

**LAPD-1000**  
**Large Animal Passive Anesthesia Machine**  
**Operation Manual**



**CAUTION:**  
Federal law restricts this device to sale by or on the order of a veterinarian

## Understanding the Vet-Tec LAPD-1000

### Anesthesia Machine

The LAPD-1000 is a complete anesthesia machine that incorporates the latest in “Flexible Technology” designed for the delivery of anesthetic gases through a low resistance circle system. This unit incorporates the same high quality of components that JD Medical is known for, and the machine is completely field-serviceable.

The LAPD-1000 provides delivery of anesthetic agent through the oxygen flowmeter directed through the vaporizer, and delivered to the circle system. All gas is then directed into the circuit and reservoir bag and finally to the patient. It is directed by means of low resistance directional valves located in that circle.

When the patient makes an inspiratory effort, and the gas is of a sufficient level in the reservoir bag, the gas is delivered to the patient upon his demand. Once the patient exhales, his exhaled volume is directed through the soda lime canister and the CO<sub>2</sub> is reduced according to the efficiency of the soda lime.

We have provided a high flow oxygen flush system that is directed into the circle in the event that immediate oxygen delivery is required into the circle for the patient.

This unit is designed for simple and uncomplicated delivery of anesthetic gases to the patient, and requires minimal adjustments due to its basic design and uncomplicated approach to large animal anesthesia.

#### **PATIENT AIRWAY PRESSURE MONITOR:**

The LAPD-1000 features a precision manometer which reads the pressure in the circle system. This pressure informs you of pressure levels being delivered to the patient.

#### **POP-OFF VALVE:**

The LAPD-1000 incorporates an adjustable pop-off valve with a scavenger adapter port for the removal of the waste anesthetic gas. The pop-off valve is simple to adjust, with a single black knob located on top of the valve with an arrow indicating the direction to rotate.

### **RESERVOIR BAG:**

The LAPD-1000 is shipped to you with your choice of either a 15 or 30 Liter bag. The bag adapter is capable of accepting both sizes. We have also included a special adapter which will convert bag mount and enable it to accept smaller standard anesthesia bags.

### **ABSORBER CANISTER:**

The absorber is a large capacity unit with a stainless steel screen to retain the soda lime. It is simple to remove by rotating the four black knobs located on it's top in a counter clockwise direction until they come loose, remove the individual nylon washers, then set aside the top and simply pick up the absorber and lift it up for changing the contents, to install, simply reverse that procedure.

### **FILLING THE ABSORBER:**

Remember to leave approximately 1" of space on the top of the canister when filling, this will create a plenum chamber on the top of the soda lime, lessening the chance of the gas tracking through the center of the absorber chamber and not giving accurate visual color indication when the soda lime efficiency is being depleted.

### **NOTE:**

Make sure that no dust settles in the seal before replacing the absorber canister. If soda lime dust is evident, simply remove with a damp cloth.

## **Operating Instructions:**

### **CAUTION:**

Prior to every procedure it is imperative that the entire system be check for leaks. This is a relatively simple procedure to perform. Merely connect the breathing hoses to the directional valves, making sure that all components are in place, such as the absorber canister, close the pop-off valve and with one hand over the patient end of the circuit, close the circuit completely and slowly hit the oxygen flush button until an elevated pressure is indicated on the patient manometer located on the back plate of the control panel. The pressure should be elevated to a reading of approx. 30 cmH<sub>2</sub>O. The oxygen flowmeter should be shut off for this procedure, which would indicate a pressure loss. If

the pressure maintains its position, then the circuit is competent and ready to use. If on the other hand your pressure slowly drops over a short period of time, it is indicating a system leak and that leak must be found before proceeding.

Please note that any leak in the system can cause anesthetic delivery problems. It might be difficult to maintain a surgical level of anesthesia, or if the leak is big enough it could mean virtually no delivery of gas to the patient. If you have a leak, simply go over the entire machine and locate that leak, common sources are the absorber canister not being properly placed in the seal ring, or dirt keeping the canister from sealing. Also check the circuit for leaks as well as the reservoir bag.

### **FLOWMETER:**

The oxygen flowmeter and or optional Nitrous Oxide flowmeter is a precision glass tube flowmeter mounted in a rugged, forged housing protecting the glass tube. This flowmeter is read in 1 Liter increments to 10 Liters per minute.

### **OXYGEN FLUSH:**

The oxygen flush is clearly marked and is located on the right hand side of the control panel above the patient pressure manometer.