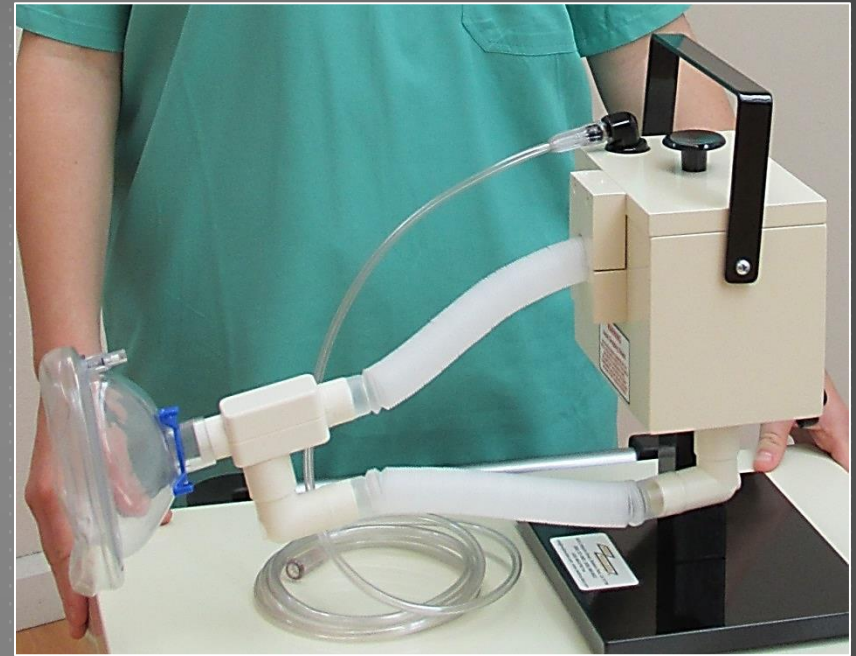# AERO/VENT™ MAX

Step by Step Instructions for Use

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Aero/Vent™ Max Overview

Medi/Nuclear's Aero/Vent™ Max is a two tube system that eliminates dead space and provides efficient radioaerosol delivery.

Unidirectional airflow allows for the radioaerosol particles of ^{99m}Tc-DTPA, or an equivalent alternative, to be immediately available upon inhalation.
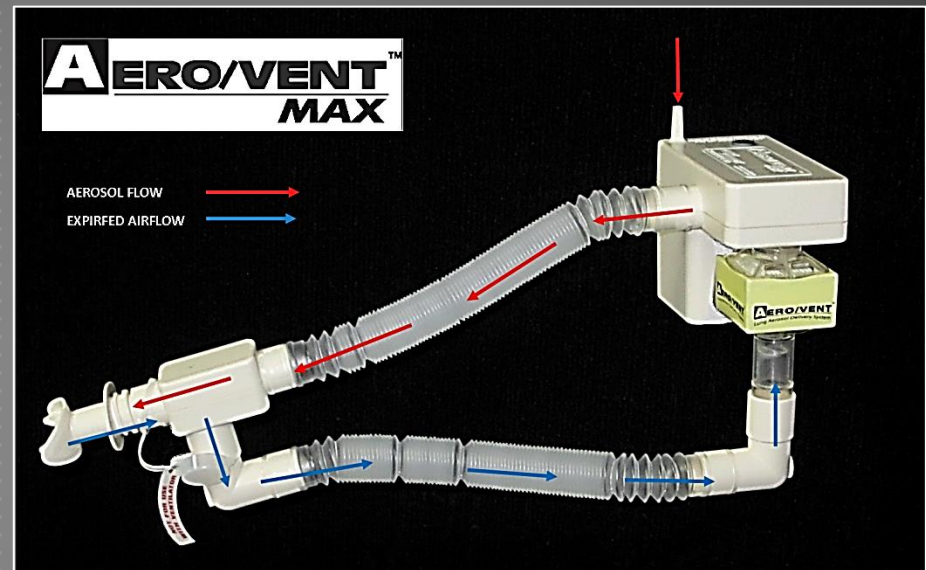
As a patient inhales, medication from the nebulizer moves through the top tube, and into the mouthpiece.

When the patient exhales, the exhalation is directed through the bottom tube and into a HEPA filter.

During exhalation, air continues to flow through the nebulizer and into the top tube.

When the next breath is taken, the patient immediately inhales the medication that has filled the top tube.

AERO/VENT™ MAX

AEROSOL FLOW
EXPIRFED AIRFLOW

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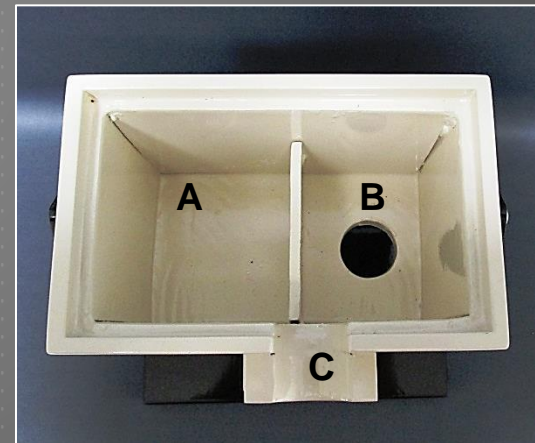**4610 Littlejohn Street, Baldwin Park, CA 91706**

Aero/Vent™ Max Assembly

- Remove the components from the plastic bag:

  - Aero/Vent™ Max assembly (manifold with attached nebulizer, HEPA filter, and breathing tubes with Flow Control Block).

  - Small bag containing mouthpiece, nose clip, and "Caution Radioactive Material" label.

  Note: Retain the re-sealable bag for disposal of the Aero/Vent™ Max after the ventilation study.

- Open the lid of the Aero/Vent™ Max shield, being careful not to misplace the lead lined oxygen tube adapter, and install the Aero/Vent™ Max manifold.

  A. Gently lower the manifold into the shield. The rectangular section will fit in the side without a bottom opening.

  B. The HEPA filter will extend through the exhaust opening in the other side of the shield.

  C. The top tube will rest comfortably on the rounded opening at the front of the shield.

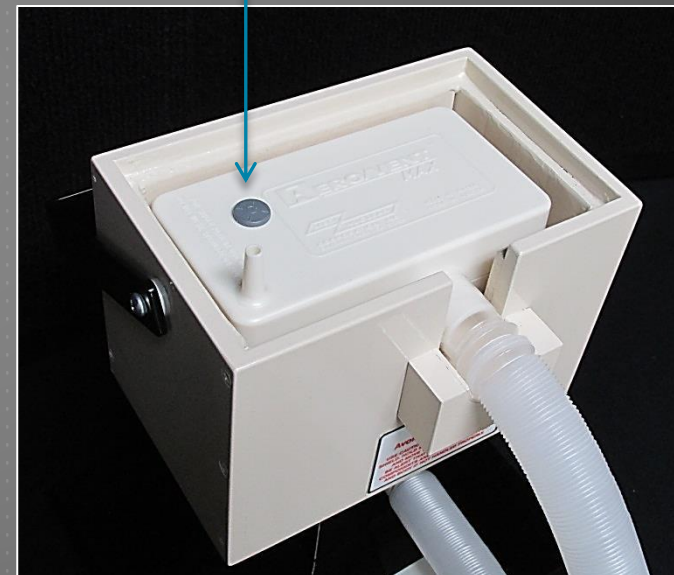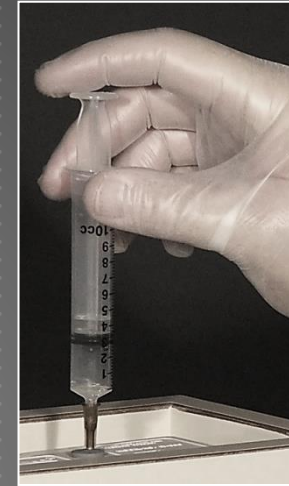- Press down firmly so that the manifold is seated completely.

- While holding down the Aero/Vent™ Max manifold, attach the elbow on the free end of the second breathing tube, to the HEPA filter.

  The HEPA filter can be reached through the exhaust opening in the underside of the Aero/Vent™ Max shield.

- Attach the Safety Shield™ Mouthpiece to the patient port. If desired, an air-filled face mask (#MN5045) may be used instead.
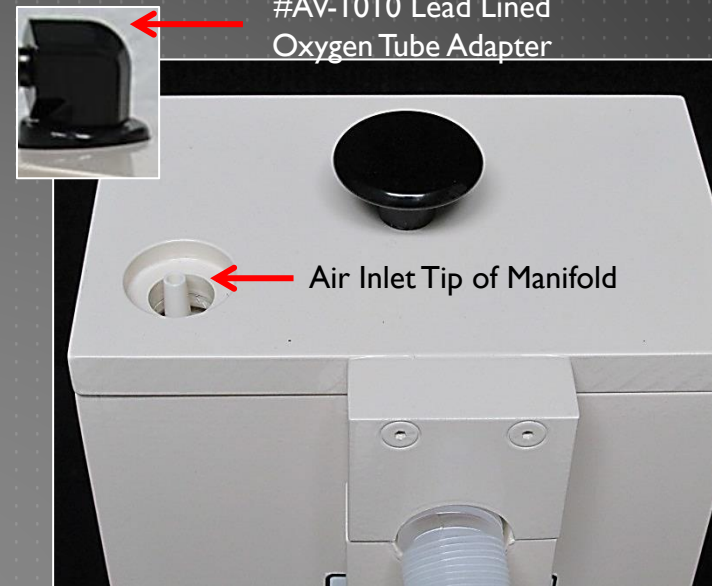
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- Prepare ^{99m}Tc-DTPA , or an equivalent alternative, in accordance with the manufacturer's instructions.

- Using a shielded syringe and needle, inject 40 mCi/2 mL of ^{99m}Tc-DTPA solution through the center of the grey stopper in the top of the Aero/Vent™ Max manifold and into the nebulizer.

- Prior to closing the Aero/Vent™ Max shield, ensure that the manifold is seated firmly.

- Place the lid on the Aero/Vent™ Max shield.

- Place the lead lined oxygen tube adapter on the Aero/Vent™ Max lead shield, covering the air inlet tip of the radioaerosol kit. Press down and turn clockwise to lock in place.

  Note: Oxygen tube adapter is required. Lead lined base reduces possibility of contamination and barbed oxygen tube fitting provides secure oxygen tube connection.

- Connect the oxygen tube to the oxygen tube adapter on top of the Aero/Vent™ Max lead shield. Use only the provided oxygen tube (#IV-605). Other oxygen tubes may be slightly over-sized and could cause oxygen leakage.

#AV-1010 Lead Lined Oxygen Tube Adapter

Air Inlet Tip of Manifold

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Aero/Vent™ Max Operation

- Place the mouthpiece in the patient's mouth and the nose clip on the patient's nose, unless using a face mask.

- Prior to turning on the oxygen/air, instruct the patient to take several test breaths from the system.

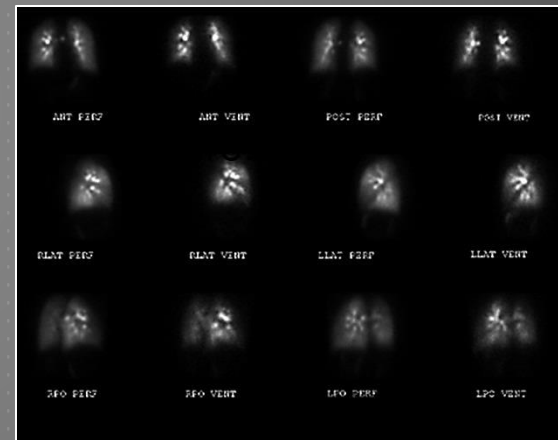- <u>Gradually</u> turn on the oxygen/air regulator, adjusting the flow rate to 10-12 liters/minute.
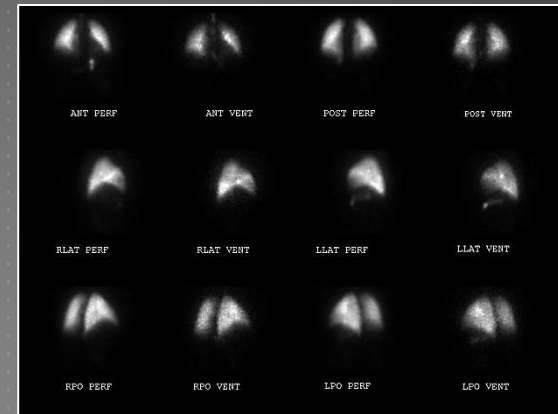
Caution: At normal 50 PSI pressure for the oxygen/air supply, a sudden increase of flow from 0 to10 liters/minute may blow the air line off of the Aero/Vent™ Max shield.

- Instruct the patient to breathe normally until the desired amount of radioactivity is delivered to the lungs. Breathing time should be approximately 3 minutes if the assembly recommendations are followed.

Caution: To prevent possible radiation leakage into the environment, be prepared throughout the inhalation period to shut off the oxygen flow immediately if the patient releases the mouthpiece or face mask.

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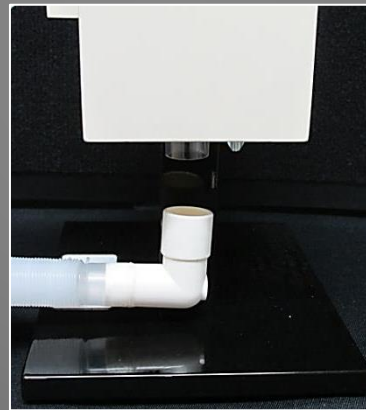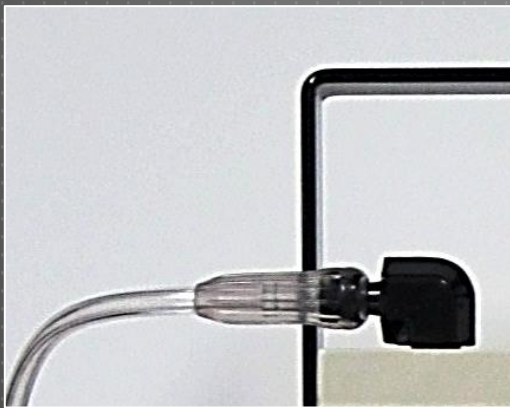**4610 Littlejohn Street, Baldwin Park, CA 91706**

- After inhalation, turn off the oxygen/air and instruct the patient to continue breathing through the mouthpiece, or face mask, for additional four or five tidal breaths to clear the system of aerosol.

- Remove the nose clip and the mouthpiece, or the face mask, from the patient.

- Have the patient expel any saliva into a disposable towel and discard the towel into the plastic bag.

- Start the patient imaging procedure as soon as it is convenient. Imaging time should be approximately one minute for 100-150,000 count images.
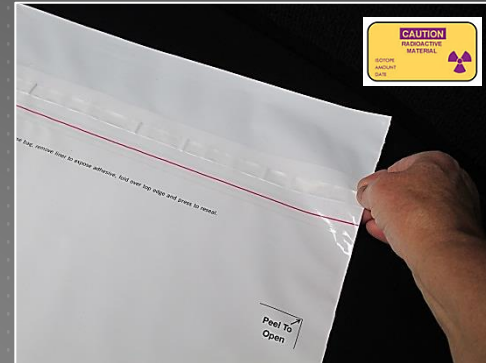
Aero/Vent™ Max Disposal

- Be sure the oxygen/air supply is off.

- Remove oxygen tube adapter from the top of the shield.

- Disconnect the elbow from the bottom of the HEPA filter.

- Remove the Aero/Vent™ Max shield lid and remove the used radioaerosol kit from the shield.

- Place the kit in the re-sealable disposal bag. Remove seal strip from the bag to expose the unused tape. Seal the bag securely.

- Quickly attach the radiation label, and place the kit in a shielded disposal area to allow for radioactive decay.

- Discard decayed waste according to the radioactive waste procedures established by your facility.

Aero/Vent™ Max Ordering Information

Catalog No.	Product Description	Qty/ Units
AV-400+	Aero/Vent™ Plus Radioaerosol Kit Single Tube System	24/cs
AV-400+M	Aero/Vent™ Plus Radioaerosol Kit with Mask Single Tube System	24/cs
AV-500	Aero/Vent™ Max Radioaerosol Kit Two Tube System	24/cs
AV-500M	Aero/Vent™ Max Radioaerosol Kit with Mask Two Tube System	24/cs
AV-400+V	Aero/Vent™ Plus Ventilator Kit for ventilator dependent patients	6/cs
AV-501A	Aero/Vent™ Max Lead Shield, Aluminum	Each
IV-605	Oxygen Supply Tubing	3/pk

For additional information, please contact:

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We're here to be of assistance!