1.7 Wired controller YR-E12

CLOCK
Used to adjust time.

TIMER
Used to set timer mode.

CHECK
Auto-diagnostic button.

+/-
stands for time plus/minus, used to adjust time.

FILTER
Filter-cleaned button.

POWER ON/OFF
Used for unit start and stop.

MODE
Used for select indoor operation mode.

FAN
Used for select indoor air flow.

SWING
Used for setting indoor swing mode.

HEALTH
Used for setting indoor health function.

TEMP + -
Used for changing set temperature.

RECOVERY
used to switch over air-exchanging mode.

RESET
Reset correct mode button.

[MODE]
    [AUTO]:Auto operation mode.   [FAN ONLY]:air-throwing mode.
    [COOL]:Cooling operation mode.   [DRY]:Dehumidification mode.
    [HEAT]:Heating operation mode.
[TES]:In heating mode, auxiliary electric heater is running. Only when the unit with auxiliary electric heater is in auxiliary electric heating mode, it will display.
[FAN]
    [AUTO]:Auto fan running.   [HIGH]:High fan speed.
    [MED]:Medium fan speed.   [LOW]:Low fan speed.
    [FIX]: Fixed fan speed, it will display only when fixed fan speed is requested to main indoor unit.
[CENTRAL]:Central control mode.
[OPERATION]:Running mode.
[STAND BY]: Waiting mode.
[PRE-HEAT]: Pre-heating mode.
[DEFROST]: Defrosting mode.
[FILTER]: Request of filter to be cleaned.
[HEALTH]:Health function.
[CEN.ADD]:Central control address, the address number will display on "88".
[SYS.ADD.]:System address, the address number will display on "88".
[CHECK]:Auto-diagnostic, trouble shooting.
[DEMAND]:Compulsory operation function, when it works, [CENTRAL] will flash.
[SWING][MANUAL]:Swing mode.
[ROOM TEMP.]:Indoor ambient temperature.
[SET TEMP.]:Set admired temperature.
[TIMER]
    [ON]:Timer function is on.   [OFF] :Timer function is off.
    [ON][OFF] :Timer function ON-OFF.
    [ON][OFF][DAILY]:Timer ON-OFF will switch over in turn daily
[CLOCK]:Clock display, the displaying time is the current time of the clock.
[UP],[DOWN]:Indicator of filter elevating.
[VENTILATION]
    [AUTO]:Auto ventilation mode.   [RECOVERY]:Fully heat exchanging ventilation mode.
    [NORMAL]:Normal ventilation mode.

FAN ONLY OPERATION(See picture 1):
1)Start up operation: press the button of ON/OFF, the system will start up, and will display on LCD.
2)Select MODE: press the MODE button, then you will see in the
display section [MODE] switch over in below sequence:[FAN ONLY] → [COOL] →[DRY] → [HEAT] → [AUTO] →[FAN ONLY]. Select [FAN ONLY].
3)Select fan speed: press FAN button, then you see in the display section [FAN] switch over in below sequence: [HIGH] → [MED] [LOW] → [HIGH]. Select proper fan speed.
4)Power off: press ON/OFF button, indoor unit will be powered off, there are only time and the ambient temperature in the screen.

AUTO operation, COOLING, HEATING and DEHUMIDIFICATION operation (See Picture 2):
1) Start up operation: press the button of ON/OFF, the system will start up, and will display on LCD.
2) Select MODE: press the MODE button, then you will see in the display section [MODE] switch over in below sequence:[FAN ONLY] →[COOL] →[DRY] →[HEAT] →[AUTO] →[FAN ONLY]. Select [COOL].
3) Change set temperature: press TEMP + or - every time, [SET] will display, and set temperature will increase/reduce 1 C(F).
4) Select fan speed: press FAN button, then you see in the display section [FAN] switch over in below sequence: [AUTO] →[HIGH] [MED] → [LOW] →[AUTO]. Select proper fan speed.
5) Select [SWING]: press [SWING] button, [SWING] will display, swing function is valid, press again, [SWING] will disappear, swing function is invalid.
6) Set [HEALTH]: used to set the indoor health function. Press it once, [HEALTH] will display in the display section, then indoor health function is valid. Press it again, [HEALTH] will disappear, then the health function is invalid.
This function is valid only for the unit with health function.
7) Power off: press ON/OFF button, indoor unit is powered off. There are only time and the ambient temperature in the screen.

Picture 1

Picture 2

Set TIMER operation:
Adjust clock: when powered on, for the first time to set timer function, the clock will be adjusted.
Press "CLOCK" button, and set the current clock. Now, "CLOCK" will flash at the frequency of 2Hz . Press the clock +/- button; the current clock can be adjusted. Until the proper time comes, press [SET].
TIMER ON operation:
Press TIMER button, and keep pressing it, in the display section [TIMER] will switch over in below sequence: [ON] →[OFF] →[ON][OFF]→ [ON][OFF][DAILY] → [ ]. Select [TIMER] [ON], then [TIMER] [ON] flashes, press the clock +/- button to adjust the time of TIMER ON, press [SET] button.


Note:
    1. If the two times are same, the timer state which is set later will flash, in this case, timer can not be set.
    2. When entering TIMER setting state, if you do not input any button in continuous 10 seconds, the unit will quit from the TIMER mode.
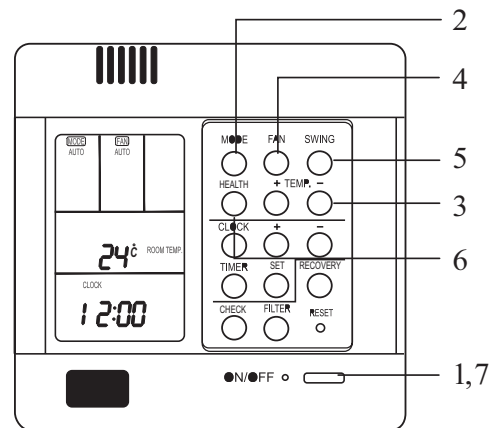**Cancel TIMER operation:**
In the timer operation state, press [TIMER] button, the unit will quit from the current timer operation state, and the set data will be memorized, then enter the next timer mode. When [TIMER] dose not display, the timer will be cancelled.
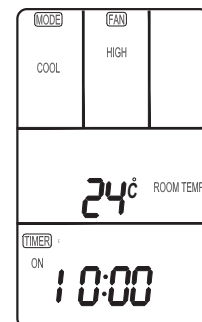**[FILTER] function**
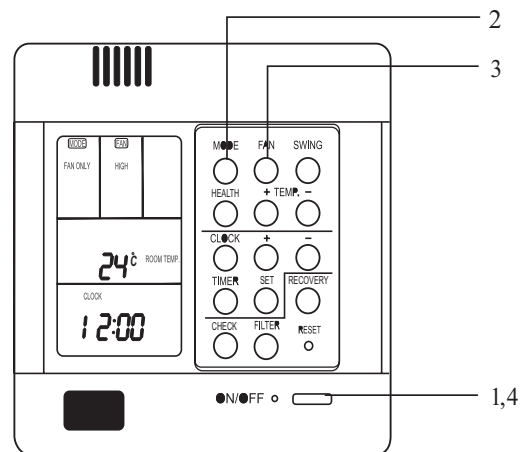
FILTER ELEVATING function: (only for the unit with elevating function)
When the filter needs to be cleaned, the panel can be lowered to the admired height by the [FILTER][UP][DOWN] function. Method is below: In power off state, press [HEALTH] for 15 seconds to enter filter elevating set state. In this state, the sign [FILTER] will flash and [UP] [DOWN] will display simultaneously, Press TEMP [+], in timer section [UP] will display, while press TEMP [-], in timer section [DOWN] will display. When it arrives the appropriate position, press [UP], [UP][DOWN] will display simultaneously, filter will stop going down. Press [UP] again, filter will go up. Press [FILTER] button to quit the mode.

Trial running operation function:
By this function, all the indoor units can be made in nominal mode. Set the operation mode in cooling and then shut off the unit. In the stop state, press
[ON/OFF] button for 5 seconds to enter cooling trial operation state. If it is in heating mode before shut off the unit, then press [ON/OFF] button for 5
minutes, it will enter heating trial operation state. In cooling, there will be "LL" in the position where the set temperature displays. In heating, there

MODE	FAN	
COOL	MED	
	LL	
CLOCK		
	12:00	
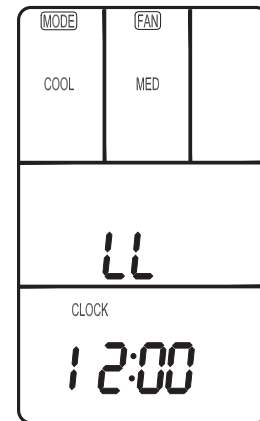
Picture 3

VENTILATION mode (only for the unit with fresh air function or heat recovery function)
Press [RECOVERY] button, then the unit will switch over the ventilation mode:
[ ] [VENTILATION][AUTO] [VENTILATION][RECOVERY] [VENTALATION][NORMAL] [ ], please select appropriate ventilation mode.

Query indoor malfunction history:
In the state of power on or power off, press [CHECK] button, enter the malfunction-querying mode of all indoor units in the group. Then [CHECK] and
[UNIT NO.] will display, and the actual indoor numbers will be displayed in some sequence (unit number is in decimals). At the same time, in the time region,
there will be the current malfunction and the latest time malfunction, the displaying format is [XX:YY], in which XX stands for the current malfunction, if normal, it will display "--"; YY stands for the latest time malfunction. The failure code of every unit will display for 3 seconds. After the failure codes of all indoor units in the whole group are displayed, the mode will quit automatically.

Clear abnormal state and malfunction history:
In normal state, press [CHECK] button for 5 seconds to clear abnormal states, at the same time, wired controller

Y	ZZZ	Type
A	Indoor capacity (W)	Nominal cooling capacity/10, decimal
B	Request of indoor capacity(Hz)	Actual value, decimal
C	Temperature of indoor ambient temp. sensor TA	Actual value, decimal
d	Temperature of indoor gas pipe sensor TC1	Actual value, decimal
E	Temperature of indoor liquid pipe sensor TC2	Actual value, decimal
F	Open degree of indoor PMV	Actual value, decimal
g	Preset	---
H	Outdoor total capacity	Actual value, decimal

In check mode, press [CHECK] to quit the check mode, and go into normal running mode.

How to change the function switches?

No.	Type	State of switch	Function description
J01	Changeover of Wired controller and central controller	Connected	Central controller
		Cut off	Wired controller
J02	Changeover of type of wired controller	Connected	Set as simple controller
		Cut off	Set as standard controller
J06	Selection of room temp. sensor	Connected	Use the sensor in the wired controller
		Cut off	Use the sensor in the indoor unit
J07	Auto restart after power failure	Connected	Common control
		Cut off	Auto restart after power failure
J03	Display of room temperature	Connected	Yes
		Cut off	No
SW01 ①	Changeover of master or slave controller	ON	Set as slave controller
		OFF	Set as master controller
SW01 ②	℃ or℉	ON	℉
		OFF	℃
D1	Shorten time function	Connected	Indoor unit in shorted time function
		Cut off	Common control
D2	Compulsorily defrost	Connected	Send compulsorily defrost signal to indoor unit
		Cut off	Common control

Note: 1. The switches in grey can be operated after opening the cover of wired controller.
2. Switches or jumper wire must be adjusted when the wired controller is powered off. If the wired controller is powered on, the above operations will be invalid.
3. Shorten time function
In normal operation, D1 is in short circuit, it will enter shorten time mode, and the time will be shortened in the proportion of 60:1. In shorten time mode, LED will flash at the frequency of 0.5 second. Cut off D1, it will quit the shorten time mode and return to the normal operation mode.
4. Compulsorily defrost
In heating mode, D2 is in short circuit, it will enter compulsorily defrost mode; cut off D2, it will quit.
5. Lock function
There is no lock function only in the wired controller. But when it is connected with a central controller, if the central controller is set to "central", the buttons in the wired controller will be invalid, or the buttons will be valid.

Contrastive items	Master wired controller	Slave wired controller
Function	All of functions	Only with below functions: ON/OFF, MODE, FAN SPEED, SET TEMP., SWING

7. Function difference between simple wired controller and the standard one:

Contrastive item	Standard wired controller	Simple wired controller
Function	With all functions	Only can control ON/OFF, MODE, FAN, TEMP.,SWING.
Master/Slave selection	Can be either of Master and Slave controller	Only can be Master controller

1. Wiring connections of wired controller:
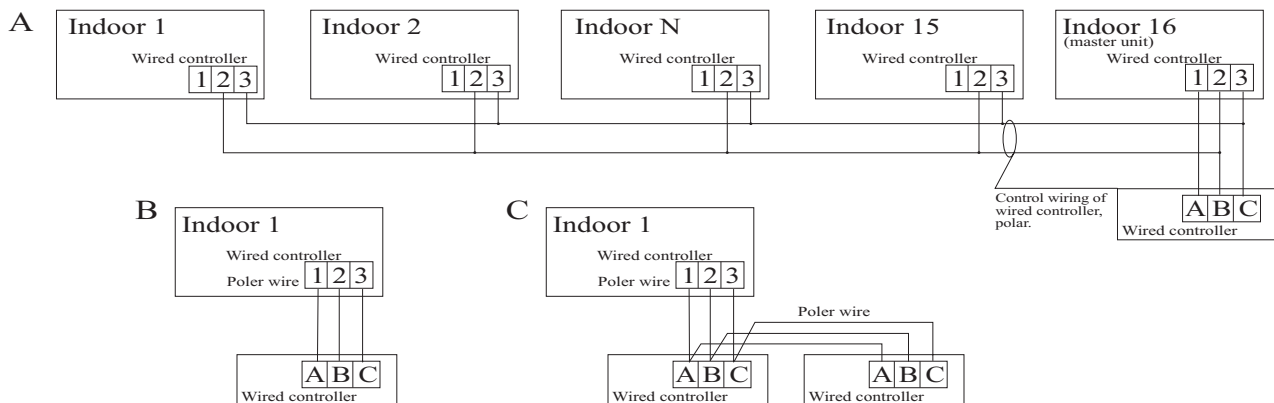
There are three methods to connection wired controller and the indoor units:
A.One wired controller can control max. up to 16 sets of indoor units, and 3 pieces of polar wire must connect the wired controller and the master unit (the indoor unit connected with wired controller directly), the others connect with the master unit through 2 pieces of polar wire.
B. One wired controller controls one indoor unit, and the indoor unit connects with the wired controller through 3 pieces of polar wire.
C. Two wired controllers control one indoor unit. The wired controller connected with indoor unit is called master one, the other is called slave one. Master wired controller and indoor unit; master and slave wired controllers are all connected through 3 pieces of polar wire.
2. Communication wiring:
The wired controller is equipped with special communication wiring in the accessories. 3-core terminal (1-white 2-yellow 3-red) is connected with the terminal A, B, C of wired controller respectively.

The communication wiring is 4 meter long; if the actual length is more than it, please distribute wiring according to below table:

Communication wiring length(m)	Dimensions of wiring
< 100	0.3mm^{2}x3-core shielded wire
⩾100 and <200	0.5mm^{2}x3-core shielded wire
⩾200 and <300	0.75mm^{2}x3-core shielded wire
⩾00 and <400	1.25mm^{2}x3-core shielded wire
⩾400 and <600	2mm^{2}x3-core shielded wire

*One side of the shielded sheet of communication wire must be earthed.

Note:

The wired controller must be used with cooperation with indoor unit. When wired control type is selected, the function of indoor unit must be adjusted (after power cut off).

The indoor PCB(0010451167) is matched with this wired controller (0010451521)which can be set according to below table:

	Connected	Cut off
J1	Remote control	Wired control
J2	In heating mode, with temperature compensation	Without temperature compensation
J4	Heat pump	Cooly only
J7	Sychronous motor swing	Stepping motor swing
J9	Master unit	Slave unit

When the wired controller controls several indoor units, there is only one Master unit, and other can be set as Slave unit.

3.Setting address method:

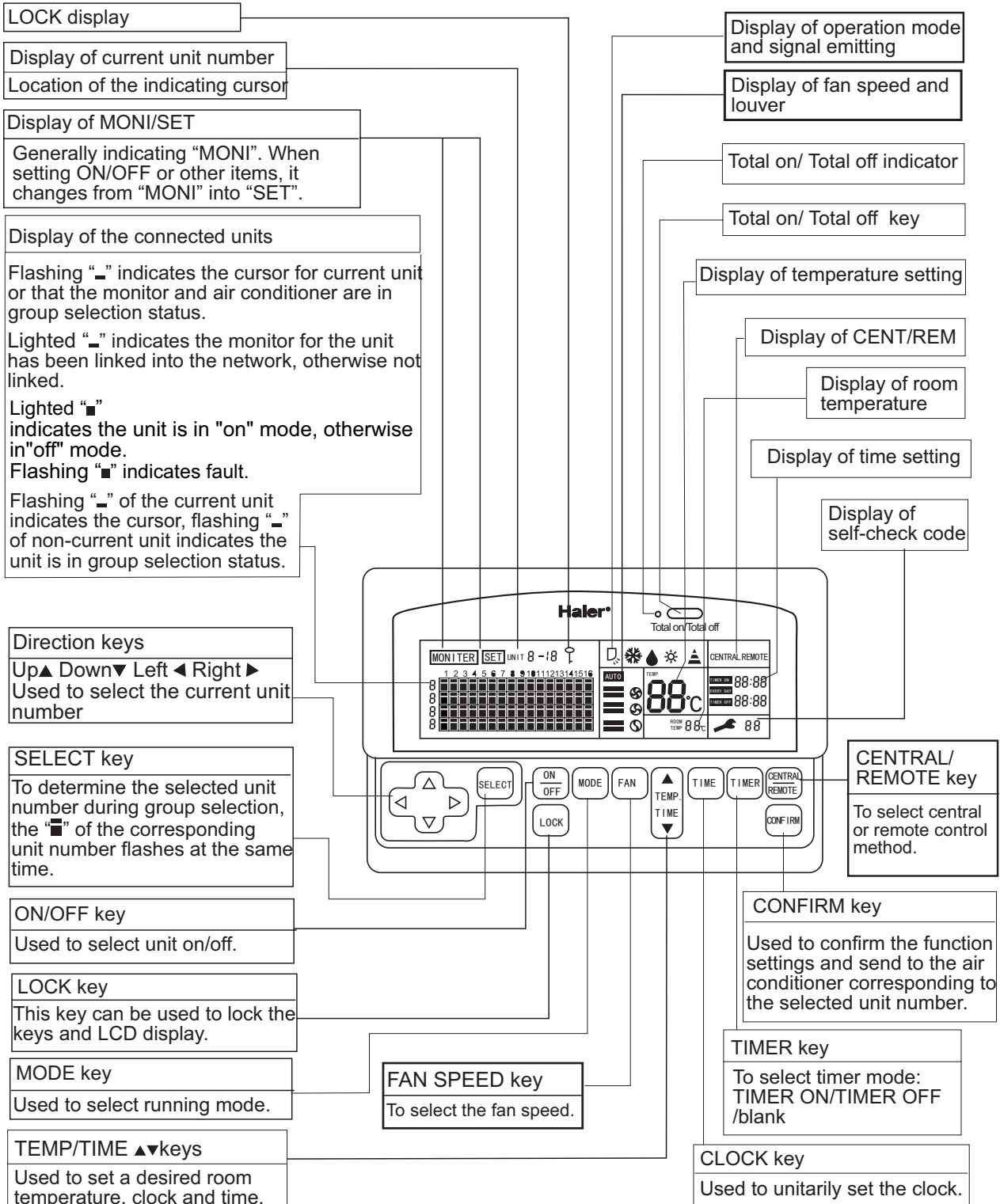The address setting can be realized by setting indoor PCB.

If you use the group control function, there should be a master unit and 15 sets of slave units. For the master unit, the SW5-3 should be at "ON". For the slave units, the SW5-3 should be at "OFF"

Please refer the below table,

Indoor unit address	SW1-4	SW1-3	SW1-2	SW1-1
1	OFF	OFF	OFF	OFF
2	OFF	OFF	OFF	ON
3	OFF	OFF	ON	OFF
4	OFF	OFF	ON	ON
5	OFF	ON	OFF	OFF
6	OFF	ON	OFF	ON
7	OFF	ON	ON	OFF
8	OFF	ON	ON	ON
9	ON	OFF	OFF	OFF
10	ON	OFF	OFF	ON
11	ON	OFF	ON	OFF
12	ON	OFF	ON	ON
13	ON	ON	OFF	OFF
14	ON	ON	OFF	ON
15	ON	ON	ON	OFF
16	ON	ON	ON	ON

1.8 Central Controller YCZ-A001:

Function description:

LOCK display

Display of current unit number

Location of the indicating cursor

Display of MONI/SET

Generally indicating "MONI". When setting ON/OFF or other items, it changes from "MONI" into "SET".

Display of the connected units

Flashing "▭" indicates the cursor for current unit or that the monitor and air conditioner are in group selection status.

Lighted "▭" indicates the monitor for the unit has been linked into the network, otherwise not linked.

Lighted "■" indicates the unit is in "on" mode, otherwise in "off" mode.

Flashing "■" indicates fault.

Flashing "▭" of the current unit indicates the cursor, flashing "▭" of non-current unit indicates the unit is in group selection status.

Direction keys

Up▲ Down▼ Left◀ Right▶ Used to select the current unit number

SELECT key

To determine the selected unit number during group selection, the "■" of the corresponding unit number flashes at the same time.

ON/OFF key

Used to select unit on/off.

LOCK key

This key can be used to lock the keys and LCD display.

MODE key

Used to select running mode.

TEMP/TIME ▲▼keys

Used to set a desired room temperature, clock and time.

FAN SPEED key

To select the fan speed.

Display of operation mode and signal emitting

Display of fan speed and louver

Total on/ Total off indicator

Total on/ Total off key

Display of temperature setting

Display of CENT/REM

Display of room temperature

Display of time setting

Display of self-check code

CENTRAL/ REMOTE key

To select central or remote control method.

CONFIRM key

Used to confirm the function settings and send to the air conditioner corresponding to the selected unit number.

TIMER key

To select timer mode: TIMER ON/TIMER OFF /blank

CLOCK key

Used to unitarily set the clock.

Note: In "MONI" mode, pressing SEL, MODE, FAN SPEED, TEMP TIME keys may change the "MONI" mode into "SET" mode. If "SET" key or other keys hasn't been pressed within 10s, it will automatically return to "MONI" mode.

1. Communication function

Communicate with the indoor PCB in the group control network

To communicate with the indoor PCB through the R S-485 bus (A, B). The central controller sends commands to and receives response from indoor PCB; communication by address enables sending and receiving control information, work information and fault information between indoor PCB and the central controller.

2. LCD display function:

The LCD could display the fundamental status of air conditioning units (are the units existing? On/off? Fault? Are units group selected? Cursor and the current unit no.);

The LCD can display the working status of the air conditioning unit with the current number (mode, fan speed, temperature setting, room temperature,timer,error code, central/remote control status);

The working status of the central controller (monitor/set status, panel locking status, signaling status).

3. Key input function:

The keys for moving the current unit number cursor and for group selection:▲,▼,▶,◀, SELECT;

The keys for setting working status of the air conditioning unit and control conditions: ON/OFF, MODE, FAN SPEED, TEMP, TIME▲/▼, CLOCK,TIMER, CENT/REM, SET;

The key for locking key function of the central controller: LOCK.

4. Unit number setting function:

To enrich the control functions of Haier commercial air conditioner remote monitoring system, multiple controllers could be set to work together for a combination of multiple functions. For this, the central controller is provided with a two-digital switch for setting controller address.

5. Realizing central control function with the central controller(max.128 indoor units can be connected)

this type is applicable for the free multi indoor units except for console type and wall mounted type.
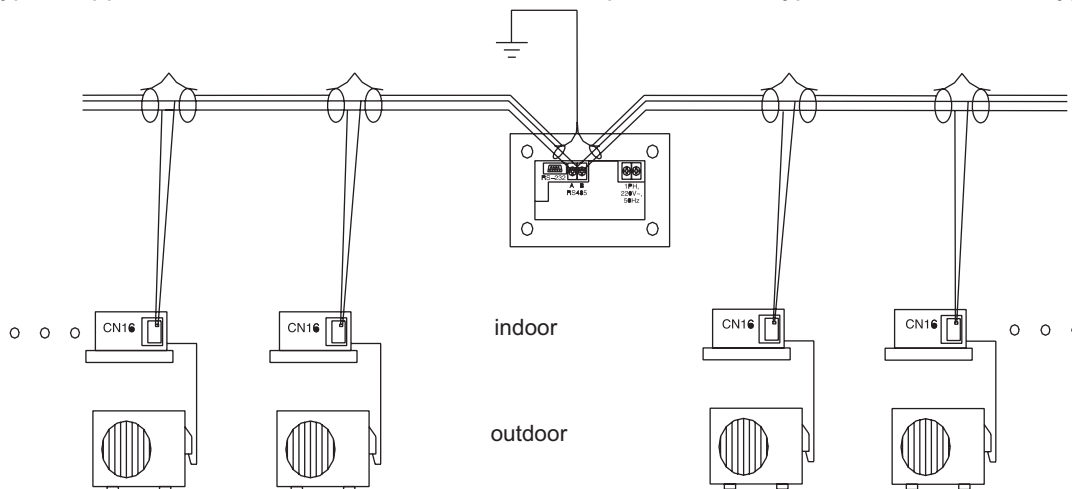

6. Central control system + Group control system(max.128 x16 indoor units can be connected),this type is applicable for the unitary free indoor units except for console type and wall mounted type.
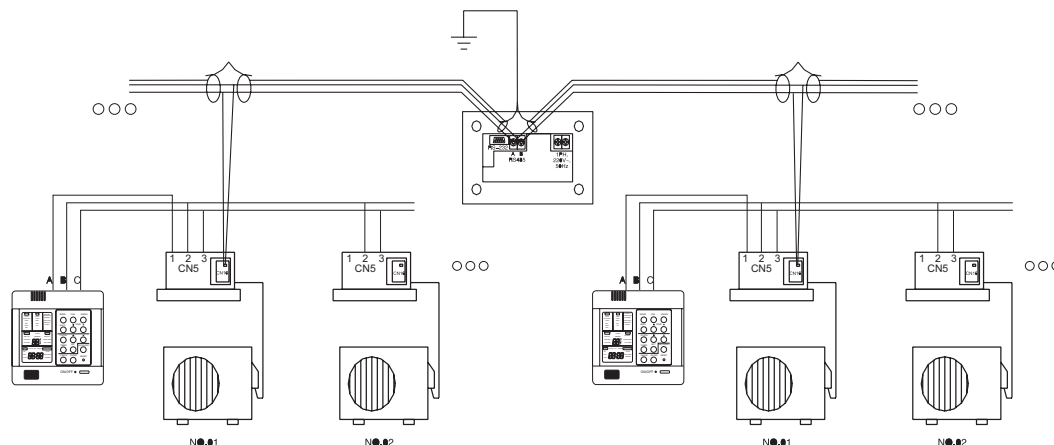
7. Use central controller + weekly timer to realize the group control function + weekly timing function, this type is applicable for the unitary free indoor units except for console type and wall mounted type.
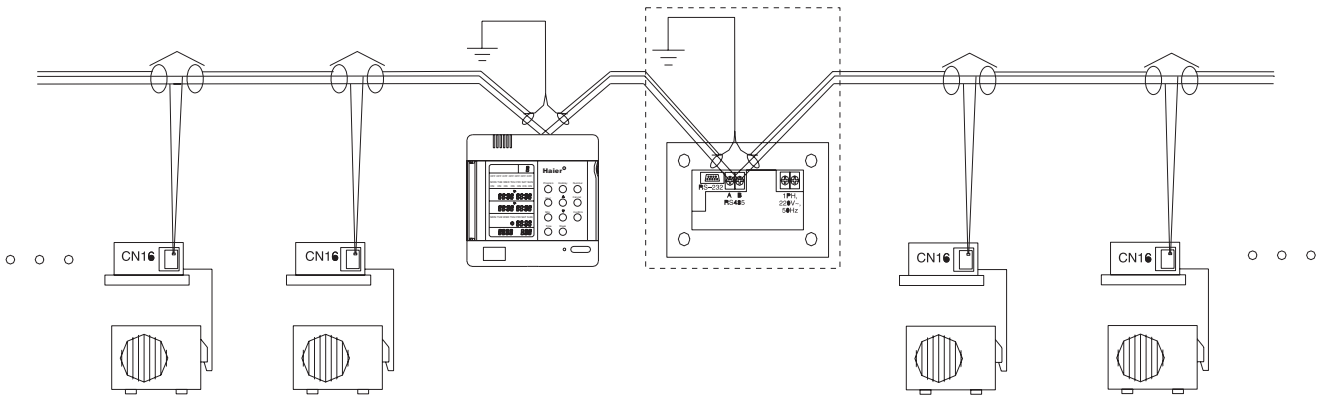
8. Realizing group control function with the central controller, for the unit which needs the detector, such as cosole unit, wall mounted unit.
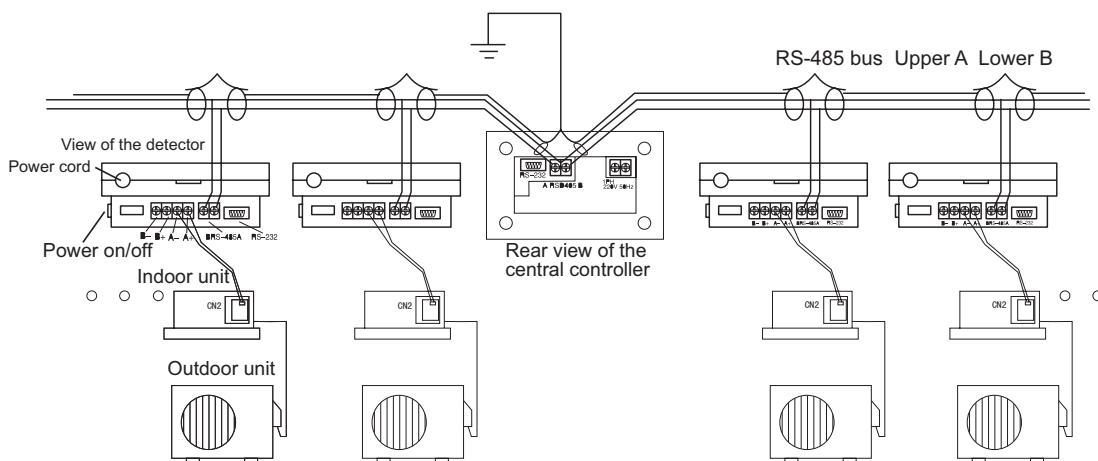
9.Realizing double unit switch-over group control function with the centralcontroller, for the unit which needs the detector, such as cosole unit, wall mounted unit.
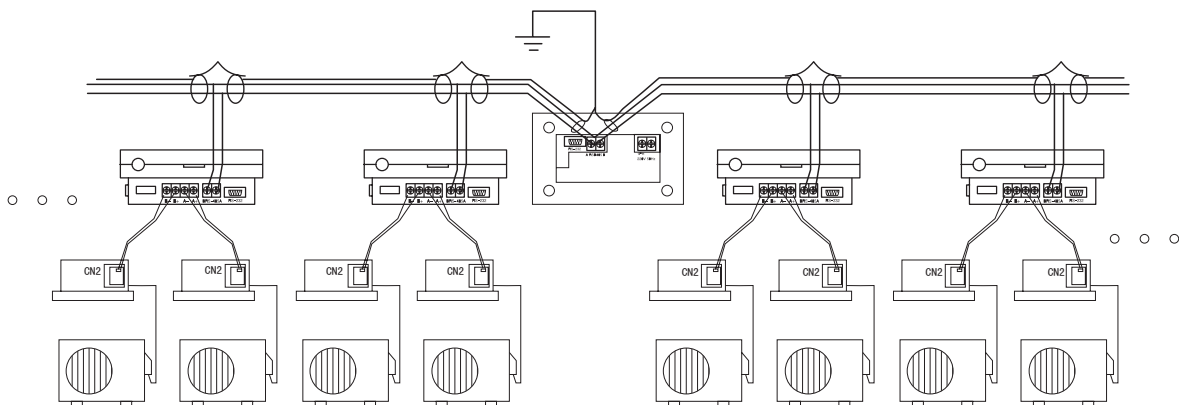
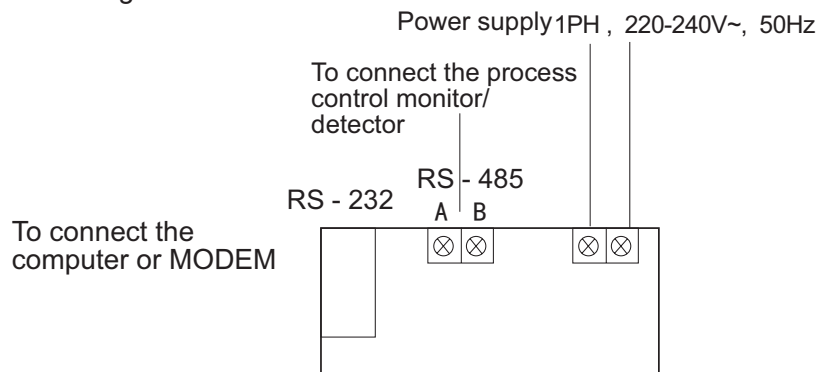If you use central control type, SW1, SW2 will be used simultaneously.

Wiring request in central control type: port A-B is connected with indoor port CN16 (A-B) through 2-core shield wire. Requirements:

1.Port A connects with port CN16 (A) of all indoor units.

2.Port B connects with port CN16 (B) of all indoor units.

Address on central controller	Indoor unit address	SW2-3	SW2-2	SW2-1	SW1-4	SW1-3	SW1-2	SW1-1
1	1	ON	OFF	OFF	OFF	OFF	OFF	OFF
2	2	ON	OFF	OFF	OFF	OFF	OFF	ON
3	3	ON	OFF	OFF	OFF	OFF	ON	OFF
4	4	ON	OFF	OFF	OFF	OFF	ON	ON
5	5	ON	OFF	OFF	OFF	ON	OFF	OFF
6	6	ON	OFF	OFF	OFF	ON	OFF	ON
7	7	ON	OFF	OFF	OFF	ON	ON	OFF
8	8	ON	OFF	OFF	OFF	ON	ON	ON
9	9	ON	OFF	OFF	ON	OFF	OFF	OFF
10	10	ON	OFF	OFF	ON	OFF	OFF	ON
11	11	ON	OFF	OFF	ON	OFF	ON	OFF
12	12	ON	OFF	OFF	ON	OFF	ON	ON
13	13	ON	OFF	OFF	ON	ON	OFF	OFF
14	14	ON	OFF	OFF	ON	ON	OFF	ON
15	15	ON	OFF	OFF	ON	ON	ON	OFF
16	16	ON	OFF	OFF	ON	ON	ON	ON
17	--------	ON	OFF	ON	OFF	OFF	OFF	OFF
18	--------	ON	OFF	ON	OFF	OFF	OFF	ON
19	--------	ON	OFF	ON	OFF	OFF	ON	OFF
20	--------	ON	OFF	ON	OFF	OFF	ON	ON
21	--------	ON	OFF	ON	OFF	ON	OFF	OFF
22	--------	ON	OFF	ON	OFF	ON	OFF	ON
......	......	......	......	......	......	......	......	......
128	--------	ON	ON	ON	ON	ON	ON	ON

Installation procedure

1. Wire connecting

Power supply 1PH , 220-240V~, 50Hz

To connect the process control monitor/detector

RS - 485

A B

RS - 232

To connect the computer or MODEM
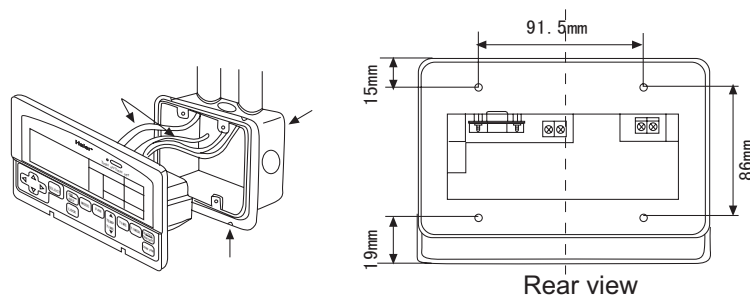
2. Installation method

A wiring box cover must be used.

The central controller shall be installed into the installation box built in the wall fastening with 4 screws (as shown).
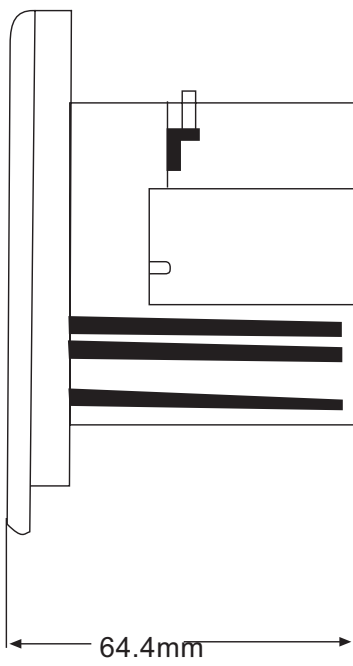

91. 5mm

15mm

86mm

19mm

Rear view

Note: Please confirm the supply voltage of AC220-240V and correct wiring. In application environment with intense

electromagnetic interference, the central controller should be shielded, while the connecting wire between the

monitor and the central controller should be shielded twin twisted wire.

Exterior dimension
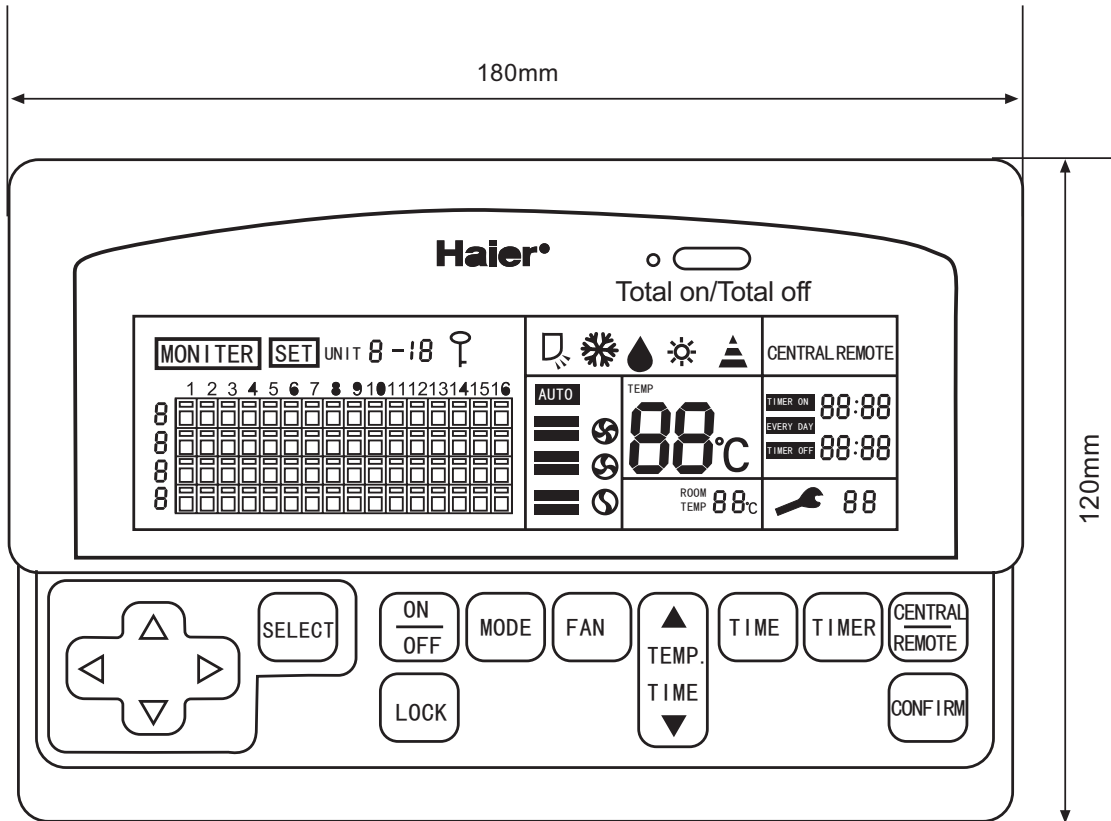
(Fig.1)

As illustrated:
(Figure 1 is the front view and Figure 2 is the side view) The central controller is 180mm long, 120mm wide and 64.4 mm thick.

(Fig.2)