**BN-LINK CP-U49WT**

# BN-LINK Pool Pump Timer User Manual

Model: CP-U49WT | Brand: BN-LINK

## Introduction

The BN-LINK Smart Wi-Fi Pool Pump Timer (Model CP-U49WT) is a robust outdoor/indoor timer box designed for efficient control of high-power electrical equipment such as pool pumps, water heaters, fans, and SPA systems. This device offers smart connectivity, allowing remote control via the BN-LINK Smart App and compatibility with voice assistants like Alexa and Google Assistant. Its durable, weatherproof construction ensures reliable operation in various environmental conditions.

## Important Safety Information

Please read and understand all instructions before installing or operating this device. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Professional Installation Recommended:** Installation and wiring should always be performed by a qualified electrician to ensure compliance with local electrical codes and safety standards.
- **Turn Off Power:** Always disconnect power at the circuit breaker before performing any wiring or maintenance on the timer box.
- **Voltage Compatibility:** Ensure the timer's voltage capacity (120-277 VAC) matches your electrical system requirements.
- **Proper Grounding:** Ensure the device is properly grounded to prevent electric shock.
- **Outdoor Use:** While designed for outdoor use, ensure the enclosure is securely closed and sealed to maintain its water resistance.
- **Operating Temperature:** The device is rated for -40°F to 130°F (-40°C to 54°C). Do not operate outside this range.

## Package Contents

The BN-LINK Pool Pump Timer package includes:

- BN-LINK Smart Wi-Fi Timer Box (Model CP-U49WT)
- User Manual / Product Brief
- Mounting Tabs and Screws

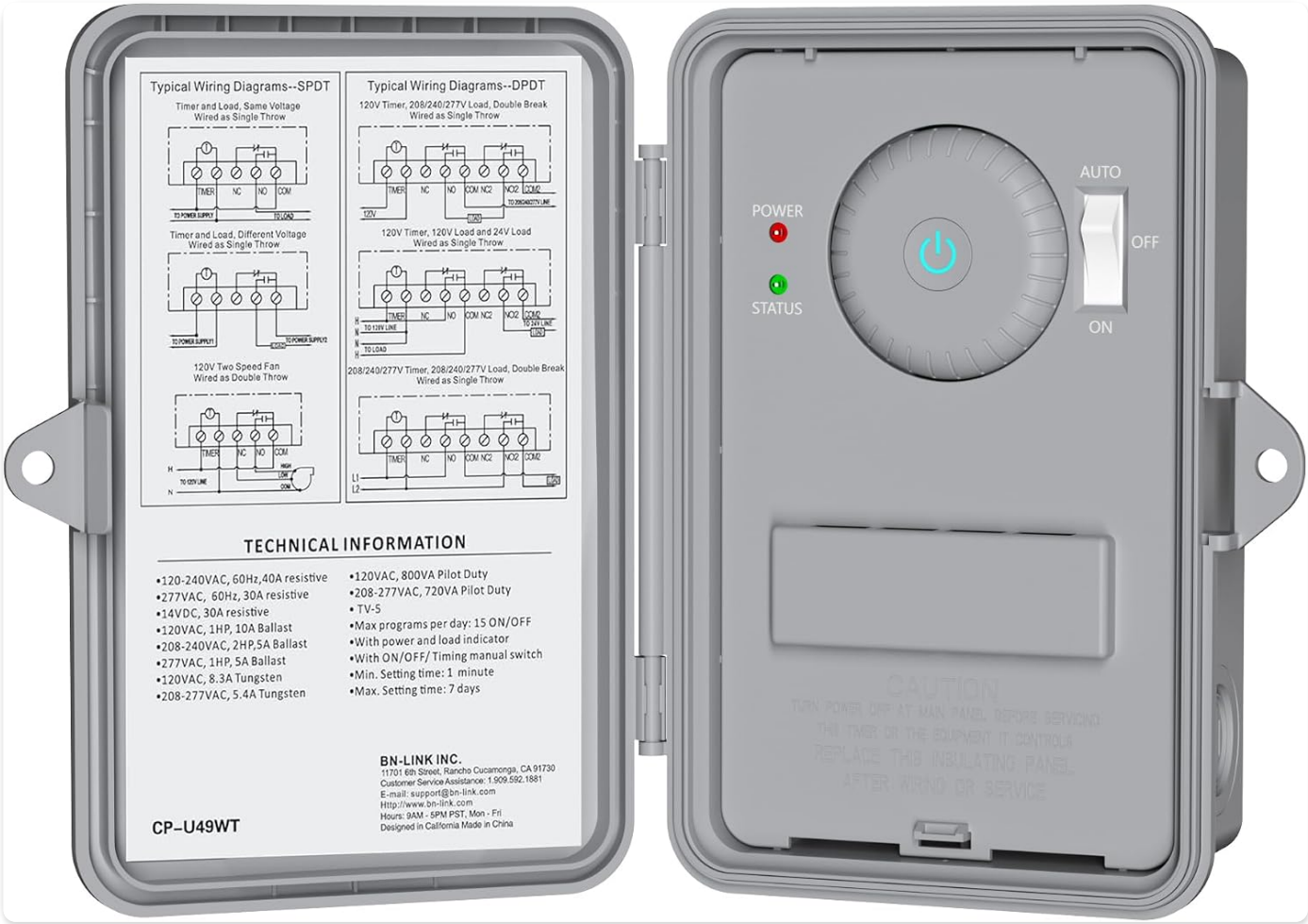



Figure 1: BN-LINK Pool Pump Timer with open cover, displaying the internal components and technical information.

## Technical Specifications

| Feature | Specification |
|---|---|
| Brand | BN-LINK |
| Model Number | CP-U49WT |
| Voltage Capacity | 120, 240, 277 VAC |
| Resistive Load | 40A Max |
| Motor Compatibility | 1HP (120VAC), 2HP (208-227VAC) |
| Material | Polycarbonate |
| Product Dimensions | 2.71"D x 7.08"W x 8.86"H |
| Item Weight | 0.53 Pounds (8.5 ounces) |
| Operating Temperature | -40°F to 130°F (-40°C to 54°C) |

| Feature | Specification |
| --- | --- |
| Wi-Fi Network | 2.4GHz Only |
| Certifications | ETL Listed, UL 60730-1, CSA E60730-1 |

## Installation Guide

For your safety, it is highly recommended that a qualified electrician performs the installation of this product. Always ensure the power is turned off at the circuit breaker before beginning any wiring.

### Wiring Instructions

The timer box supports various wiring configurations. Refer to the diagrams below and on the inner panel of the timer for detailed connections.

#### Typical Wiring Diagrams (SPDT & DPDT)

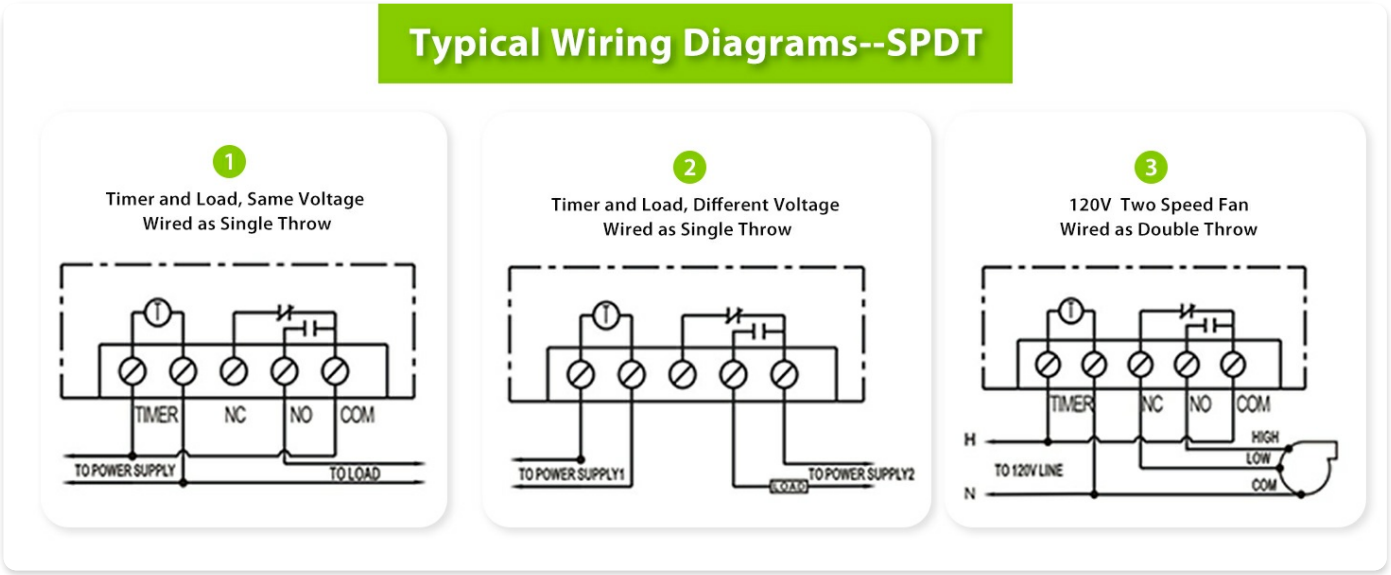



Figure 2: Typical SPDT (Single-Pole Double-Throw) wiring diagrams, including configurations for same voltage and different voltage loads, and 120V two-speed fan wiring.

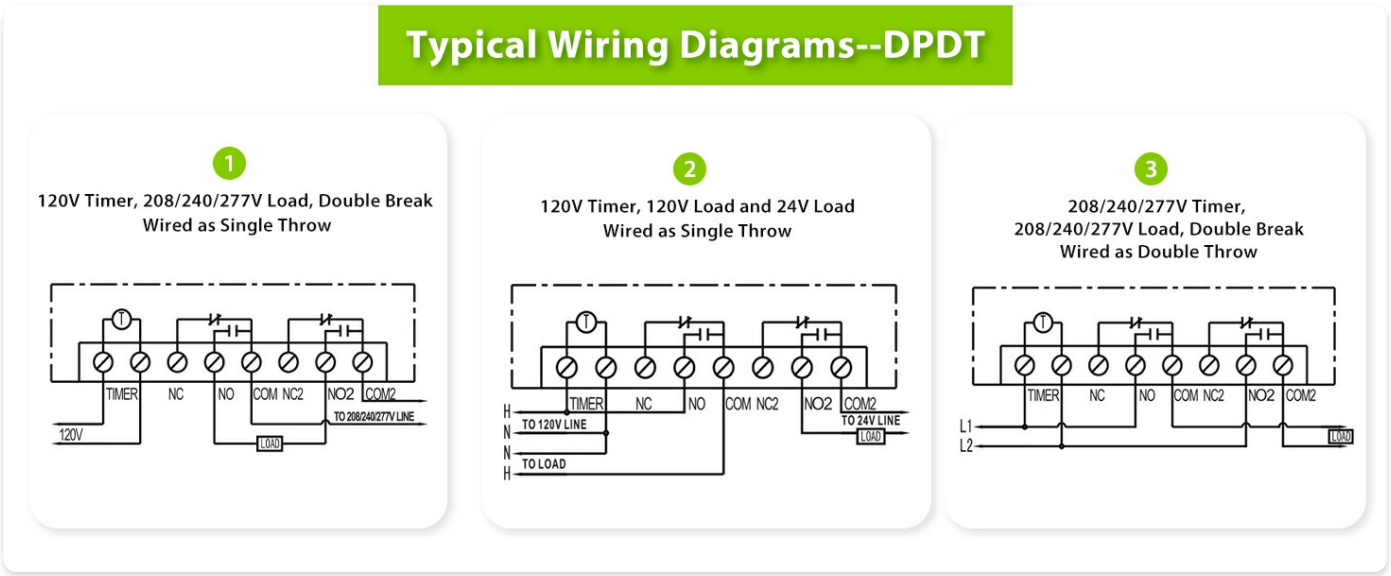



Figure 3: Typical DPDT (Double-Pole Double-Throw) wiring diagrams, including configurations for 120V, 208/240/277V loads, and 120V load with 24V load.

For detailed step-by-step wiring instructions, please refer to the official product video below. It provides visual guidance for both 120V and 208/240V setups.

Your browser does not support the video tag.

Video 1: Official BN-LINK Outdoor Smart WiFi Pool Timer Box installation and setup guide. This video demonstrates the wiring process for different voltage configurations and initial app pairing steps. (Duration: 9:19)

## Mounting the Timer Box

The timer box is designed for easy mounting on a wall or suitable surface. External mounting tabs are provided for secure installation.

- Use the provided mounting tabs and screws to secure the timer box to a flat, stable surface.
- Ensure the mounting location allows for proper cable entry and exit, and is accessible for operation and maintenance.
- The box features a padlock hole for added security (padlock not included).




Figure 4: Timer box dimensions, highlighting the padlock hole and mounting hole for installation.

## Operating Instructions

### Manual Control

The timer box features a manual ON/OFF/AUTO switch for direct control without the app.

- **ON:** Flips the switch down to manually turn on the connected device.
- **OFF:** Flips the switch to the middle position to manually turn off the connected device.
- **AUTO:** Flips the switch up to enable smart control via the BN-LINK Smart App. The device will operate according to the schedules set in the app.

### Smart Control via BN-LINK Smart App

The BN-LINK Smart App allows for remote control, scheduling, and advanced features. Ensure your mobile device is connected to a 2.4GHz Wi-Fi network.

1. **Download the App:** Search for "BN-LINK Smart" in your mobile device's app store (App Store for iOS or Google Play Store for Android). Ensure the app name includes "Smart".
2. **Create Account:** Open the app and follow the prompts to create a new account or log in.
3. **Prepare Timer for Pairing:** Ensure the manual switch on the timer box is set to**AUTO**.
4. **Initiate Pairing:**
    - **Auto Mode (Recommended):** Hold down the power button on the timer for 5 seconds until the indicator light starts rapidly blinking. In the app, tap "Add Device" or the "+" icon, and the app should automatically discover the device.
    - **EZ Mode:** If Auto Mode fails, ensure the indicator light is rapidly blinking. In the app, select "Socket (Wi-Fi)" and follow the on-screen instructions, entering your 2.4GHz Wi-Fi credentials.
    - **AP Mode:** If EZ Mode fails, hold the power button on the timer until the indicator light blinks slowly. In the app, select "Socket (Wi-Fi)", then switch to "AP Mode" in the top right corner. Connect your phone to the "SmartLife-XXXX" Wi-Fi hotspot created by the device, then return to the app to complete pairing.
5. **Rename Device:** Once paired, you can rename the device (e.g., "Pool Pump") for easier identification and voice control.




Figure 5: The BN-LINK Smart App allows remote control and voice commands via Alexa or Google Assistant.

### Using the BN-LINK Smart App

Within the app, tap on your device to access various control and scheduling options:

- **On/Off Toggle:** Directly turn the device on or off.
- **Timer Functions:** Set countdown timers, create daily/weekly schedules, configure circulate modes, random timers, or inching functions.
- **Child Lock:** Enable or disable the child lock feature from the settings menu to prevent unauthorized manual operation.
- **Share Device:** Share control of the device with other family members or users.

## Voice Control Integration

Integrate your BN-LINK Pool Pump Timer with popular voice assistants for convenient hands-free control.

### Amazon Alexa Setup

1. Ensure you have the Amazon Alexa app installed and are logged into your account.
2. In the Alexa app, go to "More" > "Skills & Games".
3. Search for "BN-LINK Smart" and enable the skill.
4. Follow the prompts to link your BN-LINK Smart account with Alexa.
5. Once linked, Alexa will discover your device. Ensure the device name in Alexa matches the name in the BN-LINK Smart App for best results.
6. **Voice Commands:** "Alexa, turn on [Device Name]", "Alexa, turn off [Device Name]".

### Google Assistant Setup

1. Ensure you have the Google Home app installed and are logged into your account.
2. In the Google Home app, tap "Devices" > "Add device" > "Works with Google Home".
3. Search for "BN-LINK Smart" and select it.
4. Follow the prompts to link your BN-LINK Smart account with Google Home.
5. Assign the device to a room if desired.
6. **Voice Commands:** "Hey Google, turn on [Device Name]", "Hey Google, turn off [Device Name]".

## Maintenance

To ensure optimal performance and longevity of your BN-LINK Pool Pump Timer, follow these maintenance guidelines:

- **Regular Cleaning:** Periodically wipe the exterior of the timer box with a soft, damp cloth to remove dust and debris. Do not use harsh chemicals or abrasive cleaners.
- **Inspect Wiring:** Annually inspect all wiring connections for tightness and signs of wear or corrosion. Ensure the power is off before inspection.
- **Check Enclosure Seal:** Verify that the timer box enclosure is securely closed and the seal is intact to maintain its water resistance, especially after opening for wiring or inspection.
- **Software Updates:** Keep the BN-LINK Smart App updated to the latest version to benefit from new features and performance improvements.

## Troubleshooting

If you encounter issues with your BN-LINK Pool Pump Timer, refer to the following common problems and solutions:

| Problem | Possible Cause | Solution |
|---|---|---|
| Device not powering on. | No power from circuit breaker; incorrect wiring; loose connections. | Check circuit breaker. Verify wiring according to diagrams. Ensure all connections are secure. Consult an electrician if unsure. |
| Cannot pair with BN-LINK Smart App. | Incorrect Wi-Fi network (not 2.4GHz); incorrect Wi-Fi password; timer not in pairing mode; app version issue. | Ensure your phone is on a 2.4GHz Wi-Fi network. Double-check Wi-Fi password. Reset timer to pairing mode (rapid or slow blinking). Update the BN-LINK Smart App. Try EZ or AP mode if Auto mode fails. |
| Remote control not working. | No internet connection; timer is offline; manual switch not in AUTO mode. | Check your home internet connection. Ensure the timer has a stable Wi-Fi signal. Set the manual switch to AUTO. |

| Problem | Possible Cause | Solution |
|---|---|---|
| Voice control not responding. | Incorrect device name; skill not enabled/linked; voice assistant device offline. | Verify the device name in the voice assistant app matches the BN-LINK app. Ensure the BN-LINK Smart skill is enabled and linked. Check if your Alexa/Google Home device is online. |
| Schedules not activating. | Manual switch not in AUTO mode; incorrect schedule settings in app. | Ensure the manual switch is in AUTO. Review and correct schedule settings in the BN-LINK Smart App. |

## Warranty and Customer Support

BN-LINK provides a **12-month warranty** for your peace of mind. If you encounter any technical issues or require assistance, please do not hesitate to reach out to our professional customer service team. We are committed to responding to your inquiries within 24 hours.
For further support, you may refer to the included instruction manual or visit the BN-LINK official website for FAQs and additional resources.
**Contact Information:**

**Email:** support@bn-link.com

**Website:** BN-LINK Official Store on Amazon


### Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

**Name**

Anonymous

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

**Question**

Example: How do I reset this device or fix this error?

**Details**

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question