



## CC908-RF(ES) WIRELESS THERMOSTAT

### Installation and operation instructions

CC908-RF(ES) can replace most common residential thermostat and is designed to be used with electric, gas or oil heating control system or cooling system.

Unlike ordinary single unit design thermostat, this unit is a new type of thermostat separating the thermostat function into two units. Receiver socket and Remote control transmitter CC908-TR. The Control Centre serves as user interface and temperature sensing/control. User can put the control Centre nearby and can read/control the temperature of really the living area while put the Receiver besides the heating or cooling system. The unit is linked by RF.

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#### SPECIFICATION:

Power source .....	Control Centre 2 AA batteries
	Receiver 230VAC $\pm 10\%$ 50/60HZ
Frequency band.....	433 MHZ
Relay contact .....	230VAC 10A
Room temperature setting range.....	5°C to 35°C (41°F to 95°F)
Accuracy.....	$\pm 1^\circ\text{F}$ or $\pm 0.5^\circ\text{C}$
Dimensions.....	Control Centre 115mm $\times$ 90mm $\times$ 28mm
	Receiver 126mm $\times$ 68mm $\times$ 47mm
Color.....	White

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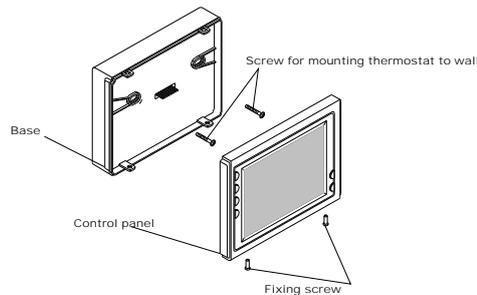
#### FEATURE:

- Can be placed anywhere in the home to detect and control the temperature of an area of the user's choice. Not limited by power control wiring locations.
- Link with the Receiver via RF. Control distance 100M open site.
- Large LCD display
- The screen displays the set temperature and the room temperature also time simultaneously
- Permanent user setting and program setting retention during power loss
- Optional temperature display of Celsius or Fahrenheit scale
- Both Vacation mode and hold duration mode available for comfort and energy saving
- Optional programming Period: 7 individual day or Separate 5-day (weekday) and 1-day/1-day (Saturday/Sunday) programming with 4 or 6 separate time/temperature periods per day.
- Display temperature recalibrates
- Low battery indication
- Anti-freezing protection
- Pump protection available

**IMPORTANT SAFETY INFORMATION**

- Always turn off power at the main power source by unscrewing fuse or switching circuit breaker to the off position before installing, removing, cleaning, or servicing this thermostat.
- Read all of the information in this manual before installing this thermostat.
- Only a professional contractor should install this thermostat.
- All wiring must conform to local and national building and electrical codes and ordinances.
- This thermostat has a removable fuse to protect the system from damage. If system is not operating properly, check wiring and replace fuse if necessary.
- Use this thermostat only as described in this manual.
- Note: the product long time not use it, please detach the battery, prevent the battery fluid leakage, damaged products.

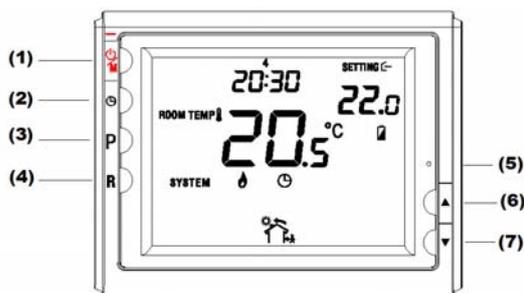
**INSTALL THE CONTROL CENTRE**



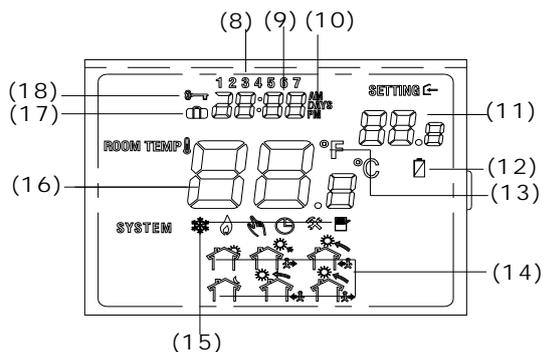
**Figure1**

1. Remove 2 screws from the bottom of thermostat. (See Figure 1) Gently pull the control panel straight off the base. Forcing or prying on the thermostat will cause damage to the unit.
2. Push power base into wall.
3. Using two mounting screws mount the power base to the wall. Place a level against bottom of base, adjust until level, and then tighten screws. (Leveling is for appearance only and will not affect thermostat operation.)
4. Replace control panel on the power base and fix power base and control panel by removed two screws in item 1.

**KEYBOARD, DISPLAY AND SWITCH DESCRIPTION OF CONTROL CENTRE**



**Figure 2**

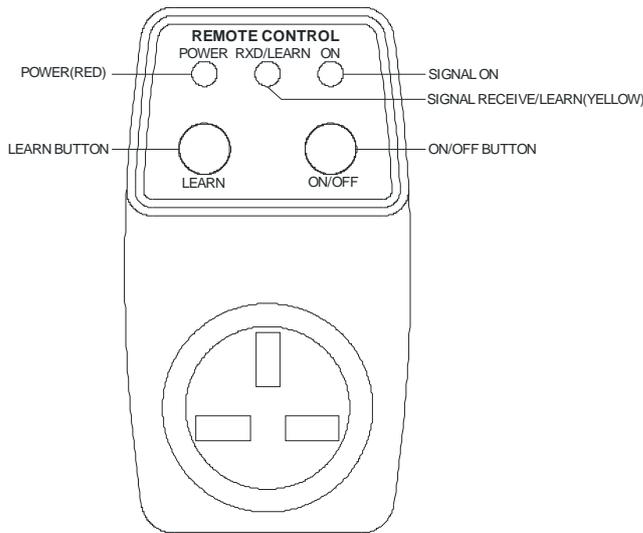


**Figure 3**

- ① Power on/ anti-freezing /off button
- ② Time setting button
- ③ Program setting button
- ④ Program run confirmation button
- ⑤ Reset button
- ⑥ Raise Temperature setting button
- ⑦ Lower Temperature setting button
- ⑧ Shows current day or days being programmed.
- ⑨ Shows current time or times being programmed
- ⑩ Am:: Morning , Pm:: Afternoon Days: Nr of days, Hours: Nr of hours
- ⑪ Shows setting temperature.
- ⑫ Low battery indicator
- ⑬ Shows temperature display in °C or °F
- ⑭  time to get up,  time to go out in the morning  time to come back in the morning  
 time to go out in the afternoon  time to return in the afternoon  
 time to go to bed Low battery indicator
- ⑮  System in Anti-freezing mode;  System in heating mode;  Flashes when there is a call for heating;  Manual temperature override operation;  Program operation;  
 Indicates a malfunction with the system;.  Program setting mode
- ⑯ Shows current readout temperature
- ⑰  Vacation mode indication
- ⑱  Hold temperature indication

**SIGNAL RECEIVE/LEARN(YELLOW)**

**SWITCH AND LED DESCRIPTION OF RECEIVER**



**Figure 4**

**Special feature**

Intelligent Recovery: See configuration menu item 6- Intelligent Recovery operation.

**SELF CHECK FUNCTION : IF THE RECEIVER DID NOT RECEIVE THE SIGNAL FROM THE TRANSMITTER FOR ONE HOUR, THE RECEIVER WILL POWER ON THE HEATER BOILER. AND AFTER 24 HOURS., THE RECEIVER STILL NOT RECEIVING THE SIGNAL . ITS YELLOW LIGHT WILL FLASH ALARM THAT THERE MAYBE SOMETHING WRONG WITH THE THERMOSTAT. IF THERE IS A SIGNAL CONTACT. THEN THE YELLOW LIGHT STOP FLASHING AND THE THERMOSTAT WILL RUN AS THE SCHEDULE SETTING.**

**Wireless signal confirm**

- 1) Plug the power switch with 230VAC power, Then the power light will be on(Red).
- 2) Long press the button LEARN ,the light RXD/LEARN will on ( Yellow ) .
- 3) Then load the 2 AA battery into the transmitter. After five second . Then the yellow light will flash in several seconds. When it going out. It states the wireless control between thermostat and the power switch established.
- 4) Then roll the knob of the transmitter , make the setting temp > room temp , then the heating icon will display in the LCD , please check if the receiver plug light change to green . If it is , the communication between the transmitter and the receiver plug is working

**OPERATION**

**1. Configuration Menu**

The configuration menu allows you to set certain thermostat operating characteristics to your system or personal requirements. Shortly press button ① to make sure the thermostat is in anti-freeze mode. Hold button ③ for 3 seconds to enter the configuration menu. The display will show the first item in the configuration menu. Press button ③ to shift to the next menu item. Use ▲ or ▼ to select. To exit the menu , press button ① revert to the anti-freeze mode . Press button ④ revert to the program operation. If no buttons are pressed within 20 second the thermostat will exit the menu. To revert to factory default setting , push ▲ or ▼ button in a same time for 3 seconds. Display will show “DEF” blinking 3 times and return to Menu item 1 indicates all the configuration setting has reverted to factory default setting.

Step	Press buttons	Displayed(factory default)	Press▲ or ▼to select	Descriptions
1	③	01 (0)	-3 --- +3	Select temperature display adjustment higher or lower
2	③	02 (35℃)	18℃(64℉)—35℃(95℉)	Select maximum setting temperature limitation.
3	③	03 (5℃)	5℃(41℉)—20℃(68℉)	Select minimum setting temperature limitation.
4	③	04 (℃)	℃/℉	Select temperature display to ℃ or ℉
5	③	05 (FA)	FA/SL	Select fast heating or slow heating
6	③	06 (OO)	PP/OO	Select pump protection PP, Cancel pump protection OO
7	③	07 (24)	12 or 24	Selection of time scale
8	③	08 (7)	3or7	Programming day in one week option

9	③	09 (P6)	P4/P6	Programming period per day option
10	③	10 (5)	0/5/10	0: no backlight, 5: backlight maintain 5 sec, 10: backlight maintain 10 sec
11	Press button ④ revert to the program operation			

**1) Select temperature recalibrates Adjustment 3 LO to 3 HI –**

You can adjust the room temperature display up to 3 higher or lower. Your thermostat was accurately calibrated at the factory but you have the option to change the display temperature to match your previous thermostat. The current or adjusted room temperature will be displayed on the right side of the display.

**2) Select maximum temperature set point**

This feature provides a maximum set point temperature f. The default setting is 35°C (95°F), It can be changed between 18°C (64°F) to 35°C (95°F).

**3) Select minimum temperature set point.**

This feature provides a minimum set point temperature. The default setting is 5°C (41°F), It can be changed between 5°C (41°F) to 20°C (68°F).

**4) Select °F or °C readout.**

Changes the display readout to Centigrade or Fahrenheit as required.

**5) Select fast heating or slow heating**

Select FA to start heating immediately when the set point is 1°C above the room temperature.

Select SL to start heating only when the set point is 3 °C above the room temperature.

**6) Select pump protection mode**

For hot water heating installation, it is recommended to activate the pump at least 15 second every 24 hours in order to avoid any seizing. Select PP will activate pump protection mode. Select OO will cancel the function, it shows heating out normally. When thermostat activating the pump, ③ in the display will blink...Heating output will be automatic operated as your setting.

**7) Time display**

To select 12 hours or 24hours display.

**8) There are 2 options for how to program the day in one week.**

7: You can program in 7 individual days. Factory default is 7.

3: You can program in 5 weekday and 1Saturday and 1Sunday.

**9) Select separate time/temperature periods per day**

P4 indicate 4 period programming per day; P6 means 6 period programming per day.

**10) Selection Backlight mode**

0: no backlight, 5: backlight maintain 5 sec, 10: backlight maintain 10 sec

**2. Manual Operation**

**1) On/Anti-freezing mode**

You can press power button ① to activate the anti-freezing mode. The unit only displays Clock time, Weekday and Room temperature. The default set temperature for anti-freezing mode is 5°C. During anti-freezing mode, if room temperature is below 5°C, the unit will activate the heating system till room temperature reach to 9°C. For hot water installations, if PP had been selected (See Configuration menu item 6), the unit will activate the pump at least 15 seconds every 24 hours in order to avoid any seizing. Press power button ① again will terminate the anti-freezing mode and return to normal operation mode.

**2) Program operation and Hold temperature operation**

Momentarily press ④ shift between program operation and hold temperature operation. ④ shows when thermostat is in program operation. Thermostat controls the heating system by presetting

program. See **Planning your program** section.  shows when thermostat is in hold temperature operation. The thermostat will hold the room temperature at the selected setting.

**3) Temperature override**

During program operation, Press  or  until the temperature you want is  displayed.  shows in temperature override. The thermostat will override the current programming and keep the room temperature at the selected temperature until the next program period begins. Then the thermostat will automatically revert to the program.

**4) Vacation Temperature hold**

Continue pressing button  over 3 seconds until display will  show  indicates you have now entered into vacation hold, Use time key  or  to select the number of the days (from 1 to 99 days) during your vacation., you can use  or  to adjust the temperature during your holiday. Push button  to revert to program operation. To the end of vacation time, it will automatically return to the program is running. In the vacation mode, Push button  to revert to program operation. **Vacation factory set temperature is 10 °C.**

**5) Reset operation**

If the display is abnormal, press the Reset button by using a fine probe such as a straightened paper clip to gently push the Rest button. This will reset the thermostat.

**3. Set current day and time**

- 1) Press  button. The display will show the hour flashing.
- 2) Press and hold either  or  until you reach the correct hour and AM or PM designation.  
(AM begins at night, PM begins at noon)
- 3) Press  button once again. The display will only show minutes flashing
- 4) Press and hold either  or  until you reach the correct minutes
- 5) Press  button once again. The display will show the day of the week flashing.
- 6) Press  or  until you reach the correct day of the week  
Press button  once. The display will show the correct day of the week and the time. If no keys are pressed within 20 seconds, the thermostat will revert to program operation.

**4. Planning your program**

Look at the factory preprogrammed times and temperatures shown in the sample schedule. If this program will suit your needs, simply press the  button to begin running the factory preset program. If you want to change the preprogrammed time and temperature, follow these steps.

Determine the times period and temperature for your program. You must program four periods for each day. You can choose heating temperature and start time independently. (for example, you may select 5:00 AM and 70°F as the weekday 1<sup>st</sup> period heating start time and temperature and also choose 7:00 AM and 76°F and the weekday 1<sup>st</sup> period cooling start time and temperature)

Use the table to plan your program time periods and the temperatures you want during each period. Fill in the complete table to have a record of your program

**Heating Schedule Plan (Factory default program setting)**

 <b>Wake up</b>		 <b>Out door</b>		 <b>Back home</b>		 <b>Out door</b>		 <b>Back home</b>		 <b>Sleep</b>	
6:00	21°C	8:00	16.5°C	12:00	21°C	14:00	16.5°C	18:00	21°C	22:00	16.5°C

### Enter Heating Program

- 1). Press ③ once. **1** (indicating Monday program) will appear in the display. Also be displayed are the currently programmed start times for the 1st heating period and the currently programmed temperature (flashing), icon indicates 1<sup>st</sup> program period (Get up) setting. If the display shows **1 2 3 4 5**, indicating that the 5-day program will be modified, you have a 5+1+1 day model. (See configuration menu item 8).
  - 2). Press ▲ or ▼ to change the displayed temperature to your selected temperature for the 1st heating program period.
  - 3). Press ② once (the programmed time will flash). Press ▲ or ▼ until your selected time appears. The time will change in 15-minute increments. When your selected time is displayed, press TIME again to return to the change temperature mode.
  - 4). Press ③ once, icon 2<sup>nd</sup>  program period (Go out) display, the currently programmed start time and set point temperature for the 2nd heating program period will appear
  - 5). Repeat steps 3 and 4 to select the start time and heating temperature for the 2nd heating program period.
  - 6). Repeat steps 3 through 5 for the 3rd;4th;5th;6th heating program periods. If 4 period per day selected in the configuration menu item 9, only 4 period can be programmed each day.
  - 7). Press ③ once. **“2”** (indicating Tuesday program) will appear in the display, along with the start time for the 1st heating period and the currently programmed temperature. If the display shows **6**, indicating that Saturday program will be modified in 5+1+1 day model.
  - 8). Repeat steps 3 through 6 to complete Tuesday (7 day model) or Saturday (5+1+1 day model) heating programming.
  - 9). Continue entering each day’s programming until all heating periods time and temperatures have been entered.
  - 10). When you have completed entering your heating program, press ④.
- 7days program refer to above .

### REVERT TO FACTORY DEFAULT PROGRAM SETTING

Press ③ button enter into program setting. Press ▲ or ▼ at the same time for 3 seconds. Display will show DEF blinking for 3 times and back to program setting. Press the ④ button to begin running the factory preset program. If no keys are pressed within 20 sec, the thermostat will revert to program operation.

### CHECK YOUR PROGRAMMING

Follow these steps to check your thermostat programming one final time before beginning thermostat operation.

1. Press button ③ to view the 1st weekday heating period time and temperature. Each time you press button ③, the next heating period time and temperature will be displayed in sequence for weekday, then Saturday and Sunday program periods (you may change any time or temperature during this procedure).

Press button ④ to begin program operation.

