


# Cortex Gas Analyser User Guide

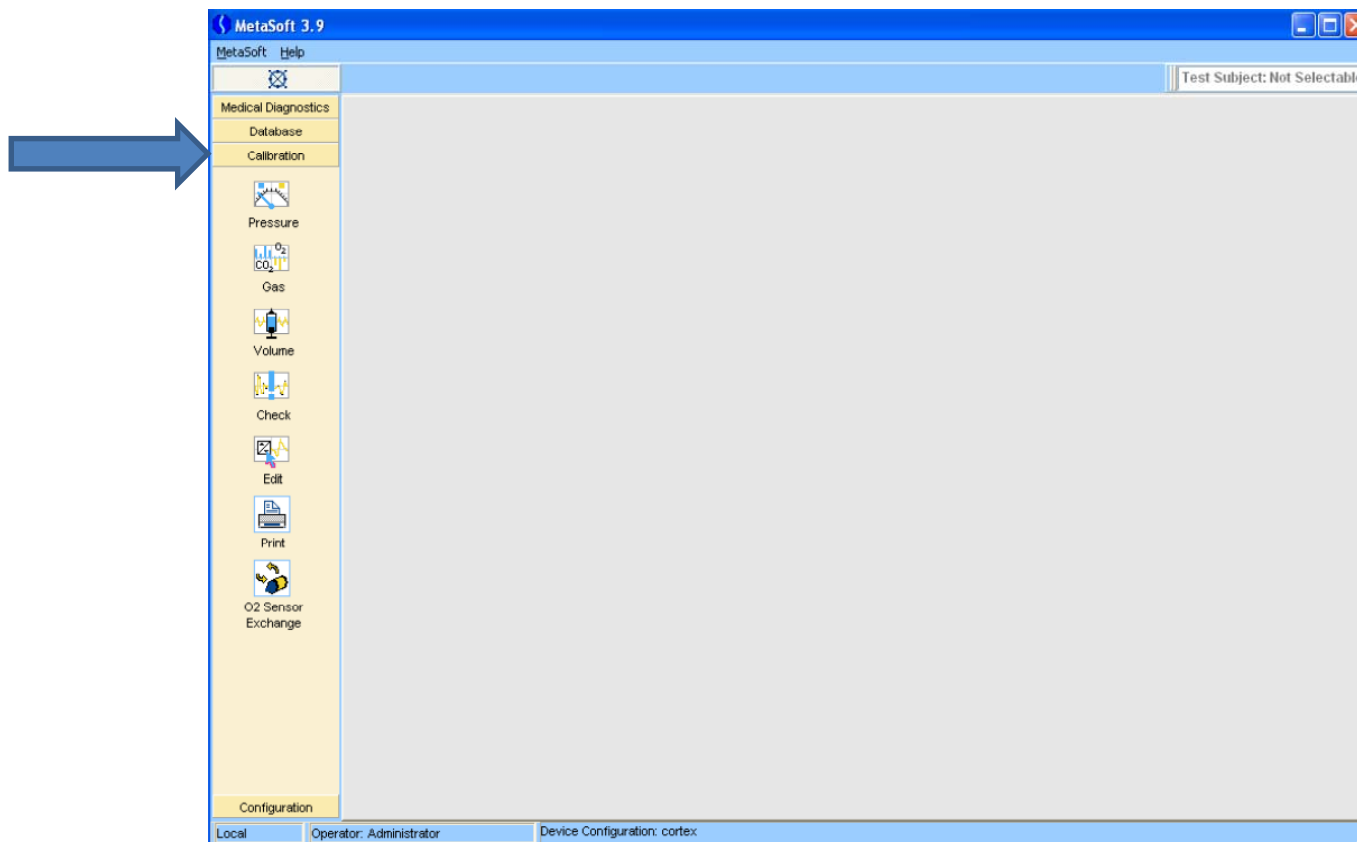


# Initial Setup

- Power on Cortex 15 minutes prior to calibrating to warm up sufficiently
- Equipment required:
  - Face mask
  - Head net
  - Heart rate monitor
  - Calibration gas canister
  - Mouthpiece turbine

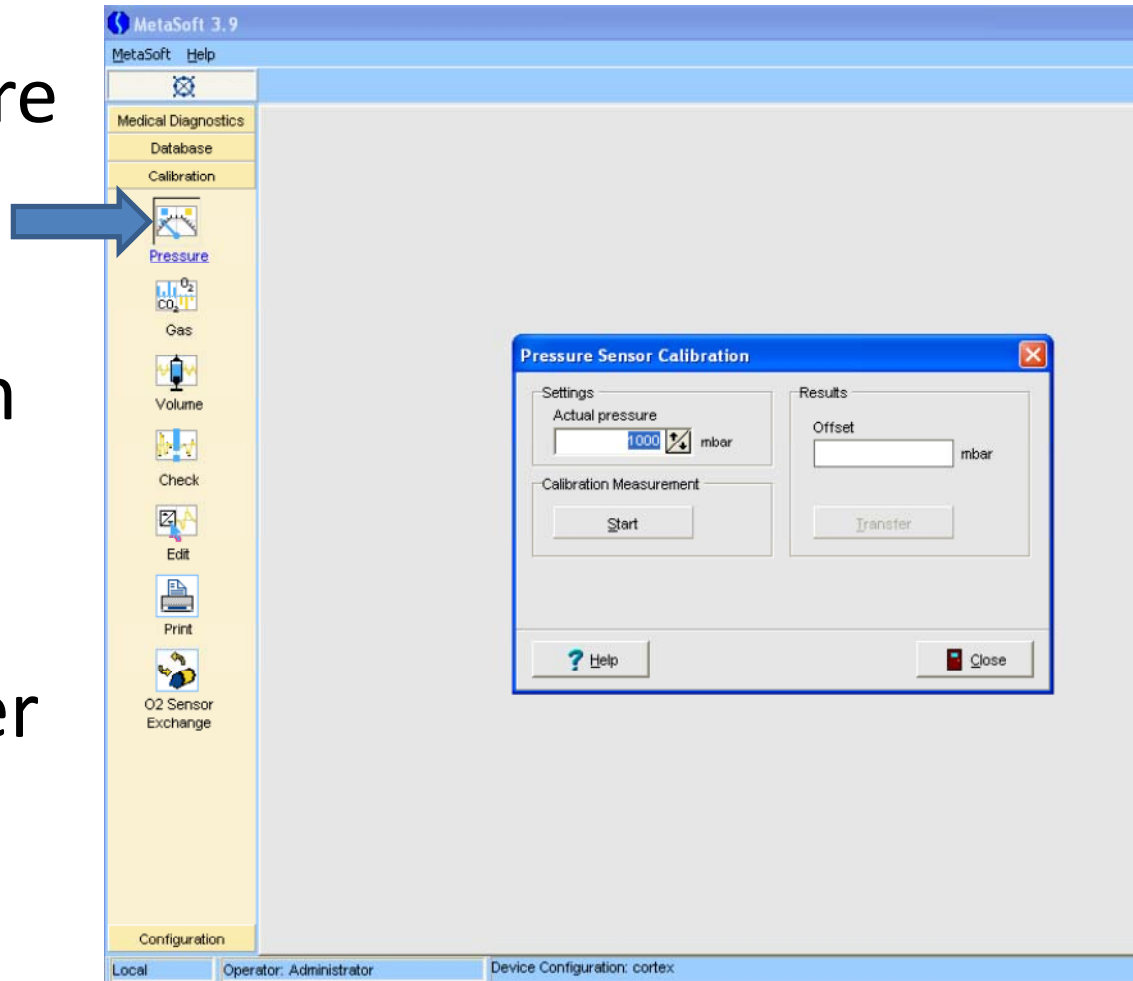
# Metasoft Setup

- Load Metasoft 3 program, icon on desktop 
- Select calibration tab



# Pressure Setup

- Select Pressure Tab
- Enter Room Pressure from barometer
- Select Start
- Select Transfer
- Close once complete



# Gas Calibration

- Select Gas tab

The screenshot displays the MetaSoft 3.9 software interface. On the left, a vertical sidebar contains several tabs: Medical Diagnostics, Database, Calibration, Pressure, Gas, Volume, Check, Edit, Print, O2 Sensor Exchange, and Configuration. A blue arrow points to the 'Gas' tab. The main window area shows a 'Gas Sensor Calibration' dialog box with the following sections:

- Settings:** Gas 1 is set to 'Ambient Air (O2: 20.93 / CO2: 0.03 Vol%)' and Gas 2 is set to 'cal gas (O2: 17.05 / CO2: 4.98 Vol%)'. An 'Edit Span Gases...' button is present.
- Calibration Measurement:** A graph area with a 'Time' label and a horizontal pink line. Below the graph are buttons for 'Start Gas 1' and 'Start Gas 2'.
- Results:** A table for recording calibration data.

	O2	CO2
Factor	<input type="text"/>	<input type="text"/>
Offset	<input type="text"/>	<input type="text"/>

At the bottom of the dialog box are 'Help' and 'Close' buttons. The status bar at the bottom of the main window shows 'Local', 'Operator: Administrator', and 'Device Configuration: cortex'.

# Gas calibration

- Place gas sensor in open air
- Select Start Gas 1, dots will appear on the two lines and wait until calibration is complete



Gas Sensor

MetaSoft 3.9

Medical Diagnostics

Database

Calibration

Pressure

Gas

Volume

Check

Edit

Print

O2 Sensor Exchange

Configuration

Local Operator: Administrator Device Configuration: cortex

### Gas Sensor Calibration

Settings

Gas 1: Ambient Air (O2: 20.93 / CO2: 0.03 Vol%)

Gas 2: cal gas (O2: 17.05 / CO2: 4.98 Vol%)

Calibration Measurement

Time 0:00:40

Stop Start Gas 2

Results

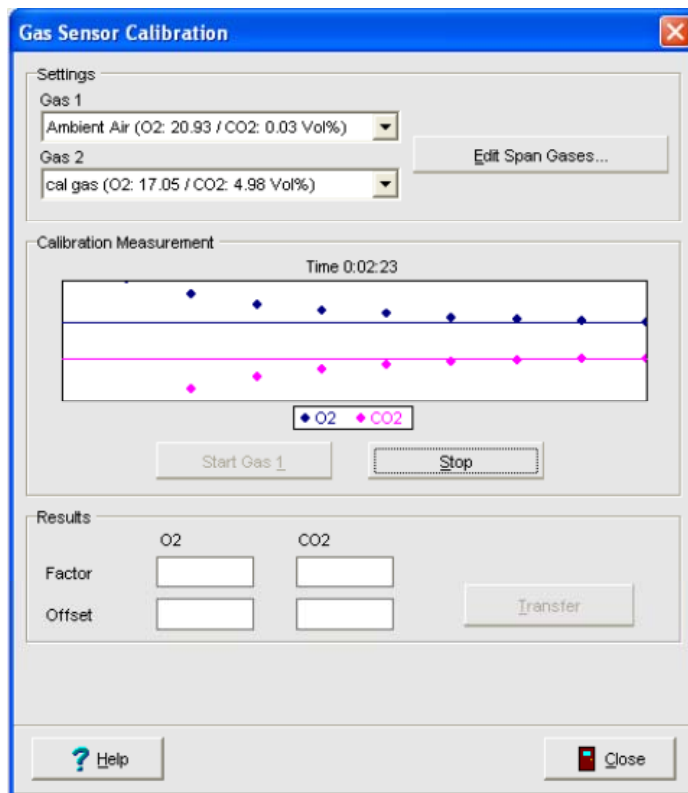
	O2	CO2
Factor	<input type="text"/>	<input type="text"/>
Offset	<input type="text"/>	<input type="text"/>

Transfer

Help Close

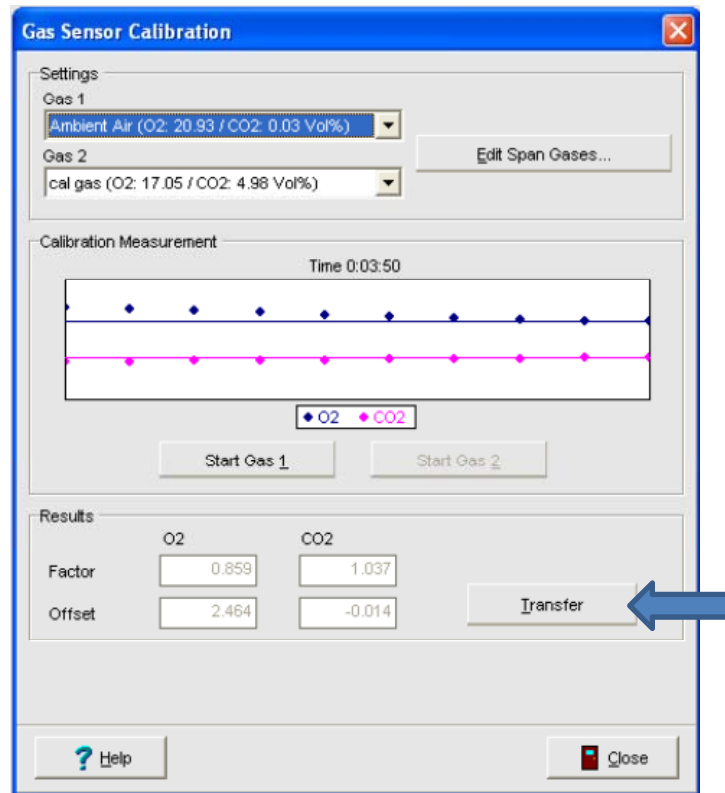
# Gas Calibration

- Connect gas sensor to gas bottle
- Select Start Gas 2



# Gas Calibration

- Once complete select transfer and close





# Turbine and Sensor Connection

- To connect both parts, twist the bottom of the turbine until the small ridge at the bottom is almost totally obscured
- Then slide in the sensor and twist the bottom of the turbine once again to lock it in place. Note the groove in the sensor needs to be facing the bottom of the turbine



Locking groove

Sensor



Twist this part

Turbine