

## I. Introduction

HHQ8 series time control switch adopts special timing chip and LCD display, which has the advantages of high timing precision and wide time control range. It is widely used in street lamps, neon lights, advertising signboards, production equipment, broadcasting and TV equipment, and other places where electrical equipment and household appliances need to be turned on and off at regular intervals.

This time control switch meets the requirements of GB/T 14536.8.

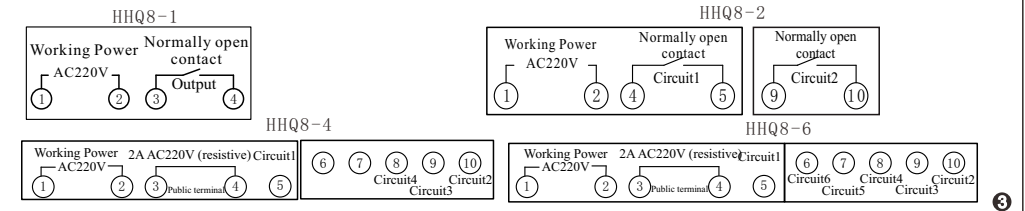
## II. Main technical data

Model	HHQ8-1	HHQ8-2	HHQ8-4	HHQ8-6
Operating Power Supply (control supply voltage)	AC220V 50HZ, Allowable Voltage Fluctuation Range: 85%-110%, U <sub>e</sub> :			
Time Control Range	1m-168h			
Number of Timings	40 sets, automatic and manual			
Controllable Circuit	1 Circuit	2 Circuits	4 Circuits	6 Circuits
Output Method	Passive contact output		Active voltage output	
Timing Error	≤ ±1s/day (adjustable error; 7 days ±9.5s)			
Power Consumption	≤2VA			
Humidity	The relative humidity of the air should be ≤50% at a maximum temperature of +40°C at the place of installation, and higher relative humidity may be permitted at lower temperatures. e.g. up to 90% at 20°C. Special measures should be taken for occasional condensation due to temperature changes.			
Environmental Temperature	-10°C ~ 40°C			
Altitude	≤2000m			
Contact Capacity	16A AC250V (resistive)	3A AC250V (resistive)	/	
Carrying Capacity	2A AC220V (resistive) single circuit			
Installation	35mm rail mount			
Contamination level	3			
Conventional heating current Ith	5A			
Rated insulation voltage U <sub>i</sub>	400V			
Rated impulse withstand voltage U <sub>imp</sub>	2.5KV			

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- "Function": Pressing this key enables switching between the clock state, clock setting state, programme setting state and error setting state.
- "Select": Press this key to select each parameter that needs to be adjusted and set in various functions.
- "+": Pressing this key adds a number upwards to the selected parameter (i.e. increasing changes).
- "-": Pressing this key decrements the selected parameter downwards (i.e. decreasing changes), and in the programme setting state enables switching on and off of the day of the week and circuit parameter settings.
- "Manual": In the clock state, this key is used to set the different working state setting sequence as follows: ON ↔ AUTO ↔ OFF; in the programme setting state, this key is used to switch between the time set by the programme group and "--:--" (i.e. clear).
- Other advanced features:
  - a. Any setting state without any key operation for 30 seconds will return to the clock running state.
  - b. No external power supply, and in the clock working state, press the "+" key and "-" key at the same time for 5 seconds, turn off the LCD display, and enter the hibernation mode. In the clock running state, no key operation for 2 minutes, also enter the hibernation mode. Press any key to wake up hibernation mode.
  - c. Under the state of program setting, select the program group, press and hold the "Manual" key and "-" key for 2 seconds to cancel the setting parameters of the current program group and the group behind it. After this action, the display will show the cancellation state of the last program group.
  - d. Under the state of program setting, select the program group, press and hold the "Manual" key and "+" key for 2 seconds to cancel the setting parameters of the current program group and the program groups in front of it. After this action, the display will show the cancellation state of the first program group.

## V. Wiring diagram



## III. External Dimensions

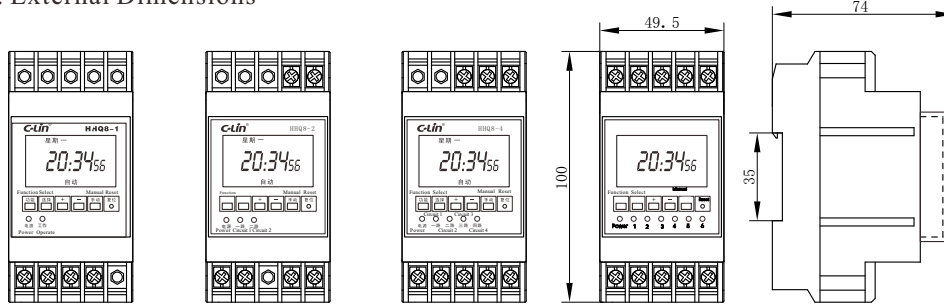


Figure 1

## IV. Panel Description

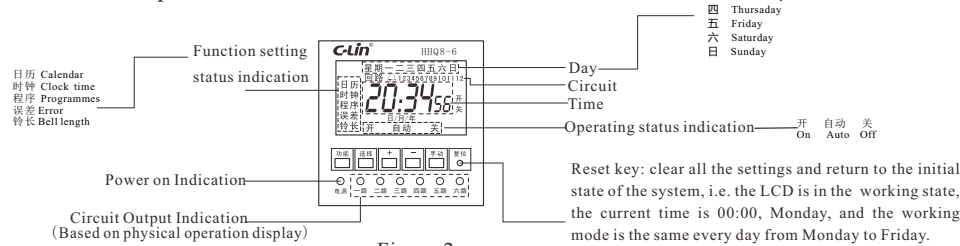
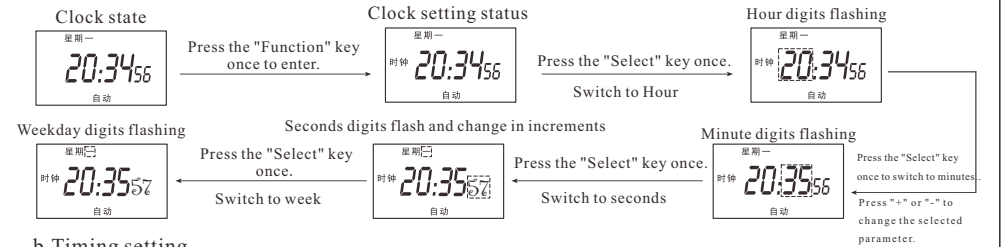


Figure 2

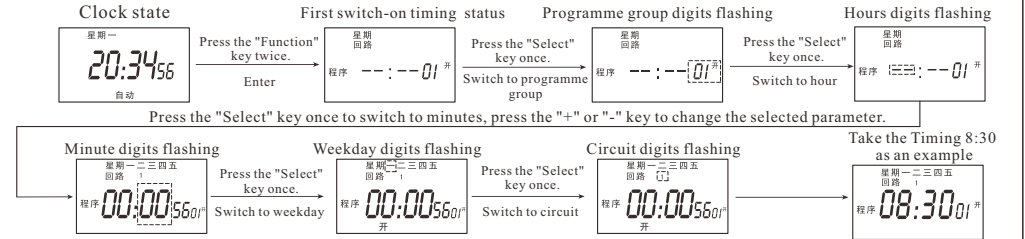
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## VI. Instructions

### a. Clock Calibration



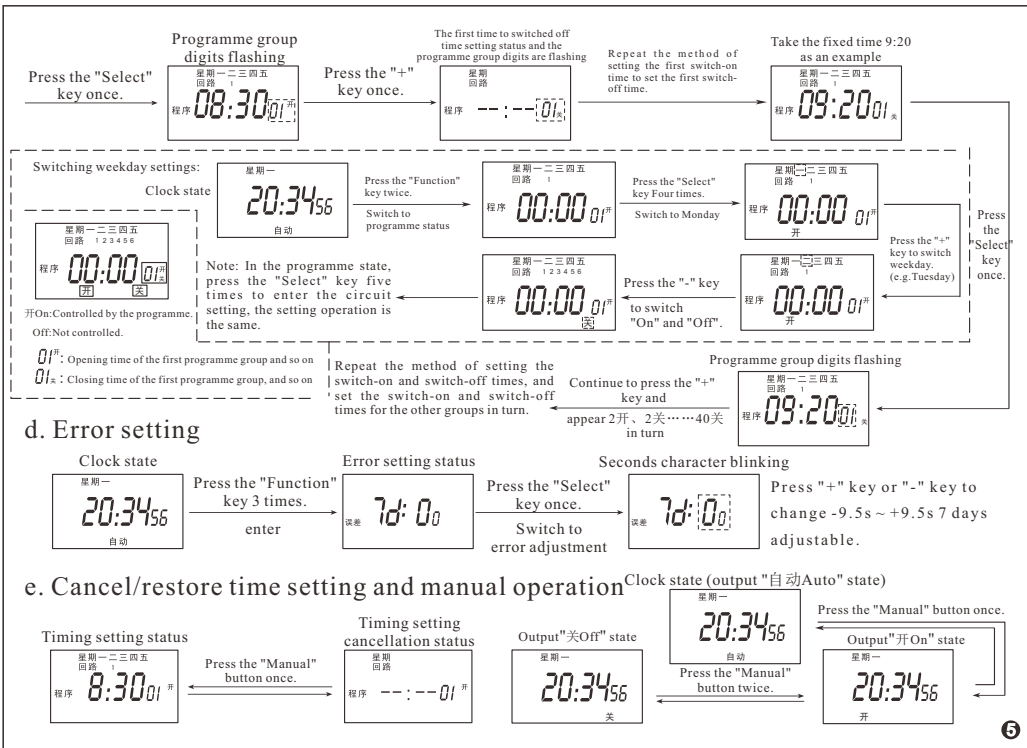
### b. Timing setting



c. If setting the switch-on time is before the clock time (e.g. the current clock time is 9:00, the setting time is 8:00), the system will not switch on this time by default and will switch on automatically next time.

If you want to turn on, you need to press the "On/Auto/Off" key to adjust to the "ON" (manual on) state, this time manually turn on, and then adjust the state back to the "AUTO" (automatic) state, and perform automatic control. Then adjust the status back to "AUTO" (automatic) and perform automatic control.

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c. AC contactor coil voltage AC380V 50Hz, wiring method as shown in Example 4, Example 8.

### IX. Troubleshooting

- After power on, the product power indicator does not light up, check whether the power input is correctly connected to the product working voltage matching the power supply.
- When using this product, no matter what button is pressed, the display does not show or the display is blurred. It is because the built-in battery power is insufficient. You need to open it and replace the button battery.
- The product can not be set in accordance with the expected time to open and close normally, may be the following aspects of the reasons:
  - When "Time Setting", the week mode is not set correctly, please follow the method in "Timer Setting" to reset the correct week mode according to your need.
  - When "Time Setting" is set, there is an extra programme group, please press the "Manual" key to cancel the extra programme group, and the display will be "--:--".
  - "Working state" is not set correctly, which is the current time for the automatic open state, the bottom of the display should be shown as "automatic". If it is not in this position, please adjust it according to the current time of opening or closing from "On" or "Off" to "Auto".
- When the key fails or does not working: the product may be subject to serious electromagnetic interference, ambient temperature or other reasons lead to error. You can use a needle inserted into the "reset" hole for 2 seconds to make the product reset the programme.
- If the above methods can not be troubleshooting, please contact with the company to deal with.

### X. Precautions

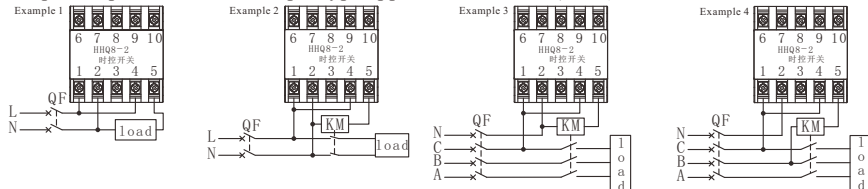
- Products working in humid, corrosive and high metal content gas, or products stained with oil, water, will affect the normal operation of the product.
- To prevent contact heating under strong current, be sure to tighten the screws of the terminals when wiring.
- Do not touch the electrically charged parts of the switch after it is connected to the power supply.

### XI. Ordering instructions

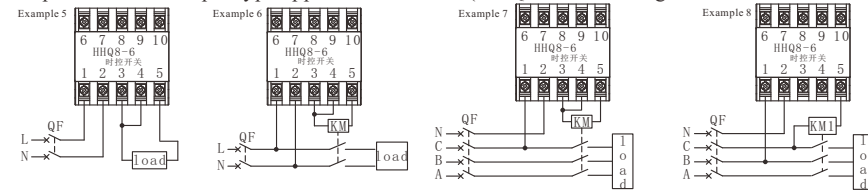
The product model, voltage level and quantity should be specified. If there are special requirements, they should be specified separately.  
For example: HHQ8-2 AC220V 100pcs.

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### VII. Examples of passive contact output type application circuits (HHQ8-2 control "circuit 1" as an example)

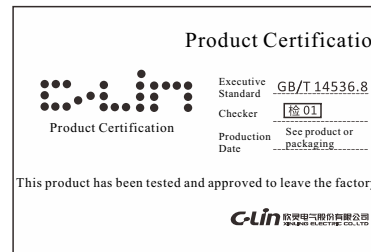


### VIII. Examples of active output type application circuits (HHQ8-6 controlling "circuit 1" as an example)



- Wiring of direct control mode: The load to be controlled is single-phase power supply, and the power consumption does not exceed the rated capacity of this switch, direct control mode can be adopted, and the wiring method is as shown in Example 1 and Example 5.
- Wiring of single-phase expansion mode: The load to be controlled is single-phase power supply, but the power consumption exceeds the contact capacity of this switch (you can check the main technical data sheet), and an AC contactor with capacity exceeding the power consumption of the load is needed to expand the capacity. And the wiring method is as shown in Example 2 and Example 6 (the AC contactor coil working power is AC220V).
- Wiring for three-phase operation:
  - Three-phase power supply for the load being controlled requires an external three-phase AC contactor.
  - AC contactor coil voltage AC220V 50Hz, wiring method as shown in Example 3, Example 7.

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This product has been tested and approved to leave the factory.

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使用说明书  
Products Instructions

## HHQ8 Series

Time Control Switch

Thank you very much for using Xinling brand time control switch, please read the instruction before using the product!

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