

# Installer's Guide

**CO2K-IN-2  
18-HF60D13**

**Customer Property: Contains wiring and service information. Please retain.**

Library	Service Literature
Product Section	Unitary
Product	Unitary Accessories
Model	CO <sub>2</sub> Sensing Kit
Literature Type	Installer's Guide
Sequence	2
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Supersedes	CO2K-IN-2 4/03

## Models :

## Used With:

## CO<sub>2</sub> Sensing Kit

BAYCO2K002A  
ASYSTAT713A

TC/YC\*150 - 301 with Reliatel Controls  
WC\*150 - 240 with Reliatel Controls

BAYCO2K004A  
ASYSTAT715A

TC/YC\*150 - 301 with Reliatel Controls  
WC\*150 - 240 with Reliatel Controls

## General

An economizer or motorized damper must be installed and functional before attempting to install a CO<sub>2</sub> Sensing Kit.

These sensors detect and control the carbon dioxide level in the conditioned space by measuring CO<sub>2</sub> concentration, comparing it with a user-adjustable set point and sending a corresponding control signal to the economizer module. This causes the economizer damper to be positioned so that sufficient fresh air is introduced into the conditioned space to reduce and maintain the CO<sub>2</sub> concentration to a minimum level as selected by the user.

## Inspection

1. Unpack all components of the CO<sub>2</sub> Sensing kit.
2. Check carefully for any shipping damage. If any damage is found it must be reported immediately and a claim made against the transportation company.

## Parts List

CO2 Sensor as Follows:

BAYCO2K002A:

ASYSTAT713A:

- 1 - CO<sub>2</sub> Demand-Controlled Ventilation Wall-Sensor ( 4190 4100) with instructions and mounting hardware.

BAYCO2K004A:

ASYSTAT715A:

- 1 - CO<sub>2</sub> Demand-Controlled Ventilation Duct -Sensor (4190 4101) with instructions and mounting hardware.

- 1 – Wire Harness with Low Voltage Terminal Board, for CO<sub>2</sub> & Ventilation Override

- 2 - #8-32 Screws for mounting LTB

- 1 – “CO<sub>2</sub> Kit Has Been Installed” Label

## Installation



### **WARNING** **Hazardous Voltage!**

**Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. Failure to disconnect power before servicing could result in death or serious injury.**

1. Remove Compressor/Control box access panel, Return air/Filter access panel and Fan access panel.  
See Figure 2

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***Note: BAYCO2K002A, BAYCO2K004A and BAYVNOR002A contain identical harnesses. If at least one of these accessories has previously been installed, skip to step 3.***

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2. Place the harness provided with the kit into the unit control box and install the Low Voltage Terminal Board (LTB) attached to the kit. Place the LTB in the lower right hand corner of the unit control box and secure with the 2 # 8 screws provided using the two existing 0.136" diameter holes in the control box. See Figure 2
3. Route the remainder of the wires in the kit harness through the control box, pull them through the large hole in the far left side of the control box and then through the hole in the divider panel.
4. If a ReliaTel™ options module (RTOM) has been installed in the unit (accessory BAYABRD002A), connect wires 124A (BLK), 125A (BLK) and 126A (BLK) to the RTOM J6. See Figure 3. If an RTOM has not been installed, cover the ends of these wires with insulating tape for future use.
5. Route P28 plug and wires 120A (BLK) and 121A (BRN) along the bottom of the raceway in the supply fan section and then through a hole with a star bushing in the top coil blockoff. Pull the P28 plug and wires 120A (BLK) and 121A (BRN) into the filter section. See Figure 2
6. Connect P28 plug to the jack marked "DCV" on the economizer module per Figure 2.
7. Apply "BAYCO<sub>2</sub> Kit Has Been Installed" Label next to the main unit wiring diagram label.
8. Install CO<sub>2</sub> sensor in conditioned space or return air duct according to instructions packed with the sensor.
9. Make field wiring connections to LTB installed above per CO<sub>2</sub> and Ventilation Override wiring diagram.  
See Figure 1
10. Route low voltage external field wiring along with and secure to existing low voltage zone sensor or thermostat wiring.

## Unit Close up

1. Replace Filter/Coil access panel.
2. Replace Supply fan access panel.
3. Replace Compressor/Control box access panel.

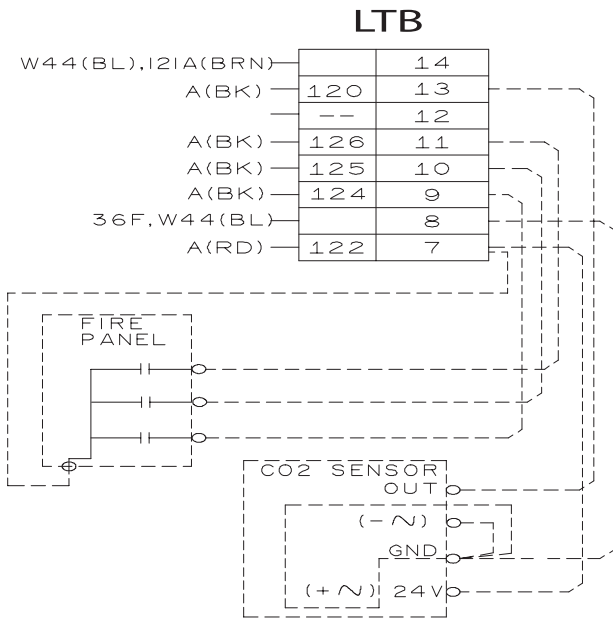
## CO<sub>2</sub> Sensor Connections for ReliaTel Units With Economizer

CO<sub>2</sub> setpoint adjustment  
DVC setpoint potentiometer on economizer module can be adjusted as follows:  
0% - 500ppm  
50% - 1000 ppm  
100% - 1500ppm

### Operation

The outside air damper will modulate from minimum position setting to up to 100% while attempting to maintain the CO<sub>2</sub> setpoint.

**Figure 1**



**Figure 2**

