

VERSA II

ANESTHESIA SYSTEM



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User Responsibility

This device will perform in accordance with this manual as long as the user assembles, operates, maintains, and repairs this unit as instructed. Do not use this device if any parts are missing or if any parts appear to be damaged in any manner. If parts are needed, it is the user's responsibility to contact Patterson Veterinary to obtain the correct parts. This device should not be used with any other manufacturer's parts without the written consent of Patterson Veterinary. If this device requires service, all repairs must be performed by an authorized service center or an authorized service technician trained by Patterson Veterinary. When contacting Patterson Veterinary for parts or service, the user must provide the model number, serial number, and date of manufacture located on the back of the device near the O₂ flush valve. The user or any other individual shall not alter this device or any part associated with this unit without the written consent of Patterson Veterinary. Furthermore, it is the user's responsibility to read and understand this manual in its entirety prior to operating this device.



Warnings and Cautions Defined

WARNING! Statement to alert the user that something could potentially harm the patient or operator.

CAUTION! Statement to alert the user that something could potentially interfere with or damage the anesthesia system.

Throughout this operations manual there will be numerous **WARNINGS** and **CAUTIONS** that the user needs to read, understand, and adhere to.

WARNING!

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

Introduction

What is a Versa II anesthesia system?

The Versa II is a versatile veterinary anesthesia system designed to support two vaporizers or convert to a tabletop without any additional accessories. The wide frame can support a monitor safely, and the reverse contoured base reduces the risk of any tip hazard. The Versa II is equipped with a rebreathing/non-rebreathing switch and a fresh gas outlet that allows the user to change circuit type with ease. This unit is also equipped with a safety relief pop-off valve that simplifies the process of administering a breath. The Versa II was designed to meet all of the demands of the veterinary professional.

Unpacking and Initial Setup

Versa II anesthesia system quick-start guide

Items included:

- | | | |
|-----------------------|-----------------------------|--|
| • Base and casters | • MJR Circuit | • Anesthesia machine head |
| • Pole | • Absorber canister (boxed) | • Hardware bag (contents documented by label on bag) |
| • Universal F-Circuit | | |



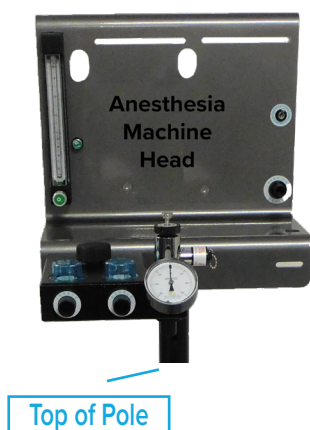
Remove the base and casters from the packaging and place on the floor.

Unpacking and Initial Setup



Remove the pole from the packaging. Place the tapered end of the pole into the base. Press firmly on the top of the pole to seat properly.

WARNING! TAPERED END OF POLE MUST BE SECURED IN BASE.

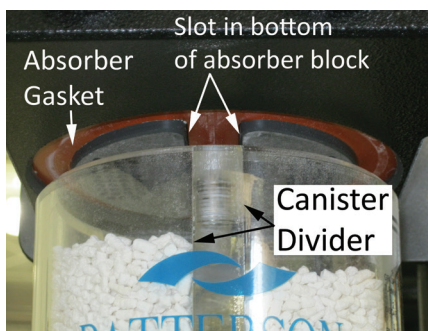
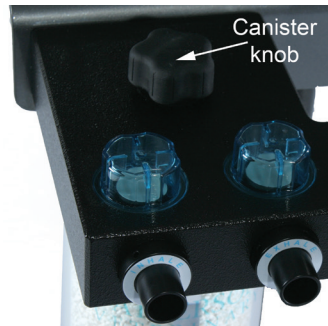
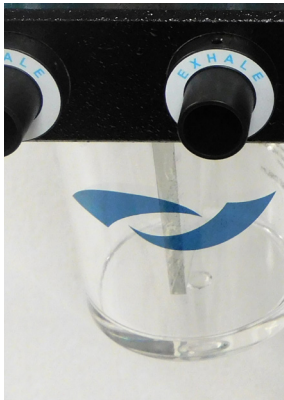


Remove the anesthesia machine head from the packaging and place the mounting “spud” into the top of the pole.

Align the hole in the “spud” with the hole in the pole. Insert and tighten using the pole knob found in the hardware bag.

CAUTION! HAND TIGHTEN ONLY.

Unpacking and Initial Setup



Fill absorber canister with CO₂ absorbent to the designated fill line and secure to anesthesia machine (with Patterson logo facing the front of the anesthesia machine) with the knob from the hardware bag.

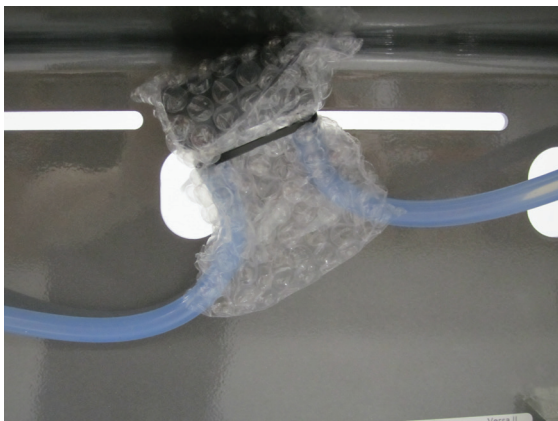
Make sure the divider in the absorber canister lines up with and goes into the slot on the bottom of the absorber block so it seals against the gasket before fully tightening the knob.

CAUTION! Remove any absorbent granules from top of canister and divider section before securing. **HAND TIGHTEN ONLY. DO NOT OVERTIGHTEN CANISTER.**

WARNING! Perform a pressure test on the anesthesia machine prior to use. Reference Pressure Testing the Versa II later in this manual for instruction.

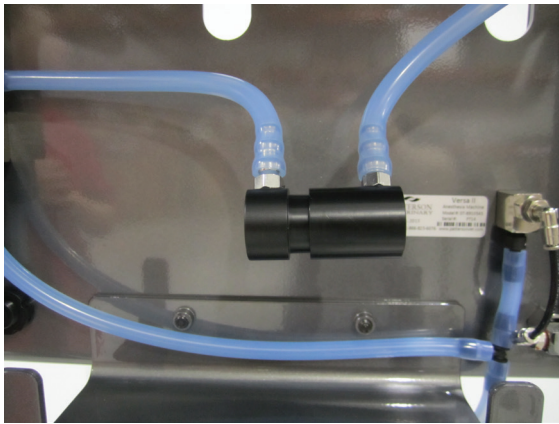
Installing a vaporizer

Follow the instructions below to install a Patterson EX III model or other style vaporizer.



Cut cable tie and remove bubble bag to expose endcaps.

Unpacking and Initial Setup



Separate endcaps.

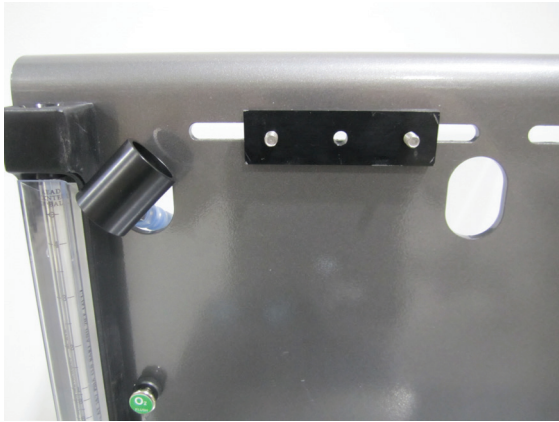


Push female endcap through large slot next to the flowmeter. Female endcap should now be positioned on the other side of frame as shown in the next picture.



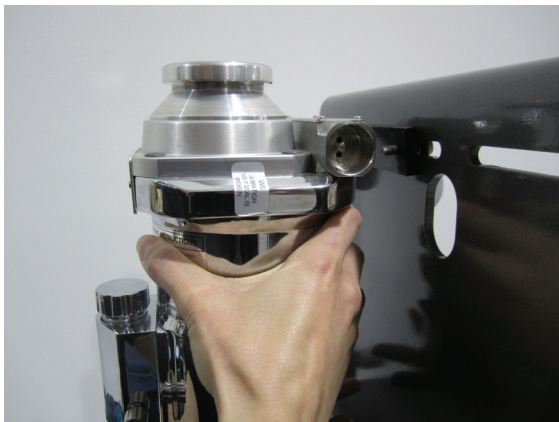
Place flat washers on M6 x 22mm screws and install through the back of frame and through spacer plate as shown.

Unpacking and Initial Setup



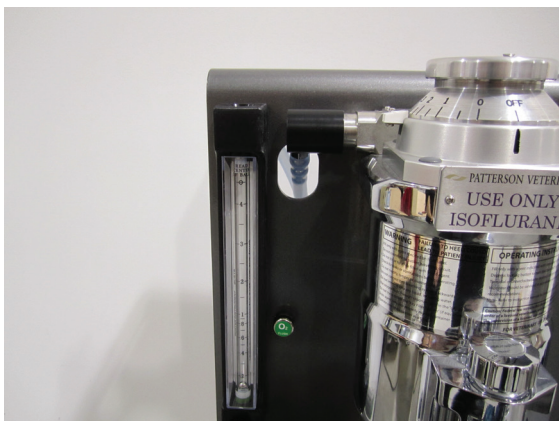
Spacer plate should now have both screws installed and centered as shown.

Note: Use the holes on each end.



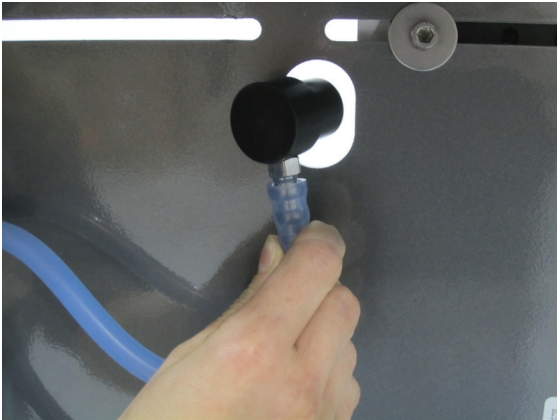
Lift vaporizer and thread screws into the vaporizer manifold. Hand tighten only at this point.

WARNING! Vaporizer is heavy and it may be necessary to have assistance with the installation process.

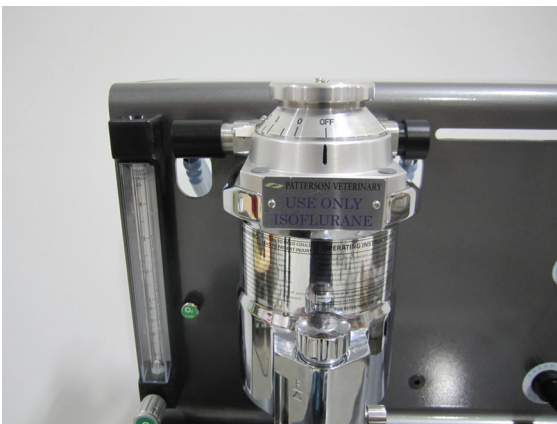


Install female endcap onto the inlet side of vaporizer manifold. Move vaporizer so that the tubing is centered with the slot as shown.

Unpacking and Initial Setup



Push male endcap through other slot and attach to outlet side of vaporizer.



Vaporizer should be positioned as shown with the tubing centered in the slots.



Tighten screws with an appropriate wrench (not included).

Unpacking and Initial Setup



Tighten drain stem as shown.



Remove funnel fill cap.



Fill vaporizer with the appropriately labeled anesthetic agent. EX III capacity is 250 mL. Allow vaporizer to sit for 1 hour upon initial fill prior to use so that the wick can absorb the agent. Reference vaporizer operations manual.

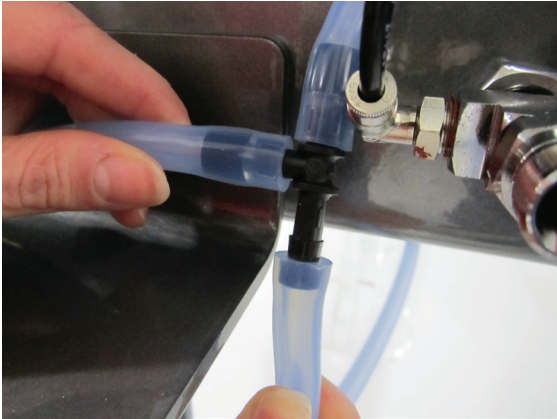
WARNING! Vaporizer will not perform properly unless wick is allowed to absorb anesthetic agent for at least 1 hour.

Replace funnel fill cap on vaporizer after the fill operation has been completed. Tighten securely by hand.

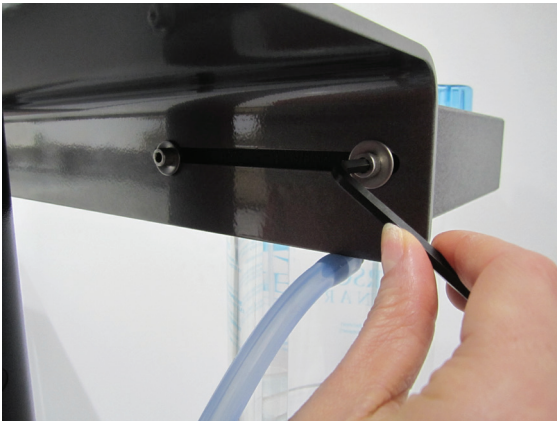
Unpacking and Initial Setup

Tabletop conversion

Converting the Versa II to a tabletop is a simple process. Follow the instructions below.

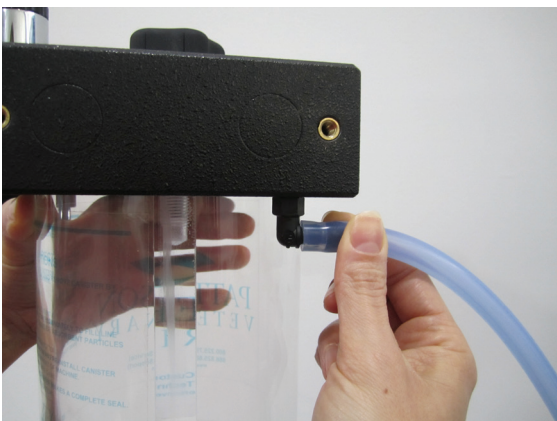


On the back of the machine, disconnect silicone tubing connected from the absorber block to the T-piece as shown.



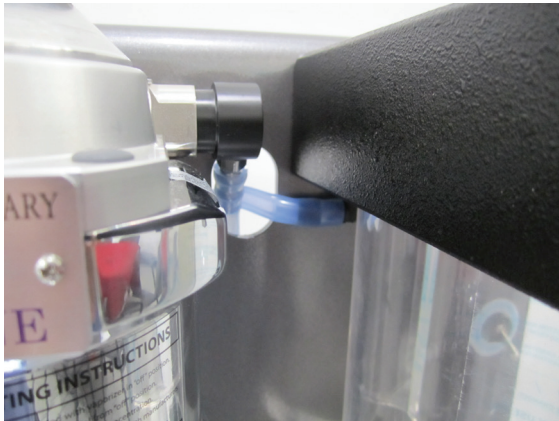
Remove both 1/4–20 socket head cap screws securing absorber block to the frame.

Note: It is important to firmly hold the absorber assembly while removing these screws.



Turn elbow connector 90° clockwise (as viewed from bottom of absorber block). Hose barb will point away from absorber canister.

Unpacking and Initial Setup



Mount absorber assembly to the slot on the right side of the vaporizer mounting area using the same 1/4–20 socket head cap screws. Route silicone tubing through the hole next to the outlet side of the vaporizer and connect the open end to the T-piece where it was originally connected.



Remove pole knob and lift the head of the anesthesia machine off of pole and place it on a table or countertop.

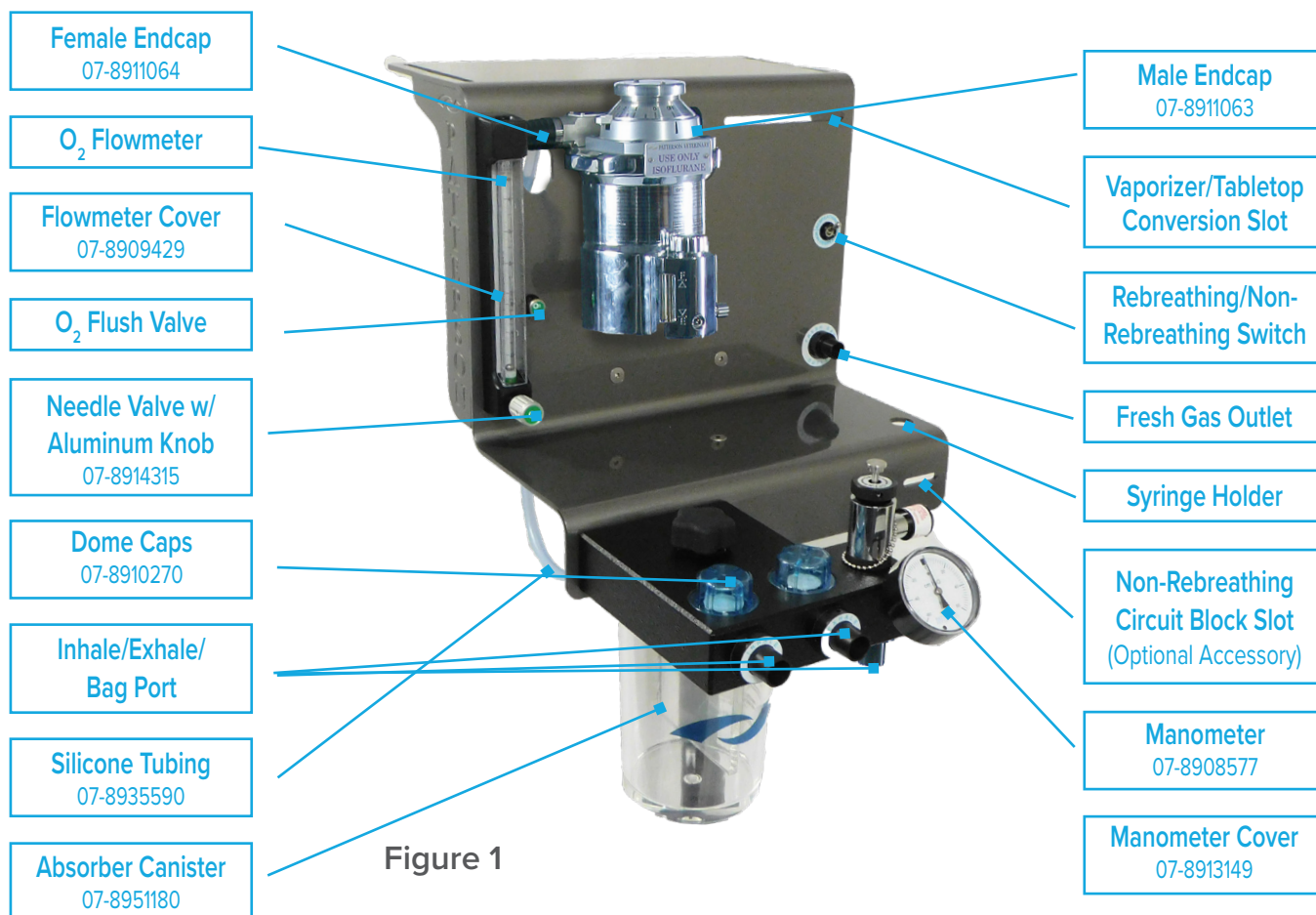
WARNING! Lift with care. Head assembly will be heavy, especially with the vaporizer attached.



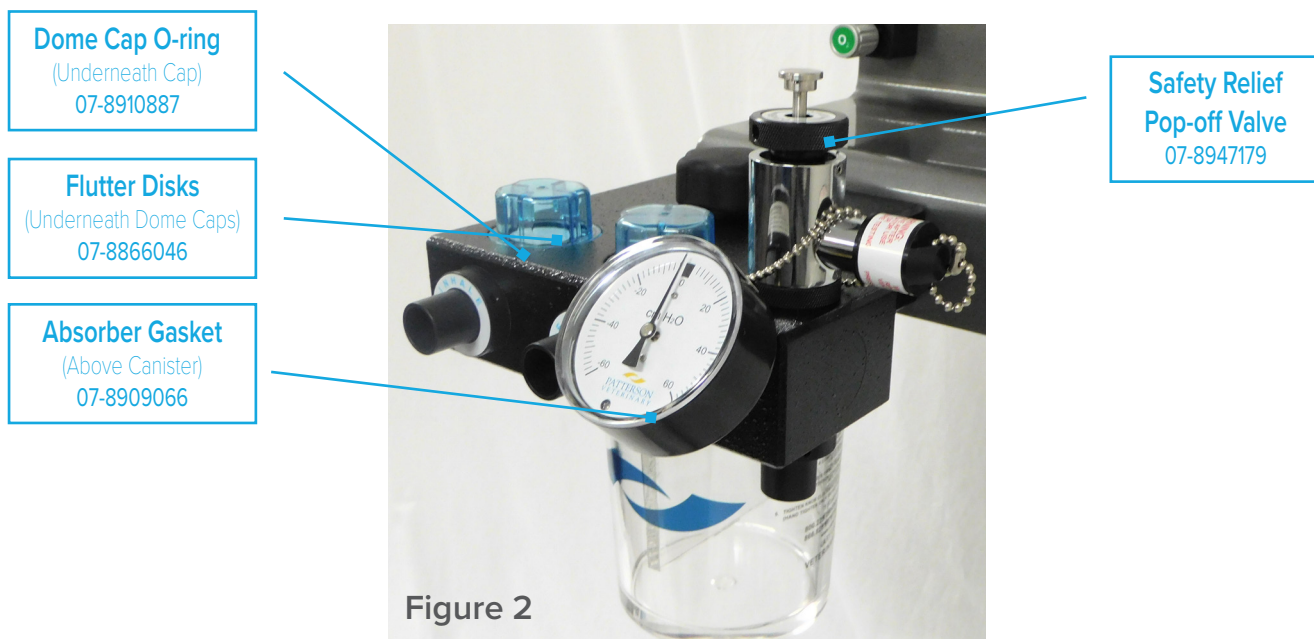
Versa II should now be configured as shown and can be placed on a table as desired.

Description of Features

Features available on the Versa II



Description of Features



Description of Features

Features defined See Figures 1–3

O₂ Flowmeter – Located on the left side of the frame of the Versa II. The flowmeter controls the amount of oxygen delivered to the patient. Standard flowmeter ranges from 250 mL to 4 lpm (Accuracy +/- 5% of full scale)

O₂ Flush Valve – Located on the right side of flowmeter. The flush valve is used to administer oxygen only into the breathing system. The flush valve bypasses the vaporizer so no additional anesthetic is added to the system. (Nominal Output – 30 lpm)

Female Endcap – 23mm tapered female connector attaches to the **INLET** side of the vaporizer.

Male Endcap – 23mm tapered male connector attaches to the **OUTLET** side of the vaporizer.

Vaporizer/Tabletop Conversion Slot – 5/16" wide slot located on the right side of the vaporizer. The slot can be used to install an additional vaporizer or the absorber system can be relocated to this slot, converting the Versa II into a tabletop unit.

Rebreathing/Non-Rebreathing Switch – Located on the right side of the Versa II frame. The switch allows the user to quickly and easily change from a rebreathing circuit to a non-rebreathing circuit.

Fresh Gas Outlet – Located below the rebreathing/non-rebreathing switch. The fresh gas outlet is a convenient way for the user to connect a non-rebreathing circuit without disturbing the outlet connection on the vaporizer or circuit hose attached to the absorber.

Syringe Holder – Convenient holder for cuff inflation.

Non-Rebreathing Circuit Block Slot – 5/16" wide slot located to the right of the absorber system. The slot is used to install a non-rebreathing circuit block (Bain style) (optional accessory).

Dome Caps – Located on the top of the absorber block. The dome caps are manufactured from polycarbonate, which is nearly indestructible. The internal rib feature allows the flutter disk to move up and down freely without compromising the seal on the valve.

Flutter Disks – Located beneath each of the dome caps. The flutter disks open and close during the exchange of breaths from the patient. As one opens, the other disk closes, keeping the air moving in one direction.

Description of Features

Safety Relief Pop-Off Valve – Located on the absorber block behind the manometer gauge. In the open or closed position there is less than 1 cmH₂O pressure. Pressure relieves at 20-25 cmH₂O using the push button to administer a breath. Plastic cap included to allow the use of a ventilator or to perform a pressure test without having to close the pop-off valve and hold the button down during the duration of the test.

Waste Gas Collection – Locate the clean air canister kit. Install the charcoal canister bracket holder using the provided hardware. Next place the Pivotal clean air canister into the bracket and attach the WAG T splitter on top of the canister. Take the 4' 19mm blue corrugated hose and attach to the pop-off valve. The opposite end of blue hose should attach to one end of the WAG T splitter.

WARNING! If you are using a central active scavenger for waste gas collection, it may be necessary to adjust the vacuum/draw or utilize a scavenger interface valve to ensure proper function of the Safety Relief Pop-off Valve.

Inhale/Exhale/Bag Port – 22mm tapered male ends are designed to fit all standard breathing circuits and various sizes of breathing bags.

Absorber Canister – Located underneath the absorber system. The canister is filled with absorbent to remove the CO₂ from the breathing system. Canister capacity is 1200 mL.

Base and Casters – 27" base with a reverse contour for more stability and a chemical resistant clear coat. Casters are 65mm.

Preoperative Setup

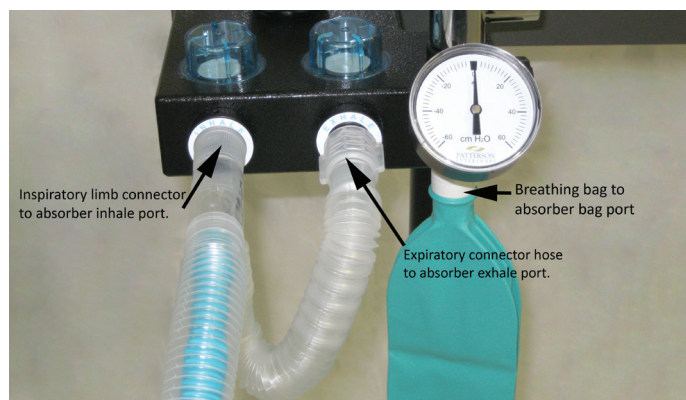


Figure 4

Universal F-Circuit

(Reorder part number 07-8911827)

The Universal F-Circuit is a rebreathing circuit that can be used on patients above 20 lb. Install the circuit as shown in Figure 4.

WARNING! Rebreathing/Non-Rebreathing switch must be set to REBREATHING for this setup to function properly.

Preoperative Setup

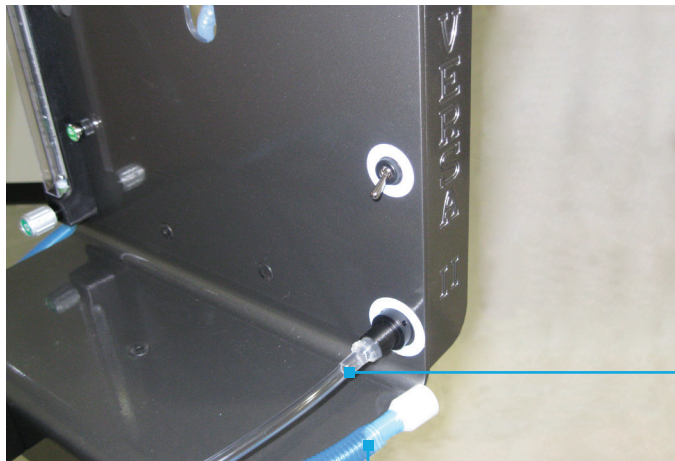


Figure 5

Modified Jackson Rees

(Reorder part number 07-8911828)

The Modified Jackson Rees is a non-rebreathing circuit that is recommended for patients 20 lb or less. Install the circuit as shown in Figure 5.

15mm clear fresh gas adapter to anesthesia machine fresh gas outlet.

Blue corrugated waste gas hose to charcoal canister or active scavenging system.

WARNING! Rebreathing/Non-Rebreathing switch must be set to NON-REBREATHING for this setup to function properly.

Waste Gas Collection

Locate the clean air canister kit. Install the charcoal canister bracket holder using the provided hardware. Next place the Pivotal clean air canister into the bracket and attach the WAG T splitter on top of the canister. Take the 4' 19mm blue corrugated hose and attach to the pop-off valve. The opposite end of blue hose should attach to one end of the WAG T splitter.

WARNING! If you are using a central active scavenger for waste gas collection, it may be necessary to adjust the vacuum/draw or utilize a scavenger interface valve to ensure proper function of the Safety Relief Pop-off Valve.

Pressure Testing the Versa II

It is very important to pressure test the Versa II upon initial setup and on a daily basis. Follow the instructions below.

Oxygen connection

The Versa II comes standard with a DISS (Diameter Indexed Safety System) male connector. It is imperative that the mating DISS female connector be used to prevent any oxygen leaks. The oxygen needs to be regulated between 50 and 60 psi for adequate operation.

Pressure Testing the Versa II

Test procedure

1. Place the Pop-Off Valve Outlet Cap over the outlet of the pop-off valve as shown OR you can close the pop-off valve knob all the way by turning the knob clockwise until it stops and then hold the button down for the duration of the pressure test.
 2. Occlude the end of the breathing circuit with your hand or thumb.
 3. With the flowmeter turned completely off, use the flush valve to fill machine until the needle on the manometer/gauge rises to 30 cmH₂O.
 4. Release the flush and watch the gauge – if the pressure stays steady for 20 seconds, the machine passes.
 5. If the pressure drops no more than 5 points in 20 seconds, it passes.
 6. If the pressure starts to rise after 20 seconds, the flush valve is leaking, which requires a replacement or repair of the flush valve.
 7. If the pressure drops right away, you must find and correct the leak (see Troubleshooting section).
 8. Release pressure by removing the Pop-Off Valve Outlet Cap OR if you did not use the cap, release the button and open the Pop-Off Valve all the way by turning it counterclockwise until it stops.
- CAUTION:** Do not release pressure by removing your hand from the breathing circuit as this creates a vacuum and allows CO₂ absorbent to enter the valves and breathing circuit.
9. Reattach your waste gas tubing to the pop-off valve that leads to the scavenger.



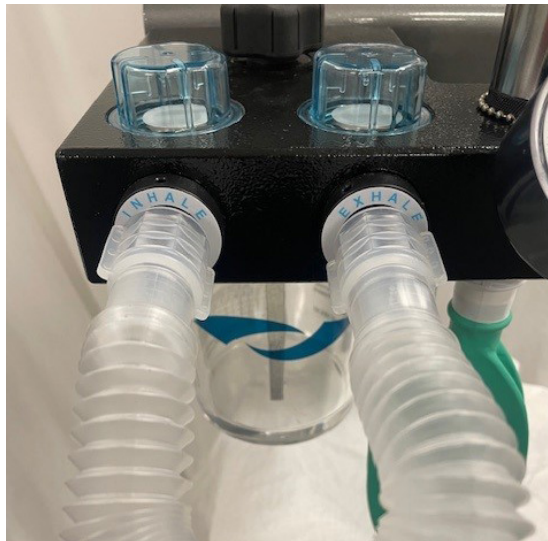
WARNING: When the machine passes the pressure test, REMOVE THE POP-OFF VALVE OUTLET CAP AND REATTACH THE WASTE GAS TUBING TO THE POP-OFF VALVE THAT LEADS TO THE SCAVENGER. VERIFY THE POP-OFF VALVE KNOB IS ALL THE WAY OPEN BY TURNING IT COUNTERCLOCKWISE UNTIL IT STOPS.

Troubleshooting

If a leak is detected, the following instructions will assist in locating the leak and making the necessary corrections.

1. Mix up a soapy water solution in a spray bottle.
2. Remove the flex tube from the F-Circuit and connect it to the machine as shown below.

(Note: This will free up your hands to help locate the leak.)



3. Pressurize the absorber system until the manometer reads 30 to 40 cmH₂O.
4. Dial in flow on the flowmeter to compensate for leak.

CAUTION! Once leak is located and corrected, the pressure will now begin to rise and could cause damage to the manometer or other parts of the machine if flowmeter is not turned OFF.

5. Using the soapy water solution, spray around the following areas to locate the leak.
 - Absorber canister
 - Dome caps
 - Inhalation/Exhalation/Bag port
 - Pop-off base
 - Manometer base threads
 - Male/Female endcaps
6. Once leak is located, it is usually a matter of just tightening up the part that is causing the problem. If the problem cannot be corrected, please contact Technical Support at 866.825.6076.

Maintenance and Cleaning

It is critical that certain parts of the Versa II be maintained and cleaned on a weekly basis due to the heat and moisture exchange that occurs within the absorber system. The instructions below refer to the critical components that require attention. All other portions of the machine can be cleaned with a mild cleaning agent.



Remove dome caps as shown.
(Dome Cap Replacement: 07-8910270)



Clean dome cap O-rings and all internal/external features with a mild soapy water solution and dry before reinstalling.
(O-ring Replacement: 07-8910887)



Remove absorber canister and wipe gasket clean with isopropyl alcohol. Examine holes for any blockage from CO₂ absorbent.
(Absorber Gasket Replacement: 07-8909066)

Maintenance and Cleaning



Remove all CO₂ absorbent and remove as much dust as possible. Clean internal/external and divider sections of absorber canister with a mild soapy water solution. Pay specific attention to the top of canister where Sodasorb can build up. (Absorber Canister Replacement: 0-78951180)

Note:

It is highly recommended to change out the items that show normal wear and tear from use at a minimum of once per year.

78925430 - VERSA II ANESTHESIA MACHINE SERVICE KIT includes new items such as silicon tubing, gaskets, O-rings, and flutter disks. Customers that use their machine more frequently may require annual replacement of these items.

Specifications

Overall Dimensions: 27" W x 27" D x 52" H

Frame: 15.75" W x 13.81" D x 15" H

Monitor Shelf: 15.75" W x 7" D

Accessories

Part Number	Description
07-8937070	Clean Air Canister Pivotal
07-8911827	Universal F-Circuit 40" with 2 Liter Bag
07-8911828	Modified Jackson Rees with 1/2 Liter Bag

Warranty

Limited warranty

Patterson Veterinary Supply, Inc. ("Seller") warrants to the original purchaser that the new Product (excluding accessories) shall be free from defects in material and workmanship under normal use, if used in accordance with information contained in the operations manual, for the lifetime of the Product to the original purchaser. (NOTE: Anesthesia vaporizers are NOT included within this warranty.) Ordinary wear and tear (including, but not limited to, the need to replace worn or aged parts such as gaskets, O-rings, flutter valve discs, circuits, hoses, casters, and bags) is not considered a defect in material and workmanship and is not covered under this warranty.

Buyer's SOLE AND EXCLUSIVE REMEDY for breach of this warranty shall be replacement or repair, free of charge, of such part or parts as are determined to be defective, or repayment of the purchase price paid by Buyer, whichever such remedy Seller shall select. To make a claim under this warranty, Buyer must, within ninety (90) days of discovery of the defect in material or workmanship, give written notice of the defect to Seller and, if requested by Seller, promptly deliver the equipment to Seller, FOB Seller's designated facility.

Disclaimer of warranties

The foregoing express warranty, as conditioned and limited, is in lieu of and excludes all other warranties whether express or implied, by operation of law or otherwise. SELLER MAKES NO OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCT OR OTHER PARTS RELATING THERETO, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED.

Seller disclaims responsibility of the suitability of the Product for any particular medical treatment or for any medical complications resulting from the use of the Product. The disclaimer is dictated by the many elements which are beyond Seller's control, such as diagnosis of patient, conditions under which the Product may be used, handling of the Product after it leaves Seller's possession, execution of recommended instructions for use and others. Buyer is solely responsible for providing the necessary knowledge, expertise, skill, and judgment of veterinarians or other professionals in connection with use of the Product.



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