

## E Sterilization and High-Level Disinfection Recommendations

The recommendations indicated below are to be used as general guidelines. Follow the specific sterilization or disinfection procedures that have been validated by your institution.

Always carefully examine product after processing. Do not use if product shows signs of cracks, leaks, poor fit, severe discoloration, or fails to perform as indicated.

### Pre-Washing:

A thorough pre-washing of components is necessary to remove foreign and/or organic contaminants. Use a low alkaline soap (pH 8.5 or less) to preserve maximum useful life.

### Notes:

- Disassembly of valve is required if submersing in liquid.
- DO NOT disassemble diaphragm (BE 215-2A) or immerse in liquid. Valve performance can be affected by residual liquid inside of diaphragm.
- Replace diaphragm when necessary.

### Sterilization:

#### Steam Autoclave:

Sterilize according to validated parameters. Do not exceed 135°C (275°F).

#### Gamma Radiation:

Irradiate according to validated parameters. Some discoloration may occur.

#### Ethylene Oxide:

Sterilize according to validated parameters. Do not exceed 55°C (131°F).

Allow ample aeration time in a well-ventilated area to dissipate the absorbed gas.

#### Gas Plasma:

Sterilize according to validated parameters.

### High Level Disinfection:

#### Pasteurization:

Pasteurize at 70°C +/- 3°C (153°F - 163°F) for a minimum of 30 minutes.

#### Chemical Disinfectants:

**Recommended Chemical: 2-4% Activated Glutaraldehyde.** Disinfect according to validated parameters. Follow the chemical manufacturer's recommendation for temperature and soak time. Chemical disinfection should be followed by sterile water rinse. Exposure time should be based on the manufacturer's indication for use as a high-level disinfectant or sterilant.

**Do not use alcohol or chemicals containing dimethyl ammonium chloride.**

### Home Use

Wash valve components in a mild liquid dish detergent. Thoroughly scrub in order to remove all contaminants. Rinse well; ensure all remaining detergent is removed. Soak components for 20 minutes in a fresh vinegar solution that is 1 part vinegar and 3 parts water.

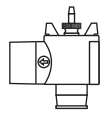
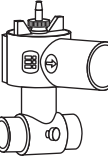
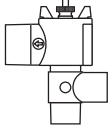
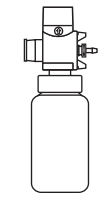
**EXAMPLE:** ½ cup vinegar and 1½ cups sterile water. Thoroughly rinse parts with sterile water. Allow to air-dry on a clean towel. Do not wipe or dry with towel.

### BE 215-2A — Diaphragm Assembly



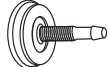
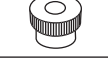

Gently scrub outside of stem with bottle brush in low alkaline soap; be sure to occlude open part of diaphragm stem so that cleaning solution does not enter the stem. Rinse thoroughly; air dry.

## F Product Specifications



All Products are Reusable

	<b>Model #</b>	BE 30-115-B BE 30-115-BL (Low Resistance)
	<b>Type:</b>	Exhalation Valve
	<b>Port Sizes:</b>	Exhalation Port: 30mm O.D. Patient Port: fits 22mm I.D. Tubing
	<b>Materials:</b>	Valve Body: Polyetherimide Internal Parts: (See Replacement Parts)
	<b>Model #</b>	NS 30-115-5 NS 30-115-5L (Low Resistance)
	<b>Type:</b>	Exhalation Valve
	<b>Port Sizes:</b>	Exhalation Port: 30mm O.D. Tee Patient/Inlet Port: 22mm O.D. x 22mm O.D.
	<b>Materials:</b>	Valve Body: Polyetherimide Internal Parts: (See Replacement Parts)
	<b>Model #</b>	NS 30-115-U NS 30-115-UL (Low Resistance)
	<b>Type:</b>	Exhalation Valve
	<b>Port Sizes:</b>	Exhalation Port: 30mm O.D. Patient Port: 15mm I.D./22mm O.D. Inlet Port: 22mm O.D.
	<b>Materials:</b>	Valve Body: Polyetherimide Internal Parts: (See Replacement Parts)
	<b>Model #</b>	PS 54A PS 54AL (Low Resistance)
	<b>Type:</b>	Exhalation Valve w/Water Trap
	<b>Capacity:</b>	8 oz (250ml)
	<b>Port:</b>	Exhalation Port: 30mm O.D.
	<b>Sizes:</b>	Patient/Inlet Port: fits 22mm I.D. tubing
	<b>Materials:</b>	Valve Body: Polyetherimide Internal Parts: (See Replacement Parts) Bottle: Polypropylene

### Replacement Parts

	<b>Model #</b>	BE 115-3B
		Replacement for: BE 30-115-B, NS 30-115-U, NS 30-115-5 & PS 54A
	<b>Model #</b>	BE 115-3L (Low Resistance)
		Replacement for: BE 30-115-BL, NS 30-115-UL, NS 30-115-5L & PS 54AL
	<b>Type:</b>	Diaphragm Holders
	<b>Material:</b>	Polyetherimide
	<b>Model #</b>	BE 215-2A
	<b>Type:</b>	Diaphragm Assembly
	<b>Materials:</b>	Polypropylene, Silicone Rubber
	<b>Model #</b>	BE 115-2N
	<b>Type:</b>	Diaphragm Nut
	<b>Material:</b>	Nylon
	<b>Model #</b>	WT 250-BOT
	<b>Type:</b>	Bottle
	<b>Materials:</b>	Polypropylene

### Exhalation Valve Adapters

	<b>Model #</b>	BE 195-A
	<b>Type:</b>	Exhalation Valve Adapter
	<b>Size:</b>	30mm I.D. x 15mm I.D.
	<b>Material:</b>	Polyetherimide
	<b>Model #</b>	PS 54-1A
	<b>Type:</b>	Exhalation Valve Adapter
	<b>Size:</b>	30mm I.D. x 30mm I.D.
	<b>Material:</b>	Polyetherimide

# Exhalation Valves

Installation & Usage Directions



**BE 30-115-B/BL**  
**NS 30-115-5/5L**  
**NS 30-115-U/UL**

**Exhalation Valves w/Water Trap**  
**PS 54A/AL**



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**Reusable**

**Rx ONLY**

**NON STERILE**

— Not made with Natural Rubber Latex  
— Not made with Di(2-ethylhexyl) phthalate (DEHP)

## A Indications for Use

These reusable exhalation valves are designed for use with ventilators. The exhalation valve prevents the inspired gases from escaping through the passage that will be made available to expired gases via an inflatable balloon. Re-breathing of the expired gases is prevented by the balloon action.

## B Contraindications

None known

## C Cautions & Notes

**Caution:** Always check valve for proper function prior to use. DO NOT over-tighten diaphragm holder cap.

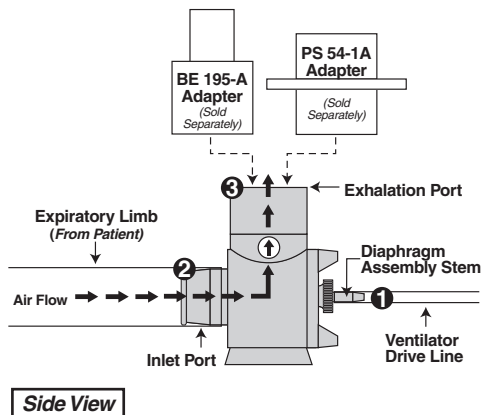
**Note:** Direction of airflow is indicated by arrow.

**Note:** If Diaphragm Assembly (BE 215-2A) becomes disassembled or damaged it must be replaced. DO NOT reassemble. Replace Diaphragm Assembly.

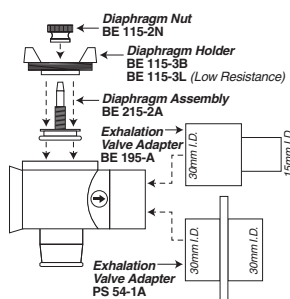
## D Exhalation Valve and Exhalation Valve w/ Water Trap — Installation Directions & Replacement Parts Diagram

### BE 30-115-B BE 30-115-BL Installation Directions

1. Connect Ventilator Drive Line to Diaphragm Assembly Stem. ①
2. Connect Expiratory Limb of circuit to Inlet Port. ②
3. If required, connect Adapter (sold separately) to Exhalation Port. ③

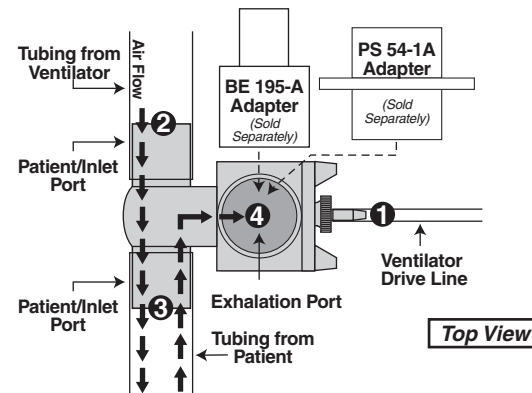


### BE 30-115-B BE 30-115-BL Assembly & Replacement Parts Diagram

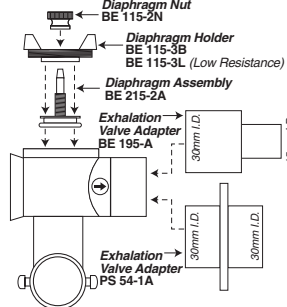


### NS 30-115-5 NS 30-115-5L Installation Directions

1. Connect Ventilator Drive Line to Diaphragm Assembly Stem. ①
2. Connect Tubing from the Ventilator to one of the Patient/Inlet Ports. ②
3. Connect Tubing from the Patient to the other Patient/Inlet Port. ③
4. If required, connect Adapter (sold separately) to Exhalation Port. ④

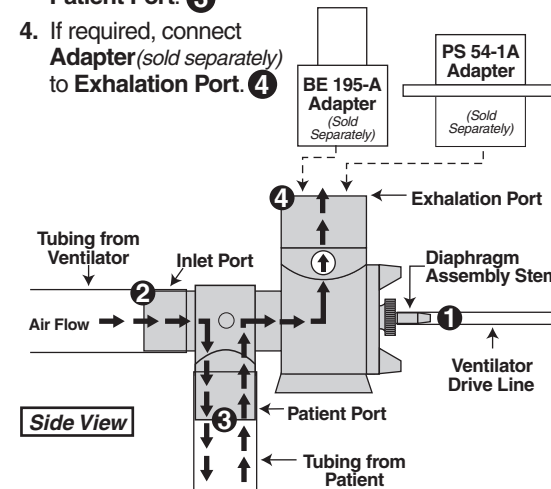


### NS 30-115-5 NS 30-115-5L Assembly & Replacement Parts Diagram

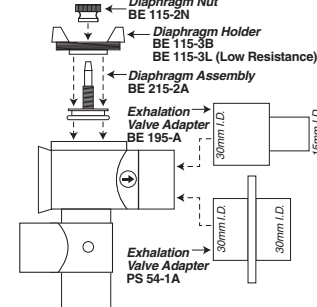


### NS 30-115-U NS 30-115-UL Installation Directions

1. Connect Ventilator Drive Line to Diaphragm Assembly Stem. ①
2. Connect Tubing from the Ventilator to the Inlet Port. ②
3. Connect Tubing from the Patient to the Patient Port. ③
4. If required, connect Adapter (sold separately) to Exhalation Port. ④

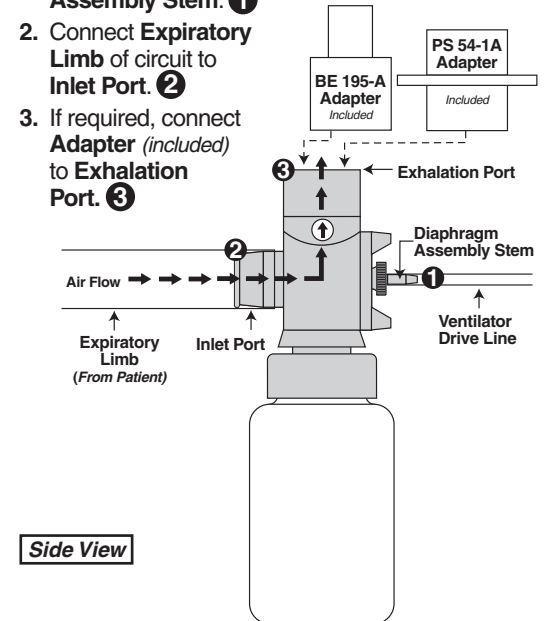


### NS 30-115-U NS 30-115-UL Assembly & Replacement Parts Diagram



### PS 54A PS 54AL Installation Directions

1. Connect Ventilator Drive Line to Diaphragm Assembly Stem. ①
2. Connect Expiratory Limb of circuit to Inlet Port. ②
3. If required, connect Adapter (included) to Exhalation Port. ③



### PS 54A PS 54AL Assembly & Replacement Parts Diagram

