

# Cleaning, disinfection, and sterilization guidelines

The **GraphNet advance, neo, ts** ventilators and the parts of the patient circuit (hoses, connectors, accessories, etc.) are delivered clean, but not sterile.

## Cleaning and disinfection

### Cabinet

CASE+ FRONT PANEL

- Do not sterilize the cabinet with steam autoclave or ethylene oxide.

### Case

- Solvent-based hydroalcoholic solution/quaternary ammonium (e.g. benzalkonium chloride).
- High-caliber disinfectant solution for medical equipment.
- Neutral soap and warm water on a soft cloth.

#### Caution

- Do not clean the case with abrasive chemical solvents, acidic or alkaline substances. Do not use solvents, acetone, ether, chloroform, or strong acidic substances or chlorinated solvents (e.g. sodium hypochlorite).

### Front panel

SCREEN + TOUCH SCREEN FILM

- Wipe it out with a soft cloth, soaked in a neutral soap solution and warm water.

#### Caution

- Do not clean the screen with abrasive chemical solvents, or acid or alkaline substances.
- Do not use substances containing ammonium. Do not use any type of alcohol.
- Do not spray any cleaning product directly onto the screen.

### Patient circuit

- Disassemble the circuit completely to leave every surface exposed.
- Use neutral/enzymatic detergent to remove the remaining organic material in any part of the circuit.

#### Caution

- Do not use ethanol (pure alcohol), cleaning solutions containing alcohol, or cleaning solutions containing conditioners to clean any part of the patient circuit.
- Do not use solvents, acetone, chloroform, or strong acidic substances or chlorinated solvents (e.g. sodium hypochlorite) to clean the plastic parts or the hoses of the patient circuit.

#### Note

- All products provided by TECME with the ventilator, but which are not manufactured by TECME, must be cleaned and sterilized according to the manufacturer instructions.
- Do not immerse the base of the humidifier/heater in any type of liquid. This may cause a short circuit. Refer to the humidifier/heater manual for information on cleaning and sterilizing the device.
- The information provided on how to perform the cleaning and disinfection procedures for different components serve only as a guide. This information can be applied to the cleaning and sterilizing protocols of each service, as long as the mentioned warnings and cautions are followed.
- To discard the device, its parts or components delivered by other vendors, follow the requirements stipulated by your institutional authorities.



### Expiratory Valve

- Use only chlorine-free, neutral detergents (using only enzymatic detergent is recommended).

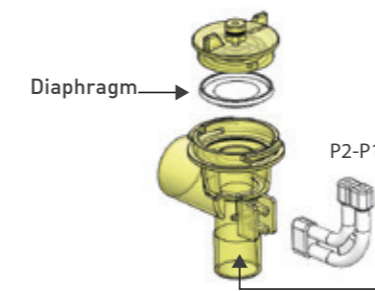
## Disinfecting procedure

Remove the expiratory valve of the ventilator, unplugging first the silicone hoses from connectors P1 and P2 and making a quarter turn in clockwise direction.

#### Disassemble completely before disinfecting.

- Immerse in disinfectant solution and dry in ambient air.

- Reassemble before sterilizing.



#### Mylar Special Care

- Do not use sharp objects
- Prevent water flow
- Prevent air flow

### Sterilization

The items that can be sterilized are the expiratory valve and the patient circuit.

- Use autoclave or ethylene oxide.
- Install the patient circuit without twisting or compressing it. Reassemble the expiratory valve before sterilizing.
- The patient circuit withstands 50 cycles of autoclave sterilization under the following parameters:
  - 20 minutes at 121 °C - 2 hrs.
  - 15 minutes at 134 °C - 1.5 hrs.

### ANNEX: Cleaning and disinfection of Neumovent devices



Products that can be used, following the recommended instructions in the cleaning and disinfection section. From left to right: medical grade disinfectant, conventional cleaner, enzymatic detergent.



WARNING

The products shown are for illustration purposes only. The product chosen to follow the Neumovent cleaning, disinfection, and sterilization guidelines is the responsibility of the Service department.

Failure to use the products and procedures recommended in this document will lead to fast deterioration of the devices and/or accessories, causing potential malfunctioning or damage.

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