NIHON KOHDEN

NKV-330 FAQ

FREQUENTLY ASKED QUESTIONS

Does the NKV-330 have similar performance characteristics as the V60?

The NKV-330 and V60 have similar flow characteristics.

- The V60 is slightly higher than the NKV-330 in some instances (large leaks).
- The NKV-330 circuit pressurization is faster than the V60, helping to reduce work of breathing.

What size patients are appropriate for the NKV-330?

The NKV-330 is intended for adults and children weighing at least 12.5 kg in hospitals, hospital-type facilities, and in-hospital transportation. Circuit pressurization is faster with NKV-330 even in aggressive breathing patterns. This is helpful to reduce the inspiratory work of breathing.

Can the NKV-330 be used with tracheostomized or intubated patients?

Yes. It may be used non-invasively or invasively for patients who are breathing spontaneously but need partial ventilation support due to respiratory failure or chronic respiratory insufficiency.

What are the connectivity options?

The NKV-330 can connect to the following bedside monitors: Nihon Kohden, Philips, and GE. The NKV-330 can also connect to Capsule Technologies "middleware" solution for EMR's and other data uses.

What is the battery life?

The NKV-330 Main ("hot-swappable") battery will power the ventilator for four hours. The Back-up ("internal") battery will power the ventilator for one hour. A total run time of five hours.

Can the NKV-330 be used for in-house transports?

Yes. The portability of the NKV-330 is one of its strong points.

- The ventilator can be undocked easily with one hand and attached to the bedrail with the bedrail mount.
- The small footprint of the rolling trolly, even with the oxygen cylinder rack, makes it easily maneuverable.

What is dual-HEPA filtration?

The NKV-330 has two HEPA filters to protect the patient and the ventilator. There is a HEPA filter at the air-intake port. This helps prevent infectious material from being pulled into the ventilator. There is another HEPA filter at the patient gas outlet. This filters the gas going to the patient as well as any exhaled gas that may be forced back into the ventilator by the patient.

Is CO_2 monitoring during NIV important?

Yes. The use of NIV is increasing. Studies strongly suggest that monitoring of SpO_2 and CO_2 is an early indicator of impending respiratory failure.[1] Per ISO 80601-2-12, CO_2 monitoring should always be used during NIV. Until the cap-ONE® mask was developed,[2] this was largely impractical and unreliable.

Does the NKV-330 need to be ventilating for the SpO_2 and CO_2 monitors to operate?

No. The ventilator must be powered on, but the monitoring functions will be active even if the ventilating function is not being used.

What kind of masks can be used on the NKV-330?

Many non-invasive masks are suitable for use with the NKV-330, however, an anti-asphyxiation valve must always be incorporated in the mask. Theses valves are required for single limb breathing circuits to allow the patient to breath room air in an emergency. The mask may or may not have a built-in leak port. If the mask does not have a leak port or if the leak port is insufficient, an additional leak port may need to be added to the circuit.

Can the cap-ONE NPPV masks be used on the NKV-550?

No. The anti-asphyxia valve would create too much of a leak.

Is the flow sensor required?

When using standard 22mm breathing circuits, the on-airway flow sensor is not required. If the hospital uses a large bore breathing circuit (example: F&P RT219), use of the on-airway flow sensor is recommended to provide better flow/pressurization control. With this type of circuit, if the flow sensor is not used, a flow spike or pressure overshoot may be seen which could cause premature termination of pressure support breaths.

How can I change to O_2 Therapy (HFOT) with the current circuit?

The same circuit may be used when switching from NIV to O_2 therapy. Some cannulas may need an adapter depending on the brand of circuit and cannula. Depending on the humidifier, the mode may need to be changed as well (e.g., the MR850 should be set to "Invasive" for HFNC vs "Noninvasive" for NIV).

What are the service requirements of the NKV-330?

- Battery (both): Replace every two years
- HEPA filters (both): Replace every year
- Oxygen sensor: Replace every year
- Fan and dust filter: Replace or clean as needed. Monthly replacement is recommended.

[1] Baba, et. al. A Novel Mainstream Capnometer System for Non-invasive Positive Pressure Ventilation. EMBS Academy. July 2020; 4446-4449. DOI:10.1109/EMBC44109.2020.9175950

[2] Sakuraya, et.al. Accuracy evaluation of mainstream and sidestream end-tidal carbon dioxide monitoring during noninvasive ventilation: a randomized crossover trial (MASCAT-NIV trial). *Journal of Intensive Care*. 2022; 10 (17): 1-9. https://doi.org/10.1186/s40560-022-00603-w

For more information, please visit us at US.NIHONKOHDEN.COM or contact us at ventilator@nihonkohden.com or 1-855-550-VENT to learn more.

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