

I. Overview

The HHQ4 - D Full - Automatic Bell - Ringing Device (hereinafter referred to as the Bell - Ringing Device) takes high - performance chips as the core. It is suitable for control circuits with an AC frequency of 50Hz and an operating voltage of AC220V. Users can set it to perform automatic bell - ringing. It can achieve a maximum of 80 bell - ringings within a day and provides users with an automatic clock calibration function. It has advantages such as accurate timekeeping and convenient operation, and is widely applied in the automatic bell - ringing control of schools, enterprises, and public institutions.

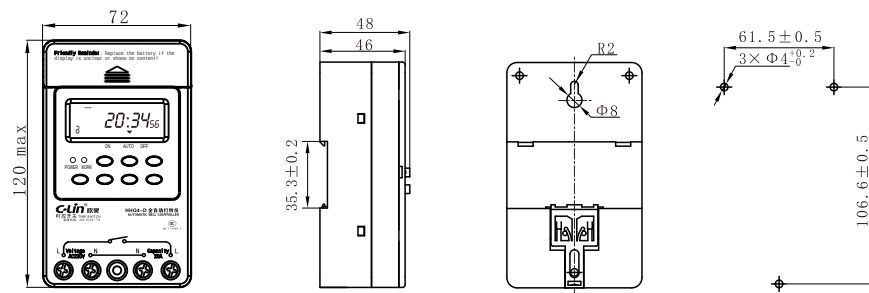
This Bell - Ringing Device meets the relevant requirements of GB/T 14048.5.

II. Main Technical Data

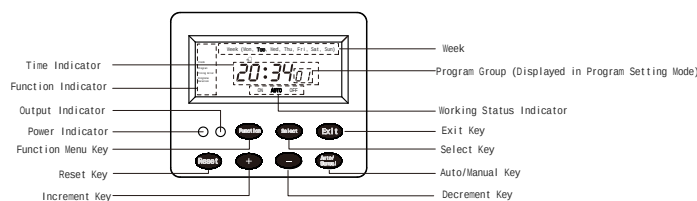
1. Working power supply (control power supply voltage): AC220V, 50Hz;
2. Allowable voltage fluctuation range: (85%—110%) U_n ;
3. Ringing duration: 1s—23h59m59s;
4. Working mode: Supports up to 80 ringing times per day, with both automatic and manual modes;
5. Timing error: $\leq \pm 1\text{s/day}$;
6. Load capacity: 20A AC250V (resistive load);
7. Ambient temperature: -10 —40 ;
8. Altitude: $\leq 2000\text{m}$;
9. Humidity: When the maximum temperature at the installation site is 40 , the relative humidity of air shall be $\leq 50\%$. Higher relative humidity is permissible at lower temperatures (e.g., up to 90% at 20). Special measures must be taken for condensation occasionally caused by temperature changes;
10. Pollution degree: Class 3;
11. Installation methods: Panel - mounted, DIN rail - mounted, wall - mounted;
12. Conventional heating current (I_{th}): 20A;
13. Rated insulation voltage (U_i): 250V;
14. Rated impulse withstand voltage (U_{imp}): 4kV;
15. U_e/I_e : For each rated operating voltage U_e / rated operating current I_e in the usage category: AC - 15, U_e : AC250V, I_e : 20A.

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III.Outline and Mounting Hole Dimensions (mm)



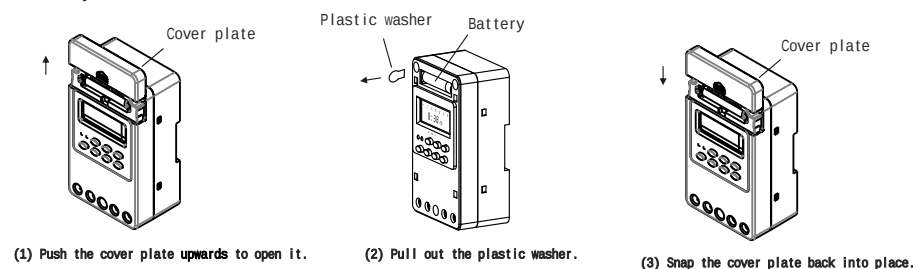
IV. Panel Description



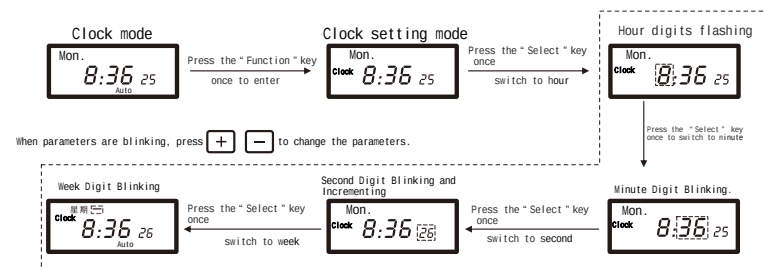
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V. Operation Instructions

1. Battery Installation

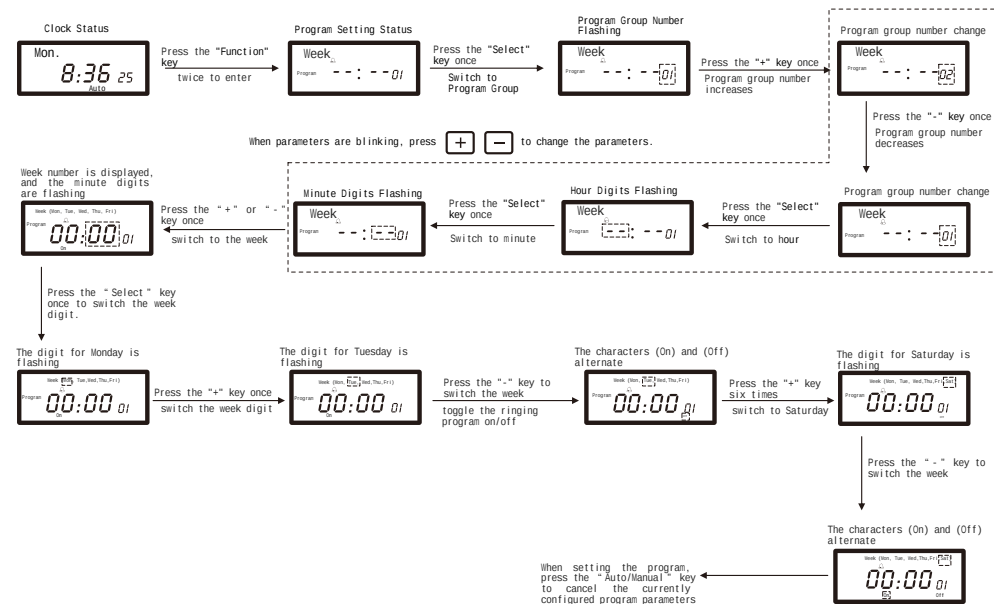


2. Clock Calibration



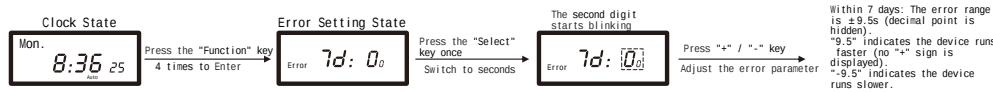
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3.Bell - Ringing Program Setting

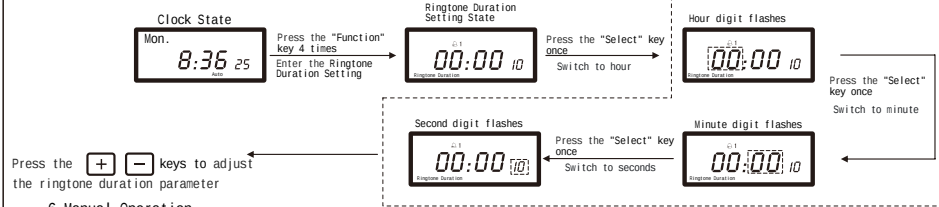


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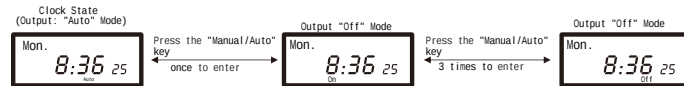
4. Error Setting



5. Ringtone Duration Setting



6. Manual Operation



7. If the set activation time is earlier than the current clock time (for example, the current clock time is 9:00 and the set activation time is 8:00), the system will not activate this time by default and will activate automatically next time. If the set activation time is earlier than the current clock time (for example, the current clock time is 9:00 and the set activation time is 8:00), the system will not activate this time by default and will activate automatically next time. To activate it this time, you need to press the "Auto/Manual" key to adjust to the "On" state, manually activate it this time, then adjust the state back to the "Auto" state and execute automatic control.

8. Other Advanced Functions

- If there is no key operation for 30 consecutive seconds in any setting state, it will return to the clock running state.
- Without an external power supply and when in the clock running state, press and hold the "Add" key and "Subtract" key simultaneously for 2 seconds. The system will then turn off the LCD display and enter the power-saving mode. When in the clock running state, if there is no key operation for 2 consecutive minutes, it will also enter the power-saving mode. Press any key to wake up from the power-saving mode (It is normal that the LCD display cannot be turned off right after an external power supply is connected).

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VII. Troubleshooting

- If the power indicator fails to light up after power - on, check whether the power input terminal is correctly connected and whether the voltage matches the product 's operating voltage.
- When opening the product, if the display shows nothing or is blurry regardless of which button is pressed, it indicates low battery. Open the product panel and replace it with a new battery. If there 's still no display after battery replacement, press and hold the "Reset" key for 2 seconds to reset the product.
- If the product fails to turn on or off as scheduled, it may be due to the following reasons:
 - During "Ringing Program Setting", the week mode isn 't set properly. Reset the correct week mode as per the "Ringing Program Setting" method.
 - During "Ringing Program Setting", extra program groups are set. Press the "Auto/Manual" button to cancel the extra program groups until "--:--" is displayed.
 - The "Working Status" setting is incorrect. When the current time is in auto-on state, "Auto" should be displayed at the bottom of the screen. If not, adjust it to "Auto" or "Off" according to whether the current time requires the product to be on or off.
- If buttons are unresponsive or the bell doesn 't ring on time: The product may have crashed due to severe electromagnetic interference, ambient temperature, or other factors. Press and hold the "Reset" button for 2 seconds to reset it.
- If the above methods don 't resolve the issue, contact our company or the local dealer for handling.

VIII. Precautions

- The product won 't work properly if used in humid, corrosive, or high-metal-content gas environments, or if it gets oily or wet.
- To prevent contact overheating under strong current, be sure to tighten the terminal screws during wiring.
- After the product is powered on, do not touch live parts.

IX. Ordering Information

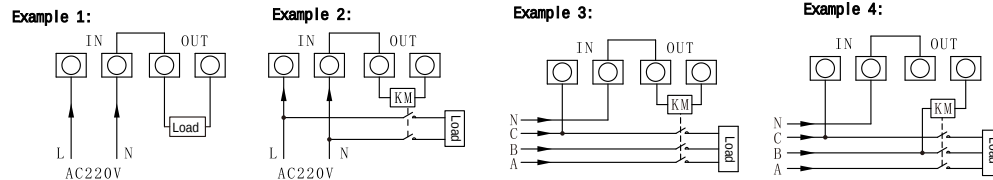
When placing an order, specify the product model, voltage rating, and quantity. Note any special requirements.

Example: 100 units of HH4 - A DC220V

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- In the program setting state, select the program group. Press and hold the "Auto/Manual" key and the "Subtract" key for 3 seconds. This cancels the setting parameters of the current program group and the subsequent program groups. After the action is executed, the display shows the cancellation state of the last program group.
- In the program setting state, select the program group. Press and hold the "Auto/Manual" key and the "Add" key for 3 seconds. This cancels the setting parameters of the current program group and the preceding program groups. After the action is executed, the display shows the cancellation state of the first program group.

VI. Application Circuit Examples (Taking AC220V as the Product Power Supply Example)



- Wiring for Direct Control Mode:** If the controlled electrical appliance is single - phase powered and its power consumption does not exceed the rated capacity of this switch, the direct control mode can be adopted. The wiring method is as shown in Example 1.
- Wiring for Single - Phase Capacity Expansion Mode:** If the controlled electrical appliance is single - phase powered but its power consumption exceeds the rated capacity of this switch (resistive load exceeding 20A, inductive load exceeding 5A), an AC contactor with a capacity exceeding the power consumption of the electrical appliance is required for capacity expansion. The wiring method is as shown in Example 2 (the coil operating voltage of the AC contactor is AC220V).
- Wiring for Three - Phase Working Mode:** a) If the controlled electrical appliance is three - phase powered, an external AC contactor is required. b) For an AC contactor with a coil voltage of AC220V 50Hz, the wiring method is as shown in Example 3. c) For an AC contactor with a coil voltage of AC380V 50Hz, the wiring method is as shown in Example 4.

Notes:

- The "Load" can be an AC electric bell and can be directly connected to both ends of the AC electric bell (as shown in Example 1).
- KM is an AC contactor; the output can be directly connected to terminals A1 and A2 of the AC contactor (as shown in Examples 2 and 3).
- The coil operating voltage of KM in Example 4 is AC380V.

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使用说明书
Products Instructions

HHQ4-D

Fully Automatic Bell - Ringing Instrument

Thank you very much for using the C-Lin Brand Fully Automatic Bell - Ringing Instrument. Please read the instruction manual before using the product!

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