

# Stagetop Environment and Control

Control temperature and CO<sub>2</sub> on a microscope stagetop environment

## SYSTEM CONFIGURATIONS

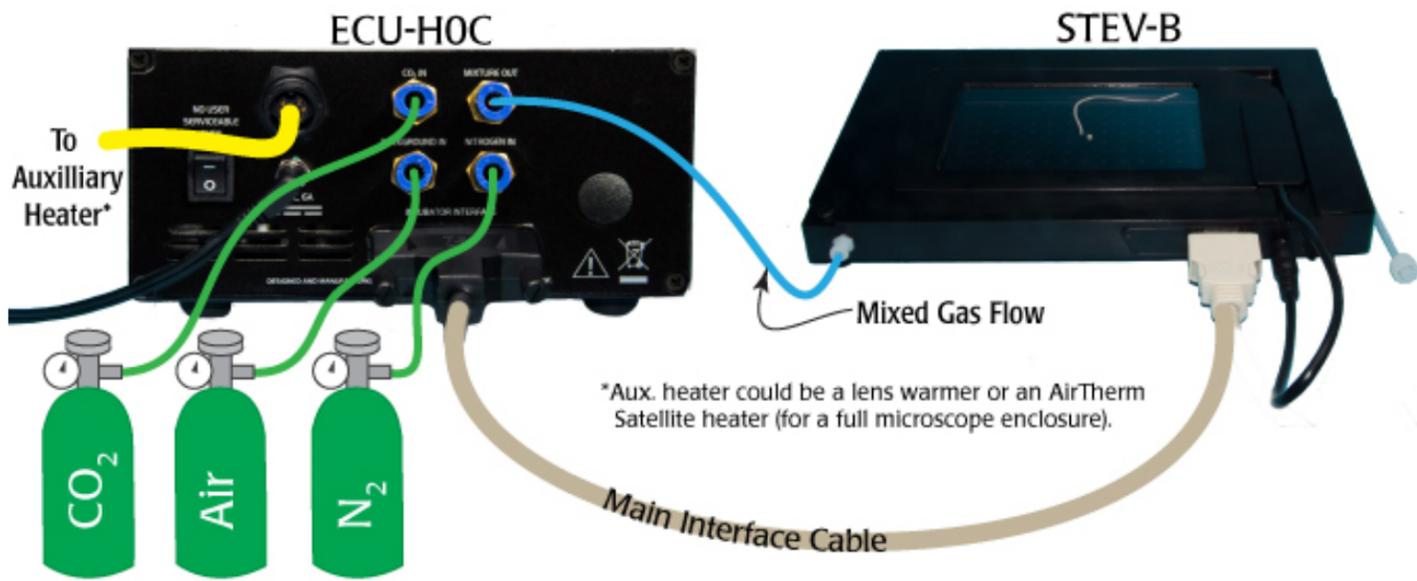


Fig. 1- The ECU-HOC connections

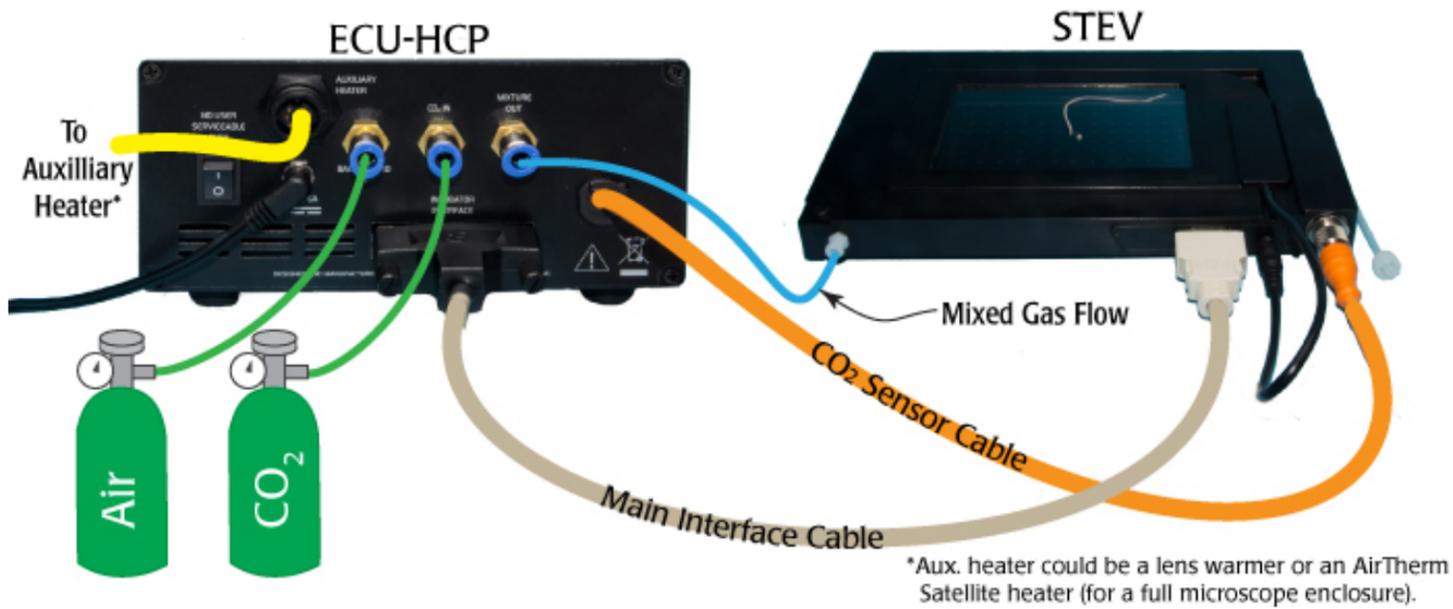


Fig. 2- The ECU-HCP connections

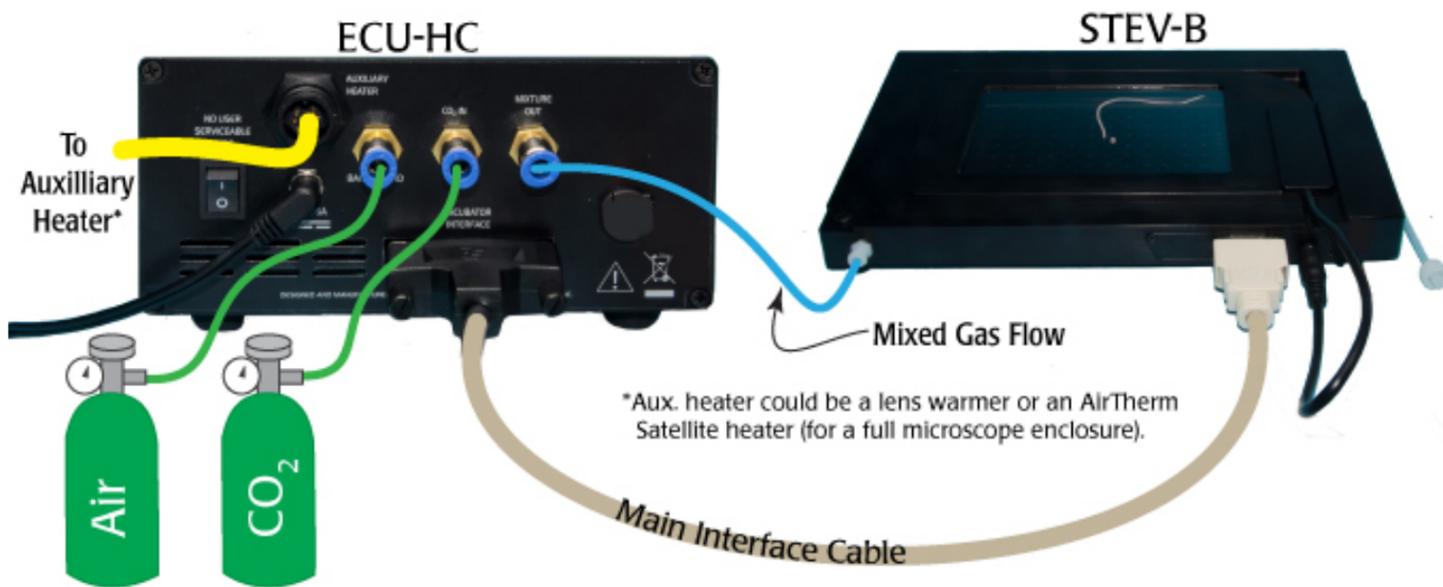


Fig. 3- The ECU-HC connections.



Fig. 4- The ECU-H5 connections

# Stagetop Environment and Control

Control temperature and CO<sub>2</sub> on a microscope stagetop environment

For short term or long term studies of living cell cultures under a microscope or for time lapse video research, a microscope stagetop incubator is essential.

Perfect for Live Cell Imaging, STEV (the stagetop environmental control system) is a compact environmental chamber that houses your culture wells and fits on a microscope stage.

This system offers precision control of temperature, carbon dioxide and oxygen, as well as remote control and data logging via a USB connection. The system is flexible and easy to configure for a variety of experimental conditions.

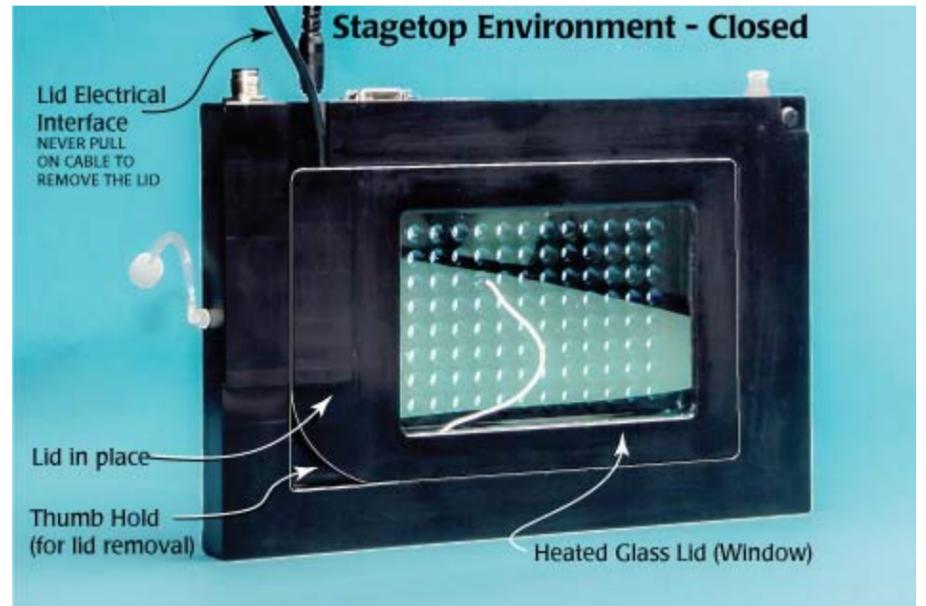
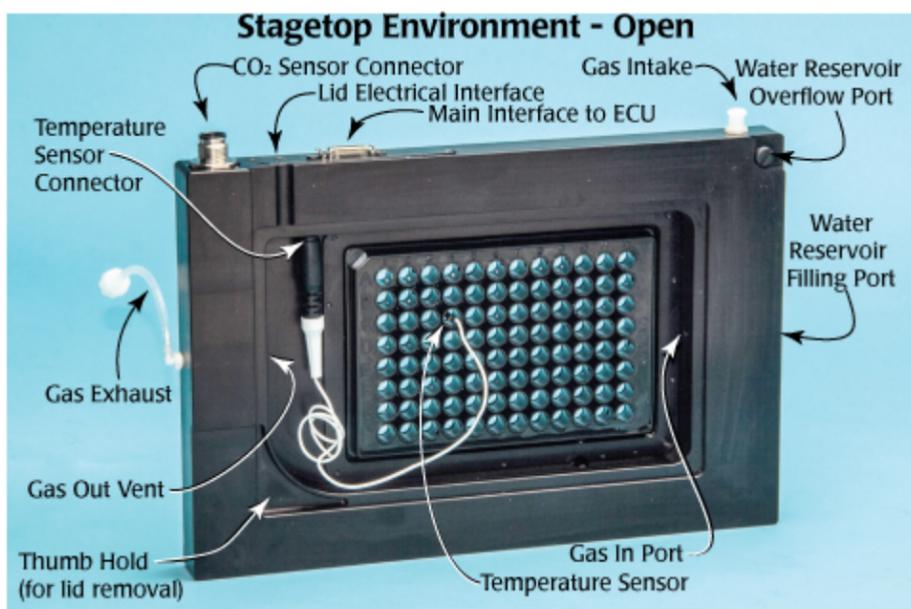
The system includes the Environmental Control Unit electronics, which use programmable loops to control airflow, temperatures of the case and the lid, and CO<sub>2</sub> and O<sub>2</sub> concentration within the environmental case.

## Stagetop System Configurations

- IV-ECU-H5** STEV, Controller with heat only
- IV-ECU-HC** STEV, Controller with CO<sub>2</sub> and heat
- IV-ECU-HCP** STEV, Controller with CO<sub>2</sub> and heat, external probe
- IV-ECU-HOC** STEV, Controller with CO<sub>2</sub>, O<sub>2</sub> and heat

## FEATURES

- Programmable digital control loops
  - Independent temperature PID control with  $\pm 0.1^\circ\text{C}$  precision for the incubator base, the incubator lid or an incubator well
  - CO<sub>2</sub> digital PID control with  $\pm 0.1\%$  precision
  - Airflow digital PID control from 0–900 SCCM
- USB-based remote control and data logging
- Electronic flow meter
- Programmable alarm for out of tolerance condition on all four channels
- Compact and lightweight



## System Options

- Objective lens warmer
- Well plate inserts
- SI-BF100 Biofluorometer for fluorescence imaging (Includes light, filtering and timing)



## QUOTATION INFORMATION

When ordering a system, please provide the following information.

Scope Mfg/Model \_\_\_\_\_  
 Stage Mfg/Model \_\_\_\_\_  
 Stage-piezo  Yes  No  
 Type \_\_\_\_\_  
 Manipulators  Yes  No  
 Type \_\_\_\_\_  
 Objective Oil Lens  Yes  No  
 Objective Heater  Yes  No  
 Stage Microfluidics  Yes  No  
 List Specimen Dishes Utilized: \_\_\_\_\_

Select Controller Model:  
 Heat 5% Premixed Tank  
 Heat, CO<sub>2</sub> Mixing  
 Heat, CO<sub>2</sub> Mixing with sensor probe in chamber  
 Heat, CO<sub>2</sub>, O<sub>2</sub>  
 Imaging Requirements for SI-BF100:  
 Power  110V  240V  
 Dyes used \_\_\_\_\_  
 Excitation (nm) \_\_\_\_\_  
 Emission (nm) \_\_\_\_\_



A complete stagetop environmental control system includes the ECU (heat/CO<sub>2</sub> controller), and the STEV stagetop environment.