SCO2-W (Wall Mount)

Carbon Dioxide Control for TRC500 & TRC800

Installation, Operation, and Maintenance Manual

READ AND SAVE THESE INSTRUCTIONS

The purpose of this manual is to aid in the proper installation and operation of fans manufactured by S&P. These instructions are intended to supplement good general practices and are not intended to cover detailed instruction procedures, because of the wide variety and types of fans manufactured by S&P.

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Soler&Palau Ventilation Group

Installation Instructions

SCO2-W

1. WARNINGS

READ AND SAVE THESE INSTRUCTIONS. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE!

WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR INJURY, OBSERVE THE FOLLOWING:

1. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
2. Before installing, servicing or troubleshooting the transformer/relay package, switch power off at service panel and lock service panel to prevent power from being switched onaccidentally. CAUTION: more than one disconnect switch may be required to de-energize the equipment for servicing.
3. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
4. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
5. NEVER place a switch where it can be reached from a tub or shower.
6. Intended for use with 24VAC Class 2 power supplies only.

2. INSTRUCTIONS

These instructions cover only on-off control through the Relay Contacts. Two control parameters need to be set: **Relay Setpoint** and **Relay Hysteresis.**

When the control measures a CO_2 concentration above the **Relay Setpoint**, it will call for the ERV to operate. When the CO_2 concentration has dropped below the **Relay Setpoint** minus the **Relay Hysteresis**, the control will stop calling for ERV operation.

Selection of proper **Relay Setpoint** and **Relay Hysteresis.**

Relay Setpoint: Factory setpoint is 1000ppm. When the engineer responsible for designing the ventilation system has specified at what CO_2 concentration outside air ventilation should begin, set the Relay Setpoint accordingly.

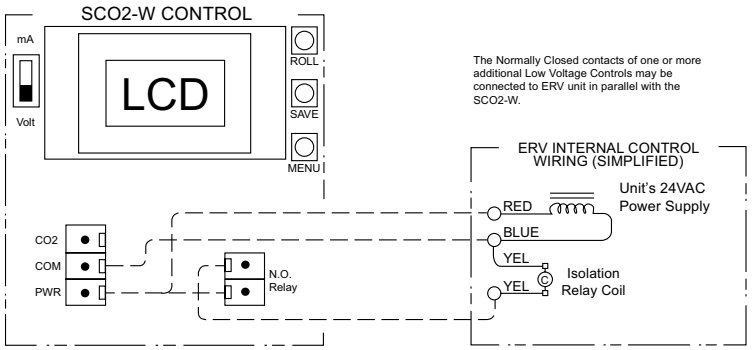
The factory setpoint of 1000ppm is based on a typical value of 300ppm CO_2 concentration in the outside air plus 700ppm. For many applications, a Relay Setpoint of 700ppm above the outside air concentration will result in the ERV system (if properly sized) delivering a time-averaged value of 15 CFM of outside air per person[1]. If the ERV is cycling off regularly, but the time-averaged ventilation rate is below requirements, reduce the Relay Setpoint. In some areas the outside air CO_2 concentration may be above 300ppm; if so, increase the Relay Setpoint accordingly in order to prevent the controller from calling for too much outside air.

Relay Hysteresis: Factory setpoint is 50ppm. This setting is generally recommended. Increase the Relay Hysteresis if ERV short-cycling occurs.

For information on how to recycle this product, see www.recyclethis.info

[1] See ASHRAE Standard 62.1-2010 *Ventilation for Acceptable Indoor Air Quality, Informative Appendix C* for more information.

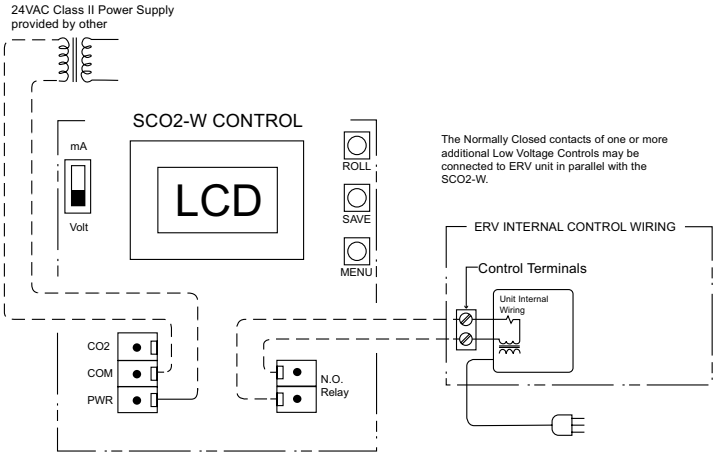
2 SCO2-W Control connected to Soler & Palau TRC-series commercial ERV with on-board 24VAC power (Pigtail connections).



This schematic applies to TRC500 & TRC800 models.

Due to cotinuing product development, specifications are subject to change without notice.

1 SCO2-W Control connected to Soler & Palau TRC-series residential ERV.



This schematic applies to TR90, TR90G, TR130, TR200, and TR300 models only.

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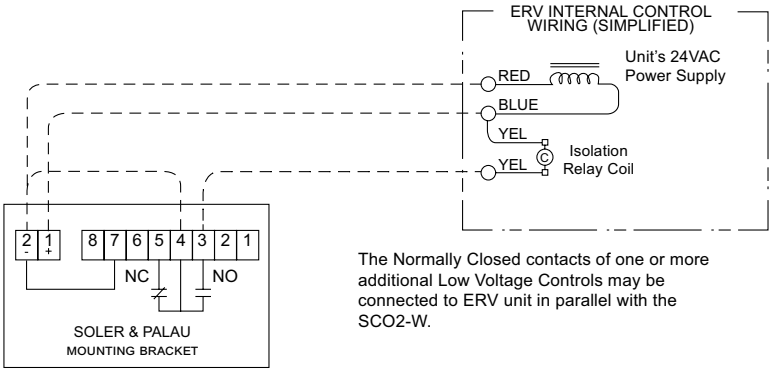
Connection to mounting bracket:

SCO2-W Control connected to Soler & Palau TRC-series commercial ERV with on-board 24VAC power (Pigtail connections).



The Normally Closed contacts of one or more additional Low Voltage Controls may be connected to ERV unit in parallel with the SCO2-W.

This schematic applies to TRC500 and TRC800 models.

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