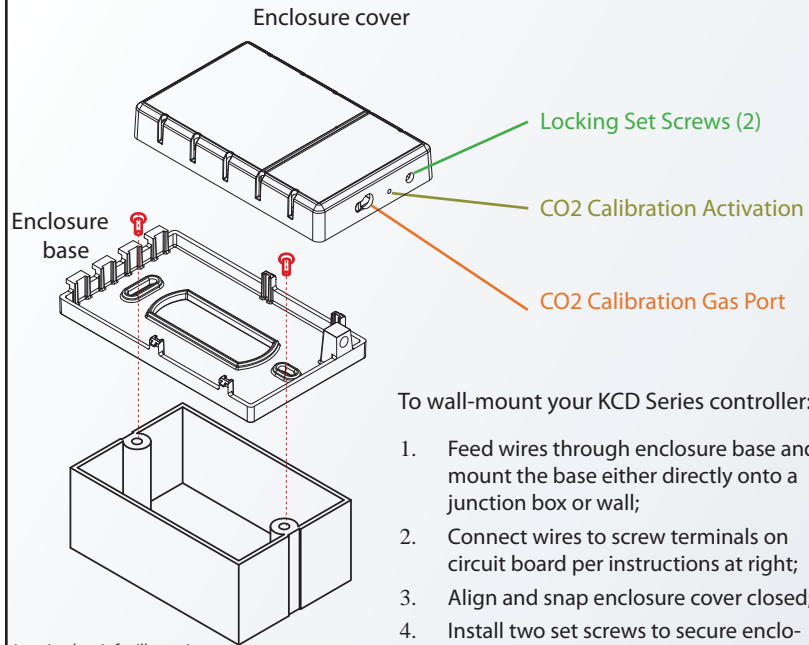
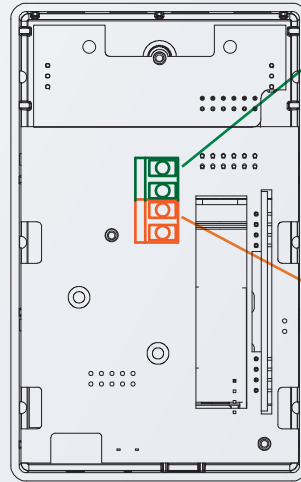




## KCD Wall Mount Wiring and Calibration Instructions



Junction box is for illustration purposes: not included with KTS



Power input  
18-30 VDC  
18-28 VAC  
(polarity matters for VDC only)

Outputs available in either  
Voltage (0-10V) or Current (4-20mA)

All '-' terminals are electrically  
connected, but isolated from  
power supply.

Output	Sensors
Output 1	CO2

### Warning And Alarm Indication

Sensors	Warning level LED is YELLOW relay actuates (if equipped)	Alarm level LED is RED beeper sounds (if equipped)
CO2	1000 ppm	2000 ppm

### Analog Output Scaling

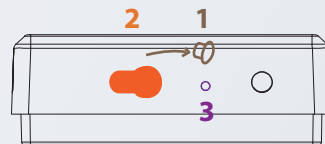
Sensors		CO2 ppm
Current Output	4 mA	0
	12 mA	1000
	20 mA	2000
Voltage Output	0 Volts	0
	5 Volts	1000
	10 Volts	2000

### Calibration-Kit

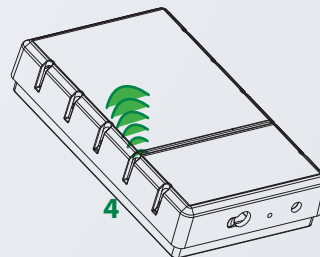


Your sensor comes factory-calibrated and does not need to be calibrated upon initial installation. Calibration kits are available.

### CO2 Calibration Procedure



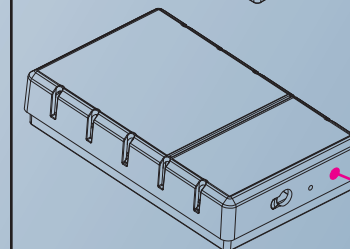
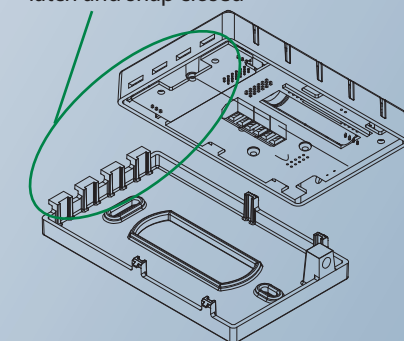
Bottom Side



Isometric View

1. Temporarily remove dust cover from left side of enclosure cover.
2. Place 2000 PPM CO2 calibration gas tube in side port and slide onto the fitting inside. Turn on gas.
3. Allow calibration gas to flow for one minute, then use a 1/16" allen wrench (or equivalent) to depress switch (inside hole 3 at left) for 5 seconds. LED will blink **yellow**.
4. After **5 minutes** the LED will **blink green**. The calibration process is completed.
5. Press and hold switch (labeled 3 at left) to accept calibration. The LED will turn **solid green** after only a few seconds, indicating that calibration is complete.
6. At this point it is safe to turn off gas and remove gas tubing from calibration port.
7. When calibration is complete, replace dust cover on gas calibration port.

Align top and bottom  
latch and snap closed



Once lid closed, insert set-  
screws to secure enclosure  
cover.  
Requires 3/32" Allen wrench.

Introduction

The KCD Series is a non-dispersive infrared analyzer for measuring environmental CO2 concentration in ventilation systems and indoor living spaces. Its measurement range of 0 - 2000 ppm (parts per million; 1000 ppm = 0.1%) covers the range required to monitor compliance with ASHRAE or other ventilation efficiency standards. The KCD comes configured for:

- Wall or duct-mounting;
- Voltage or 4-20mA outputs

A simple one-point calibration procedure and a built-in calibration port that requires no special fittings or adapters make the KCD simple to operate and maintain.

Displays and Indicators

The KCD Series includes a single tri-color LED on the front panel which illuminates whenever the unit is operating. This LED indicates:

- **Green** -> all sensor/s at normal levels
- **Yellow** -> one or more sensors at Warning levels
- **Red** -> one or more sensors at Alarm level
- **Blinking Red** -> one or more sensors have failed



CARBON DIOXIDE SENSOR (CO2)	
Parameter	Value
Operating Principle	Non-dispersive infrared (NDIR)
Gas Sampling Method	Diffusion
Measurement Range	0-2000 ppm (Other ranges available by request)
Repeatability	± 20 ppm CO2
Measurement Accuracy	± 30 ppm ± 2% of reading
Recommended Calibration Interval	5 years
Warm Up Time	Less than 1 minute
Power Requirements	18 - 30 VDC or 18 - 28 Vrms AC
Operating Temperature Range	0 - 50 °C
Operating Humidity Range	0 - 99% RH, non-condensing
Voltage Output (linear)	0 - 10 VDC full-scale standard
Optional Current Output (linear)	4-20 mA R <sub>LOOP</sub> < 600 Ω
Calibration	ONE Point : Single-button calibration (Patented)
Dimensions	4.5 x 2.8 x 0.9 inches

