



NIAGARA FCC WIFI CASSETTE WIRED CONTROL

Serie

NIAGARA

Edition

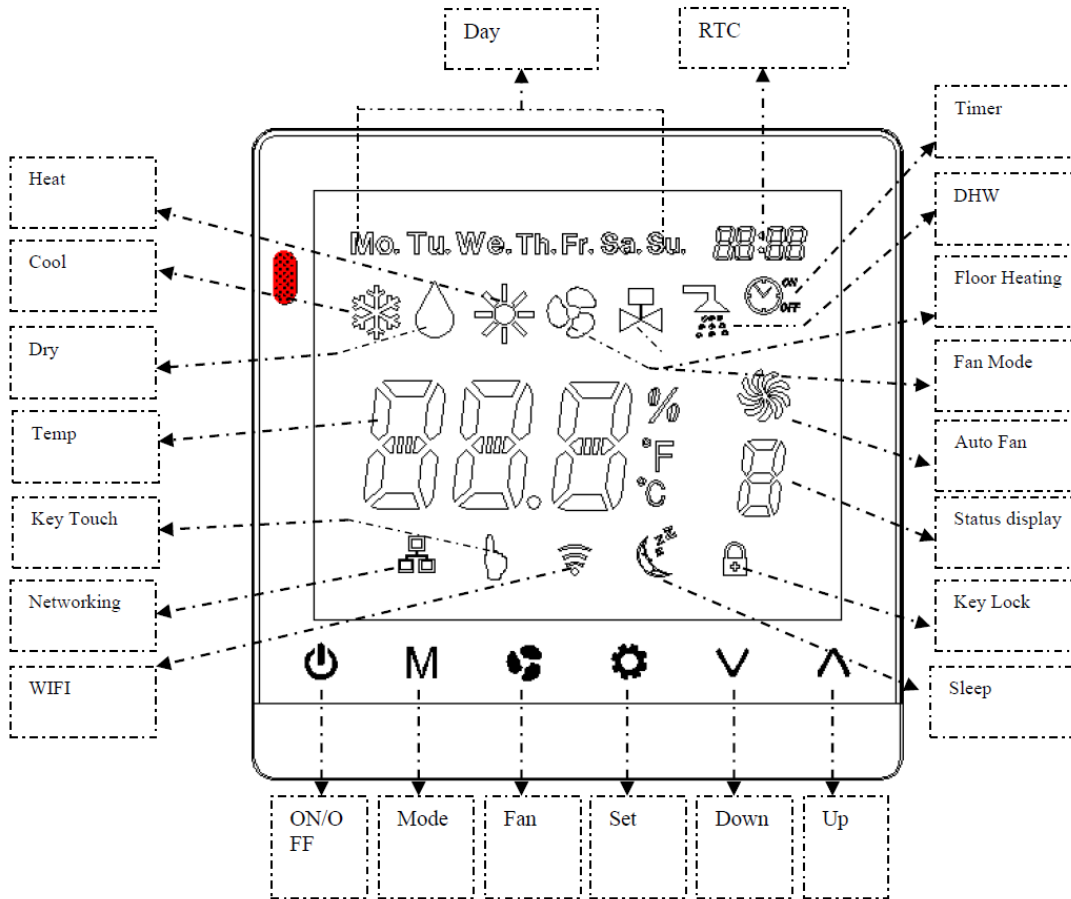
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Before installation and operation, please read this operation manual carefully and make sure you can use this controller correctly.

In order to use this wired wall controller correctly, please follow the below precautions:

1. The software writing and maintenance must be operated and maintained by the company's professionals according to the requirements of the specification.
2. For the operation of the controller, please comply with the following requirements:
 - a. Operation Requirement: $-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$
 - b. RH Requirement: $25\% \sim 90\% \text{RH}$
 - c. No condensing
 - d. No corrosive metal, gas or dust to damage the insulation
3. For the installation of the controller, please pay attention to the following items:
 - a. Please strictly follow the wiring diagram provided in the specification for wiring; The company is not responsible for the damage of main PCB caused by the mistake wiring.
 - b. When wiring, please follow the principle of separating strong and weak electricity and try to keep the control board and contactor above 50mm to avoid electromagnetic interference.
 - c. Do not immerse the controller sensor in water for a long time, which may affect the temperature sensing accuracy of the sensor

1. LCD Screen









2. Key Function

Icon						
Function	ON/OFF	MODE	FAN	SET	DOWN	UP

Press to switch the function as follow (CNT is number of count this button is pressed)











- (1) CNT=0: no function
- (2) CNT=1: clock setting
- (3) CNT=2: timer setting
- (4) CNT=3: sleep, swing (represented by floor heating symbol)
- (5) CNT=4: networking control (solo control)
- (6) CNT=5: group control
- (7) CNT=6: parameter browsing

3. Clock setting and display

RTC display area shows the real time clock, “:” blinks once in a second. Press  once to enter into clock setting. “:” lights on, press  or  to adjust the time. Press  to change day of week. Press  to select minute or hour to be changed. Press  to exit and confirm the new setting. Alternatively, it will exit without saving the setting 15 seconds after last key press.

4. Timer setting



It supports 7 day on/off timer setting.




Press  twice to enter into timer setting. Timer symbol lights on, “ON” symbol flashing. Press  to change day of week (Monday~Sunday). Press  to toggle between on timer hour, on timer minute, off timer hour or off timer minute. The selected hour or minute flashing. “ON” symbol flashing if on timer is selected. “OFF” timer symbol flashing if off timer is selected. Press  or  to adjust the time setting. Press  to exit. Press the " +  combined key to cancel the current week timer setting. Press " +  to switch the timer between one-time timer and cyclic timer modes. In one-time mode, the wind speed indicator flashes 'd'. In cyclic timer mode, the wind speed indicator flashes 'A'. The default is one-time mode.


Timer symbol will light on if there is timer setting for current day. The corresponding “ON” or “OFF” symbol will light on according to the timer being programmed for the current day.




On the main interface, press the " +  key combination to cancel all timer settings.

5. Swing, Sleep



Press  three times to enter into swing, sleep setting and keylock symbol flashing. Press  to enable or disable sleep function and sleep symbol will light on accordingly.

Press  to enable or disable swing function and swing symbol will light on accordingly. [it is represented by floor heating symbol]. Press the " +  keys to turn the power-on password function on or off, and the corresponding key lock will be displayed or turned off.

Press  to exit and confirm the new setting. Alternatively, it will exit without saving the setting 15 seconds after last key press.

Press  to enable or disable the local room sensor. Fan speed display area showing  denotes enable, display F denotes disable. Press  to exit and confirm the new setting.

6. Temperature setting

Press  or  to adjust set temperature. Temperature display area flashes the set temperature. It will exit 6 seconds after last key press.


When DIP switch SW1=ON: temperature setting is prohibited. Set temperature is fixed at 24°C in cool mode and 21°C in heat mode.

When SW1=OFF, temperature set range is 16°C to 30°C

When SW2=ON, temperature display area shows set temperature.

When SW2=OFF, temperature display area shows room temperature.



7. Mode

Press  to change operating mode as follow:-

Cool-Heat model : Cool-Heat-Fan-Dry





Cool only model : Cool-Fan-Dry


8. Keylock

In main menu, press  +  to toggle keylock function. Keylock symbol lights on when it is enable.


9. Fan speed

Modulation fan speed setting is available in EC motor Fan coil system

When SW3=ON, modulation fan speed setting. Press  to adjust the fan speed. Temperature display area shows the fan speed % setting (30%~100%). Press  or  to adjust and flashes the modulation setting. It will exit 15 seconds after last key press. Press  to exit the setting menu immediately.





When SW3=OFF, fixed speed setting. Press  to adjust the fan speed, 1-2-3-4-5-Auto (automatically adapt to 3 or 5 speeds setting). Fan speed display area shows the speed being programmed.

10. System On/Off

Press  to turn on or off the unit






If the power-on password function is not enabled, the unit will turn on and off directly.





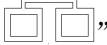











If the power-on password function is enabled, pressing the power button will first take you to the password input screen.


On the password input screen ( icon flashing), the time display area corresponds to the four-digit password (default password 1314, super key 1883). Before input, it is in the '---' state. Press "  " or "  " to change the corresponding password number, and press the key to move one digit to the right. After all four digits are set, press the "  " key again to check if the password is correct. If incorrect, it will jump to the first digit of the password and start entering it again. If correct, it will issue a power-on command and jump to the default screen.

During password input, press the "  " key to exit.

11. Networking control (Only the master unit able to control the slave unit online)



Press  four times to enter into networking control, Clock display area flashing means the current unit is under control. Press  or  to modify the current unit, skip offline units, press "  " to select parameter to be set: unit on/off, set temperature, mode, fan speed, sleep. Press  to change the setting as follow:


- (1) Unit on/off: press  once, symbol “” flashes. Press  to set unit-on (“” flashing) or unit-off (“” flashing)
- (2) Set temperature: press  twice, temperature display area flashing. Press  or  to change the set temperature
- (3) Mode: press  three times, current mode flashing. Press  to change mode.
- (4) Fan speed: press  four times, current fan speed flashing. Press  to change fan speed.
- (5) Sleep: press  five times, sleep flashing. Press  to change sleep setting.
- (6) Swing: press  six times, swing flashing. Press  to change swing setting.



Press  to exit and confirm the new setting. Alternatively, it will exit without saving the setting 15 seconds after last key press.







Master-slave communication is completed via main board RS485 port.

12. Group control

Press  five times to enter into group control,  icon flashing.


(1) Press  to synchronize real time clock of all slave units online.

(2) Press  to set to broadcast master setting to all slave units online.  icon disappear.

Or from the main interface, press the " +  " keys to enter group control mode. At this time,  icons in the wired control of the master unit will light up (it indicates the master unit is in group control mode). Operations such as on/off, modes, setting temperature, and adjusting fan speed will be group broadcasting commands. In group control mode, pressing the " +  " keys again from the main interface will switch back to normal single control mode. The icon  will then remain lit.




In group control mode, Wi-Fi operations will also be sent in a group control manner.

13. Parameter browsing

Press  six times to enter into parameter browsing, temperature display area shows the value of the parameter selected.

Clock display area: hour area display the unit address, minute area display the parameter item number.

Example: 2:03 denotes unit 2 # parameter 3#. Press  +  to select the corresponding parameter item.


Press  or  to select the corresponding unit address. Press  to exit browsing.

Parameter display:


Clock area	Set temperature area	Description
1:01	Room temperature	
1:02	Coil #1 temperature	
1:03	DIP switch setting	ModbusId 0-31 represents 1-32 slave units, and 32 represents the master unit. Note: Displayed in hexadecimal. ModbusId 0-1F represents 1-32 slave units, and 20 represents the master unit
1:04	Coil #2 temperature	

14. Power-on Password Change

Press the "SET" key 7 times to enter the power-on password change interface.

First, you will enter the original password input interface ("  flashing, temperature area displays "old"). At this time, the time display area corresponds to the four-digit password (default password 1314, super key" 1883). Before entering any password, it is in the '-- --' state. Press "DOWN" or "UP" to change the corresponding password value. Press the \$SET\$ key to move one digit to the right. After setting all four digits, press the SET key again to check if the password is correct. If incorrect, it will jump to the first digit and start entering again. If correct, the interface will change to the new password input interface (temperature area displays "nE").

At this time, the time display area corresponds to the four-digit password. Before entering any password, it is in the '-- --' state. Press "DOWN" or "UP" to change the corresponding password value. Press the SET key to move one digit to the right. After setting all four digits, press the SET key again to save the new password and jump to the default interface. The new password will then be used for powering on and off.

During password input, press the "  " key to exit the settings without saving.

15. Dip switch setting

DIP switches 1 ~ 6 serve as the master and slave addresses. When DIP switch SW1 is ON, it acts as the master .

SW6	SW5	SW4	SW3	SW2	SW1	Unit No.	Remark
1	0	0	0	0	0	01	Master
0	0	0	0	0	1	02	Slave
0	0	0	0	1	0	03	Slave
0	0	0	0	1	1	04	Slave
0	0	0	1	0	0	05	Slave
0	0	0	1	0	1	06	Slave
0	0	0	1	1	0	07	Slave
0	0	0	1	1	1	08	Slave
0	0	1	0	0	0	29	Slave
0	0	1	0	0	1	10	Slave
0	0	1	0	1	0	11	Slave
0	0	1	0	1	1	12	Slave
0	0	1	1	0	0	13	Slave
0	0	1	1	0	1	14	Slave
0	0	1	1	1	0	15	Slave
0	0	1	1	1	1	16	Slave
0	1	0	0	0	0	17	Slave
0	1	0	0	0	1	18	Slave
0	1	0	0	1	0	19	Slave
0	1	0	0	1	1	20	Slave
0	1	0	1	0	0	21	Slave
0	1	0	1	0	1	22	Slave
0	1	0	1	1	0	23	Slave
0	1	0	1	1	1	24	Slave
0	1	1	0	0	0	25	Slave
0	1	1	0	0	1	26	Slave
0	1	1	0	1	0	27	Slave
0	1	1	0	1	1	28	Slave
0	1	1	1	0	0	29	Slave
0	1	1	1	0	1	30	Slave
0	1	1	1	1	0	31	Slave
0	1	1	1	1	1	32	Slave

16. Error code

When there is fault occurred, hour area flashes the unit address, minute area flashes error code. If multiple fault happened at the same time, error code cycling.



If there is no slave unit online, error code area display:





Description	Error code
Coil #2 sensor faulty	E2
Room sensor faulty	E3
Coil #1 sensor faulty	E4
Coil temperature too low	E5
Coil temperature overheated protection	E6
Water pump faulty	E7

17. Setting the host computer's centralized control address

If DIP switches SW6 on all wired controllers are 0, then the centralized control function can be entered. The centralized control address is the address set by the DIP switches.

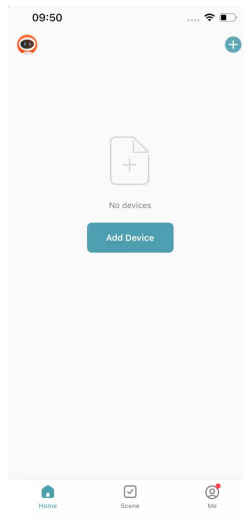
18. WIFI reset

With the key active, press and hold "  +  " for 5 seconds to reset the WIFI . The status will change as follows:

 250ms flashing: Smart configuration mode;  1500ms flashing: AP configuration mode; 
 Constant light: Network connection mode;  Off: Network disconnected.

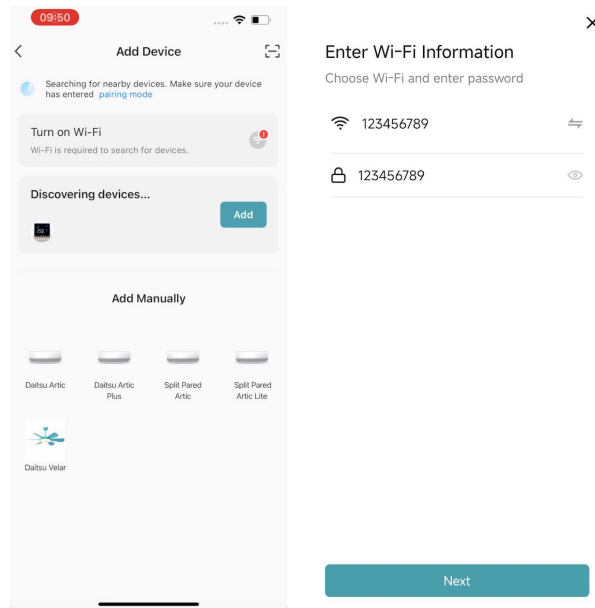
Connect the device to the APP (first scan the QR code to download the APP, complete the registration, and then follow the following steps to configure the WiFi)

1. Turn on the Bluetooth function and WiFi function of the phone, Click "Add Device" or the "+" icon in the upper right corner on the "HOME" page.

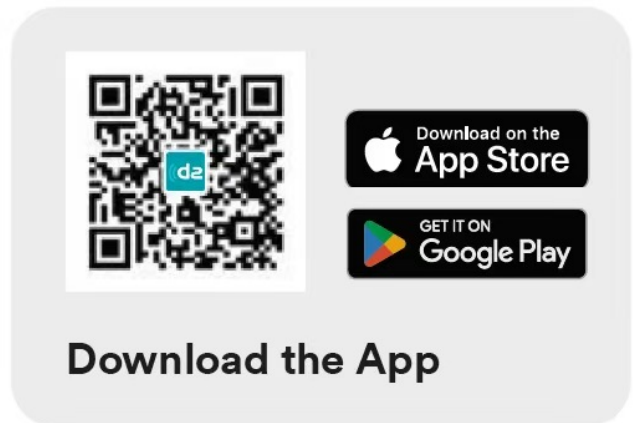
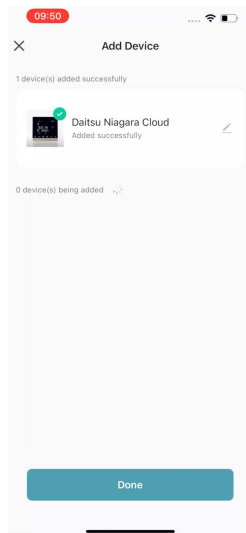


2. Wait for the devices to be searched, select the device, and click "add".














Enter the name and password of the Wi-Fi and click "Next".



3. Waiting for the device to be added. Once device is added successfully, click "Done" to enter the device control interface.



18. Additional Functions

The combined keys " " and " " represent the speed adjustment function. Pressing these two keys simultaneously for 3 seconds first enters the password input interface ( icon flashing). At this time, the time display area corresponds to a four-digit password (default password 1024). Before entering any password, it is in the '-- --' state. Press " " or " " to change the corresponding password value. Press the  key to move one digit to the right. After setting all four digits, press  the key again to check if the entered password is correct. If incorrect, it will jump to the first digit of the password and start entering again. If correct, the interface will display the speed setting interface. Press the combination keys " " and " " again to exit the password input. The temperature area displays D1, D2, D3, D4, and D5, and the time display area displays the specific speed value. The  and  keys switch the fan speed level (corresponding to adjusting D1, D2, D3, D4, and D5). The up and down keys adjust the specific speed of the corresponding level (speed range is 150-1500 RPM; lower levels cannot be set to values greater than higher levels). The adjustment will automatically take effect within 3 seconds. In the speed adjustment interface, press the combined keys " " and " " for 3 seconds to switch the controller status and restore the control display to normal.

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