



# ANESTHESIA SYSTEM

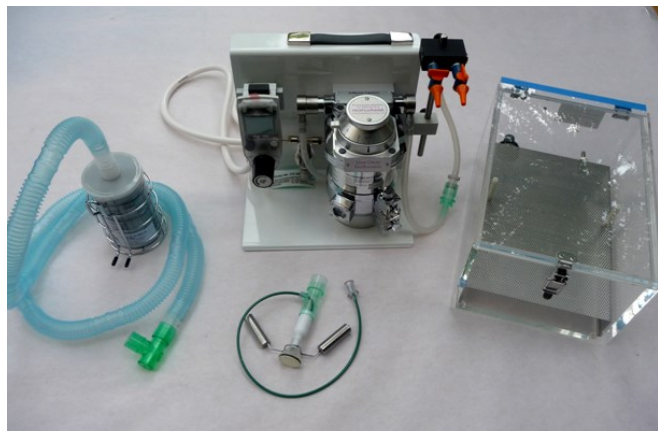
## How does it work?

Description ANALOG

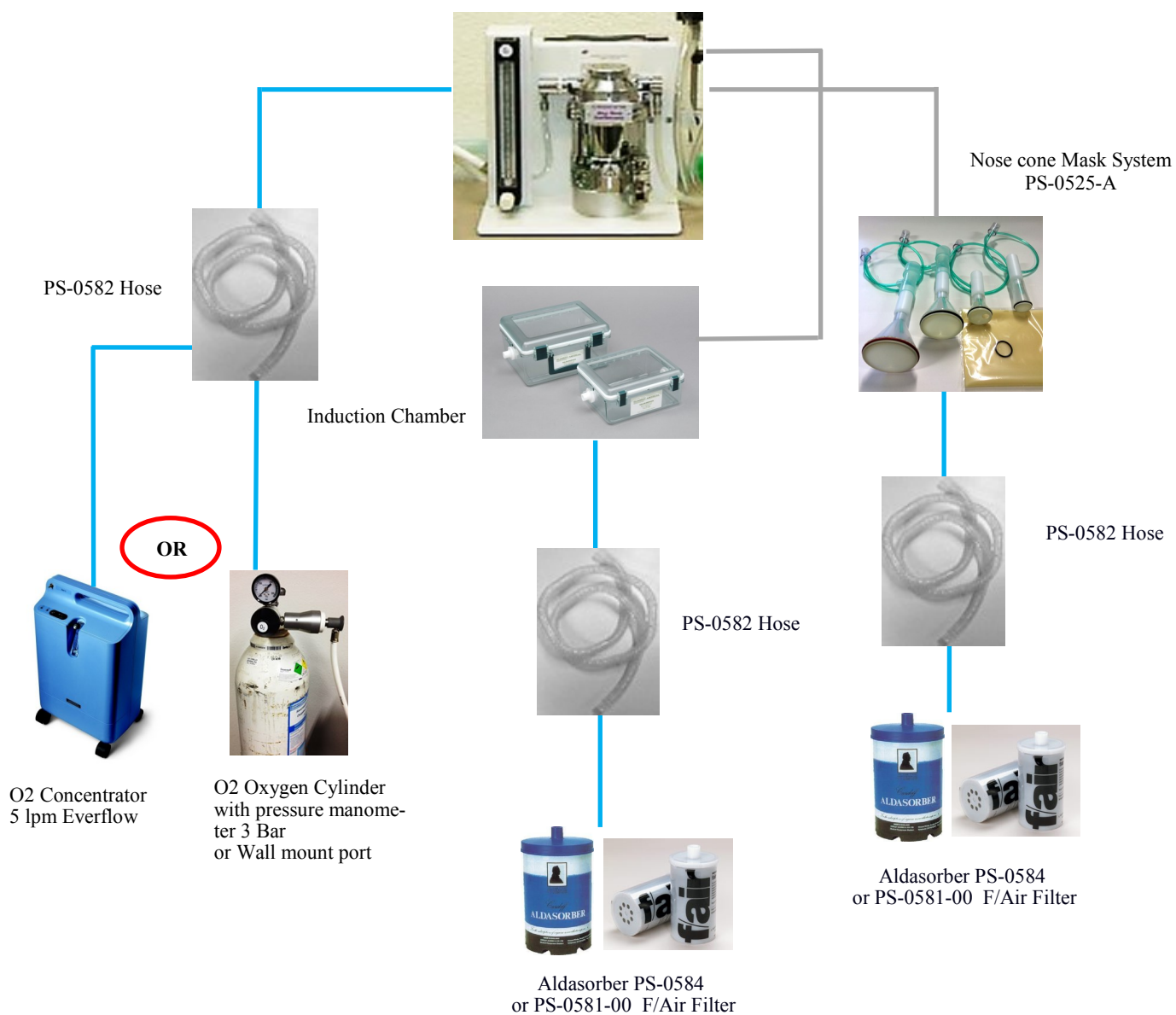
combi-vet®



## CONNECTING DIAGRAM



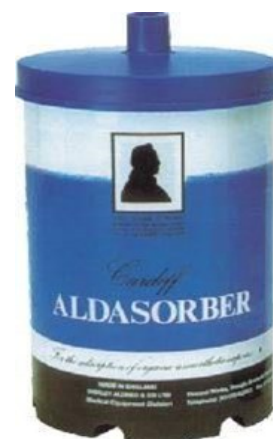
**Combi-vet Digiflow or Analog Anesthesia Machine**



## ANALOG VERSION



Before working please weight the filters, they should not be up to 50 grams more than written on those:



The F/AIR Filter 50 g must be exchanged after, approx. 10- — 14 hours.

Instead of the F/Air Filter, you can also use the Aldasorber 1400 g unit. This Filter must be changed after approx. 40 hours of using.

Verify also the isoflurane level:  
It should be between the two white stripes:



If you need to fill it, please do it in this way:



Key filler



open the scroll



take away the metal rectangle



Take the bottle



fill, do not more than the higher level



The Combi-vet system can be used also with a humidification system mounted at the Dual Diverter. (This device is used for humidification for the lungs of the rodent).

At last, fill the oxygen humidificator with distilled water (blue bottle "eau distillée"):



Take it of



Screw open and fill it, then replace

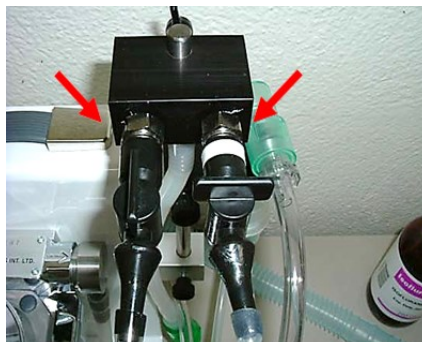


Blue bottle "eau distillée"

Close the "gas dispensers" on the right of the device:



Right valve perpendicular (close) and selector at the left parallel (open) to the tube :



Open the oxygen bottle; you do not need to open it completely, just few turns:  
The regulator should be between 30 (nearly empty) and 200 (full of oxygen).



Turn the scroll (**white knob**)  
**very gently and set to the column at 0.8**



Disinfect green box, table,  
mask... with ethanol 70%



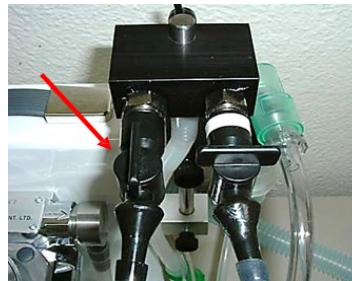
Then open the isoflurane dial at the vaporizer  
Push on the white button then turn until you are on 0:



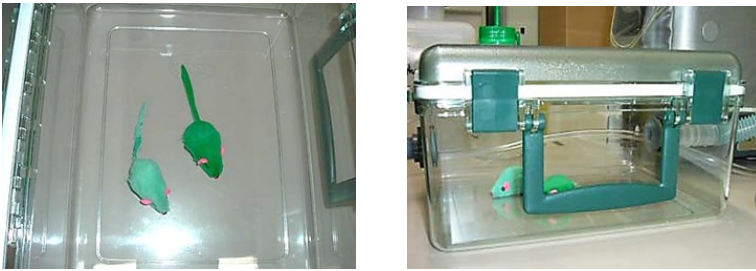
Then you can move the wheel  
without pushing the button:  
At 4.5 to 5 % it is induction  
Of anesthesia in the green box



Verify that on the left side of  
the selector is open:  
Let the one with the white stripe close



Then put quickly your mice in the box and close it properly:



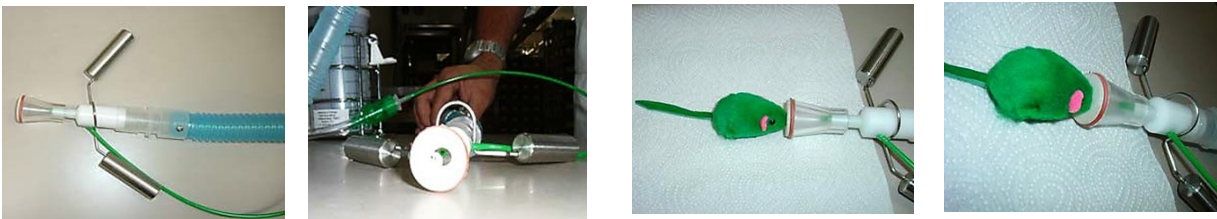
Wait for mice anesthesia, you will see by shaking softly the box if it is asleep:

It should fall on the side and if it is not completely anesthetized, it should try to recover sternal recumbency. If it is asleep, it will not move.

Then take the mouse out, put it on the table and verify that it is sleeping well with toe clipping: Softly press the toes between two fingers and if the mouse does not take off its leg, it is asleep.



Put the nose of the mouse in the little mask:



Change the selector: close the left and open the right one, with the white stripe:



Moreover, lower isoflurane to 1.5 to 2 %:





## YOU CAN DO NOW YOUR OPERATION, INJECTION...

TAKE CARE THAT MICE IS STILL BREATHING QUIETLY (AROUND 170 PER MINUTE, ~ 3 / SECOND)  
IF BREATHING IS LABORING AND AROUND 80 PER MINUTE  
(~ 1 / SECOND), MOUSE IS ON ISOFLURANE OVERDOSE, STOP IT IF OPERATION IS ENDED OR LOWER IT TO 1 %.

ANOTHER IMPORTANT POINT TO CONSIDER:

ISOFLURANE DOES NOT HAVE ANY ANALGESIC PROPERTY, SO FOR AN OPERATION (OBLIGATORY) OR A MANIPULATION POTENTIALLY PAINFUL, GIVE ANALGESICS.

YOU HAVE SEVERAL OPTIONS: OPIOIDS FOR PAINFUL OPERATIONS

CARPROFEN (NSAID) FOR LESS PAINFUL MANIPULATIONS THEN ACETAMINOPHEN IF PAIN IS MODERATED OR OPIOIDS IF PAIN IS STILL IMPORTANT

**REFER TO THE WEB, IF YOU NEED MOR HELP OR MORE DETAILED INFORMATION ABOUT ANESTHESIA.**

When finished, put the isoflurane on off:



Mouse will receive pure oxygen, it could help to recover more quicker.

Then close the oxygen on the bottle and open both tubes on the selector:



Then wait until the regulator shows "0" (empty)  
and the flowmeter ball is back on "0":

And disinfect box, table, mask... with ethanol:

