iBox® Anesthesia System

Instruction Manual

An Analytik Jena Company

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IMPORTANT!

Read this manual before setting up and operating the iBox Anesthesia System!

The user should be thoroughly familiar with the contents of this manual prior to using the system with animals.

Only technicians who are properly certified to use isoflurane/sevoflurane vaporizer and anesthetic equipment should operate the iBox Anesthesia System.

The user/owner of this equipment shall have the sole responsibility for any damage or injury resulting from operation that is not in accordance with the authorized instructions. This includes, but is not limited to, operating the equipment outside of recommended safety levels, variation from specified operating instructions and not following standard laboratory safety procedures when working with anesthetic agents and volatile compressed gases.

The system and its components must only be modified or repaired by factory authorized service technicians. Improper modification or repair may result in danger to personnel, harm or death to animal, or equipment damage. The user/owner of this equipment shall have the sole responsibility for any damage or injury resulting from improper maintenance and repair that is not performed by authorized maintenance and repair personnel.

Components that have failed in whole or in part, exhibit excessive wear, are contaminated or are otherwise at the end of their useful life, should not be used. To ensure proper system operation, use only UVP-supplied parts for repair or replacement.

Opening the vaporizer unit by unauthorized personnel automatically voids all warranties and specifications. The manufacturer assumes no responsibility for any malfunction or failure of the unit if the seal is broken.

Introduction to the iBox Anesthesia System

The iBox Anesthesia System is designed for the anesthesia of small animals. The system is a small portable unit that is designed for maximum efficiency, ease of use and low anesthetic gas consumption.

The system delivers a precisely blended mixture of oxygen and isoflurane or sevoflurane into a plastic induction chamber, offering ultra-efficient anesthetizing of animals. The chamber attaches to a charcoal filter canister that releases safe, filtered air into the room.

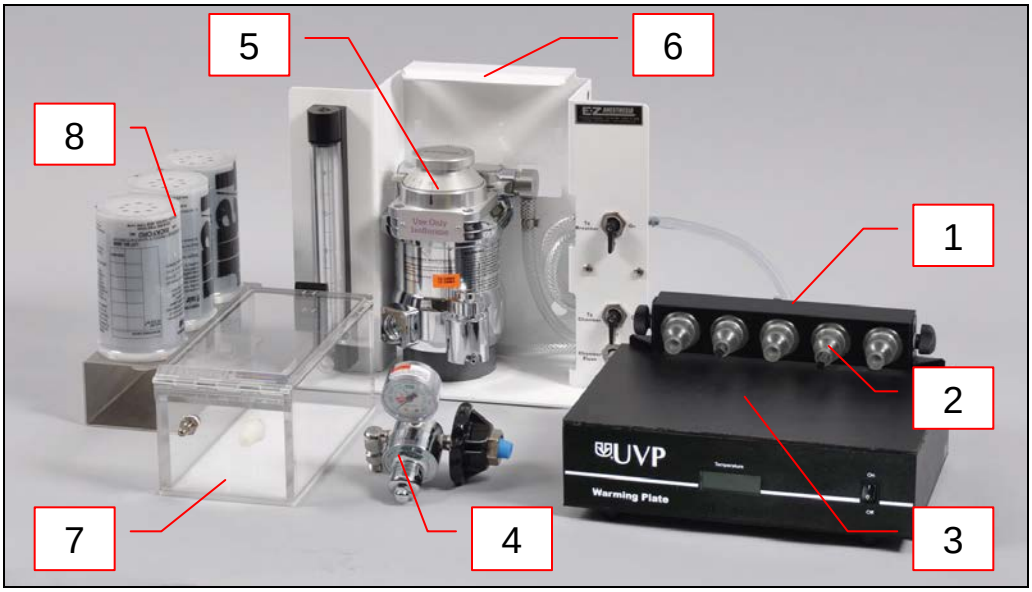
After initial anesthetizing in the host cage, the animal can be moved to the breathing device/manifold attached to the warming plate inside the iBox Imaging System. The non-rebreathing gas delivery masks, or “nosecones,” are specifically designed for small animals. The system allows safe controlled anesthesia during imaging procedures to keep the animal free of movement.

Note that two styles of anesthesia kits are offered for use with UVP’s iBox Imaging System line: the five-port and the single-port breathing device/manifold. The five-port kit is designed for use with the iBox Scientia™ and iBox Spectra™ Small Animal Imaging Systems, while the single-port kit is designed for the iBox Explorer™ Imaging Microscope. Most of the components are the same between the two anesthesia kits, except for a few notable differences:

1. The five-port is able to accommodate up to five mice simultaneously, while the single-port accommodates a single mouse.
2. The warming plate for the five-port kit is removable from the darkroom along with the nosecone manifold, while the single-port’s warming plate is a slide-out unit attached to the inside of the darkroom. Thus, only the single-port nosecone manifold and bracket are removable from the darkroom.

NOTE: Anesthesia kits are designed to support the use of either isoflurane or sevoflurane agents for anesthetization. Note that **each kit is designed to accommodate either isoflurane or sevoflurane, not both**. DO NOT use one agent in a system designed for the other, as permanent system damage will occur. Read the label on the system to determine which type of agent it is designed to utilize.

Components of the iBox Anesthesia System



1) **Five-Port Breathing Device/Manifold:** The Five-Port Breathing Device/Manifold is designed to maintain anesthesia in the iBox Scientia and iBox Spectra for up to five mice or one rat at a time. The inflow tube delivers anesthetic gas from the vaporizer unit to the nosecones, while the outflow tube directs expended gas from the nosecones to the charcoal filter canister. Each breather is specifically designed to accommodate certain animals. The five-port breather will accommodate animals weighing 0 to 500 grams.

   Not Pictured: The **Single-Port Breathing Device/Manifold**, for use in the iBox Explorer, attaches via thumb screws to the slide-out warming plate built into the iBox Explorer. It is capable of maintaining anesthesia for a single mouse at a time.

2) **Nosecones and Plugs**: The interchangeable species-specific nosecones slip onto the collar on each port of the breathing device/manifold. The black plugs (included) prevent release of anesthetic gas and are to remain in the nosecones when not in use.

3) **Warming Plate**: In the iBox Scientia and iBox Spectra, the five-port breathing device/manifold connects to the warming plate. Heating elements within the warming plate keep the surface of the plate at a consistent 37°C.

   Not Pictured: In the iBox Explorer, the single-port breathing device/manifold connects to the slide-out warming plate that is built into the system. Heating elements within the warming plate keep the surface of the plate at a consistent 37°C.

4) **Oxygen Regulator:** The oxygen regulator, with a factory preset pressure output of 50 psi, attaches to an industrial-grade oxygen tank with a standard CGA-540 tank connection. The regulator's output fitting is an oxygen-specific DISS 1240 male connection and is also available with a CGA-870 yoke tank connection for medical-style oxygen tanks.

   NOTE: *Depending upon configuration, this system may or may not contain an oxygen regulator. An alternate oxygen regulator can be used only if it has an oxygen-specific DISS 1240 male connection and is capable of regulating pressure from 20-70 psi. Recommended output pressure to the system is 50 psi. If your system was not configured with an oxygen regulator, contact a lab supply company for more information.*

   UVP does not ship oxygen with this system. Contact a lab supply company to purchase oxygen.

5) **Isoflurane/Sevoflurane Vaporizer:** The vaporizer is a precision instrument that blends oxygen and either isoflurane or sevoflurane to the proper ratio, and then outputs it to the system components. The gas blend is adjusted with a large locking dial on top of the unit. The vaporizer outputs agent concentrations from 0-5% in .5% graduations.

   NOTE: *UVP does not ship isoflurane or sevoflurane with this system. Contact a lab supply company to purchase isoflurane or sevoflurane.*

6) **Vaporizer Stand:** The vaporizer stand acts as a mount for the vaporizer and the gas delivery mechanisms, including the inlet flow meter and the on/off valves for the breathing device and chamber. Quick disconnects are used to attach the breathing device and chamber to the unit.

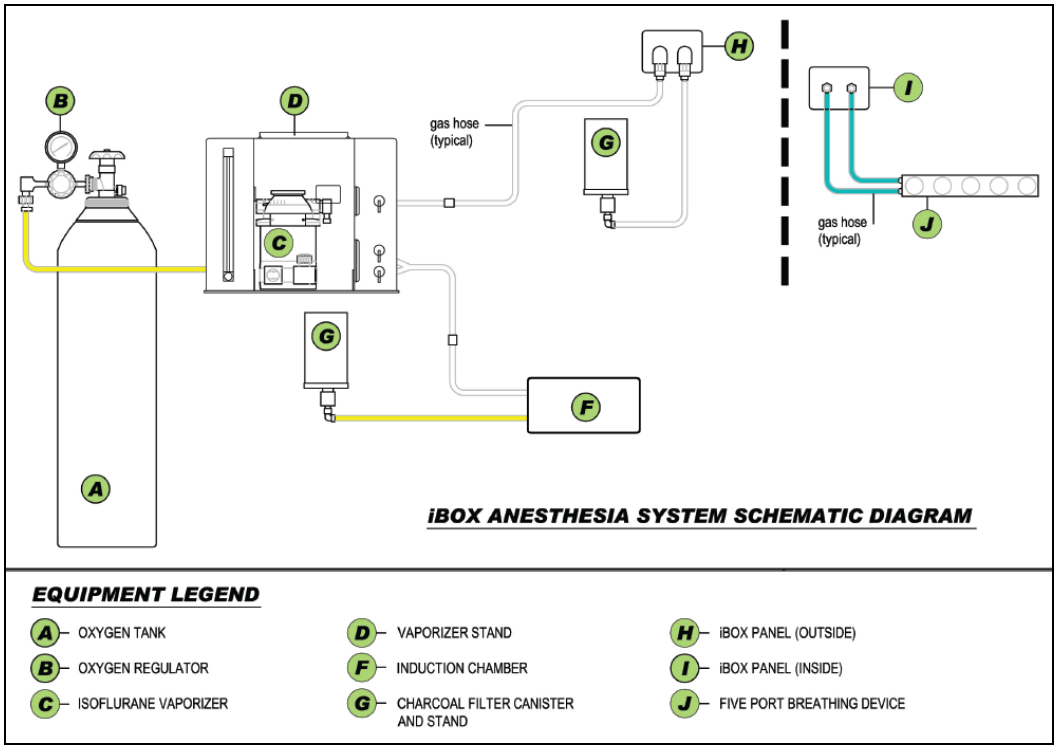
7) **Induction Chamber:** The induction chamber is a small acrylic plastic chamber designed to anesthetize up to 5-6 mice or one rat at a time. The chamber includes a quick disconnect gas inlet fitting and an exhaust outlet to a charcoal filter canister.

8) **Charcoal Filter Canisters and Stand**: The ReFresh charcoal filter canisters use activated charcoal to remove isoflurane or sevoflurane from waste gas before release into the room. A filter is installed on the chamber and breather exhaust. Filters are to be weighed prior to initial use and prior to each subsequent use. **The charcoal filter canister should be replaced after a weight increase of 100 grams.**

Setup of iBox Anesthesia System

The following is a schematic diagram of the five-port iBox Scientia and iBox Spectra anesthesia system. The specific components (letters) of this schematic will be referenced parenthetically throughout this manual.

Note: The only difference between this schematic and the anesthesia system for the iBox Explorer is the replacement of a single-port breathing device/manifold in place of the five-port component shown below.



Connecting Outside the Darkroom

1. Attach the Regulator to the Oxygen Tank (Figure 1):

   Be sure that the oxygen tank is secured and stable before attaching the regulator.

   - To mount the oxygen regulator (B) to the oxygen tank, attach regulator fitting to the oxygen tank output and tighten the black handle wheel.

Figure 1: Attach Regulator to Oxygen Tank

2. Attach the Oxygen Source to the Vaporizer (Figure 2):
   a. To connect the oxygen regulator (B) to the vaporizer (C), use the green oxygen hose.
   b. Attach the green oxygen hose from the regulator output to the vaporizer stand input at the back of the vaporizer stand.

Figure 2: Attach Oxygen Source to Vaporizer Stand Input

3. Connect the Induction Chamber:
   a. Connect the induction chamber hose from the chamber input (F) to the valve on the vaporizer stand marked '**To Chamber'.**
   b. Connect the large diameter hose from the chamber exhaust to the charcoal filter canister.
   c. Rest the charcoal filter canister on the filter stand.

Figure 3: iBox Panel Showing Inlet and Exhaust Fittings

4. Connect the iBox panel (Figure 3) to the back of the darkroom. On the iBox Explorer, the panel should attach to the left side of the darkroom. The black side of the panel should face the inside of the darkroom.

5. Connect the Breathing Device/Manifold:
   a. Connect the inflow tube to the valve on the vaporizer stand marked **'To Breather'** then attach the tube to the back of the iBox **'Inlet'** port.
   b. Attach the exhaust tube with the white cap from the back of the iBox **'Exhaust'** port to the charcoal filter canister.
   c. Rest the charcoal filter canister on the filter stand.

Figure 4: Connecting the Breathing Device/Manifold to the Warming Plate (iBox Scientia and Spectra)

6. Assemble the **warming plate and breathing device/manifold**:
   a. The breathing device/manifold has two adjustable positions for imaging mice and rats. If imaging mice, loosen the knobs and allow the breather to drop to the lowest position in the holder. If imaging rats, use the breather in its highest position. After positioning the breather, tighten the knobs.
   b. For the iBox Scientia and Spectra, attach the five nosecones to the breathing device/manifold and insert the black plugs into the unused nosecones to prevent gas from escaping into the darkroom. Large nosecones are designed for rats while small nosecones are designed for mice (Figure 4).
   c. In the iBox Explorer, attach the breathing device/manifold bracket to the built-in warming plate using the two all-thread screws protruding

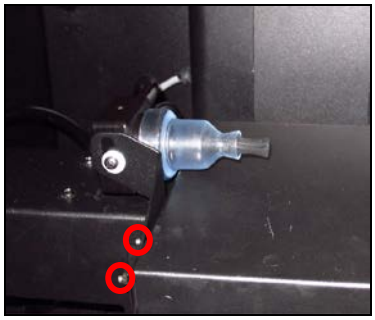


Figure 5: Connecting the Breathing Device Inside the Darkroom (iBox Explorer)

from the warming plate (see red circles, Figure 5). Then, attach the single nosecone to the breathing device/manifold and insert the black plug into the nosecone to prevent gas from escaping into the darkroom when not in use.

Inside the iBox Darkroom

1. Connect the hose on the breathing device/manifold (J) marked **'To Inlet'** (Figure 6) to the fitting marked **'Inlet'** mounted inside the iBox.
2. Connect the hose on the breathing device/manifold (J) marked **'To Exhaust'** to the fitting marked **'Exhaust'** mounted inside the iBox.
3. If not already attached, place the desired nosecones on the port(s) of the breathing device/manifold, making sure the black plugs are secure in the nosecone.

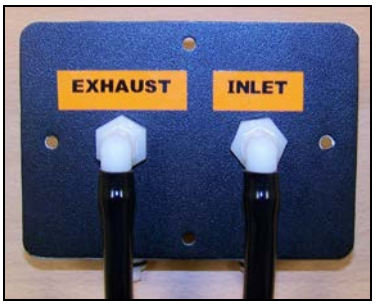


Figure 6: Connecting the Breathing Device Inside the Darkroom.

Vaporizer

- The vaporizer must only be used with isoflurane or sevoflurane as indicated in the shipping paperwork. No other agent is acceptable and may be dangerous.

  NOTE: Isoflurane or sevoflurane should only be used by licensed personnel. Wear an appropriate facemask and follow safety procedures as recommended by OSHA and facility safety officers. Pregnant women should not be exposed to isoflurane. For questions regarding safety, contact UVP for assistance.

- During use, frequently check that the isoflurane or sevoflurane level is between the minimum and maximum marks on the vaporizer's sight glass level indicator (Figure 7). Refill the vaporizer before the liquid level reaches the minimum mark.
- The vaporizer must never be modified, dismantled, calibrated or serviced by unauthorized personnel. The unit should be serviced for cleaning and calibration at least every 3 years, but UVP recommends annual servicing depending upon laboratory requirements. After 3 years, the vaporizer should have preventive maintenance performed at a certified service facility.
- The vaporizer must be connected so that the flow of gas to the animal is as indicated by the arrows on the device. The incorrect flow direction will result in wrong dosage.
- Before use, ALL connections must be checked for leaks and functional tests must be performed, as is the normal procedure for an anesthetic device.

  WARNING: Keep the vaporizer upright at all times and do not carry the vaporizer by holding the dial control.

To Fill the Vaporizer (Figure 7):

NOTE: The control dial must be in OFF position. Press the white lock button to turn the dial. Always keep the dial in the OFF position when not in use. Also, the drain plug must be closed.

1. Remove the Filler Cap by turning counterclockwise.
2. Verify that the liquid agent is the correct type for the system (isoflurane or sevoflurane).
3. Slowly pour the agent into the opening.
4. Observe the level through the sight glass on the front of the vaporizer.
5. Once filled, replace the filler cap and tighten.

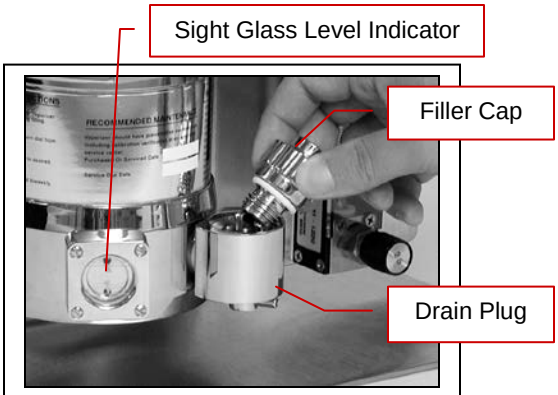


Figure 7: Filling the Vaporizer with Isoflurane Liquid

Connecting the Warming Plate

1. For the iBox Scientia and Spectra, place the warming plate (Figure 8) on the lift platform inside the darkroom. Plug one end of the power cord into the back of the warming plate and the other end to an outlet at the (inside) top of the darkroom. See the iBox Scientia and iBox Spectra User Manuals for more information.
2. The warming plate is preset to a temperature of 37°C ±2.
3. Use the switch at the front of the warming plate to turn on the unit.

Figure 8: iBox Scientia and Spectra Warming Plate

NOTE: The slide-out warming plate in the iBox Explorer is built in and is always on when the system is powered on; there is no need to install or turn on the iBox Explorer warming plate.

Operating the iBox Anesthesia System

Prior to operation of the system, be sure that all components are properly connected as directed in **Setup of iBox Anesthesia System**. Weigh charcoal filter canisters with each use. Replace the charcoal filter after 100 grams of increased weight. The vaporizer should be in the off position and the oxygen regulator dial turned completely off.

WARNING: A high isoflurane-to-oxygen ratio can result in harm or death to animals.

IMPORTANT: The following isoflurane flow and mix rates are a suggested starting point for developing protocols (contact UVP for veterinarian field test of protocols). Parameters will vary from lab to lab. All settings should be refined and adjusted based on careful observation of animals during anesthesia.

NOTE: Proper oxygen flow rate is essential for correct use of the vaporizer. A higher oxygen flow rate will lower the oxygen temperature and thereby reduce the production of isoflurane or sevoflurane vapor. A very cool room may also negatively affect the production of vapor.

Setting the Oxygen Flow

WARNING: System MUST be properly set up before turning on any gas.

Never disconnect any hoses until the oxygen and vaporizer have been shut off. Failure to precisely follow these instructions could result in injury. Back pressure can cause vaporizer hoses to pop and cause isoflurane to back up into the system, affecting system performance and accuracy.

1. Using the Oxygen Flow Control Panel (Figure 9), turn the Chamber Control valve to the **Chamber On** position and turn the Breather Control valve to **Off**.
2. Open the oxygen tank (Figure 1).
3. Turn the flow meter knob so that the flow meter reads 1 liter per minute (lpm).
4. Place animals into the induction chamber and close the chamber lid.
5. For rapid induction, push down the white locking mechanism (Figure 10) to move the vaporizer dial (C). Turn the dial to 5 (%) for approximately one minute, then reduce dial setting to 1.5 (%) for mice, 2 (%) for rats.

   NOTE: The locking mechanism will only engage in the OFF position.
6. Allow animals to remain in the induction chamber for five minutes.
7. When animals are ready to be moved to the iBox breathing device nosecone, turn the Breather Control valve to **Breather On**. Then, turn the Chamber Control valve to the **Off** position.
8. Turn the Chamber Control valve to the **Chamber Flush** position for five seconds to clear the chamber of isoflurane/sevoflurane. Then, turn the Chamber Control valve to the **Off** position.

Figure 9: Oxygen Flow Control Panel

Figure 10: Adjusting the Vaporizer Dial

9. Ensure that the warming plate is plugged into the **Accessory** outlet in the back of the iBox Scientia and Spectra darkroom. The warming plate in the iBox Explorer is always on as long as the system is on.
10. To turn the iBox warming plate on, flip the I/O (on/off) switch to the I (on) position. The warming plate will show the temperature of the warming plate in the display.
11. Before transferring the animal to the breathing unit, check the surface of the warming plate for proper temperature (37°C is recommended). The surface temperature of the iBox Explorer is indicated on the warming controller box located in the back right corner of the darkroom (see the iBox Explorer Imaging Microscope Instruction Guide for more information).
12. Increase the flow of gas at the flow meter to 3 lpm (going to the iBox).
13. Remove animals from the induction chamber and place on the warming plate. Remove the black plug from the desired nosecones and place the animal's nose into the nosecone. Be sure there is a tight seal around the animal's nose and that animal's nostrils are not blocked by the nose cone. Close observation of animal breathing and continued pink foot color helps determine proper anesthesia level.

    NOTE: Any nosecones not in use must be plugged with the black plugs (supplied). Otherwise, gas will leak into the iBox darkroom.
14. Rats will remain anesthetized on the breathing device for up to twelve hours and mice for up to six.
15. Once the procedure is finished, turn the Vaporizer Dial to the OFF position, remove the animals from the nosecone and replace the black plug.
16. Turn the Chamber Control valve to the **Chamber On** position and allow oxygen to flow for approximately two minutes to flush residual isoflurane/sevoflurane from the system.
17. If completely finished, close the oxygen tank and momentarily turn the Chamber Control valve to the **Chamber Flush** position, allowing pressure from the tank to bleed off. Then, turn the Chamber Control valve to the **Off** position
18. Turn the flow meter knob to the OFF position.
19. To perform another procedure, repeat the process from step one.

Helpful Tips

- Oxygen flow rates and isoflurane/sevoflurane concentrations in this manual are meant only as guidelines. Operators should determine their own values based on observation and proper training.
- During longer procedures, it is important to continually monitor the animals in the iBox for proper depth of anesthesia. It may be necessary to reduce the isoflurane/sevoflurane concentration by 0.5 (%) during hours-long procedures.
- If preparatory work is required before placing animals into the iBox, mice will remain anesthetized for approximately one minute and rats for three to five minutes once removed from the induction chamber.

Troubleshooting

Animals are waking up:

- Ensure that the oxygen flow rate is adequate for the species being imaged.
- Ensure that the vaporizer dial is turned to the appropriate isoflurane/sevoflurane concentration.
- Ensure that the quick disconnect fittings leading to the breather and chamber are completely mated. The collar on the female metal fittings must be completely pushed forward for complete mating to occur. Plastic fittings will give an audible ‘click’ when properly mated.
- Ensure that none of the hosing is kinked.
- If a particular species or strain of animal is consistently waking up on the anesthesia machine, an adjustment may need to be made to the procedure for that species to reflect a higher working concentration of isoflurane/sevoflurane.

Animals are waking up in the chamber:

- Ensure that the Chamber Control valve is turned to the **Chamber On** position and that the Breather Control valve is turned to the **Off** position.
- If all connections are correct and oxygen is flowing into the system, try increasing the isoflurane or sevoflurane concentration to 5% for several seconds until the animals appear to be anesthetized. Then, reduce concentration to the species-appropriate level.

Animals are waking up on the breathing device:

- Ensure that the Breather Control valve is turned to the **Breather On** position and that the Chamber Control valve is turned to the **Off** position.
- The animal may require a higher concentration of isoflurane or sevoflurane. Try increasing the concentration on the vaporizer by 0.5%.
- If the animal was not properly anesthetized in the chamber or was out of the chamber for too long prior to moving to the breathing device, the animal may wake up. If this occurs, place the animal back into the chamber and restart the anesthesia process. Be sure that the animal is completely anesthetized before removing from the chamber.

Animals are too deeply anesthetized:

- Usually in this case the isoflurane/sevoflurane concentration on the vaporizer is too high. If an animal is observed to be in danger of dying, reduce the isoflurane/sevoflurane concentration to zero and let pure oxygen flow until the animal returns to a normal state of anesthesia. Then, turn the isoflurane concentration to a lower value than previously used. Breathing should be even and not appear labored. Limbs should appear pink, not blue.
- If an animal is anesthetized on the breathing device and oxygen supply is suddenly cut off or drastically reduced, the animal may suffer from a lack of oxygen. Ensure that the oxygen tank contains adequate oxygen for the length of the procedure and that the gas supply to the breather is not obstructed in any way.
- During hours-long procedures, anesthetic can build up in the animal. It may be necessary to reduce isoflurane concentration over time.
- During long procedures, animals may become hypothermic. Ensure that the iBox warming plate is on and set to the appropriate temperature.
- If a particular species or strain of animal is consistently dying on the anesthesia machine, an adjustment must need to be made to the procedure for that species to reflect a lower working concentration of isoflurane/sevoflurane.

The vaporizer inlet/outlet cap popped off during operation:

- The inlet/outlet caps connecting to the vaporizer are designed to pop off when pressure builds up in the system. This occurs when gas entering the system has an insufficient outlet.
- At least one of the Chamber Control or Breather Control valves must be turned to the **On** position at all times while the system is in use.
- Ensure that the quick disconnect fittings leading to the breather and chamber are completely mated. The collar on the female metal fittings must be completely pushed forward for complete mating to occur. Plastic fittings will give an audible ‘click’ when properly mated.
- Ensure that none of the hosing is kinked.

I can smell isoflurane/sevoflurane outside the iBox:

- The charcoal filter canisters may be saturated with isoflurane. Weigh the filters and discard any that have increased in weight by 100 grams since new. Replace any filters that have been used but were never weighed.
- Ensure that the Chamber Control valve is turned to the **Off** position and that the Breather Control valve is turned to the **Breather On** position immediately prior to removing the animals from the chamber and while the chamber is not in use.

I can smell isoflurane/sevoflurane inside the iBox:

- Ensure that any nosecones not in use are plugged with the included black threaded nosecone plugs.
- Ensure that there is a tight seal around the animal’s nose(s) on the nosecone(s).
- Ensure that all of the hosing to and from the breather is connected and that the exhaust hose coming from the back of the iBox is connected.
- The hoses connecting the breather may be reversed. If this occurs, gas will exhaust directly into the iBox. Refer to the installation instructions in this manual on how to properly connect these hoses.

If the labels on the breathing device are missing, the breather inlet is the hose connected to the white silicone duckbill valves inside the breather port. The breather exhaust is the hose connected to the black holes inside the breather port.

- If all of the instructions have been followed yet problems continue to arise, the vaporizer or oxygen regulator may be out of calibration. Contact UVP for instructions on how to have these items serviced at a factory authorized service center.

I have my own oxygen regulator. Can I use it?

- An alternate oxygen regulator can be used only if it has an oxygen-specific DISS 1240 male connection and is capable of regulating pressure from 20-70 psi. Recommended output pressure to the system is 50 psi.

I have my own vaporizer. Can I use it?

- Yes, an alternate vaporizer can be used with this system provided that it has been recently serviced and calibrated according to manufacturer's requirements. Preferably an industry-standard TEC 3 vaporizer would be used with this system.

How often should I have my vaporizer serviced?

- Vaporizers should be serviced on a regular schedule that reflects usage and the individual institution's requirements on maintaining the vaporizer. The unit should be serviced for cleaning and calibration at least every 3 years, but UVP recommends annual servicing depending upon laboratory requirements. After 3 years, the vaporizer should have preventive maintenance performed at a certified service facility.

Can I maintain animals in the chamber while animals are on the breathing device?

- No. Only one component, the chamber or the breather, may be used at a time.

How often should I replace the charcoal filter canisters?

- Replace the charcoal filter canisters after a weight increase of 100 grams.

Care and Cleaning

Vaporizer

Every two weeks, the vaporizer should be drained into appropriately-marked containers and disposed of properly. Less frequent intervals may be used when the anesthetic does not contain additives or a stabilizing agent.

WARNING: Do not drain the vaporizer into a container that is not properly marked**.**

Draining the Vaporizer:

1. The control dial should be in the OFF position.
2. Remove the filler cap from the fill cylinder to reveal the bottom drain plug.
3. Place a suitable container under the drain outlet on the fill cylinder.
4. Slowly unscrew the drain plug until liquid begins to flow into container. DO NOT unscrew the drain plug all the way.
5. When all of the liquid agent has been drained, tighten the drain plug and replace the filler cap.

Servicing the Vaporizer:

The unit should be serviced for cleaning and calibration at least every 3 years, but UVP recommends annual servicing depending upon laboratory requirements. After 3 years, the vaporizer should have preventive maintenance performed at a certified service facility. Contact UVP for vaporizer service information.

WARNING: DO NOT MODIFY, TAMPER WITH OR DISASSEMBLE THE VAPORIZER. THIS UNIT MUST ONLY BE SERVICED BY AUTHORIZED PERSONNEL.

Charcoal Filter Canisters

The charcoal filter canisters should be replaced after a weight increase of 100 grams.

Service Procedures

Replacement Parts and Accessories

Replacement parts and accessories are available for use with the iBox Anesthesia System. Find UVP's contact information listed under "Technical Support" below.

Description	Part Numbers
ReFresh Charcoal Filter Canister (Qty. 8)	49-0003-01
CGA-870 Yoke Tank Connection *(for medical-style oxygen tanks)*	*Contact UVP*
EZ-330 Oxygen Regulator *(for small medical oxygen tanks utilizing a yoke fitting)*	*Contact UVP*
Replacement Nosecones, Plugs or Other Components	*Contact UVP*

Technical Assistance

Contact Euthanex with any technical support questions directly related to using the anesthesia system:

Euthanex
PO Box 3544
Palmer, PA 18043-3544
Tel: (610) 559-0159
Fax: (610) 253-1476

UVP offers expert technical support on all UVP products. If there are any questions about product use, operation or repair, contact UVP's offices at the locations below.

NOTE: A Returned Goods Authorization (RGA) number must be obtained from UVP's Customer Service prior to returning any product.

If you are in North America, South America, East Asia or Australia:	If you are in Europe, Africa, the Middle East or Western Asia:
Call (800) 452-6788 or (909) 946-3197, and ask for **Technical Support** during regular business days, between 7:00 am and 5:00 pm, PST.	**Call +44(0) 1223-420022**, and ask for **Customer Service** during regular business days between 9:00 am and 5:30 pm.
E-mail your message to: info@uvp.com or techsupport@uvp.com	**E-mail** your message to: uvp@uvp.co.uk
Fax Technical Support at (**909) 946-3597**	**Fax** Customer Service at **+44(0) 1223-420561**
Write to: UVP, LLC. 2066 W. 11th Street, Upland, CA 91786 USA	**Write to**: Ultra-Violet Products Ltd. Unit 1, Trinity Hall Farm Estate, Nuffield Road, Cambridge CB4 1TG UK

Warranty

Euthanex equipment and products are warranted against defects in material and workmanship under normal use and operation for a period of one year from date of shipment. Contact Euthanex for further details.

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