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› SanmeiLi T2310 LED Digital Time Controller Instruction Manual

## SanmeiLi T2310

# SanmeiLi T2310 LED Digital Time Controller Instruction Manual

Model: T2310

## 1. INTRODUCTION

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The SanmeiLi T2310 is a versatile LED digital time controller designed for precise timing applications. It functions as a countdown timer and an on/off switch, incorporating a delay timer relay module with an optional buzzer. This device supports multiple voltage inputs including DC 12V, DC 24V, AC 110V, and AC 220V, making it suitable for a wide range of electrical control systems. Its optimized interface allows for intuitive setting of timing parameters for various operational modes.



**Image 1:** Front view of the SanmeiLi T2310 LED Digital Time Controller, displaying its green PV (Process Value) and red SV (Set Value) screens, along with the 'ON' indicator and control buttons.

## 2. SAFETY INFORMATION

- Always disconnect power before installation or maintenance to prevent electric shock.
- Ensure the operating voltage of the device matches the power supply. Incorrect voltage can damage the unit.
- Do not exceed the specified load power for the relay. Overloading can lead to malfunction or fire.
- Installation should be performed by qualified personnel or with proper understanding of electrical wiring.
- Keep the device away from moisture, extreme temperatures, and corrosive environments.
- Do not attempt to modify or disassemble the device, as this will void the warranty and may pose safety risks.

## 3. PRODUCT FEATURES

- **Time Control Relay:** Equipped with a 1-way normally open type relay.
- **Wide Voltage Compatibility:** Available in DC 12V, DC 24V, and AC 110~220V specifications.
- **Fixed Timing Display:** Independent timing units for 'on' and 'off' settings, allowing large time span control.
- **Optimized Setting Operation:** Intuitive interface for setting timer on, timer off, and infinite cycle switch.
- **Flexible Cycle Modes:** Supports 1~999 times alternate work and infinite cycle work.
- **Independent Timing Unit:** Allows for precise control in seconds, minutes, or hours.

- **Program Trigger:** Supports automatic and manual trigger switch (factory default is automatic).
- **Setting Lock:** Prevents accidental changes to settings.
- **Power-Down Saving:** Automatically saves the last setting.
- **Active Output:** Contact with power output type.

## 4. PACKAGE CONTENTS

- SanmeiLi T2310 Time-Control Relay x 1

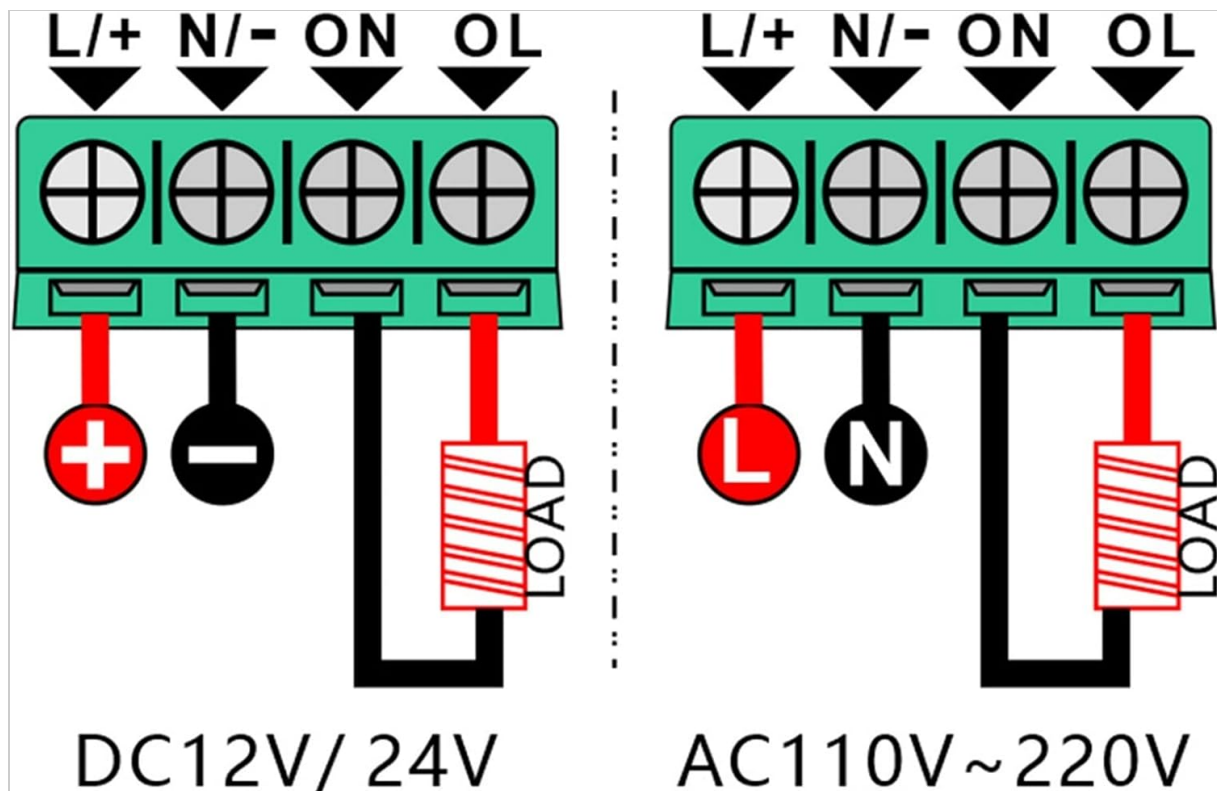
## 5. SETUP AND INSTALLATION

### 5.1 Physical Installation

The T2310 is designed for embedded installation. Ensure you have an opening of **63 mm x 42 mm** for proper fitting. The overall product size is 67 mm x 45 mm x 34 mm.

### 5.2 Wiring Diagram

Refer to the following diagram for correct wiring based on your power supply (DC or AC). Ensure all connections are secure and insulated.



**Image 2:** Wiring diagram for the T2310 timer. The left side shows DC 12V/24V connections with positive (+) and negative (-) terminals, and load connections. The right side shows AC 110V-220V connections with Live (L) and Neutral (N) terminals, and load connections. Both diagrams illustrate the input power and output to the controlled load.

#### DC 12V/24V Wiring:

- Connect the positive (+) terminal of your DC power supply to the L/+ terminal on the timer.
- Connect the negative (-) terminal of your DC power supply to the N/- terminal on the timer.
- Connect one side of your load to the ON terminal.
- Connect the other side of your load to the OL terminal.

#### AC 110V-220V Wiring:

- Connect the Live (L) wire of your AC power supply to the L/+ terminal on the timer.
- Connect the Neutral (N) wire of your AC power supply to the N/- terminal on the timer.
- Connect one side of your load to the ON terminal.
- Connect the other side of your load to the OL terminal.

**Important:** The operating voltage, input voltage, and output voltage must be the same as the label voltage on the device.

## 6. OPERATING INSTRUCTIONS

### 6.1 Display Overview



**Image 3:** Front view of the T2310 timer, highlighting the PV (Process Value) and SV (Set Value) LED displays. The 'ON' indicator light is also visible, along with the 'SET' button and arrow buttons for adjustment.

- **PV (Process Value):** The upper green LED display shows the current countdown or elapsed time.
- **SV (Set Value):** The lower red LED display shows the set timing parameter.
- **ON Indicator:** A light indicating when the relay output is active.

### 6.2 Button Functions

- **SET Button:** Enters setting mode and confirms selections.
- **Up Arrow Button (▲):** Increases values or navigates through options.
- **Down Arrow Button (▼):** Decreases values or navigates through options.

- **Exit/Cancel Button (X):** Exits setting mode or cancels current operation.

## 6.3 Setting Timing Parameters

The T2310 supports various timing modes. The unit of time (seconds, minutes, hours) is automatically determined by the set value (0-999). For example, if you set 120, it could be 120 seconds, 120 minutes, or 120 hours depending on the context of the setting.

1. **Enter Setting Mode:** Press and hold the **SET** button for a few seconds until the display changes to show setting options.
2. **Navigate Options:** Use the **Up (▲)** and **Down (▼)** arrow buttons to cycle through different parameters such as "Timer On" (P1), "Timer Off" (P2), "Cycle Mode" (P3), etc.
3. **Select and Adjust:** Press **SET** to select a parameter. Use **Up (▲)** and **Down (▼)** to adjust the value. Press **SET** again to confirm the value and move to the next digit or parameter.
4. **Save Settings:** After adjusting all desired parameters, press and hold the **SET** button again to save the settings and exit the setting mode. The device will automatically save the last setting upon power-down.

### Key Timing Modes:

- **Timer On:** Sets the duration for which the relay remains active.
- **Timer Shutdown:** Sets the duration for which the relay remains inactive.
- **Infinite Cycle:** Configures the device to continuously alternate between 'on' and 'off' states.
- **Quantitative Cycle (1~999 times):** Sets the device to perform a specific number of 'on/off' cycles before stopping.

## 6.4 Program Trigger

The T2310 supports both automatic and manual trigger switches. The factory default is automatic trigger, meaning the timer starts automatically upon power-up or completion of a cycle. Consult the full product manual (link provided in product description) for details on switching to manual trigger mode if required.

## 6.5 Setting Lock

The device includes a setting lock feature to prevent accidental changes. Refer to the detailed manual for instructions on how to activate and deactivate this lock.

## 7. MAINTENANCE

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- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in a cool, dry place away from direct sunlight and extreme temperatures when not in use.
- **Inspection:** Periodically check wiring connections for tightness and signs of wear or damage.

## 8. TROUBLESHOOTING

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Problem	Possible Cause	Solution
Device does not power on.	No power supply; incorrect wiring; faulty power source.	Check power connections and ensure power is supplied. Verify wiring according to the diagram. Test power source.
Timer not starting or stopping as expected.	Incorrect timing parameters set; program trigger mode issue; setting lock active.	Review and re-enter timing settings. Check program trigger mode. Deactivate setting lock if enabled.
Load not switching on/off.	Load wiring incorrect; load power exceeds relay capacity; faulty load.	Verify load wiring. Ensure load power is within specifications. Test the load independently.
Display shows erratic values.	Electrical interference; unstable power supply.	Ensure stable power supply. Check for sources of electrical noise.

## 9. SPECIFICATIONS

Parameter	Value
Model	T2310
Working Voltage Options	DC 12V, DC 24V, AC 110~220V
Load Power (12V)	240W (Max 10A)
Load Power (24V)	480W (Max 10A)
Load Power (110-220V)	2200W (Max 10A)
Timing Range	0 ~ 999 (seconds, minutes, hours)
Minimum Unit	1 second
Timing Error	20ppm
Timing Type	Non-clock type countdown
Relay Type	1 way normally open relay
Output Type	Contact with power, active output
Shell Material	ABS
Product Dimensions	67mm × 45mm × 34mm
Installation Opening Size	63mm × 42mm (embedded installation)
Item Weight	50 Grams (approx. 1.76 ounces)

## 10. WARRANTY INFORMATION

Specific warranty details for the SanmeiLi T2310 are typically provided at the point of purchase or within the product packaging. Please retain your proof of purchase for any warranty claims. The warranty generally covers defects in materials and workmanship under normal use. Damage resulting from improper installation, misuse, unauthorized modification, or exceeding specified operating conditions is usually not covered.

## 11. SUPPORT INFORMATION

For technical assistance, troubleshooting beyond this manual, or inquiries regarding your SanmeiLi T2310 LED

Digital Time Controller, please contact your retailer or the manufacturer directly. You may also refer to the official product manual available online for more detailed information:

Official Product Manual (External Link)

When contacting support, please have your product model (T2310) and purchase details readily available.