

# SUMMIT MEDICAL

Equipment Company

## POSI-VAC NON-REBREATHING SYSTEM (NRB) WITH INCISOR BAR

FIGURE 1

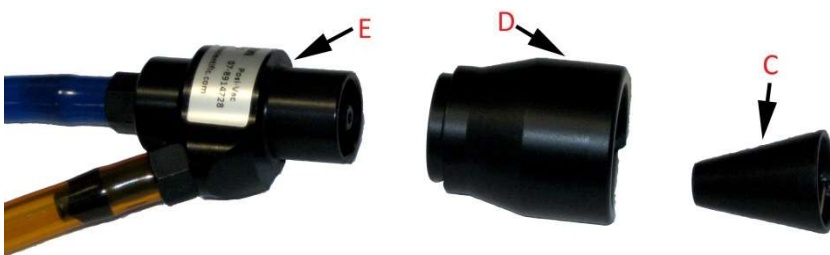


**X-Large Rat: PN: AS-01-0510**  
**Nose cone: 1-1/4" Diameter**  
**Shroud: 1-1/2" Diameter**

**Mouse/Rat: PN: AS-01-0512**  
**Nose cone: 3/4" Diameter**  
**Shroud: 1" Diameter**

**X-Small Mouse: PN: AS-01-0511**  
**Nose cone: 7/16" Diameter**  
**Shroud: 3/4" Diameter**

FIGURE 2



- A.** 1/4" I.D. Orange Color Coded Fresh Gas Tubing with 15mm male adaptor.
- B.** 1/4" I.D. Blue Color Coded Waste Gas Tubing with 1/4" male Friction Adaptor.
- C.** Nosecone with incisor bar.
- D.** Waste Gas Collection Shroud.
- E.** Mapleson-D Body.



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### Application:

- The Posi-Vac NRB System is specifically designed for anesthesia systems that utilize active vacuum for waste gas management. The unique design allows the vacuum to draw in room air at the same time that the waste anesthetic gases are drawn around the animal's muzzle and into the space between the Nosecone and Waste Gas Collecting Shroud. Without the Waste Gas Collecting Shroud design, the fresh anesthetic gases will be pulled away from the subject too rapidly, prohibiting adequate anesthesia.
- Vacuum must be attenuated between 10 and 15 LPM negative flow for proper function of the Posi-Vac NRB System. This can be achieved with Summit Medical's Vapor-Vac Interface **(AS-01-0520)**.

### Assembly:

- The Posi-Vac NRB System design includes a Mapleson-D coaxial body **(Figure 2, E)**, a Waste Gas Collecting Shroud **(FIGURE 2, D)** and a Nosecone with incisor bar **(FIGURE 2, C)** and comes fully assembled. However, for cleaning, the Posi-Vac NRB System should be disassembled and then reassembled for further use.
- To disassemble, firmly grasp the Waste Gas Collecting Shroud with one hand while holding onto the Mapleson-D Body with the other hand.
  - Using a twisting motion remove the Waste Gas Collecting Shroud. The Nosecone will be removed with the Waste Gas Collecting Shroud.
  - Do not remove the Fresh Gas Tubing **(Figure 1, A)** or Waste Gas Tubing **(Figure 1, B)** from the Mapleson D Body.
- To reassemble, first push the Waste Gas Collecting Shroud onto the Mapleson-D Body using a twisting motion. Press firmly until Shroud is tight on the Mapleson-D Body
  - There are "stops" on the Mapleson-D Body that will not allow the Shroud to be pushed on further than necessary.
  - Make sure the indentation on the bottom of the Shroud and the fresh/waste gas tubing are aligned so that the Shroud will rest flat on work surface.
  - Firmly press nosecone into Shroud making sure that the incisor bar is oriented at the angle you want the subject's head to rest at.
  - Make sure the Nosecone is pressed all the way into the Shroud until it can go no further.



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### Use and Operation:

1. Connect the Orange Color Coded Fresh Gas Tubing with 15mm male adaptor of the Posi-Vac NRB System (**FIGURE 1, A**) to the fresh gas tubing with 15mm Common Outlet of the anesthesia machine or fresh gas diverter system.
2. Connect the Blue Color Coded Waste Gas Tubing with ¼" male Friction Adaptor (**FIGURE 1, B**) to the attenuated active vacuum source.
  - Active vacuum source will need ¼" female Friction Adaptor (included) to connect Posi-Vac Waste Gas Tubing.
3. Turn on vacuum and open any stopcocks/valves.
  - The waste anesthetic gases are discarded to the outside of the building and into the atmosphere and/or into an activated charcoal filter.
4. The anesthetized subject's nose (muzzle) is approximated into the Posi-Vac Nosecone (**FIGURE 2, C**) and the incisors are secured utilizing the incisor bar.
  - The animal's muzzle should not be tightly sealed in the Posi-Vac Nosecone. The animal's nose needs only to be approximated in the Posi-Vac nosecone such that the animal can breathe fresh anesthetic gas and oxygen.

**CAUTION: DO NOT SEAL THE ANIMAL'S MUZZLE AGAINST THE POSIVAC NOSE CONE. THE ANIMAL'S MUZZLE NEEDS TO BE APPROXIMATED INTO THE NOSE CONE WITH ENOUGH SPACE AROUND THE MUZZLE TO ALLOW THE ANESTHETIC GASES TO FLOW AROUND THE ANIMAL'S MUZZLE AND INTO THE WASTE GAS VACUUM MANAGEMENT SYSTEM.**

5. Utilizing stopcock or valve, turn fresh gas on to the subject at flow rate appropriate for the subject.
  - Suggested flow rate for mice and rats is 0.5 – 1.0 LPM.
6. When finished, turn off fresh gas flow and vacuum and remove subject to recovery area.