CELECT

DRF.5

RF Programmable Thermostat
for
7 days Setting

CORONDO CONTROLS LTD
BOLTON BL1 2PT
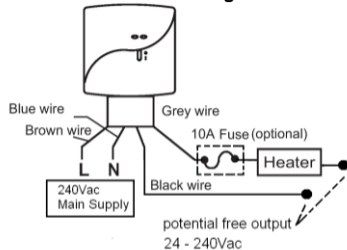
www.coronadocontrols.com

Instruction Manual

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L. Terminal block Connecting Label:

Wire Connections
Brown: Permanent 240Vac
Blue: Neutral 240Vac
Black: 24 - 240Vac potential free output
Grey: 24 - 240Vac potential free output

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K. Specification

Frequency:	868Mhz
Temperature Measurement:	0°C~40°C
Accuracy:	±0.5°C
Temperature Controllable Range:	5°C~35°C
Resolution:	0.5°C
Power Supply:	2 x AAA alkaline batteries
Operating Temperature:	0°C~50°C
Storage Temperature:	-5°C~50°C
Sensing Element:	NTC thermistor
Terminals:	2.5mm² cable
Classification of control:	Class II
Purpose of control:	Micro-disconnection on operation
Electronic control:	Type 2.B
Receiver—Input voltage:	240Vac 50/60Hz
Receiver—Output voltage:	24..240Vac 10(3)A max

$C\!\!\in$ ⌧ SEPARATE COLLECTION FOR ELECTRICAL AND ELECTRONIC EQUIPMENT WASTE.

DRF.5 RF Programmable Thermostat

1. The system includes one wireless thermostat controller plus one RF receiver.
2. Transmits up to 20 meter indoor
3. Communicates at 868MHz(Europe Standard) and designed for unlicensed operation under FCC Part 15.

Notice:

1. Before the installation, check the RF communication. (Receiver receives on/off msgs) If the communication is not good, relocate the receiver and transmitter location.
2. If the Receiver / Transmitter fails to communicate, set another address code which must match in both Transmitter & Receiver Units
3. It is recommended locate at least 30cm distance from any metal objects (including the metal box) and at least 2 meter from any electronic devices e.g. radio TV, PC, etc. The metal objects or electronic devices may cause Interference and the maximum distance will be shorter.
4. To have the best communication, install the receiver at a direction facing to the transmitter.

Warning:
- Do not mount the devices onto metal wall boxes
A. Installation, Mounting:

Caution: Turn off DRF.5 and the electrical devices (e.g. heater, cooler) which will be connected before installation. It is highly recommended that the installation procedure is processed by trained personnel.

1. Installation Location:
Transmitter: should be mounted on an inner wall ~1.5m above the floor in position where it is readily affected by change of the room temperature with freely circulating air. Do not place the unit at a location where air circulation is low, or where it has great temperature changes (e.g. near door or heating source) irrespective of the current setting temperature.
Receiver: should be mounted on an inner wall ~1.5m above the floor in position where air circulation is good.
Both: Prevent direct exposure to sunlight; dripping or splashing area.

J. Temperature Setting for Current Mode

Press ⚙ or ⌨ once to activate the temperature setting. the setting temperature will be flashing.

Press ⚙ or ⌨ to increase or decrease the setting temperature. The set point will be saved for the current operation mode. (Comfort / Econ / Override)

Temperature Setting for Comfort Mode

Hold ⚙ until the temperature is flashing.

Press ⚙ or ⌨ to increase or decrease the comfort mode temperature.

Temperature Setting for Econ Mode

Hold ⌨ until the temperature is flashing.

Press ⚙ or ⌨ to increase or decrease the econ mode temperature.

I. RF Address Matching

Set the RF address in Transmitter by accessing internal setting.

Press ⏀ for "1" and ⏁ for "0" for the digit.
For example, If you are going to set 11110011,

Press ⏀ 4 times, then ⏁ 2 times and ⏀ 2 times.
You will get **1 2 3 4   7 8** in the display.
It means the RF address equal to 11110011.

To match the address for the receiver, set the dip switch as following. Switch in upper position means "1" and lower position means "0"
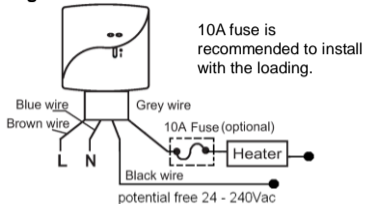

11110011

Now both transmitter and receiver having the same Address "11110011" and they will communicate.

2. Wiring:

10A fuse is recommended to install with the loading.

Blue wire   Grey wire
Brown wire   10A Fuse (optional)
                                            → Heater →
L   N
Black wire
potential free 24 - 240Vac

There is 4-wire cable provided

Color	Connection
Brown	240Vac Live
Blue	240Vac Neutral
Black	24 - 240Vac potential free output
Grey	24 - 240Vac potential free output

Caution: Turn off the power and electrical devices   before wiring.

(Please refer to the wiring diagram on the last page.)

3. Mounting:
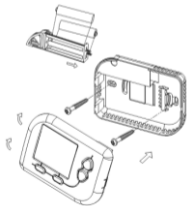### Mounting (Transmitter):

- Pull out the battery drawer

- Use a screwdriver to press on the spot to detach the front shell

- Insert 2 pcs of wall anchors into the holes of the wall.

- Fasten the thermostat with 2 pcs of screws through the mounting holes.

- Assemble the front shell to the base.

- Insert the battery drawer back to the position.

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H. Internal Setting Mode:

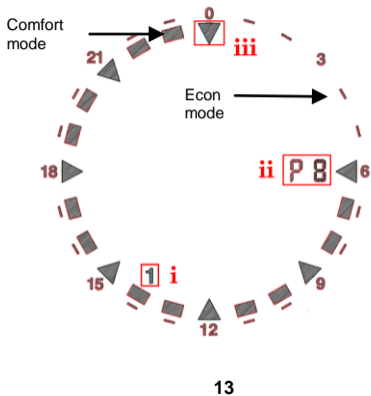Hold (PROG) and (A/←) key to enter internal setting.
Press 🔆 or 🌙 to switch items and adjust value.
Press (A/←) for item selection and confirm.
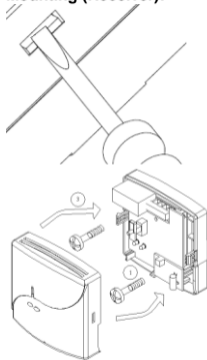Press (PROG) to exit the setting.

System Mode: HE – Heat mode (default) CL – Cool mode	5Y5
Display Unit: 12 – 12 hour display unit 24 – 24 hour display unit (default)	Hr
Minimum Off Delay: Sd – Short delay (default) Ld – Long delay - 5 min.	dLY
Temperature Calibration: -3 - 3℃. 0℃ (default)	CAL
RF Address 00000000 – 11111111 (default)	Adr

14

Comfort mode

iii

0

21

3

Econ mode

ii P 8 ◄ 6

18 ►

1 i

15

9

12

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Mounting (Receiver):

- Use a screwdriver to press on the gap to detach the front shell.

- Insert 2 pcs of wall anchors into the holes of the wall.

- Fasten the receiver with 2 pcs of screws through the mounting holes.

- Wiring the terminals "L, N, 1, 2"

- Setting the address that matches the transmitter

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B. Key Interface

Keys	Function
☼	Set point up / Comfort Mode Assignment
☽	Set point down / Econ Mode Assignment
PROG	Program Setting
⌂/←	Program, Override mode selection / Enter

G. Program Setting Mode:

Press PROG to enter program setting.

i) Press ☼ or ☽ to select weekday

Press ⌂/← to confirm.

ii) Press ☼ or ☽ to select the program.
P0 – P7 are the default programs and P8 – P15 are the editable programs. Press ⌂/← to confirm.

iii) If P0 – P7 has been selected, the program assignment is finished. If P8-P15 is selected, the cursor at the top will be flashing.

Press ☼ or ☽ to locate the cursor. Press ⌂/← to confirm.

iV) Press ☼ to assign Comfort mode and ☽ for Econ mode for time slots. Press ⌂/← to confirm.

V) Press PROG for exit after the setting is finished.

F. Time Setting Mode:

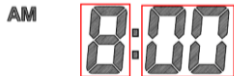Hold ⚙ and 🌙 to go to time setting mode.

i) Press ⚙ or 🌙 to adjust "weekday".
Press ⏊ to confirm.
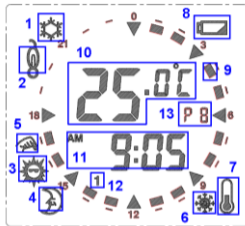
ii) Press ⚙ or 🌙 to adjust "hour".
Press ⏊ to confirm.

iii) Repeat the same process for "minute".
Press (PROG) for exit after the time setting is done.

C. LCD Interface

1. Cool
2. Heat
3. Comfort mode is running
4. Econ mode is running
5. Override Mode
6. Defrost(<5°C)
7. Output On
8. Low Battery
9. Time Slot
   Black appears:
   Comfort mode
   Black disappears:
   Econ mode
10. Temperature
11. Time
12. Day
13. Program Number

D. Start/Reset:

1. After wiring and mounting, switch off all the connected devices. Place 2 pcs AAA 1.5V alkaline batteries according to the polarities marked.
2. LCD display will be switched on.
3. Switch ON the receiver. The output will remain OFF.

   > If there are any display or functional errors, please remove the batteries for about 30 sec to reset the thermostat.

4. Temperature detection starts and LCD displays the room temperature.
5. 🔋 will be flashing if Battery is LOW. Replace the battery immediately.
6. Defrost function is activated with ❄ displayed when temperature is 5°C or below.
   Output will be ON @ Heat mode & OFF @ Cool mode.
7. LCD will display *Lo* if temperature is below 0°C,
8. LCD will display *HI* if temperature is above 40°C,

E. Operation Mode:

Press ⒜/⃕ key to switch between the 3 operation modes below.

1. Program Mode   ☼ or ☽ will be displayed
   The thermostat controls the room temperature according to the programs.

2. Temporary Override Mode

   ✋☼ or ✋☽ will be displayed
   The thermostat controls the room temperature according to the override temperature temporarily, and returns to Program mode for the next Comfort / Econ mode transition.

3. Permanent Override Mode ✋ will be displayed
   The thermostat controls the room temperature according to the override temperature permanently.