

CCT-10 Hub Controller Box

Wiring Center Product Manual



Product summary

The connection center box is suitable for the floor heating system. It can receive the control signal from the room temperature controller to control the actuator of the corresponding floor heating circuit. At the same time, it also has power linkage control module and no power linkage control module, which can respectively control the external water pump (or mixing unit, main valve, etc.) and boiler (or heat pump, etc.) with external control function.

Product features:

- Support up to 8-way floor heating thermostat and actuator;
- With AC 220 V power supply, it can directly supply power to temperature controller and external water pump, with convenient wiring;
- For the common electric actuators in floor heating system, due to the long opening time, It specially sets the delay start function for linkage control. The delay time can be adjusted to adapt to different actuators;
- Each control circuit and linkage water pump and boiler are equipped with indicator light, the working state is clear and convenient for inspection;
- A variety of installation options, suitable for various occasions.

Note:

the product is subject to the real object and may be updated with the technical improvement. If there is any update, no further notice.

Working Principle

When any temperature controller has signal input, the corresponding actuator is turned on and the indicator is on; when any temperature controller has no signal input, the corresponding actuator is turned off and the indicator is off.

When any temperature controller has signal input, after a preset delay time, the linkage output of water pump (with power linkage) and boiler (without power linkage) is on, and the corresponding linkage indicator is on; when all temperature controllers have no signal input, the linkage output of water pump and boiler is off, and the corresponding linkage indicator is off.

Technical Parameter

Technical parameters of the product:

- Applicable voltage: AC220V, 50/60Hz
- No-load power: $\leq 2W$
- Number of applicable temperature control circuits: ≤ 8 pcs
- Number of power supply linkage: 1 pc

-- No power linkage quantity: 1 normally open, 1 normally closed (common terminal)

-- Ambient humidity: 5 ~ 90% RH, no condensation

-- fuse value: 15A

Allowable electrical parameters of external equipment:

-- Voltage and frequency of thermostat, electric thermal valve and power linkage equipment: it must be compatible with the power supply connected to the CCT-10 Link Box.

-- Allowable external voltage of linkage equipment without power supply: $\leq 250VAC$

-- The total allowable current of one power circuit of all temperature controllers and actuators: ≤ 3 .

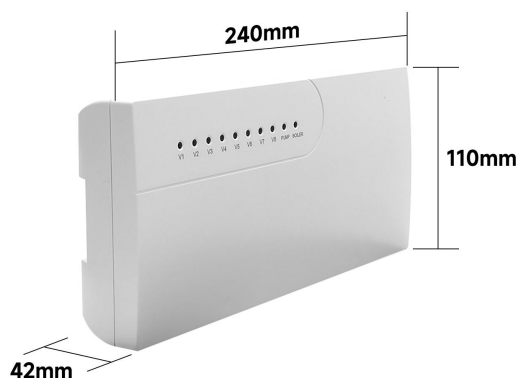
-- Allowable current of power linkage: $\leq 3 A$ (for resistive load), if it exceeds 3a, additional relay is required.

-- Allowable current of linkage without power supply: $\leq 3 A$ (for resistive load).

Warning:

when linkage control inductive load such as water pump, if the power is more than 450W, it is not allowed to connect directly, and relay must be added for indirect control!

Product Size and Installation



Overall dimension of equipment (L * W *T): 240 × 110 × 42mm

The installation can be fixed with screws through the reserved fixing hole on the bottom box, or directly stuck on the electrician guide rail with the back card slot.

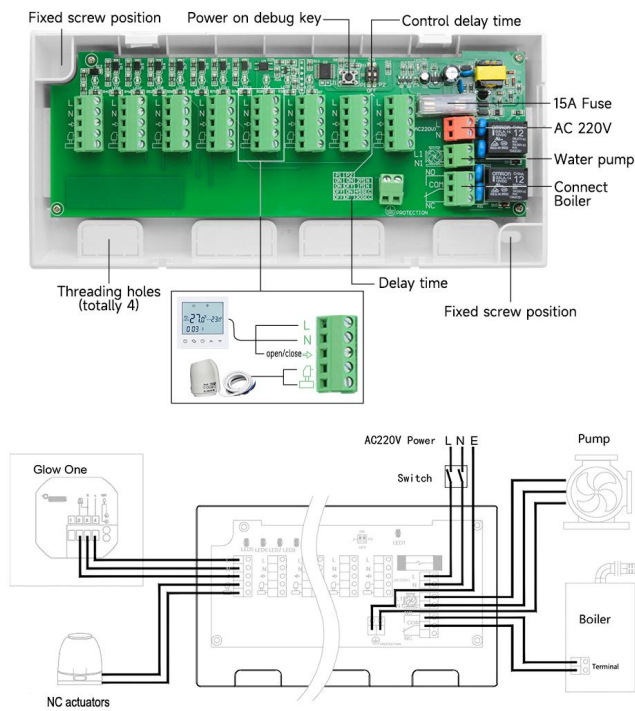
There are several connection ports on the bottom box, which can be pried off by a slotted screwdriver according to the needs.

Delay Control Setting

It takes about 80 ~ 180 seconds for the electric actuators commonly used in the floor heating system to be fully opened. In order to ensure the normal working conditions of water pump and boiler equipment, CCT-10 link-box is specially designed with linkage control and delay start function. By setting the delay code, the corresponding delay time can be set to adapt to different actuators.

Pull code	P1 position	P2 position	Delay Time
Combination code1 (Factory settings)	ON	ON	120S
Combination code2	ON	OFF	60S
Combination code3	OFF	ON	45S
Combination code4	OFF	OFF	30S

Wire Connection



5. The buttons on the circuit board in the box are only for internal test in the factory. Please do not operate them to avoid accidents;
6. Please observe the technical parameters of the equipment, and the load of each interface is strictly prohibited to exceed the requirements of the technical parameters.

LED status indicator

CCT-10 Link Box With a number of LED status indicator, used to indicate various states, convenient to check the operation.

- On the product shell:
- The indicator lights marked with v1-v8 correspond to 8 temperature control circuits from left to right. Light on, circuit on, light off, circuit off;
- The indicator lights marked with pump and boiler correspond to the active output water pump and the passive output boiler respectively. Light on, equipment on, light off, equipment off.

In box circuit board :

- LED1 indicates the power status, and the light on indicates that there is power input;
 - LED2 indicates the working state, flickering means normal operation, and no light or constant light means fault;
 - LED3 is the pilot indicator, LED4 is the pump indicator;
- LED5 - led12 is V1 - V8 indicator.

Matters needing attention

1. The product works with high voltage, improper installation, use and maintenance may lead to electric shock or other hazards;
2. The installation and maintenance must be carried out by professional personnel with relevant qualifications, and comply with all relevant regulations, application standards and guidance of accident prevention. It is forbidden to dismantle and repair without permission;
3. Cut off the power supply before removing the box cover, and do not operate with electricity to prevent equipment damage or electric shock! Please disconnect the power before wiring or adjusting the pull code;
4. This product is only suitable for normally closed actuators. The normally open actuator may work abnormally;