MODBUS address table:

Baud rate is 4800 (dial switch on PCB if SW4-4 OFF) or 9600 (dial switch on PCB SW4-4 if ON)

Stop bit: 1

Parity: (even/odd) None

Starting address: 00

Address size/data bit: 8

Parameter No.	Content	Range	Record Position	Remark
00	Power to auto restart	0/1	PCB	R/W
01	Heater valid or invalid	0/1	Controller	R/W
02	Bypass opening temperature X	5-30	PCB	R/W
03	Bypass opening temperature range Y	2-15	PCB	R/W
04	Defrosting interval time	15-99	PCB	R/W
05	Defrosting enter temperature	-9 to 5	PCB	R/W
06	Defrost duration time	2-20	PCB	R/W
07	CO2 setting value	24-255 (unit= x10PPM)	PCB	R/W
08	Ventilator IP address	01-16	PCB	R/W
09	ERV ON/OFF	0-OFF 1-ON	PCB	R/W
10	Supply fan speed	Fan speed： 0-stop, 2-speed 1, 3-speed 2, 5-speed 3, 8-speed 4, 9-speed 5, 10-speed 6, 11-speed 7, 12-speed 8, 13-speed 9, 14-speed 10	PCB	R/W
11	Exhaust fan speed	Fan speed： 0-stop, 2-speed 1, 3-speed 2, 5-speed 3, 8-speed 4, 9-speed 5, 10-speed 6, 11-speed 7, 12-speed 8, 13-speed 9, 14-speed 10	PCB	R/W
12	Room temperature	observed value （showing number minus 40）	PCB	R
13	Outdoor temperature	observed value （showing number minus 40）	PCB	R
14	Supply air temperature	observed value （showing number minus 40）	PCB	R
15	Defrosting temperature	observed value （showing number minus 40）	PCB	R
16	External ON/OFF signal to ventilator	query value, 0-invalid, 1-valid	PCB	R , If in On, then ventilator at hight speed
17	CO2 ON/OFF signal	query value, 0-invalid, 1-valid	PCB	R , If in On, then ventilator at high speed
18	Fire alarm signal/bypass/defrosting	query value:	PCB	R

	signal	B0 – 1-fire alarm ON B1- 1-bypass on B2- 1-bypass off B3- 1- defrosting		
19	Humidity setting value	1-99	PCB	R/W
20	Error symbol	query value: B0-OA sensor error B1-EEPROM error B2-RA sensor error B3-EA sensor error B5-SA sensor error B6-Supply Fan error B7-Exhuast Fan error	PCB	R
24	Multifunction Setting	0- reserved 1- ventilator running time clear	PCB	R
25	Filter alarm timer	0- 45 days 1- 60 days 2- 90 days 3- 180 days	PCB	R
27	Heater on/off temperature setting	10-25	PCB	R/W
768	CO2 value	ppm	PCB	R
769	Fan running time record	Unit: 0.1h, range 0-65535	PCB	R
770	Indoor humidity	1%	PCB	R

MODBUS protocol:

1. 1#ERV power off:

Send：01 06 00 09 00 00 59 C8

PCB feedback：01 06 00 09 00 00 59 C8

Record:

01 06 00 09 00 00 59 C8

01 06 00 09 00 00 59 C8

2. 1#ERV power on:

Send：01 06 00 09 00 01 98 08

PCB feedback: 01 06 00 09 00 01 98 08

Record:

01 06 00 09 00 01 98 08

01 06 00 09 00 01 98 08

3. To check ERV On/Off status (Parameter No.9):

Send: 01 03 00 09 00 01 54 08

PCB feedback: 01 03 02 00 01 79 84

Record:

01 03 00 09 00 01 54 08

01 03 02 00 01 79 84

Status: 1

4. Get 4 words from Parameter No.9:

Send: 01 03 00 09 00 04 94 0B

PCB feedback: 01 03 02 00 01 79 84

Record:

01 03 00 09 00 04 94 0B

01 03 08 00 01 00 03 00 05 00 41 11 26

5. To check room temperature (Parameter No.12):

Send: 01 03 00 09 00 04 94 0B

PCB feedback:

Record:

01 03 00 0C 00 01 44 09

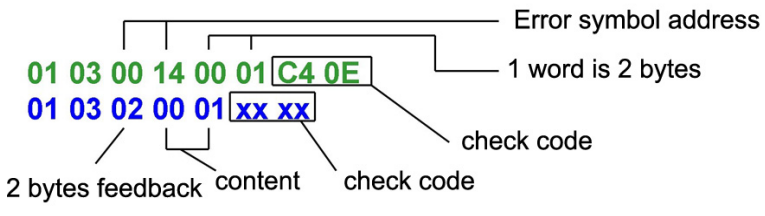
01 03 02 00 41 78 74

Remark：suppose PCB feedback is 41 (hexadecimal)，then in decimalism is 65, room temperature is 25 degree (65-40)

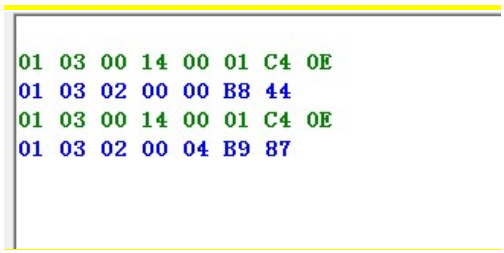
6. Error symbol:

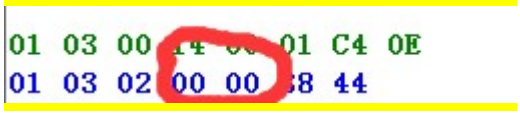
01 03 00 14 00 01 C4 0E

01 03 02 00 01 xx xx

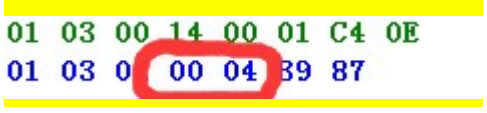


To read the error code





This means no error



This means RA error

7. Parameter 27 is to set the heater on/off temperature, query command

01 03 00 1B 00 01 XX XX

8. To read CO2 sensor PPM value

PPM address in 0x0300(768)

To read co2 ppm, query command

01 03 03 00 00 01 84 4E

The value showed and CO2 PPM value is between 9.8-2500PPM

9. Address 769 is to record the fan running time, via the fan running time to record the filter cleaning alarm. Fan running query command is

   01 03 03 01 00 01 D5 8E(say ventilator IP01)