Comparison of the NKV-550 and NKV-440

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Overview

NKV-440

- Turbine powered for wall-independence of compressed air with HEPA filtered air intake.
- 12.1” tiltable GUI
- Integrated pneumatic nebulizer source.
- One model with optional features to allow flexible ordering.

NKV-550

- Dual-PSOL (high pressure) gas source.
- 17” tilt/rotate GUI
- 17” remote secondary GUI option
- Neonatal Flow Sensor (-N, -U)
- One model with 3 configurations for flexible ordering.

Overview

NKV-440

Interface

NKV-440
Size: 30.7 cm (12.1 in)
Type: TFT LCD, Capacitive touch
Graphics: XGA (1024 x 768)

NKV-550
Size: 43.2 cm (17 in)
Type: TFT LCD, Capacitive touch
Graphics: SXGA (1280 x 1024)

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Power

	NKV-440	NKV-550
Extended Battery	Li–ion, 14.4 V, 9.0 Ah Run time: 3 hr 30 min	Li-ion, 14.4 V, 9.0 Ah Run time: 2 hr 10 min
Backup Battery	Li–ion, 14.4 V, 4.1 Ah Run time: 1 hr 30 min	Li-ion, 14.4 V, 4.1 Ah Run time: 50 min
Total Runtime	5 hours	3 hours

New and fully charged batteries

Configurations and Options

	NKV-440	NKV-550
Neonatal	Optional	Yes: (-N and –U)
Pediatric	Yes	Yes
Adult	Yes	Yes: (-S and –U)
Extended battery	Yes	Yes
Aerogen Nebulizer	Yes	Yes
Pneumatic Nebulizer	Yes	No
Nihon Kohden SpO_2	Optional	Yes
Nihon Kohden CO_2	Optional	Yes
Gentle Lung	Optional	Yes: (-U) Optional:(-N and –S)
2nd GUI	(in development)	Optional

Modes

	NKV-440	NKV-550
<u>Invasive</u> A/CMV-PC A/CMV-PRVC A/CMV-VC SIMV-VC-PS SIMV-PC-PS SIMV-PRVC-PS SPONT-CPAP SPONT-PS SPONT-VS APRV	Yes	Yes
<u>Non-Invasive</u> A/CMV–PC SIMV–PC–PS SPONT–CPAP SPONT–PS APRV CPAP O_2 Therapy	Yes	Yes

Ventilation

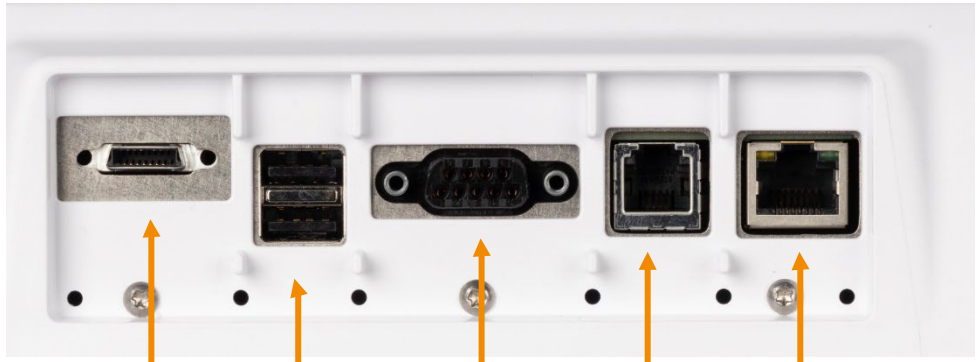
	NKV-440	NKV-550
Tidal Volume	5 to 100 mL Neonate 20 to 1000 mL Pediatric 100 to 2000 mL Adult	2 to 100 mL Neonate (PRVC/VS) 5 to 100 mL Neonate (A/CMV) 20 to 1000 mL Pediatric 100 to 3000 mL Adult
Pressure Control	2 to 60 cmH2O Neonate (60–PEEP) 2 to 70 cmH2O Pediatric (70–PEEP) 2 to 80 cmH2O Adult (80–PEEP	2 to 60 cmH2O Neonate (60-PEEP) 2 to 70 cmH2O Pediatric (70-PEEP) 2 to 80 cmH2O Adult (80-PEEP)
Flow	Volume Control: 1 to 30 L/min Neonate 1 to 60 L/min Pediatric 1 to 150 L/min Adult PC, PS, PRVC, VS, Spont: Up to 180 L/min	Volume Control: 1 to 30 L/min Neonate 1 to 60 L/min Pediatric 1 to 150 L/min Adult PC, PS, PRVC, VS, Spont: Up to 180 L/min

Connectivity

	NKV-440	NKV-550
RS-232 Serial Port • NK, Philips, GE, Capsule, CliniComp	One Yes	One Yes
USB • Power Aerogen, Install SW, Data download	Two	Two
NK Multi-Connector • SpO_2/CO_2	Two (option)	Two
DH60 Serial Port	One	None
RJ14 • Nurse Call	One	One
RJ45 • 2nd GUI port (under development)	One (not enabled)	One (not enabled)

Ports

NKV-440



NKV-550

2nd GUI

RJ45

RJ14

RS-232

USB

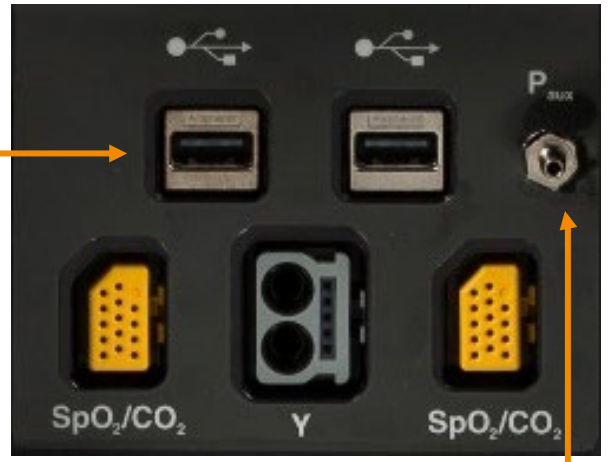
DH60

Ports

Front

NKV-440

NKV-550



Pneumatic Neb

USB

SpO_2/CO_2

NFS

Auxiliary Pressure

Physical Specifications

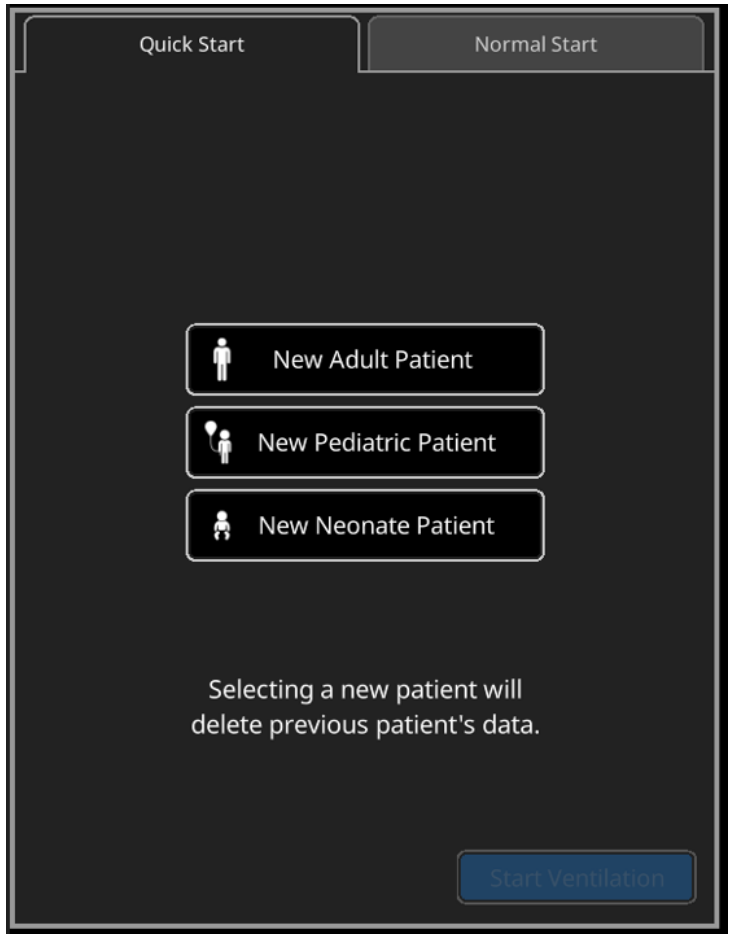
	NKV-440	NKV-550
Height (display up)	50.6 cm (19.9 in.)	69.8 cm (27.5 in)
Height (display down)	25.1cm (9.9 in.)	n/a
Width	30.8 cm (12.1 in.)	43.5 cm (17.1 in)
Depth	41.7 cm (16.4 in.)	53.5 cm (21 in)
Weight	10.1 kg (22.3 lb.)	24.2 kg (53.4 lbs)

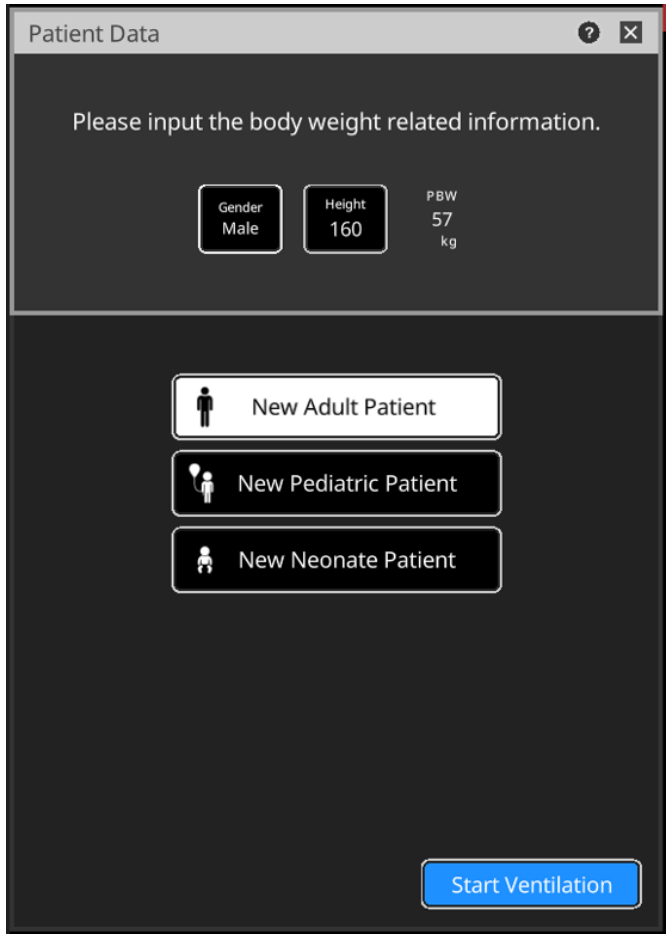
Key Differences

	NKV-440	NKV-550
Pneumatic	Turbine	Dual PSOL
Battery Life	5 hrs total	3 hrs total
Pneumatic Nebulizer	Standard	n/a
Nebulizer App	Standard	n/a
SpO_2/CO_2 Connectors	Optional	Standard
Gentle Lung®	Optional	Standard or Optional
Neonatal	Optional	Standard (-N and –U)
Esophageal/Aux pressure	n/a	Standard
NIF/PiMax App	n/a	Standard
2nd GUI	n/a	Optional

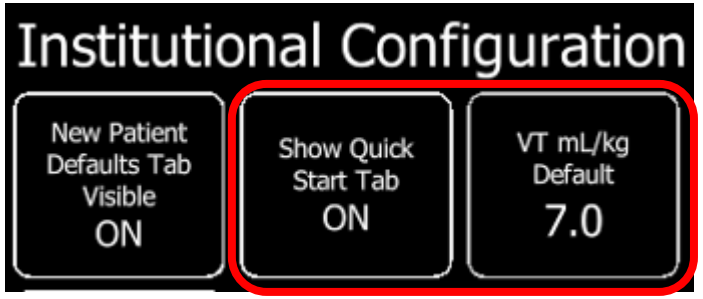
Key Differences

New Feature: Quick Start





SERVICE – HOME Screen

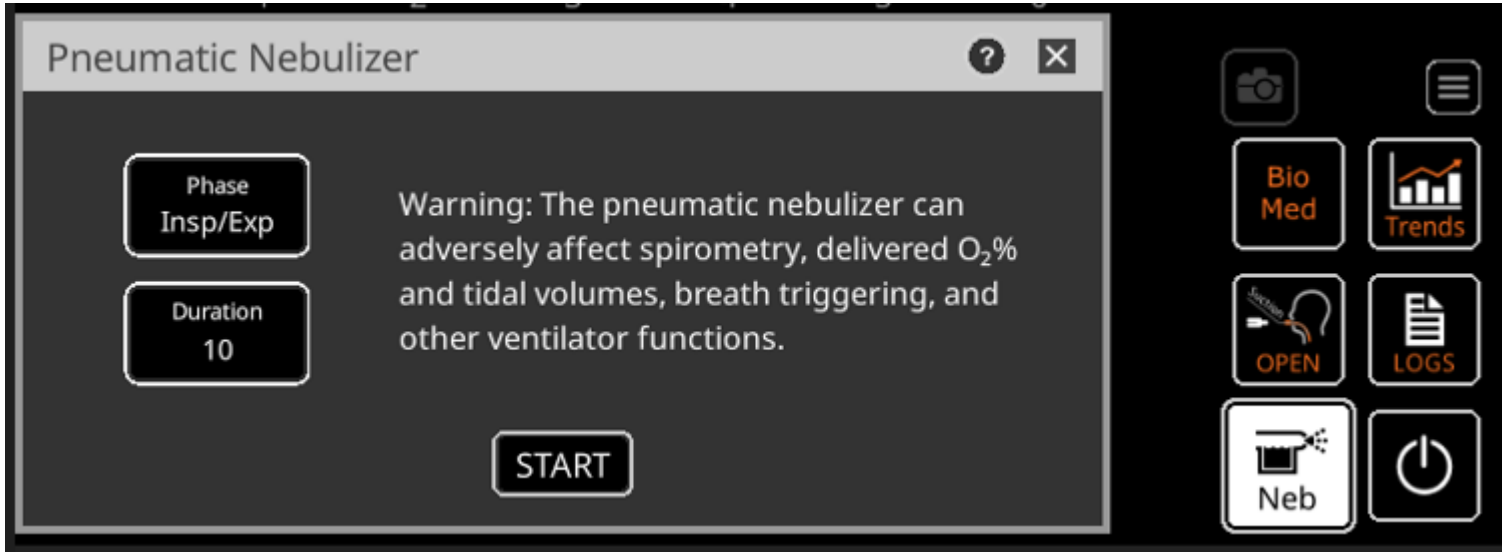


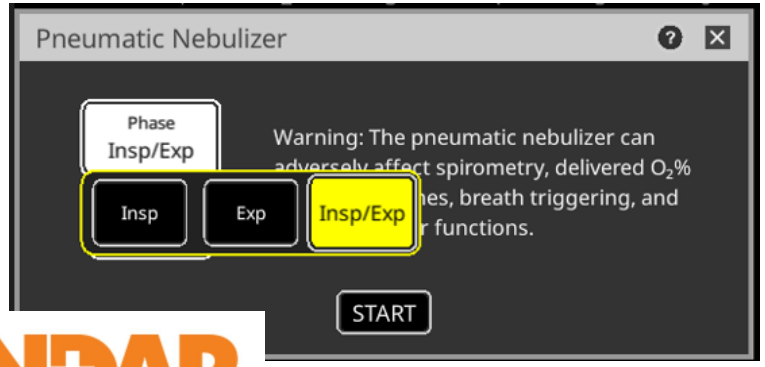
- New Patient Default Tab - ON/OFF
- Quick Start Tab – ON/OFF
- Quick Start VT mL/kg Default

  Note: Default Mode - PRVC
- Camera App 

Key Differences

New App: Pneumatic Nebulizer



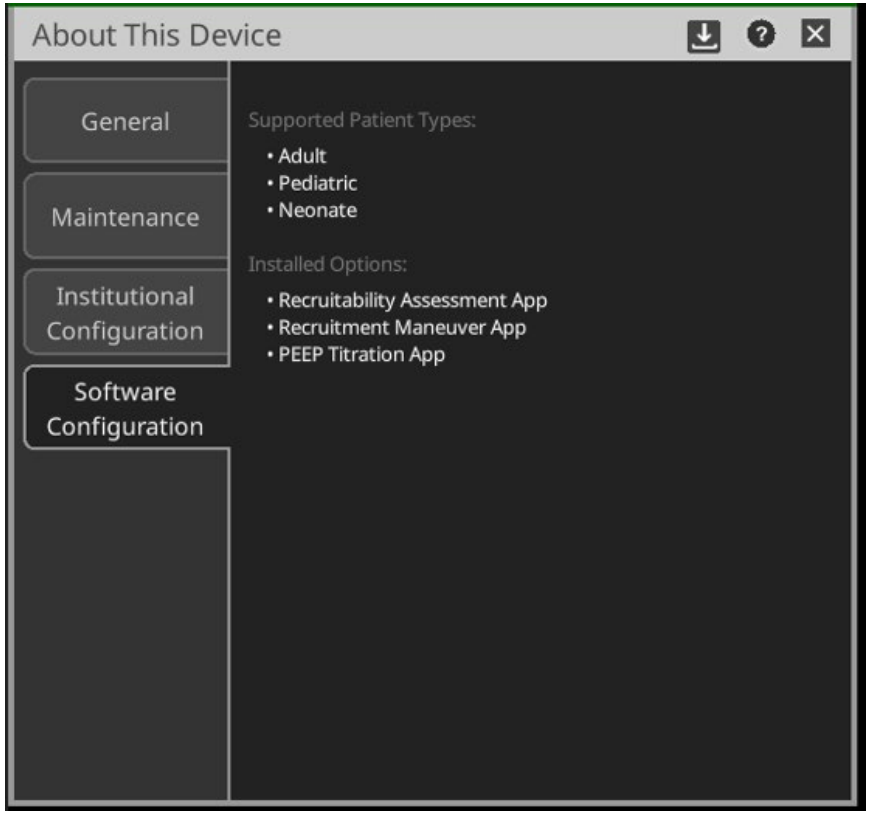


Notes:

- Pneumatic nebulizer is powered by high pressure oxygen.
- Delivered FiO_2 may vary from control setting while nebulizer is in use.
- Output flow is 6 – 10 L/min depending on ventilation control settings.

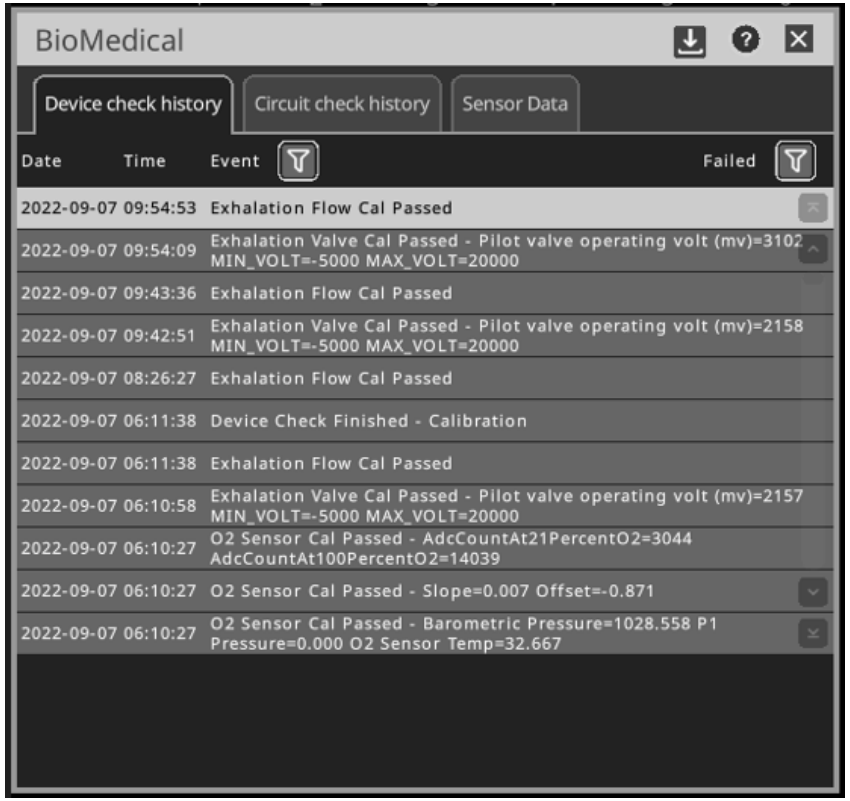
Key Differences

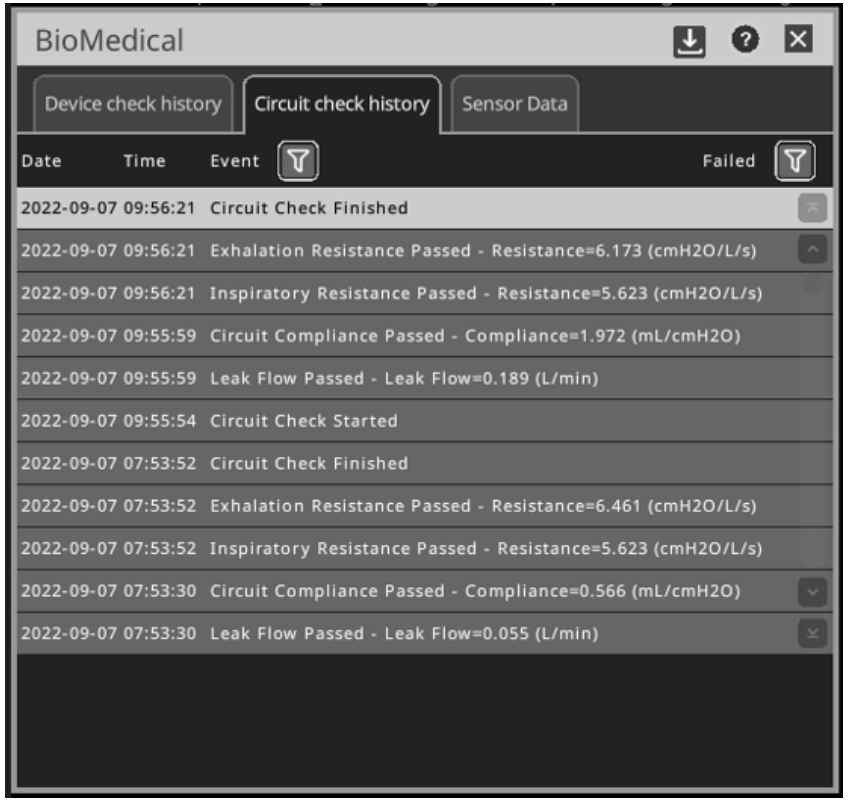
New App: About This Device



Key Differences

New App: Biomed





Key Differences

New App: Low Pressure Oxygen

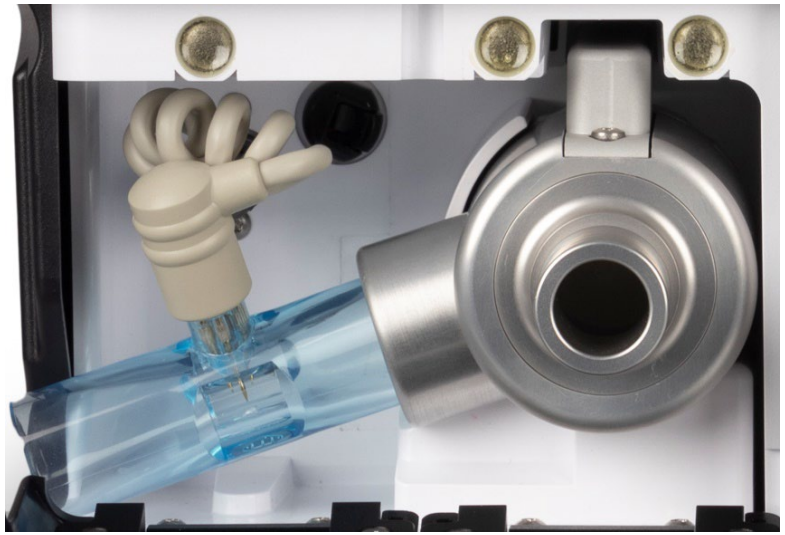
Low Pressure Oxygen App – ON/OFF

Max Input Pressure: ≤ 11 psi
Max Input Flow: 15 L/min

Low pressure oxygen input may be required in non-traditional ICU or alternative care settings, whether provided by oxygen cylinder or oxygen concentrator.

Key Differences

Expiratory Module



- Easy Insertion/Removal of Exhalation Valve
- Easy Disconnect/Reconnect of Exhalation Flow Sensor Cable

Key Differences

Inspiratory Module

- Easy Insertion/Removal of Oxygen Sensor

Maintenance

Filters

Fan Filter - clean/replace as needed.

Dust Filter - clean/replace as needed.
HEPA Filter – replace yearly

Maintenance

Other

Batteries - replace every 2 yrs.

Oxygen Sensor – replace yearly

TBD

PM Kit- every 2 yrs.

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