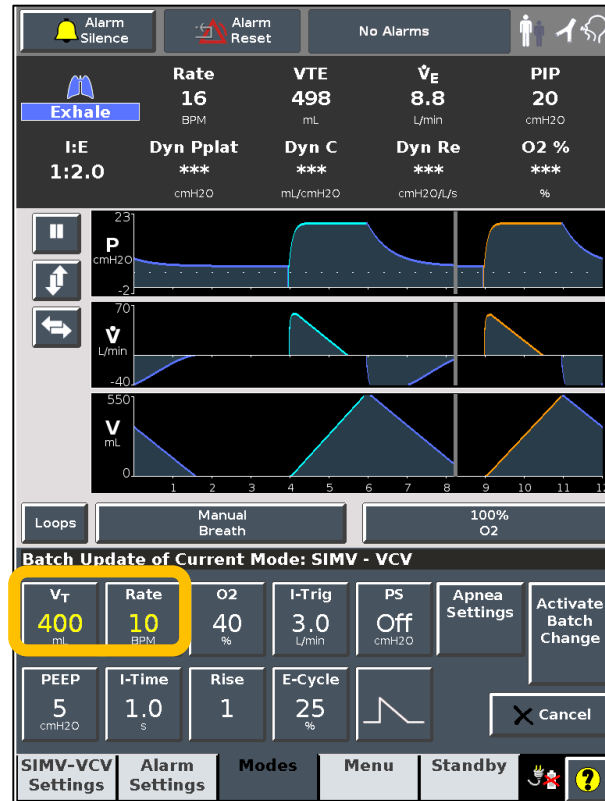


# Other screen changes

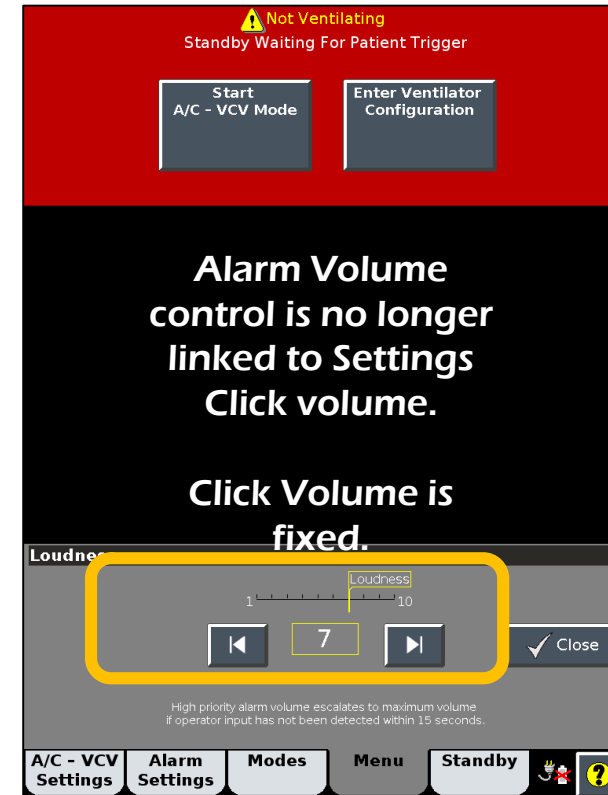


PRVC MaxP and MinP are relative to PEEP now.  
Before they were absolute.

# Other screen changes (small but important)



v1.30 Software



v1.30 Software

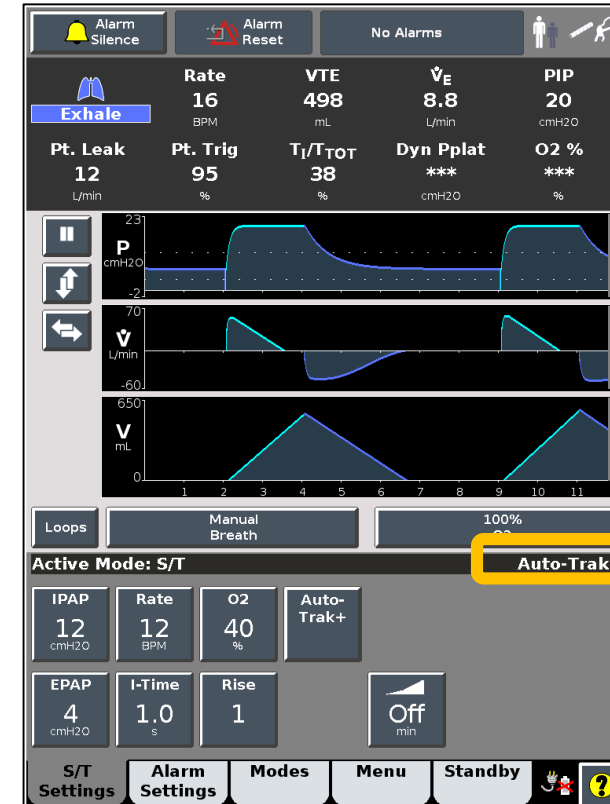
# Other screen changes

## (Single limb set up)

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



v1.30 Software

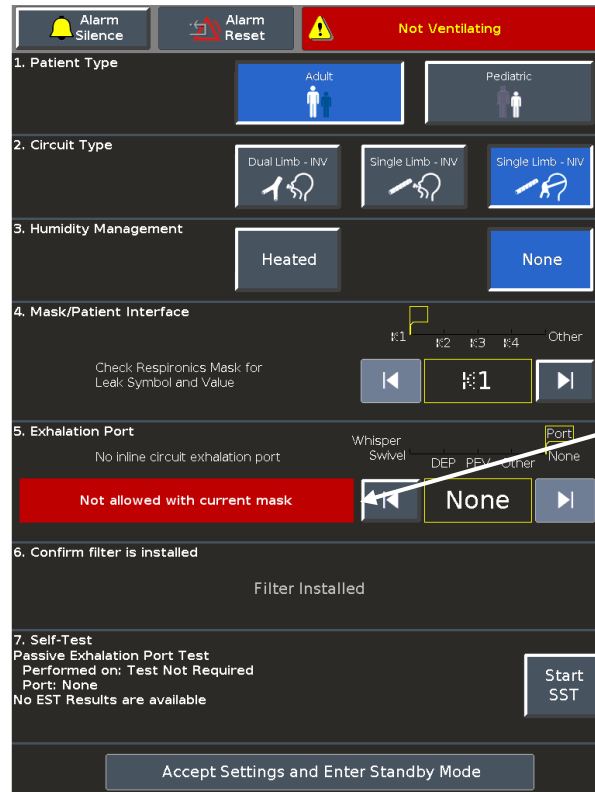


v1.30 Software

If Auto-Trak+  
settings are  
changed, label  
is displayed on  
mode status  
bar

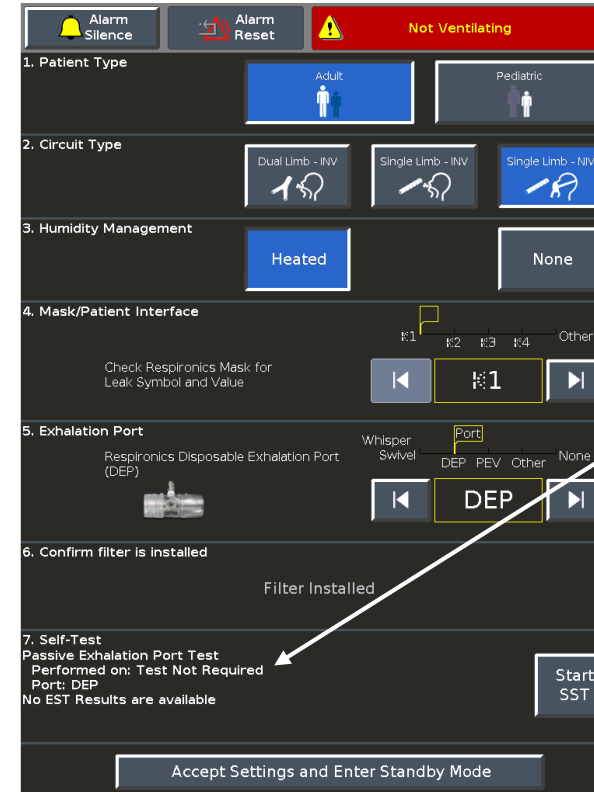
# Other screen changes

## (Single limb set up)



v1.30 Software

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.

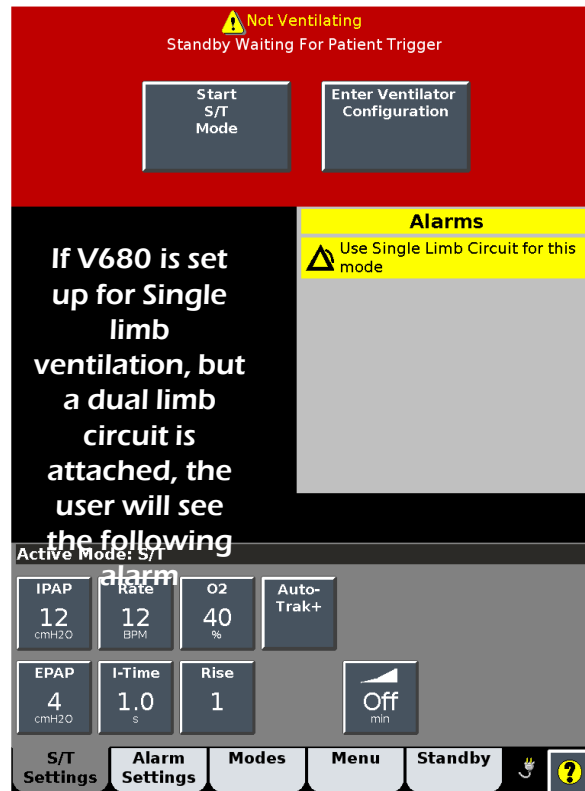


v1.30 Software

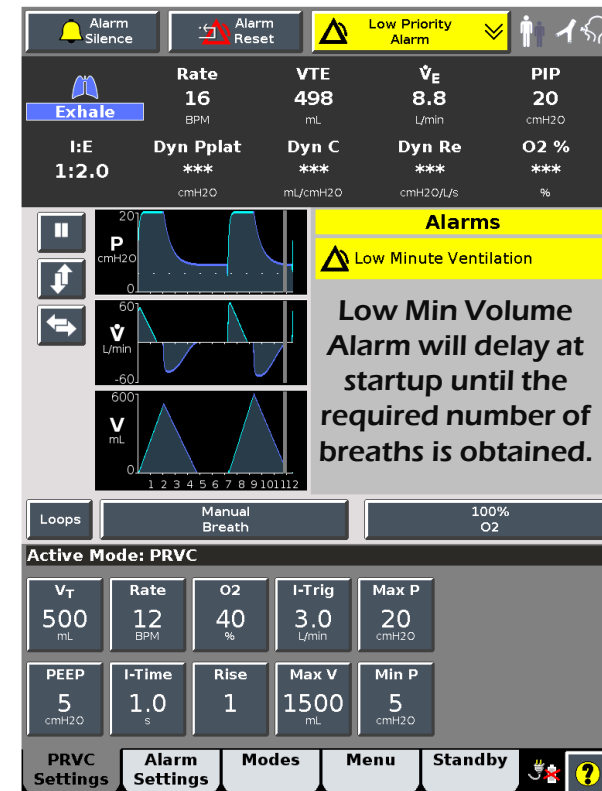
If Leak 1 and DEP are selected, no port test is required. SST button is available for Remote Alarm Test only.

# Other screen changes

## (Single limb set up)



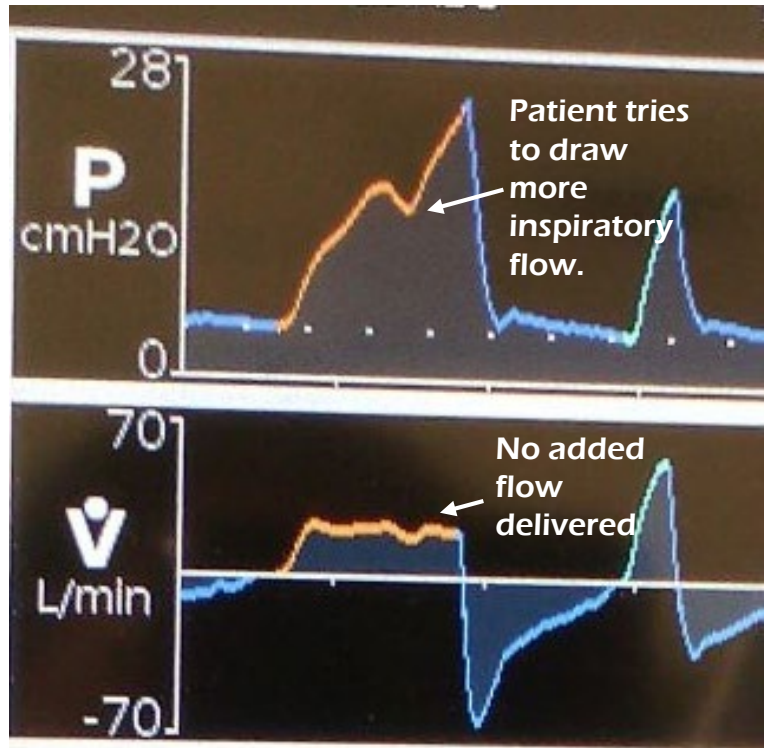
v1.30 Software



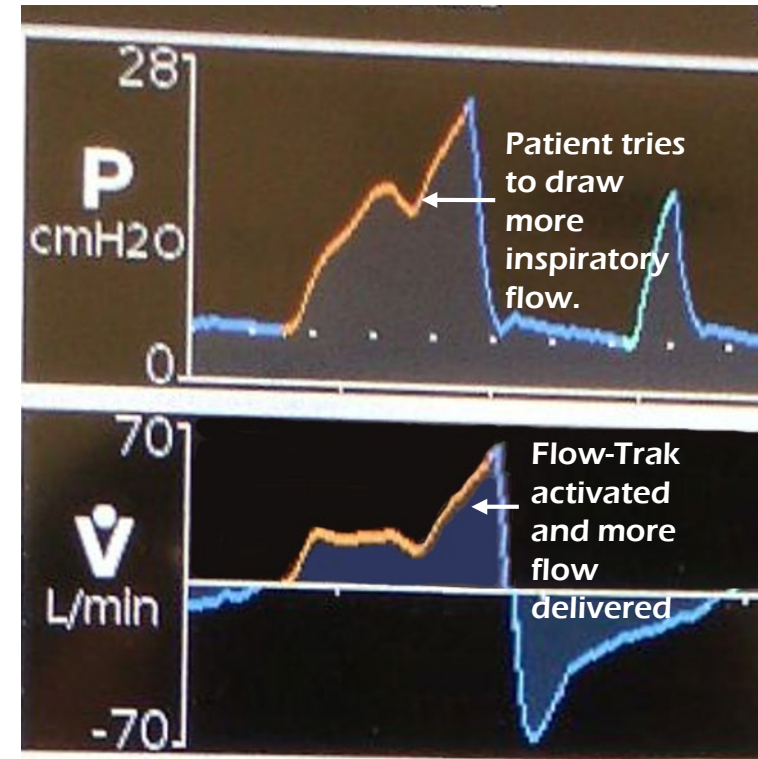
v1.30 Software



**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**



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

# 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

- FiO<sub>2</sub> and PEEP default settings are now 40% and 5 cmH<sub>2</sub>O
- 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**

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

