






HRV Intelligent Controller (DCS-8F)

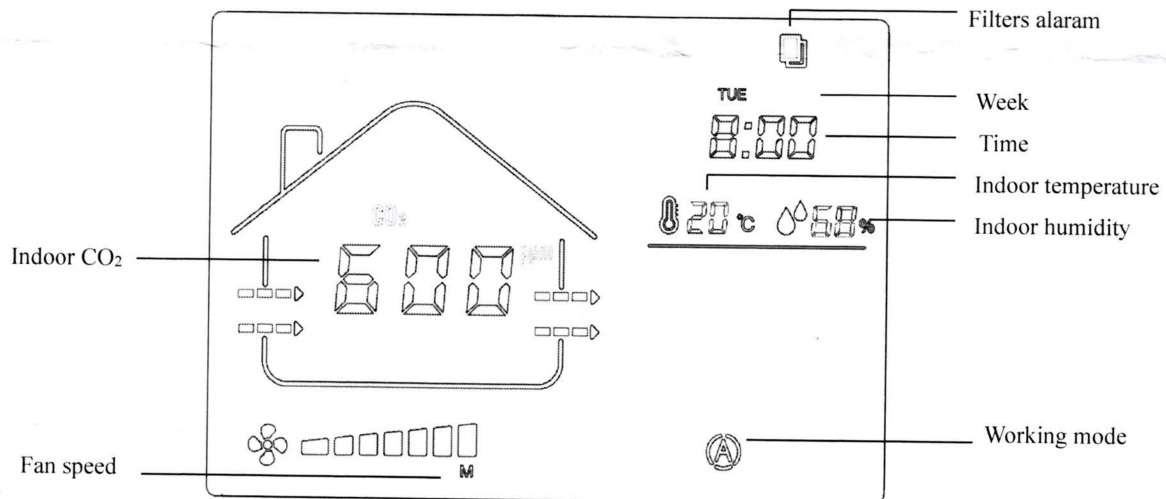
I. Introduction:

New Air intelligent controller (DCS-8F) adopt touch screen technology, it can monitor real-time indoor temperature, humidity, CO₂ concentration. Controller output signal can directly control the start up and speed off fan. It can be widely used in residential, commercial and industrial applications, and can effectively improve air quality, create a healthy, comfortable, energy-efficient living and working environment.





II. Button:

- 1、 : ON/OFF Button
- 2、 : add parameter
- 3、 : decrease parameter
- 4、 : Shift working mode between MANUAL-AUTO- TIMER
- 5、 : Set time and timer

III. Screen display:



IV. Instruction:

- 1、ON/OFF: press , it can switch ON/OFF units
- 2、Shift working mode: press  it change unit working mode between -MANUAL-AUTO- TIMER
- 3、Manual mode: press  it increase fan speed, press  it decrease fan speed, the fan speed will be not influenced by CO₂ or timer
- 4、TIMER mode: Set fan speed in each time segment, set from Monday to Sunday, 4 segments per day, total 28 segments
- 5、AUTO MODE: according to (CO₂ density) change fan speed automaticly:

	CO2	remark
High speed	$CO_2 \geq 800ppm$	When CO2 density rise, it will increase fan speed in the mean time, if CO2 density drop, it needs 30 seconds to confirm the CO2 density drop and decrease the fan speed
Middle speed	$800ppm > CO_2 \geq 500ppm$	
Low speed	$CO_2 < 500ppm$	

7、Timer setting: press \odot 2 seconds to set time and timer, firstly enter into local time setting, use \odot to shift setting between week, hour and minutes, the related value will blink, use \blacktriangle and \blacktriangledown to adjust; after local time setting, light press M enter into timer segment 1 of Monday, light press \odot shift between hour, minutes and fan speed, use \blacktriangle and \blacktriangledown adjust value; after setting, light press M enter into segment 2 of Monday, repeat the process to set all 28 timer segments. If without setting in 10 seconds, the controller will store the setting value and start working.

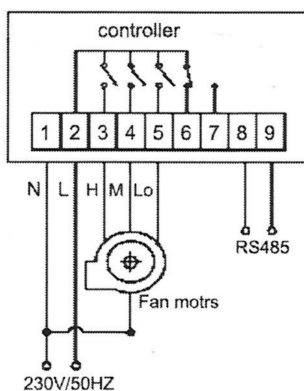
8、press M 3 seconds to set RS485 communication address. The place where display CO₂ will change to display RS485 communication address and blink, use \blacktriangle and \blacktriangledown adjust value, If without setting in 10 seconds, the controller will store the setting value and start working.

9、When fan motors start working, it will start to count filters usage time, when accumulated usage time is over 2,000 hours, the d will blink and remind users to clean or change filters, in TIMER mode, long press \blacktriangle , the place where display time will change to display filters accumulated use time, long press \blacktriangledown will clean filters use time to 0,

V. Spec:

- * Rated Voltage: AC220V 50Hz
- * Control power: $\leq 200W$
- * Warm-up time: ≤ 60 seconds
- * Recovery time: ≤ 30 seconds
- * Storage temperature: $-10^\circ C \text{ ---} +60^\circ C$
- * Storage humidity: $\leq 60\% RH$
- * Terminal board: maximum 2.5 M2 wire
- * usage Life: ≥ 10 years
- * Temperature display range: $0^\circ C \text{ ---} +50^\circ C$
- * Standby power consumption: $\leq 2W$
- * Output: 3 speed
- * Response Time: ≤ 10 seconds
- * Operating temperature: $-10^\circ C \text{ ---} +50^\circ C$
- * Operating humidity: $\leq 5\% \text{ ---} 90\% RH$
- * Installation hole distance 60 mm(standard)
- * CO₂ display range: 350 PPM ---- 1999 PPM
- * dimension: 86 × 86 × 50mm

Wiring



RS485 setting

1, Communication Interface

RS485

2, Communication serial port configuration

8 data bits, 1 stop bit, no parity, baud rate: 9600bit/s

3, communication protocol

MODBUS RTU

4, Support instructions:

0X03 0X06 0X10

5, Register address

Register (DEC)	Register type	description	data range (DEC)
012	read	Power on/off state	0:OFF 1:ON
013	read	Working mode	1:auto 2:manual 3:timer
014	read	Fan speed	0:stop 1:low speed 2:middle speed 3:high speed
015	read	spare	
016	read	spare	
017	read	spare	
018	read	CO2 density	data range:350-1999, mean:350-1999ppm
019	read	temperature	data range:0-50 ,mean 0-50℃
020	read	humidity	data range:1-99 ,mean 1-99 % rh
021	read	Filters time	data range:0-9999 ,mean 0-9999hours

Register (DEC)	Register type	description	data range (DEC)
002	write	Power on/off state	0:OFF 1:ON
003	write	Working mode	1:auto 2:manual 3:timer
004	write	Manual mode fan speed	0:stop 1:low speed 2:middle speed 3:high speed