

CO₂ Controller

CO2-2x

User Manual

SUPERTECH Instruments

Positioning of the CO₂ Controller is crucial in the aspect of vibration isolation. There are two rude vibration sources implemented in the CO₂ Controller equipment. They are a mixing fan and a gas transport pump. Please choose such a place for the CO₂ Controller equipment, which provides efficient separation of it from the vibration isolation table holding the microscope.

Steps of Installation

Set the pressure regulator on the CO₂ tank to a value between 1 and 2 Bar. Connect the outlet port of the regulator to the inlet port of the CO₂ Controller device (using PU 8/6 tubing).

Fill the humidifier with water to the desired level, approximately 2/3 of the bottle.

Connect the "OUT" port of the CO₂ Controller to the inlet port of the humidifier. Please keep the outlet and inlet ports of the humidifier bottle in mind.

Connect the outlet port of the humidifier to the inlet port of the incubator (marked with an arrow).

Connect the outlet port of the incubator to the "IN" port of the CO₂ Controller device. Open the output valve on the pressure regulator of the CO₂ tank.

Plug in the device and turn it on with the **MAINS** switch. The internal fan starts up and the screen turns on. The regulator is ready after about 5 seconds. The CO₂ concentration is set to 5% by default. The device measures CO₂ concentration starting at 2.5%, the display says 0% until the threshold is reached. The concentration rises up to 6% after the first CO₂ addition cycle. As the gases continue mixing the concentration drops, and as it gets below the set value, the device adjusts the dosing. Then the concentration stays between constant values.

To adjust the concentration push buttons **F** and **▲** or **▼** at the same time. Release **F** to save the current setting. This will be the new default the next time the device is switched on.

After the second cycle, the gas may be circulated through the incubator pushing the button **PUMP**. When setting a lower value than used previously, the CO₂ concentration drops faster if the incubator is opened.

Parameters

Output pressure: 3 - 18 mBar (depending on the water level in the humidifier)

Input CO₂ pressure: 1 - 2 Bar

Transmitted mixture quantity: 20 - 50 l/h

CO₂ concentration range: 2,5 - 20%