Walfront Walfront408mswaor6

Walfront DC 12V Infinite Cycle Delay Timing Timer Relay Instruction Manual

Model: Walfront408mswaor6 | Brand: Walfront

Introduction   **Setup**   **Operating Instructions**   **Troubleshooting**   **Specifications**   **Warranty & Support**

1. INTRODUCTION

The Walfront DC 12V Infinite Cycle Delay Timing Timer Relay is a versatile module designed for precise control of electrical circuits. It features an LED display for easy monitoring and adjustable "on" and "off" times for infinite loop cycling. This module is ideal for applications requiring repetitive power switching, such as equipment burn-in tests, intermittent pump control, and various automation projects.

Key Features:

- **High Precision:** Utilizes an MCU as the main chip for accurate timing.
- **Infinite Loop Mode:** Configurable "on" and "off" periods for continuous cycling.
- **Adjustable Timing:** Wide time range with adjustable "on" and "off" durations.
- **Compact Design:** Easy to carry, store, and integrate into various setups.
- **Broad Application:** Suitable for timer operating equipment, repetitive testing circuits, and fish tank intermittent pumps.
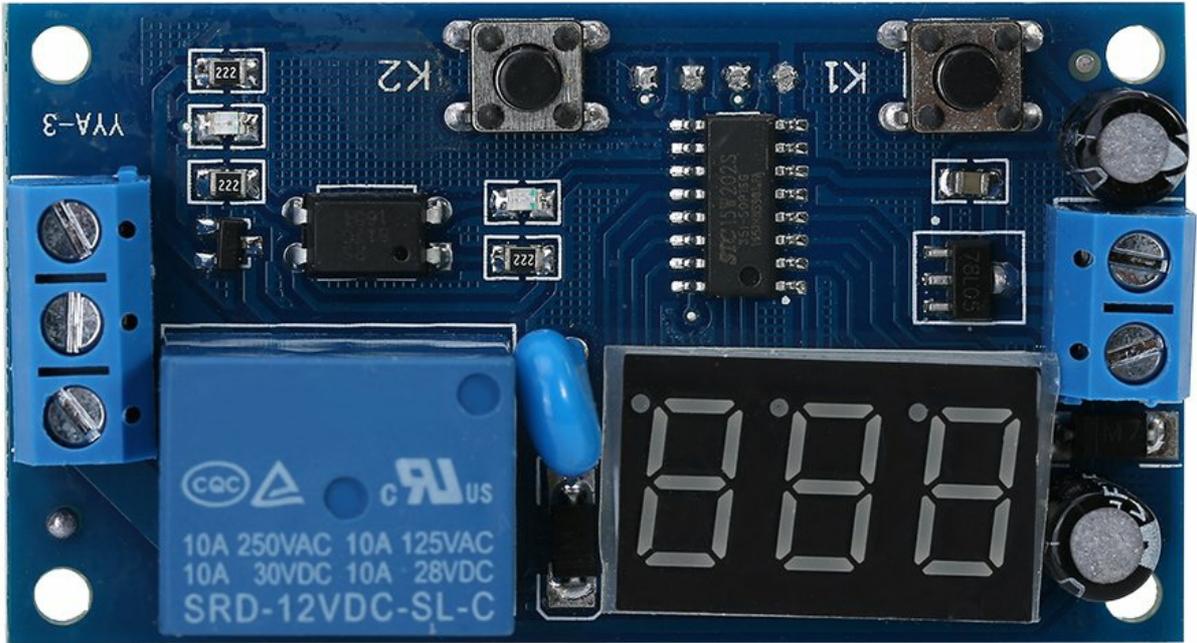
2. SETUP

2.1 Product Overview

Image 1: Walfront DC 12V Infinite Cycle Delay Timing Timer Relay Module. This image shows the overall view of the timer relay module, highlighting its compact size and LED display.
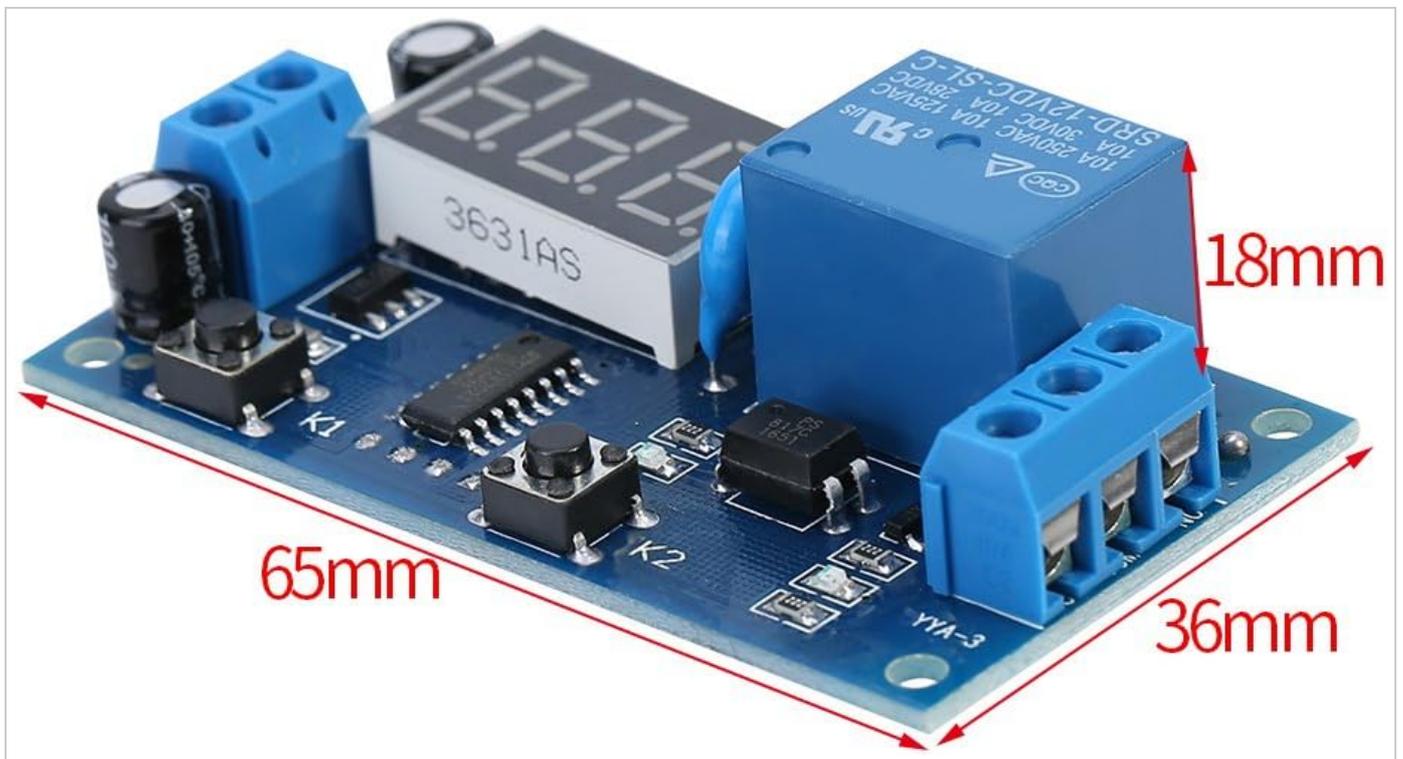
Image 2: Dimensions of the Walfront DC 12V Timer Relay Module. The module measures 65mm in length, 36mm in width, and 18mm in height, indicating its compact form factor.

2.2 Wiring Diagrams

Proper wiring is crucial for the safe and correct operation of the timer relay. Refer to the following diagrams for connecting the module to your power supply and load appliance.
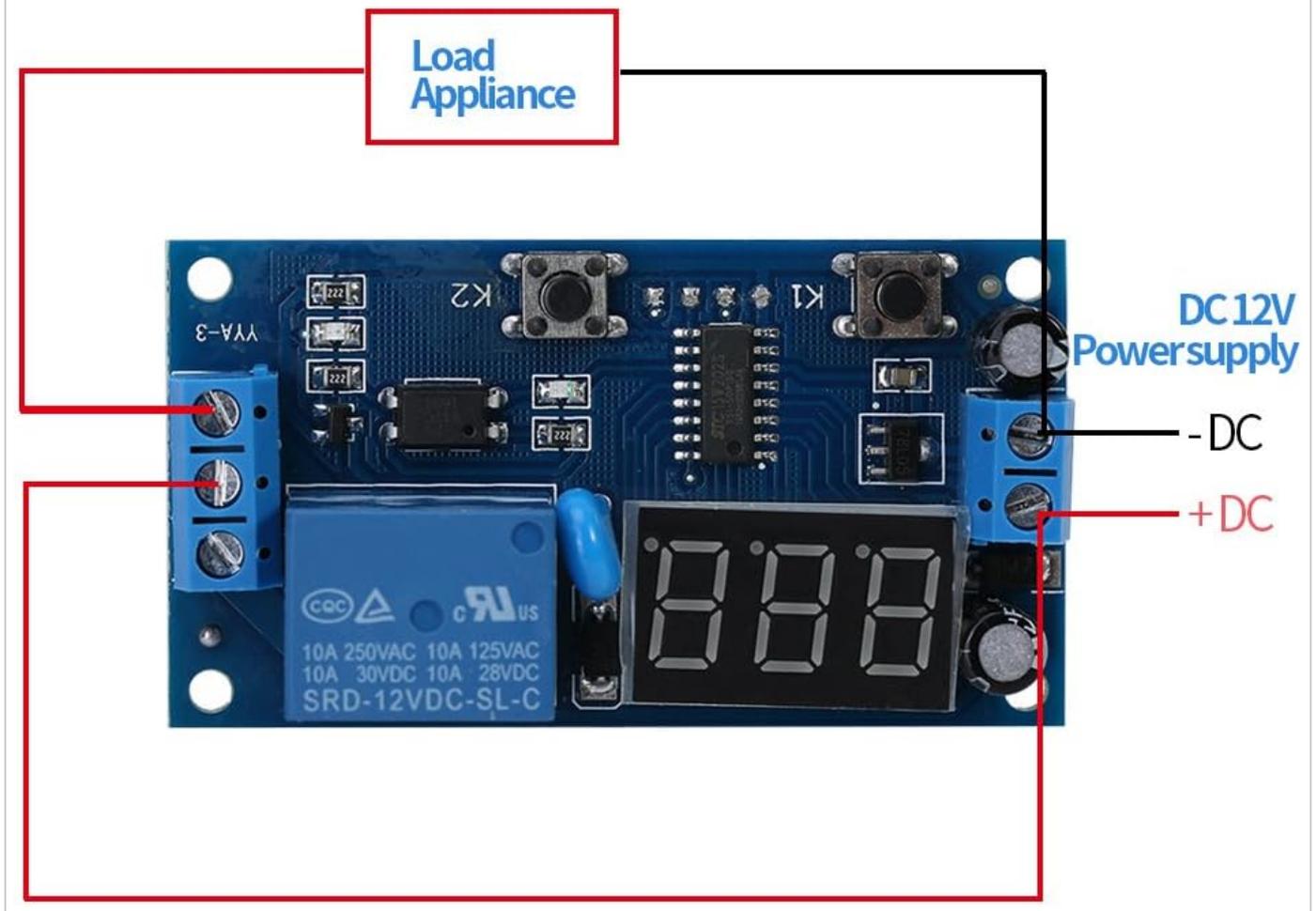
DC 12V Load Appliance Wiring Diagram

Image 3: DC 12V Load Appliance Wiring Diagram. This diagram illustrates how to connect a DC 12V power supply and a DC 12V load appliance to the timer relay module. Ensure correct polarity (+DC and -DC) for the power supply and connect the load between the COM and NO (Normally Open) terminals of the relay.

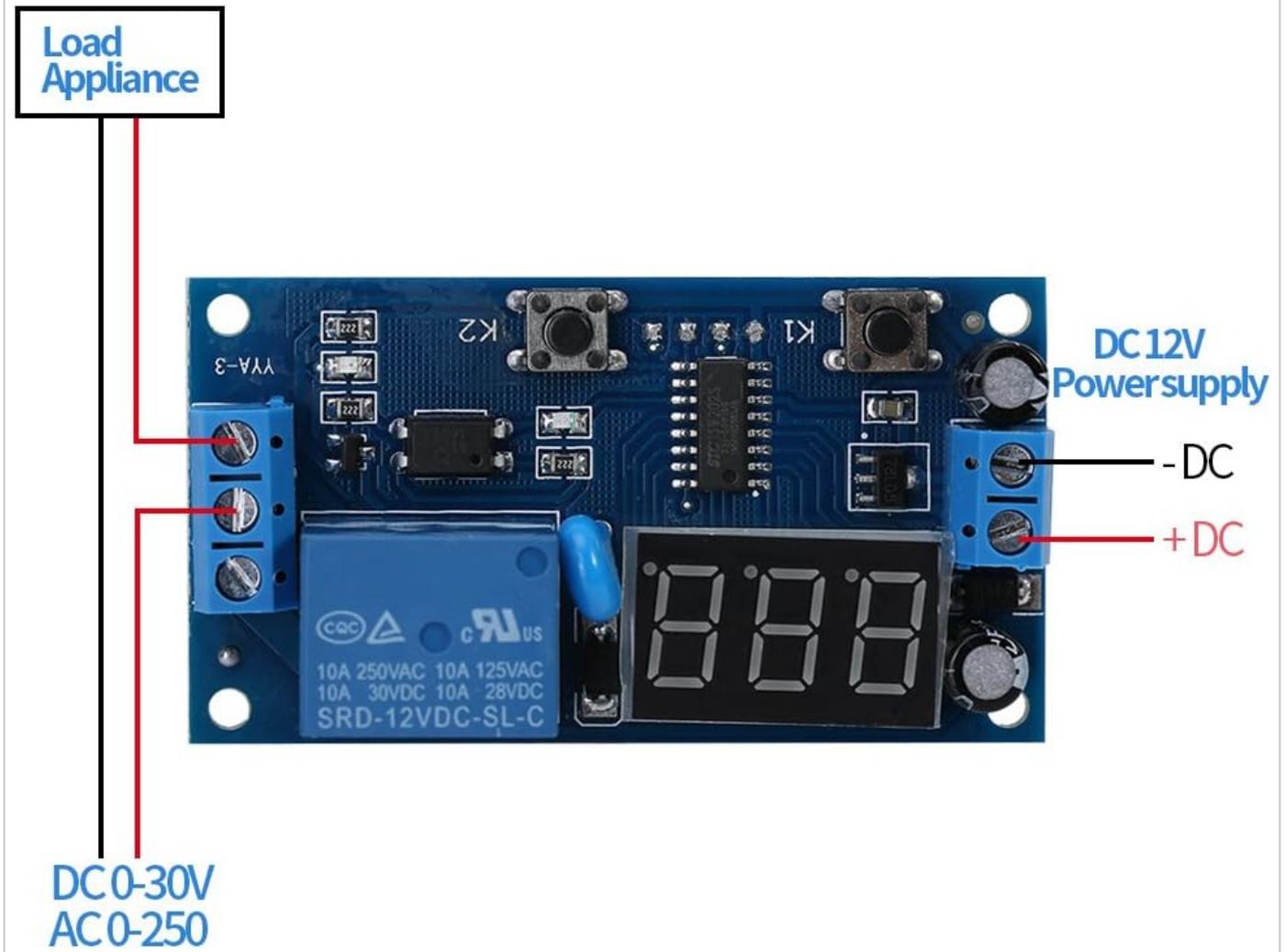# Other Voltage Load Appliance Wiring

Image 4: Other Voltage Load Appliance Wiring Diagram. This diagram shows how to connect a DC 12V power supply to the module, while controlling a load appliance with a different voltage (DC 0-30V or AC 0-250V). The load is connected between the COM and NO terminals, with its own power source.
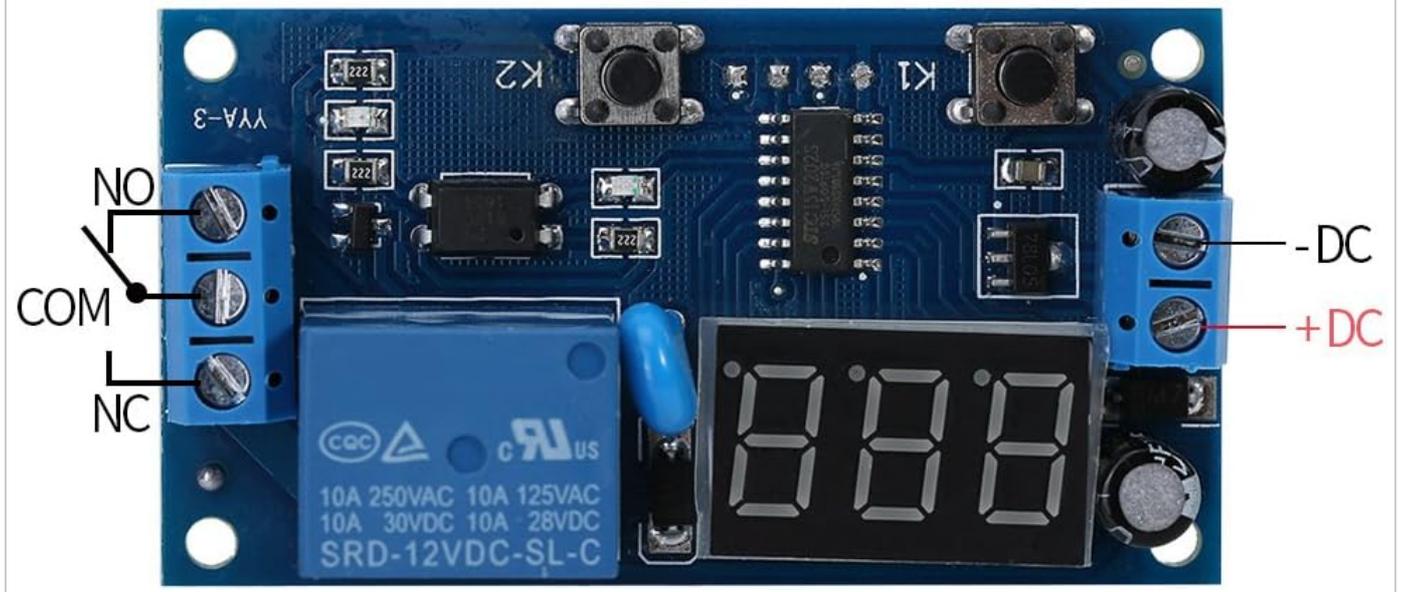
Image 5: DC 12V Programmable Delay Timer Switch. This image highlights the NO (Normally Open), COM (Common), and NC (Normally Closed) terminals of the relay, along with the DC 12V power input terminals. The LED display indicates the current state and timing.

3. OPERATING INSTRUCTIONS

The Walfront timer relay is programmed using its onboard buttons. The following instructions detail the programming process.

3.1 Programming the Timer (K1 & K2 Buttons)

The Walfront timer relay is programmed using the K1 and K2 buttons. K1 is used to select the digit or parameter, and K2 is used to adjust its value. The programming involves setting the "ON" time (connect time) and "OFF" time (disconnect time) for the infinite cycle mode.

1. **Power On:** Apply DC 12V power to the module. The LED display will show the current time.
2. **Enter Setting Mode:** Press **K1** repeatedly to cycle through the settings. The display will show six cycles: the first three for setting the "ON" time, and the latter three for setting the "OFF" time.
3. **Set "ON" Time (t1):**

   - Press **K1** to select the hundreds digit (e.g., X00). The digit will flash.
   - Press **K2** to adjust the value of the flashing digit.
   - Press **K1** to select the tens digit (e.g., 0X0). Adjust with **K2**.
   - Press **K1** to select the units digit (e.g., 00X). Adjust with **K2**.

4. **Set "OFF" Time (t2):** Repeat the steps above for the next three cycles to set the hundreds, tens, and units digits for the "OFF" time.

5. **Adjust Time Range (Decimal Point):**

   - While the timer is counting down to "OFF" (after setting "ON" time), press **K2** to adjust the decimal point for the "ON" time range:

     - No decimal point: 0 to 999 seconds
     - Decimal point after the second digit (e.g., 99.9): 0 to 99.9 seconds
     - Decimal point after the third digit (e.g., 999.): 0 to 999 minutes

   - Wait until the timer clicks "OFF" and starts counting down to "ON" again.
   - Press **K2** to adjust the decimal point for the "OFF" time range, using the same logic as above.

6. **Save Settings:** The settings are automatically saved once the decimal point is selected for both "ON" and "OFF" times.

7. **Toggle LED Display:** Long press **K2** to turn the LED display off/on to reduce power consumption.

Note: The maximum "ON" time is 999 minutes, and the maximum "OFF" time is 99.9 seconds for some versions of this module. Please verify your module's specific capabilities.

4. MAINTENANCE

The Walfront DC 12V Timer Relay Module is designed for durability and requires minimal maintenance. To ensure optimal performance and longevity:

- **Keep Clean:** Periodically clean the module with a dry, soft cloth to remove dust and debris. Avoid using liquids or abrasive cleaners.
- **Environmental Conditions:** Operate the module within its specified temperature and humidity ranges. Avoid exposure to extreme temperatures, moisture, or corrosive environments.
- **Secure Connections:** Regularly check all wiring connections to ensure they are secure and free from corrosion. Loose connections can lead to intermittent operation or damage.
- **Power Supply:** Ensure a stable DC 12V power supply is used. Fluctuations or incorrect voltage can affect performance and lifespan.

5. TROUBLESHOOTING

If you encounter issues with your Walfront DC 12V Timer Relay Module, refer to the following common troubleshooting tips:

- **Module Not Powering On:**

  - Verify the DC 12V power supply is correctly connected and providing the specified voltage.
  - Check for loose wires or incorrect polarity at the power input terminals.

- **LED Display Not Working:**

  - Ensure the module is powered on.
  - If the display is off, try a long press on the **K2** button to toggle it on.

- **Difficulty Setting Timing Parameters:**

  - Ensure you are in the correct setting mode (display flashing after pressing **K1**).
  - Follow the K1/K2 button sequence carefully for digit selection and value adjustment.
  - Confirm the decimal point position is correctly set for your desired time range (seconds, 0.1 seconds, minutes).

- **Timer Not Executing Configured Function:**

  - Double-check that the settings were saved correctly after programming.
  - If using a trigger input, ensure the trigger signal is correctly applied and detected by the module.
  - Verify the load is correctly connected to the COM and NO terminals and its power source is functional.

- **Unexpected Behavior:**

  - Disconnect and reconnect power to reset the module.
  - Re-program the desired function and parameters.

For further assistance, please refer to the support section.

6. SPECIFICATIONS

Feature	Detail
Brand	Walfront
Model Number	Walfront408mswaor6
Input Voltage	DC 12V
Relay Output Capacity	10A 250VAC / 10A 125VAC / 10A 30VDC / 10A 28VDC
Time Range	Adjustable (0-999 seconds, 0-99.9 seconds, 0-999 minutes)
Display	LED Digital Display
Number of Settings	6 (for programming modes)
Material	Metal, Plastic
Product Dimensions	0.71"D x 2.56"W x 1.42"H (approx. 18mm D x 65mm W x 36mm H)
Item Weight	0.634 ounces
ASIN	B074TG32GR
UPC	736691436520

7. WARRANTY & SUPPORT

Walfront products are manufactured to high-quality standards. For specific warranty information, please refer to the product packaging or contact your retailer. If you experience any issues or require technical assistance with your DC 12V Infinite Cycle Delay Timing Timer Relay, please contact Walfront customer support through the retailer's platform or visit the official Walfront store on Amazon for more resources.

Walfront Store: Visit the Walfront Store on Amazon