

# Vetamac UltraSlim Anesthetic Machine

(Post & Base, Wall Mount & Tabletop Models)



Wall Mount Model



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**OWNER'S MANUAL AND ASSEMBLY INSTRUCTIONS**

## Assembly Instructions for Post & Base Model

Tools Required: 5/32" Allen wrench, 7/16" wrench

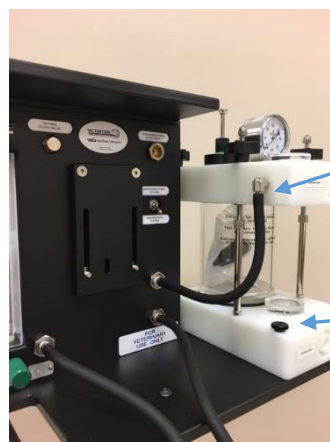
### Base Assembly:

- Turn base over to expose the underside.
- Insert (press fit) the five casters into the five holes at the end of each leg of the base.
- Turn the base over so the casters are on the floor.
- Firmly insert the post into the center of the base.



### Attaching machine to post:

- Remove shipping tie wrap from machine.
- Remove packet of bolts, nuts, flat washers and star washers.
- Remove the fresh gas tubing from the left side of the breathing head. Remove the hold down bolt from the bottom left front corner of the breathing head. Lift breathing head off machine shelf and set aside.

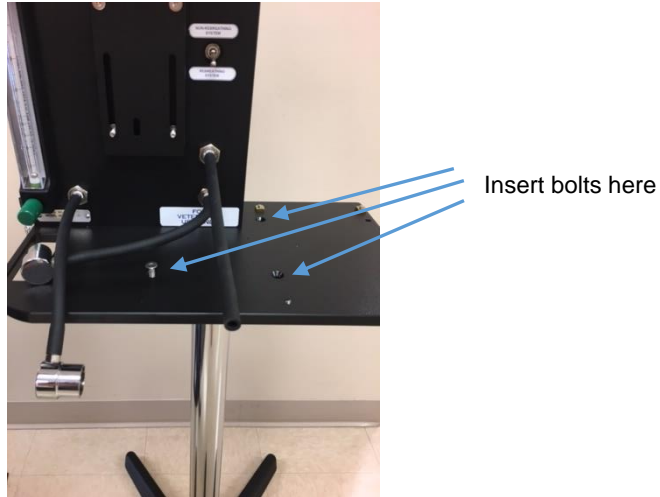


Fresh Gas Tubing

Hold Down Bolt

- Lift machine and place it gently on top of the post.
- Align the holes in the shelf with the holes on the top of the post.

- Insert the three beveled head bolts through the machine shelf from the top down through the post. Be certain the bolts go through both the machine shelf and the top of the post.



- Install a flat washer, star washer and nut (in that order) on the underneath side of the shelf. Do not tighten.



- Add the star washer and flat washer (in that order) to the rounded head bolt.
- Insert the rounded head bolt on underneath side through the slotted hole in the post and then screw into the threaded hole in the machine shelf. See picture below for location.
- Use a 5/32" Allen wrench and 7/16" wrench to securely tighten all bolts.

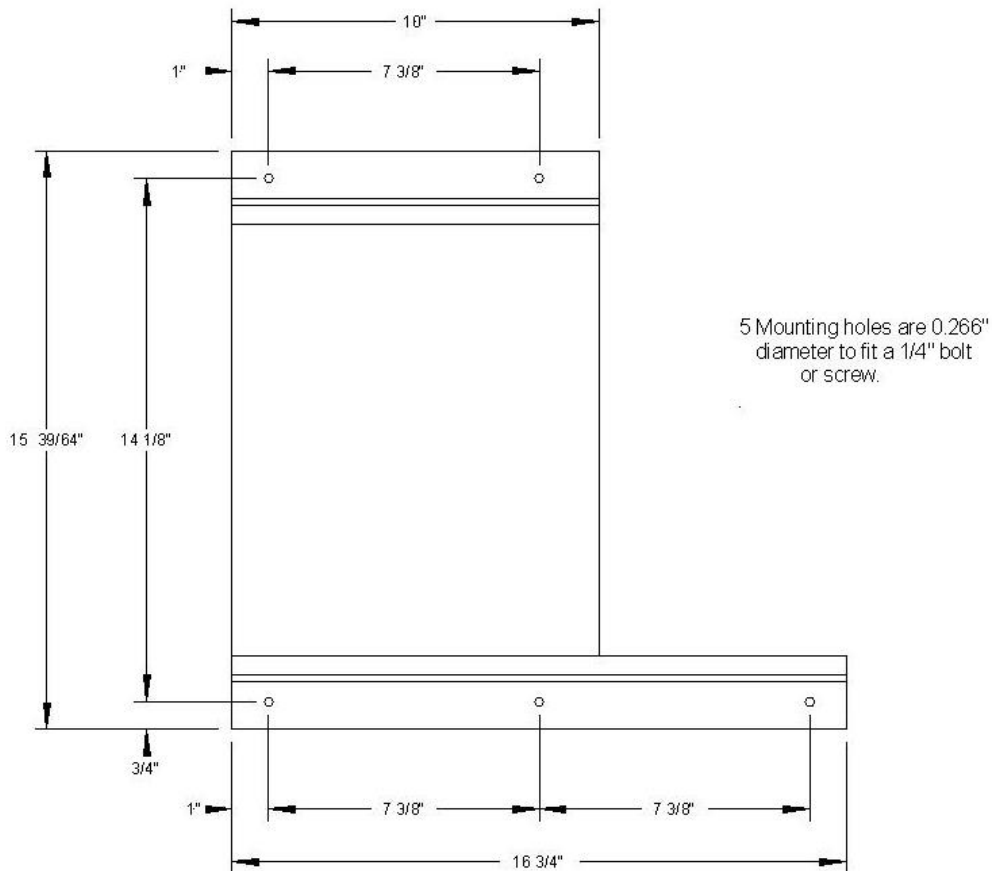


- Re-install breathing head on machine shelf by securing with hold down bolt in front left corner of breathing head. Reattach fresh gas tubing to breathing head.

## Mounting Instructions for Wall Mount Model

- Remove shipping tie wrap from machine.
- Breathing head can be removed to make installation of machine to wall easier. Remove the fresh gas tubing from the left side of the breathing head. Remove the hold down bolt from the bottom left front corner of the breathing head. Lift breathing head off machine shelf and set aside.
- Use diagram below to locate mounting holes in wall. Fasteners are not included. Use appropriate fasteners for wall structure ensuring the fasteners will support the weight of the machine.
- After securing machine to wall, reinstall breathing head on machine shelf by securing with hold down bolt in front left corner of breathing head. Reattach fresh gas tubing to breathing head.

Variflow Ultra Slim Mounting Hole Locations



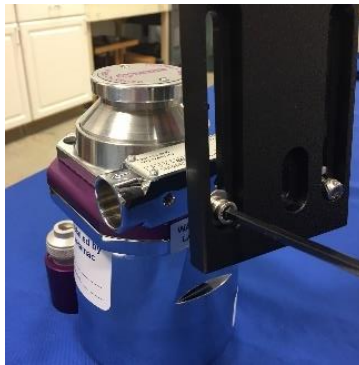
## Installing the vaporizer (all models)

Tools Required: 5/32" Allen wrench, 3/16" Allen wrench

- Remove the vaporizer plate from the machine back plate by removing top two bolts using a 5/32" Allen wrench.



- Attach the vaporizer plate to the back of the vaporizer using a 3/16" Allen wrench. If using a vaporizer other than a Tec 3, bolts may need to be different. Leave the bolts slightly loose so the plate will slide up and down.



- Disconnect the vaporizer inlet and outlet adapters from each other.
- Place the vaporizer onto the machine shelf between the adapters.
- Connect inlet and outlet adapters to the vaporizer. Slide vaporizer back against machine back plate.



- Slide vaporizer plate up so holes in top of plate align with holes in machine back plate.
- Reinstall bolts through holes and use a 5/32" Allen wrench to tighten the bolts on the vaporizer plate.



- Fill the vaporizer by removing the fill cap and fill to line in window with the correct anesthetic agent. Allow at least an hour for the wick to saturate.
- Agent is only delivered when there is oxygen flow and the vaporizer is on.
- Turn the vaporizer on by depressing the button on the left side of the dial and turn the dial to the desired concentration.
- Concentration is constant regardless of oxygen flow.

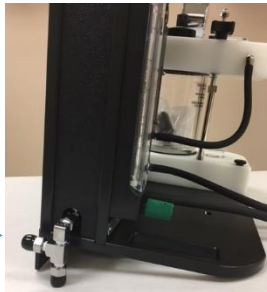
## Rebreathing Circuit and Oxygen Source Connections

- Loosen the four black knobs on top of the breathing head. Springs on the four posts will hold the top of the breathing head up while the canister is removed from the right side. Remove the bag of adapters and the rebreathing bag elbow from the canister.
- Install the bag adapter elbow on the right side of the breathing head. Connect the rebreathing bag to the adapter.



Insert gray end with o-ring into breathing head

- Connect the machine to an oxygen source at 20-50psi using one of the DISS fittings on the left side of the machine. The post & base model machine is plumbed for two oxygen sources.



Dual Oxygen Source  
on post & base model

- Check for oxygen flow by slowly opening the flowmeter knob and observing the ball rising in the tube on the flowmeter. Depress the oxygen flush valve to assure that there is a “flush” of oxygen into the system by listening for oxygen flow. The oxygen flush valve is restricted for patient safety.
- Connect the rebreathing tubes to the inspiratory and expiratory ports on the front of the breathing head. If a universal coaxial breathing circuit is used, be certain that the inspiratory leg of the circuit is connected to the inspiratory port.
- Connect the waste anesthetic gas scavenging tube to the 19mm port. On a wall mount model the port is on the left side of the breathing head. A plastic elbow adapter is provided to run the tubing down through the hole in the bottom shelf. On a post & base or tabletop model the port is in the back of the breathing head.

Non-Rebreathing/Rebreathing  
Toggle Switch

Oxygen Flush Valve

Flowmeter

Flowmeter Knob



Manometer

Black Knobs

Breathing Bag  
Adapter Elbow

One Way Valve

Inspiratory Port

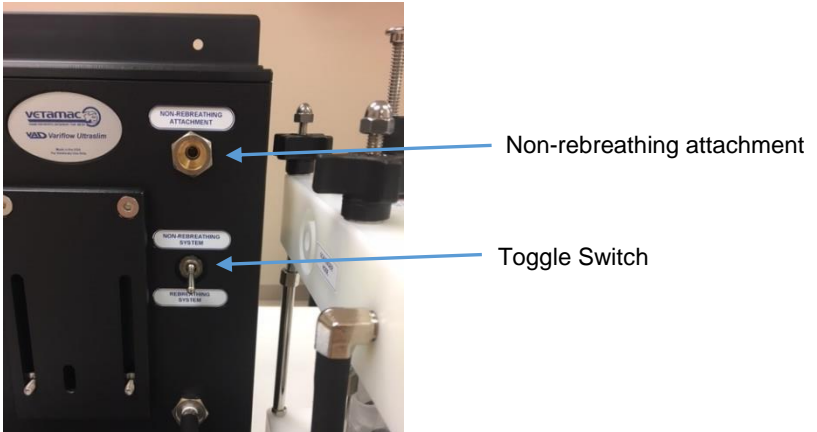
One Way Valve

Expiratory Port



## Non-rebreathing Circuit

- To use a non-rebreathing circuit, connect the fresh gas tube on the circuit to the adapter labeled “non-rebreathing attachment”.
- Move the toggle switch below the attachment to the non-rebreathing position.
- Set the oxygen flowmeter and anesthetic vaporizer to the desired flow and concentration and connect the patient to the circuit.



## Pop-Off Valve

- The pop-off valve is adjusted by turning the black textured knob clockwise to increase the pressure or counter clockwise to decrease the pressure.
- The VAD InSync breathing circuit has a “depress to bag” function which allows the anesthetist to “sigh” or bag the animal without changing the adjustment on the pop-off valve.
- To manually “sigh” the patient:
  - Depress the button on top of the pop-off valve then compress the rebreathing bag.
  - Observe the manometer on top of the inspiratory manifold to achieve the desired pressure (no more than 20cm H<sub>2</sub>O).



## Pressure Test

A pressure test is performed on the breathing system to check for hazardous leaks.

- Attach the rebreathing bag and breathing tubes to the machine.
- Close the pop-off valve.
- Create a sealed system by closing the patient end of the breathing tubes with your hand or a plug.
- Fill the rebreathing bag using the oxygen flush valve until the manometer reads approximately 20cm H<sub>2</sub>O.
- Observe the manometer for 30 seconds. The pressure should remain at 20cm H<sub>2</sub>O.
- If the manometer begins to drop, there is a leak in the system which needs to be isolated and corrected. (The soda lime canister can be a common source of leaks because of improper seating in the canister grooves.)

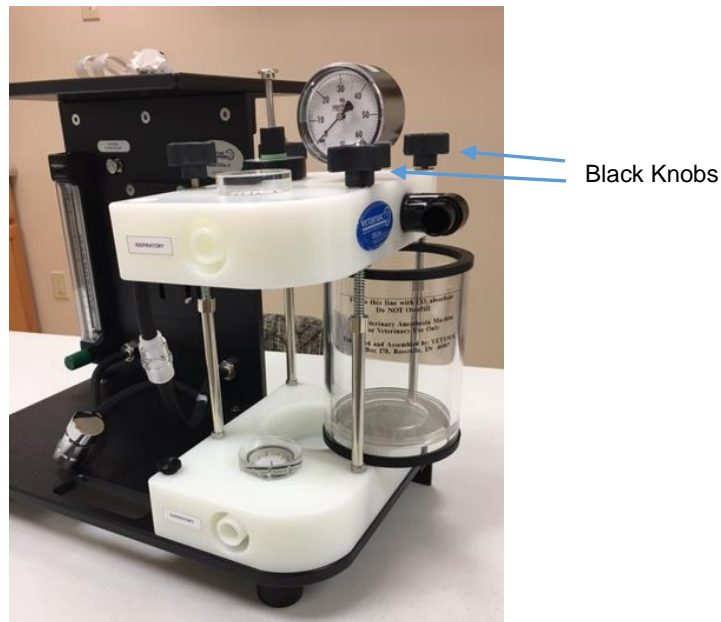
## Care of the Machine

- Disconnect the breathing tubes and bag from the machine when not in use.
- Wash breathing tubes with mild soap and warm water, rinse and hang to dry.
- Rinse thoroughly and hang bag to dry.
- If one way valves have excessive moisture, remove valve caps and wipe dry (see picture on page 7 for location of one way valves).
- Clean fill cap, o-ring and funnel of vaporizer with alcohol moistened gauze.
- Tighten vaporizer drain pin in center of funnel (not applicable with all vaporizers).
- Clean vaporizer externally with alcohol moistened gauze.

## Changing Soda Sorb

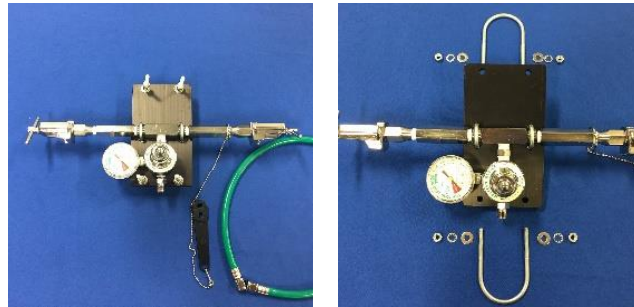
Replace soda sorb when color changes or every month.

- Loosen four black knobs on top of the breathing head.
- Springs on the four posts will hold the top of the breathing head up while the soda lime is being changed.
- Remove the canister from the right side of the breathing head. Rotate bag adapter elbow to allow canister to slide out the side.
- Remove the top and bottom seals from the canister. Rinse seals with water and dry.
- Empty canister and refill with fresh CO<sub>2</sub> absorbent granules. Do not over-fill the canister. Wipe the top and bottom rim of the canister with a paper towel to remove any soda sorb dust. Place the canister seals back onto the canister.
- If the bottom of the breathing head contains particles of CO<sub>2</sub> absorbent granules, vacuum or use compressed air to remove granules.
- Replace canister by seating it in the groove in the bottom of the breathing head.
- Depress the top of the breathing head by pushing down directly above the center of the canister and hold it in place.
- Tighten two of the black knobs on opposite corners from each other. After they are secure, the hand pressure can be released and the other two black knobs can be tightened.
- Perform a pressure test.



## Installing an E-Tank Yoke (Optional on Post & Base Model)

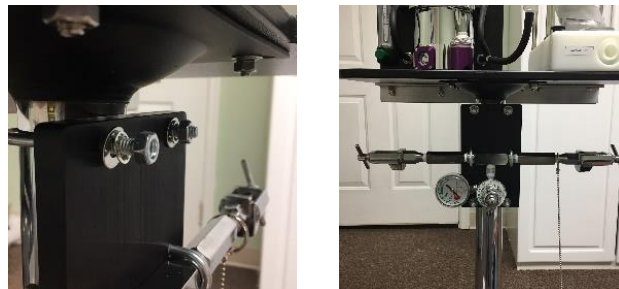
- The VAD E-Tank bracket is adaptable to fit most sizes of anesthetic machine posts. Two sizes of u-bolts are included with the bracket. The correct size needs to be used to ensure the u-bolts grip the post appropriately.
- Remove nuts, washers and **large** u-bolts from the bracket. The large u-bolts are for a VAD 2" post.



- Align u-bolt around back of post through yoke bracket.



- Place flat washer, star washer, and nut on u-bolt. Align yoke parallel with machine. Adjust height of bracket on post to allow clearance at the floor and at the top of the tanks. Tighten using 7/16" wrench. Do the same for second u-bolt on bottom of bracket.



- Attach one end of oxygen hose to back of machine. Attach other end of hose to regulator on yoke.



- Rotate post in base to allow tanks to hang between legs of base.



## **Warranty**

Vetamac warrants to the original purchaser that the Vetamac Equipment, not including accessories or consumable products, shall be free from defects in materials and workmanship under normal use, if maintained by Vetamac and in accordance to Vetamac guidelines, and used in accordance with its labeling, for a period of three years. This warranty is void if the Equipment has been altered, misused, damaged by neglect or accident, tampered with, not properly maintained, or repaired by persons not authorized by Vetamac. This warranty does not cover normal wear and tear and maintenance items and specifically excludes accessory items and any other equipment used with the Equipment.

## **Periodic Service**

Vetamac recommends that the anesthetic machine be serviced annually by Vetamac or an authorized service technician. This service should include a verification and test of the following components on the machine: the high and low pressure circuits, the flowmeter and oxygen flush valve, the rebreathing circuit and accessories, the non-rebreathing circuit and accessories, the gas scavenging circuit, and the overall condition of the machine. The service should also include a pressure test of all components including the vaporizer and a verification of the vaporizer calibration.

**This machine is designed to give many years of reliable service,  
with the ultimate goal of the best possible patient care.**

**Any questions should be addressed to:**

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