

DRI-ECO-CO2

CO2 Sensor For Use With RF Enabled Hall Control DRI-ECO Units Installation Manual



1.0 SAFETY INFORMATION

- This appliance should not be used by children or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning the safe use of the appliance by a person responsible for their safety. Children shall not play with the appliance. Cleaning and user maintenance shall not be carried out by children.
- The provision of the electrical supply and the connection of the unit to the mains must be carried out by a qualified electrician.
- Isolate from power supply before removing any covers. During installation / maintenance ensure all covers are fitted before switching on the mains supply.
- All-pole disconnection from the mains as shown in the wiring diagram must be incorporated within the fixed wiring and shall have a minimum contact separation of 3mm in accordance with latest edition of the wiring regulations.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

1.1 Hazard Symbols



GENERAL WARNING

Signifies a general warning regarding hazard specified by supplementary information.



REFER TO INSTRUCTION MANUAL

Read and understand the installation and maintenance manual before installing, operating or maintaining this product.

1.2 Important Information

This manual contains important information on the safe and appropriate assembly, transport, commissioning, operation, maintenance, disassembly and simple troubleshooting of the product.

While the product has been manufactured according to the accepted rules of current technology, there is still a danger of personal injury or damage to equipment if the following general safety instructions and the warnings contained in these instructions are not complied with.

- **Read these instructions completely and thoroughly before working with the product.**
- **Keep these instructions in a location where they are accessible to all users at all times.**
- **Always include the operating instructions when you pass the product on to third parties.**

1.3 Personal Protective Equipment

The following minimum Personal Protective Equipment (PPE) is recommended when interacting with Nuairé product:

- **Protective Steel Toed Shoes** - when handling heavy objects.
- **Full Finger Gloves (Marigold PU800 or equivalent)** - when handling sheet metal components.
- **Semi Fingerless Gloves (Marigold PU3000 3DO or equivalent)** - when conducting light work on the unit requiring tactile dexterity.
- **Safety Glasses** - when conducting any cleaning/cutting operation or exchanging filters.
- **Reusable Half Mask Respirators** - when replacing filters which have been in contact with normal room or environmental air.

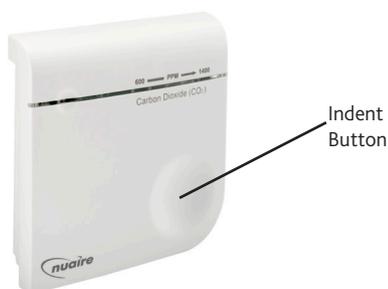
Nuairé would always recommend a site specific risk assessment by a competent person to determine if any additional PPE is required.

2.0 INSTALLATION

Installation must be completed by competent persons, in accordance with good industry practice and should conform to all governing and statutory bodies i.e. IEE, CIBSE, etc.

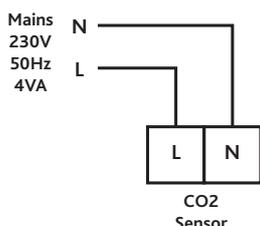
The CO2 sensor requires a 230V power supply. The front panel of the CO2 sensor must first be released by pressing in the plastic fixing lug located on the bottom edge of the sensor. The panel may now be removed allowing access to complete the sensor wiring. Finally the sensor should be mounted on the wall in a suitable location (screws not provided).

1 DRI-ECO-CO2



2.1 Wiring Diagram

2 DRI-ECO-CO2 Wiring



2.2 Binding Unit To Sensor

Where a CO2 sensor is present, it must first be bound to the fan unit before it can work. In order to bind the sensor(s) the fan must be in binding mode.

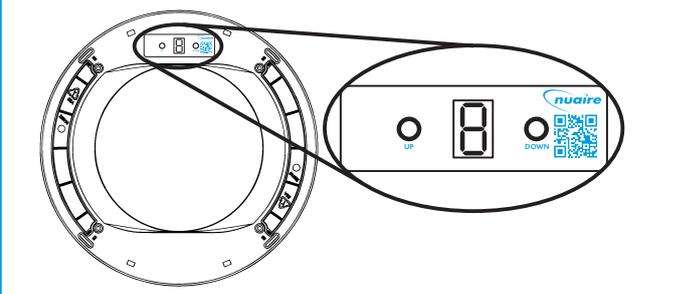
2.2.1 Unit Binding Mode

The steps required to enter the unit into binding mode are:

- Ensure the fan unit is powered on.
- Unit will enter the start-up sequence for 2 minutes when first powered on. Press the down button on the ceiling diffuser control panel once, to exit the start-up sequence.
- Press and hold the both the UP and DOWN buttons for 20-30 seconds then release. A single horizontal bar on the display flashes.
- Press "down" to enter binding mode (binding mode lasts for 5 minutes).The unit will now display a flashing 'b' to indicate it has entered binding mode.

A solid "P" indicates purge, a solid "b" indicates boost, and a flashing "b" indicates binding mode.

3 Drimaster Diffuser Control



2.2.2 Binding Sensor

Putting the unit into binding mode (Section 2.1) before powering the sensors will automatically bind the sensors to the unit. However if they do not bind follow the below steps.

- Put the unit into binding mode.
- Power up sensors (insert batteries for humidity, mains for CO2).
- Tap indented button then hold until left hand LED flashes red/ green (ignore red/blue and continue to hold). Release button whilst flashing.
- Tap indented button again, whilst red/green LED is still flashing.
- Close binding window on fan control panel by holding both "up" and "down" for 5 seconds and release.
- Check sensor has bound by tapping indented button and look for left hand LED to go green. If it displays red, repeat from step 1.

2.3 RF Frequency

RF enabled DRI-ECO devices operate at a frequency of 868.3 MHz.

3.0 CONTROLS

3.1 Sensor Setpoint

The sensors will automatically trigger the fan to increase speed once the sensor set point has been exceeded. To change the sensor set point, press and hold the indent button until the status indication LED flashes BLUE/RED then release, the green LED's illuminate to show the current sensor set point. Press the button to cycle through all allowed values, and press and hold to confirm choice. If the button is not operated for 10 seconds the set point currently selected is stored.

Boost (Sensor) - If a sensor set point has been exceeded, the unit will enter boost mode and a solid 'b' will be shown in the display. Boost mode increases the speed setting by 1. If the unit is running at speed 6, boost is ignored (i.e. A unit is running at speed 3. A boost signal is received from a sensor whereby the speed changes to 4. When the boost condition clears, the unit will revert to speed 3).

3.2 LED Indication

The sensors and switches include an LED which illuminates when a button is pressed. A green light shows that communication between the sensor or switch and the fan unit is taking place. A red light shows that no communication is taking place and binding may be required.

4.0 MAINTENANCE

It is important that maintenance checks are recorded and that the schedule is always adhered to, in all cases, the previous report should be referred to.

4.1 Routine Maintenance

This sensor can be cleaned with a dry brush or dry cloth. Any other maintenance or cleaning should be carried out by properly qualified personnel.

Ensure the unit does not come into contact with any kind of liquid or solvent. If this should occur, contact a qualified technician before reassembling the fan.

5.0 WARRANTY

The 7 year warranty starts from the day of delivery and includes parts and labour for the first year. The remaining period covers replacement parts only.

This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled, or not installed, commissioned and maintained in accordance with the details contained in this manual and general good practice.

The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Nuair International Sales office for further details.

Failure to maintain the unit as recommended will invalidate the warranty.

6.0 END-OF-LIFE AND RECYCLING

Where possible Nuair use components which can be largely recycled when the product reaches its end-of-life:

- Fans, motors, controls, actuators, cabling and other electrical components can be segregated into WEEE recycling streams.
- Sheet metal parts, aluminium extrusion, heating/cooling coils and other metallic items can be segregated and fully recycled.
- EPP, plastic ducting, nylon corner pieces, plastic heat exchangers, packaging material and other plastic components can be segregated into mixed plastic and widely recycled.
- Cardboard packaging, wood, used filters and other paper components can be largely recycled or fully processed in energy from waste centres.
- Remaining Items can be further segregated and processed in accordance with the zero waste hierarchy. Please call After Sales Support for further information on items not listed above.

Ensure that Nuair product is made safe from any electrical / water / refrigerant supplies before dismantling commences. This work should only be undertaken by a qualified person in accordance with local authority regulations and guidelines, taking into account all site based risks.

7.0 AFTER SALES AND REPLACEMENT PARTS

For technical assistance or further product information, including spare parts and replacement components, please contact the After Sales Department.

If ordering spares please quote the serial number of the unit together with the part number, if the part number is not known please give a full description of the part required. The serial number will be found on the identification plate attached to the unit casing.

Telephone 02920 858 400
aftersales@nuaire.co.uk



