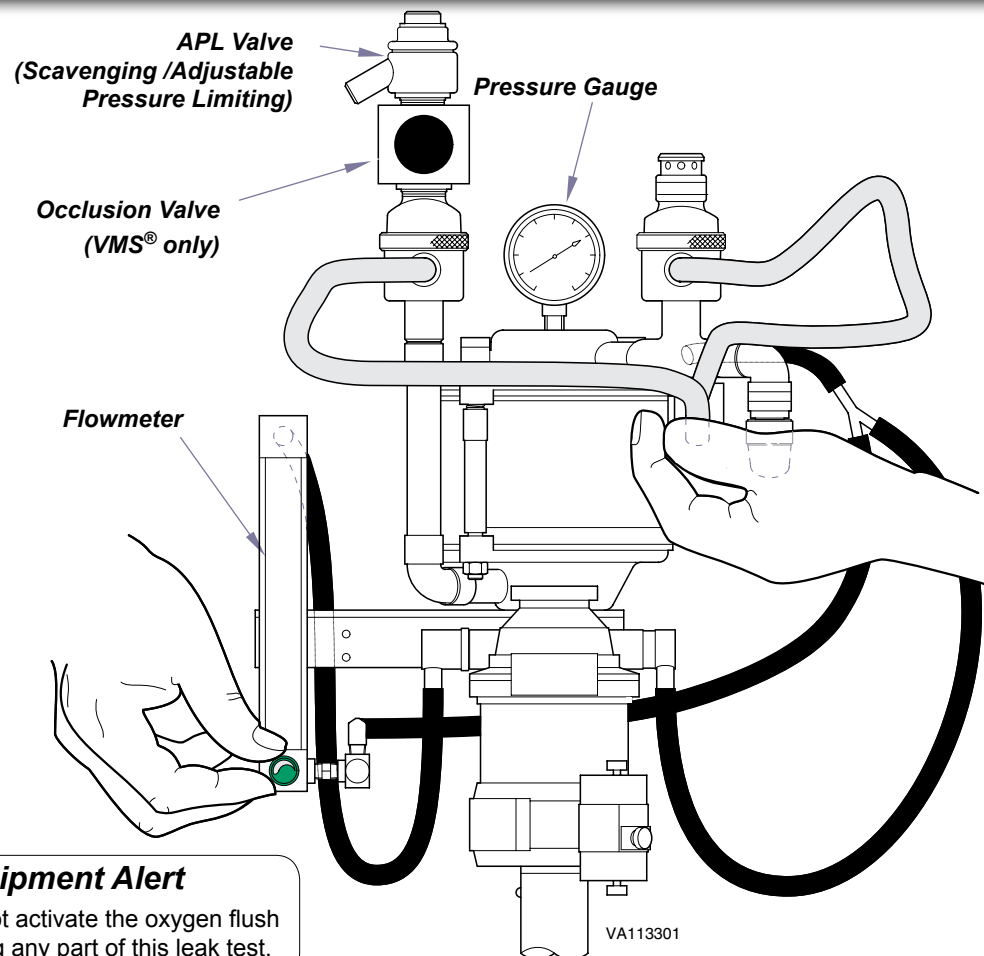


Leak Test Procedure

To perform leak test...

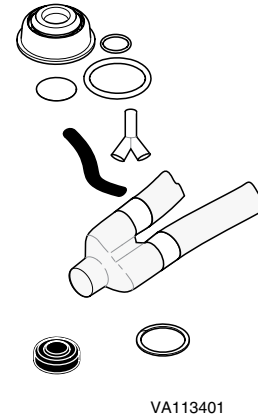
- Close APL (Scavenging /Adjustable Pressure Limiting) valve by turning knob clockwise.
- Place thumb over patient connection of breathing circuit Y.
- Remove breathing bag and cover bag port opening. (Use palm of hand that is covering Y.)
- With oxygen (50-55 PSI [3.4-3.8 Bar]) supplied to anesthesia machine, slowly open flowmeter to register 30cm H₂O on anesthesia machine pressure gauge.
- Turn off flowmeter when pressure reaches 30cm H₂O. (If pressure holds steady the system is leak free but if pressure drops, proceed to step (F).)
- Slowly open flowmeter until pressure stabilizes at 30cm. H₂O setting. (This determines the magnitude of the leak. If leak rate is greater than 300ml/min; proceed to step (G).)
- Refer to page 2, "What if machine leaks?"
- Replace reservoir bag. Repeat step (B) and steps (D) through (F). This will determine the integrity of breathing bag.



Equipment Alert

Do not activate the oxygen flush during any part of this leak test.

Maintenance Kits



VMS®, VMS® Plus and VMC™ Order #: 91303015

Includes:

- Disc (2)
- Large O-ring (2)
- Small O-ring (3)
- Dome (2)
- Tubing
- Breathing Circuit (1)
- Upper and Lower Gaskets
- Diaphragm (VMS® only)
- Back Up Ring (VMS® only)

Sodasorb®

Order #: 002-1761-00

Sodasorb® LF, Canister Pak, Case

Order #: 002-1762-00

Sodasorb® Standard, Canister Pak, Case

Order #: 002-1763-00

Sodasorb® LF, Pre-pak, Case

Order #: 002-1764-00

Sodasorb® Standard, Pre-pak, Case

Order #: 002-1765-00

Sodasorb® Standard, Bucket

Calling for Service

If service is required, contact your Midmark dealer.

To contact Midmark directly:

8:00am until 5:00 PM Monday through Friday (EST)

Customer Service

1-800-Midmark (1-800-643-6275), Fax 1-877-725-6495

Technical Service

1-888-279-1260, Fax 1-716-662-8440

Registration

To register your product warranty, go to www.midmark.com



Quick Reference Guide Matrix VMS®, VMS® Plus and VMC™ Anesthesia Machines

Model Number:

Serial Number:

Dealer Information:

Purchase Date:

10578000 Rev DA1 3/20/18



Caution

Federal law restricts this device to sale by or on the order of a licensed veterinarian.

This guide outlines basic operation and maintenance of the Anesthesia Machine. Additional information is available on www.Midmark.com. If service is required, contact your authorized Midmark dealer.



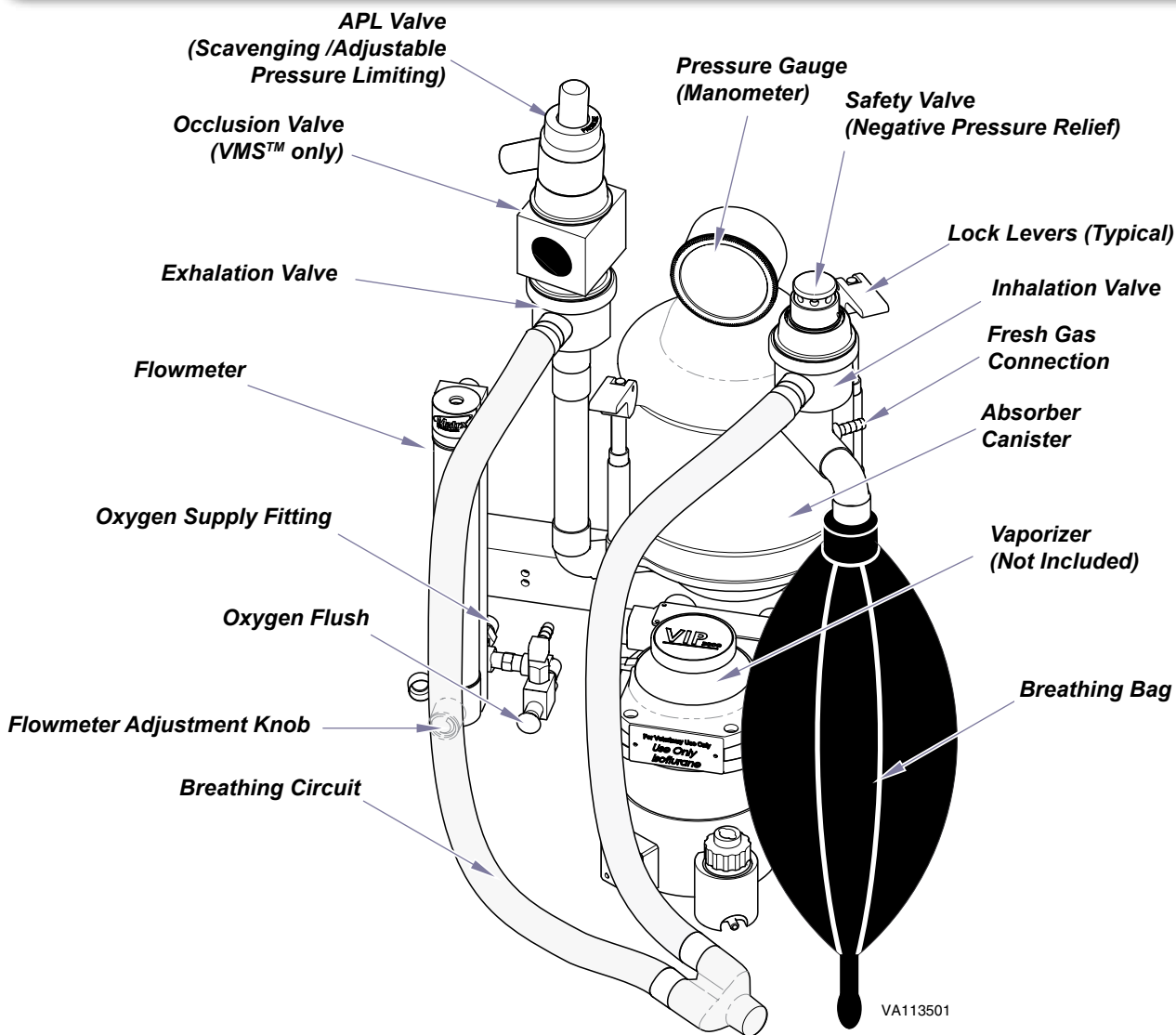
CAUTION

Insure gas supplies are adequate and turned on. Verify vaporizer is filled to eliminate the possibility of anesthetic depletion during surgery.

To Operate Anesthesia Machine...

- A) Lift CO2 absorber canister lock levers. Slide clear canister free of absorber assembly. Fill canister with absorbent material, following directions on canister label. Be sure canister and gasket mating surfaces are completely free of absorbent. Replace canister in absorber assembly. Simultaneously, close both lock levers to secure canister.
- B) Connect breathing bag and breathing circuit.
- C) Connect a 50-55 PSI (3.4-3.8 Bar) oxygen supply line to the oxygen supply fitting on the back of the flowmeter.
- D) Adjust flowmeter and vaporizer settings to meet physiologic needs of the patient.
- E) During anesthesia, monitor the pressure gauge, inhalation and exhalation valves, and the breathing bag. Make necessary corrections in flow rate, vaporizer setting, and Scavenging/Adjustable Pressure Limiting (APL) valve, to insure adequate depth of anesthesia and adequate ventilation of the patient.

Note: For guidelines on induction and anesthesia techniques, or particular species physiologic requirements, etc., please refer to a veterinary anesthesia textbook.



BREATHING BAG	
Patient Weight	Bag Size
15 lbs or less (7kg)	500 ml
15-30 lbs (7-14 kg)	1 liter
30-60 lbs (14-27 kg)	2 liter
60-100 lbs (27-45 kg)	3 liter
100 + lbs (45 + kg)	5 liter

What if Machine Leaks?

- 1) **Breathing Bag** - If leak occurs, replace.
- 2) **Breathing Circuit** - Install new breathing circuit or obstruct inhalation / exhalation openings to determine if leak originates from breathing circuit.
- 3) **Vaporizer Fittings** - Verify fittings and tubing are securely attached.
- 4) **Canister Gaskets** - Check for loose absorbent grains between canister housing gaskets.
- 5) **Verify Canister** is seated properly.
- 6) **Safety Valves** - Remove valve and obstruct opening to determine if leak originates from negative pressure relief valve. Check the o-ring under valve for damage.
- 7) **APL Valve** - Remove valve and obstruct opening to determine if leak originates from APL valve. Check the o-ring under valve for damage.
- 8) **Occlusion Valve** - Remove valve and obstruct opening to determine if leak originates from the occlusion valve. Check the o-ring, diaphragm & back-up ring on valve for damage.
- 9) **O-Rings** under chrome retaining rings. Check the o-rings for damage.

Maintenance Schedule

Before Every Surgery

- A. Inspect.**
Check machine connections and rubber parts for looseness, damage or wear. Replace as necessary.
- B. Perform leak test.**

Daily

- A. Clean.**
Remove breathing bag and breathing circuit. Wash with warm water and mild soap, rinse well. Hang to dry. Remove white disks from inhalation and exhalation valves. Wipe with soft cloth, wipe out valves and reassemble. Remove absorber canister, wipe off gaskets, canister and absorber housings.

Weekly

- A. Change Absorbent Material.**
Follow manufacturer's recommendations for proper use of CO2 absorbents.

Annually

- A. Service Vaporizer.**
Service and calibrate vaporizer. Contact Dealer for details.

Every Two (2) Years

- A. Replace Maintenance Components.**
Replace components found in maintenance kit 91303015.



Equipment Alert

Never invert or tilt the vaporizer when it contains anesthetic liquid. Never overtighten the flowmeter needle valves, damage to the needle and seat will eventually result.