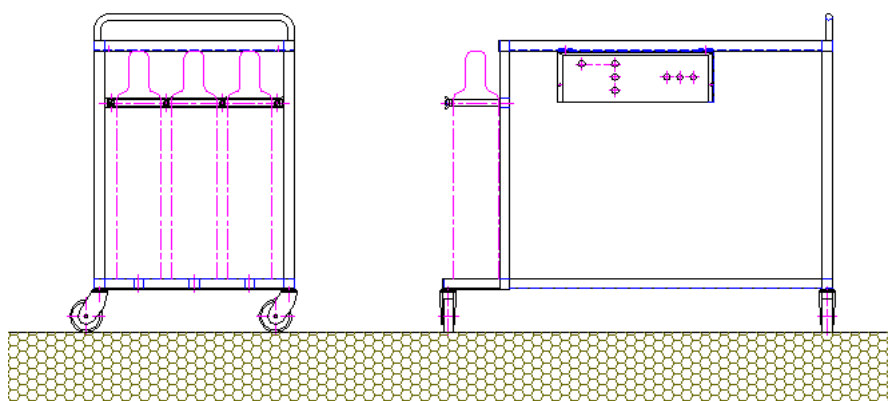


USER's Manual for the UNO Euthanasia UNIT

Serial Number	:
UNO Order Nr.	:
Supplied to	:
Customer's order-nr.	:
Delivery date	:

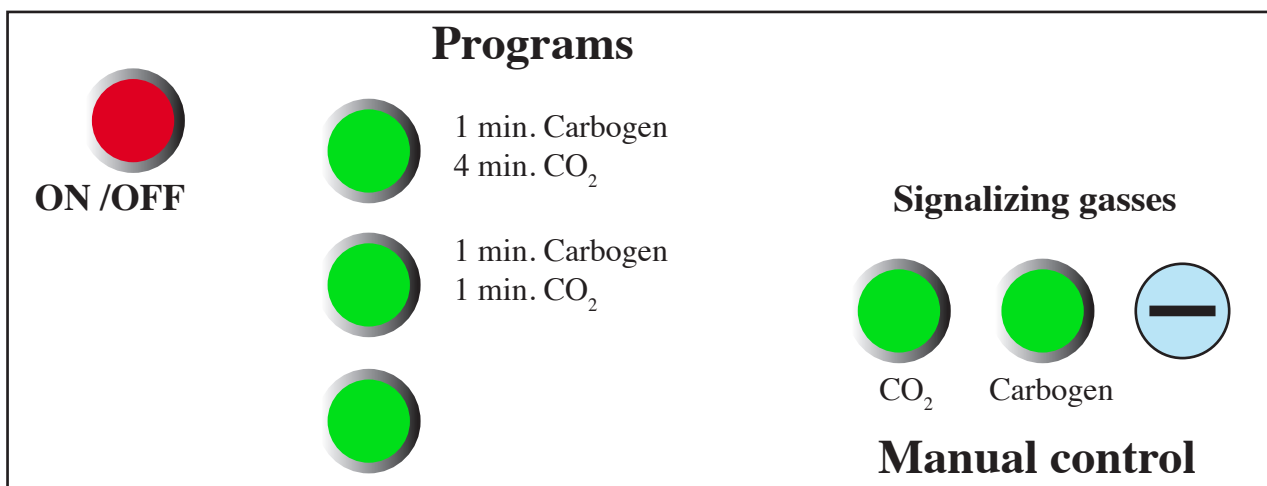
Before operating the UNO Euthanasia Unit, please read this manual!

- 1 On the trolley of the UNO Euthanasia Unit, 3 gasbottles can be placed and secured safely. One should at least place 1 gasbottle with Carbogen (mixture 95% O₂ + 5% CO₂) and 1 gasbottle CO₂ on the trolley and connect these. A third gasbottle could be a spare canister with CO₂ or a different kind of gas for special purposes.



- 2 The hoses on the UNO Euthanasia Unit are to be connected to the gasbottle by a so called 2-stage pressure reducing valve. With this pressure reducing valve you can reduce the outlet pressure of the bottle to $\leq 0,5\text{bar}$.
- 3 Plug the UNO Euthanasie Unit into a wall socket with earth (220V, 50Hz).
- 4 Switch on the UNO Euthanasie Unit, - see figure A.

Figure A.



- 5 Adjust the pressure of the gas supply - per gas -, this should be done by following the below mentioned procedure:

5a.

After the UNO Euthanasia Unit has been switch on by pushing the red button (Figure A.), the green button marked Carbogen (Manual control) is pushed. This will light-up, which means dat de valve for this gas is open.

Now open the 2-stage pressure reducing valve on the gasbottle with Carbogen and reduce the pressure to $\pm 0,5 - 1,0$ bar. (depending on the size of the “container”)

Now, again push on the green button Carbogen at the manual control. The green light will extinguish, showing that the valve for this gas is closed.

When the valve for the Carbogen closes, de pressure on the 2-way pressure reducing valve will go up because there is no longer a gasflow present.

NOTE:

Wenn the valve opens, you should hear a “click” of the magnet in this valve. In case that the light bulb in the green button is defect, you can still hear the valve opening up!

5b.

The procedure described under 5a, is now to be repeated for the CO₂ gas. For this gas you should also adjust the 2-way pressure reducing valve to $\pm 0,5 - 1,0$ bar. (depending on the size of the “container”)

5c.

After you have completed the procedures described in 5a and 5b the UNO Euthanasia Unit is ready for use.

6 **Programs;**

Program 1 (1 min. Carbogen / 4 min. CO₂)

This program is to be used to euthanise mice and rats in accordance with the procedure described below:

Procedure:

The UNO Euthanasia Unit contains a program that uses 2 different gasses meant to reduce the animal’s stress to a minimum, during the euthanasia proces of mice or rats.

During the euthanasia the following is important:

- The animal can stay in their cage, because the UNO Euthanasia Unit includes a transparant polycarbonate “container”, in which the complete rat- or mousecage can be placed.
- First, Carbogen gas is introduced at the bottom of the cage, by means of a PLC controlled valve. Carbogen is a gas mixture of 95% O₂ + 5% CO₂. This causes a high concentration O₂ in de cage and in the container, while the 5%-concentration CO₂ does not cause any reaction at the CO₂ receptors in the animal lungs. The SpO₂ level in the blood becomes maximal.
- After 1 min. the Carbogen flow is stopped and 100% CO₂ is introduced into the cage. In this way the high concentration O₂ is slowly replaced by CO₂. This relatively slow replacement of O₂ by CO₂ is responsable for the reduction of stress for the animal.

Program 2 (1 min. Carbogen / 1 min. CO₂)

This program is used for a very light anesthesia in mice and rats for very short procedures like f.i. bloodsampling.

- 7 Manual control;
The different gasses can be introduced into the container/cage separately from the programs.
It is NOT possible to introduce 2 gasses simultaneously!
- 8 RESET:
To shut down a program or cancel manual control - the particular button is to be pushed in again.
- 9 Safety:
It is not possible to run 2 programs and/or manual controls simultaneously.

Technical information:

Admissible temperature of surroundings: -0°C till +50°C (do not autoclave unit!)

Max. consumed power: 40 Watt

Voltage: 220/230 Volt~ at 50Hz

Malfunctioning;

Turn the UNO Euthanasia Unit off, disconnect the unit from the electrical power and close all the valves on the gasbottles.

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