RWRAPS AHC15A

RWRAPS AHC15A Digital Programmable Weekly Timer Switch User Manual

Model: AHC15A

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your RWRAPS AHC15A Digital Programmable Weekly Timer Switch. This device is designed to automatically control various electrical equipment based on a programmed weekly schedule. Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. Safety Information

- Installation should only be performed by a qualified electrician.
- Ensure power is disconnected before installation or maintenance to prevent electric shock.
- Do not exceed the specified current and voltage ratings (16A 250V AC).
- Keep the device away from water and high humidity environments.
- Do not attempt to repair or modify the device yourself. Contact qualified personnel for service.

3. Product Overview

The AHC15A is a DIN rail mountable digital timer switch featuring a clear LCD display and intuitive buttons for programming. It supports up to 28 ON/OFF programs per day or week.

3.1 Components

Figure 1: Front-side view of the AHC15A Digital Programmable Weekly Timer Switch. This image shows the overall design, including the display and terminal connections.

1. **LCD Display:** Shows current time, day, and programming status.
2. **Control Buttons:** Used for setting time, programming, and manual override.
3. **Terminal Blocks:** For electrical connections (Power Input, Load Output).
4. **DIN Rail Clip:** For mounting the device onto a standard DIN rail.

Figure 2: Close-up view of the AHC15A timer switch display and control buttons. This image highlights the 'P', 'D+', 'H+', 'M+', 'RESET', and 'MANUAL C/R' buttons, along with the LCD screen showing time and day.

The control panel includes buttons for programming: 'P' (Program), 'D+' (Day), 'H+' (Hour), 'M+' (Minute), 'RESET', and 'MANUAL C/R' (Manual Control/Cancel/Recall).

4. Specifications

Feature	Specification
Capacity	16A 250V AC
Average Error	±1s/24h (at 25°C)
Power Black-out Memory	Up to 60 days
Programs	28 ON/OFF cycles per day or week
Switching Contact	1 changeover switch
Timer Range	1 minute to 168 hours
Power Consumption	3 VA (MAX)
Minimum Interval	1 minute
Temperature Range	-20°C to +50°C
Hysteresis	2 sec/day (at 25°C)

Feature	Specification
Mounting	DIN Rail
Material	Silicone (buttons)
Weight	7.1 ounces (approx. 200 grams)

5. Setup and Installation

The AHC15A timer switch is designed for DIN rail mounting. Ensure all power is off before proceeding with installation.

5.1 Mounting

1. Locate a standard 35mm DIN rail in your electrical panel.
2. Align the timer switch with the DIN rail.
3. Press the timer switch firmly onto the rail until the DIN rail clip engages securely.

Figure 3: Bottom view of the AHC15A timer switch, illustrating the yellow DIN rail release clip. This clip is used to secure the device to a standard DIN rail.

5.2 Wiring

Refer to the wiring diagram on the side of the unit and below. Ensure correct voltage (12V, 24V, 110V, or 220V AC/DC depending on model) is supplied.

Figure 4: Side view of the AHC15A timer switch, displaying the wiring diagram. This diagram shows connections for Line (L), Neutral (N), and the switching contacts (NO, NC, Common).

- **Terminals 1 & 2 (L, N):** Power input for the timer switch. Connect the live (L) and neutral (N) wires from your power source here.
- **Terminals 3, 4, 5 (NO, NC, Common):** Switching contacts for the load.
    - **Terminal 3 (NO - Normally Open):** Connect to the load for normally open operation (circuit

closes when timer activates).

- **Terminal 4 (Common):** Connect the live wire from your power source (or the switched live from the timer) here.
- **Terminal 5 (NC - Normally Closed):** Connect to the load for normally closed operation (circuit opens when timer activates).

Important: Ensure all connections are tight and secure. Double-check wiring before restoring power.

6. Operating Instructions

6.1 Initial Setup / Reset

Upon first use or after a power outage, the display may be blank or show incorrect time. The internal battery maintains settings for up to 60 days during power blackouts.

1. Press the **RESET** button using a pointed object (e.g., a pen tip). The display will show "0:00" and all settings will be cleared.
2. Connect the timer to power.

6.2 Setting Current Time and Day

1. Press and hold the **P** button (Clock icon).
2. While holding **P**, press **D+** to set the current day of the week (1=Mon, 2=Tue, etc.).
3. While holding **P**, press **H+** to set the current hour (0-23).
4. While holding **P**, press **M+** to set the current minute (0-59).
5. Release the **P** button. The time is now set.

6.3 Programming ON/OFF Cycles

The timer supports up to 28 ON/OFF programs. Each program consists of an ON time and an OFF time.

1. Press the **P** button once. The display will show "1 ON" (for the first ON program).
2. Press **D+** to select the day(s) for this program. Options include individual days, weekdays, weekends, or all days.
3. Press **H+** to set the desired ON hour.
4. Press **M+** to set the desired ON minute.
5. Press **P** again. The display will show "1 OFF" (for the first OFF program).
6. Repeat steps 2-4 to set the desired OFF day(s), hour, and minute.
7. Press **P** again to move to the next program ("2 ON"). Repeat the process for all desired programs.
8. To exit programming mode and save settings, press the **CLOCK** button (or wait approximately 30 seconds for it to automatically exit).

Note: If you need to cancel a program, press the **MANUAL C/R** button while viewing the specific ON or OFF program. This will display "----" for the time, effectively disabling that program step.

6.4 Manual Override

The **MANUAL C/R** button allows you to manually override the programmed state.

- Press **MANUAL C/R** repeatedly to cycle through modes: AUTO ON, AUTO OFF, ON, OFF.
- **AUTO ON:** The timer is currently ON and will follow the next programmed OFF event.

- **AUTO OFF:** The timer is currently OFF and will follow the next programmed ON event.
- **ON:** The timer output is forced ON, ignoring programs.
- **OFF:** The timer output is forced OFF, ignoring programs.
- To return to automatic operation, cycle until "AUTO" is displayed.

6.5 Clock Correction / Calibration

This feature allows for minor adjustments to the internal clock's accuracy. Specific steps for calibration are not detailed in the product description, but generally involve entering a special mode (often by holding a combination of buttons) and adjusting a value. Refer to the device's display for specific prompts if this feature is needed.

6.6 Keyboard Lock

To prevent accidental changes, the keyboard can be locked. Typically, this involves holding a specific button or combination of buttons for a few seconds until a lock icon appears on the display. To unlock, repeat the action.

7. Maintenance

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Battery:** The internal battery is designed for long life and maintains settings during power outages. It is generally not user-replaceable. If the timer consistently loses time or settings despite power, the internal battery may need professional service.
- **Inspection:** Periodically check wiring connections for tightness and signs of wear.

8. Troubleshooting

Problem	Possible Cause	Solution
Display is blank.	No power supply; internal battery depleted.	Check power connections. If power is present, the internal battery may need charging (leave connected to power for several hours) or replacement (professional service).
Timer does not switch ON/OFF as programmed.	Incorrect programming; manual override active; incorrect wiring.	Review programmed ON/OFF times. Check if the timer is in "AUTO" mode. Verify wiring connections.
Time is inaccurate.	Internal clock drift; internal battery issue.	Reset and re-set the current time. If problem persists, consider using the clock correction feature or seek professional service.
Buttons are unresponsive.	Keyboard lock is active.	Unlock the keyboard (refer to section 6.6).

9. Warranty and Support

RWRAPS products are manufactured to high-quality standards. For specific warranty information, please refer to the documentation provided at the time of purchase or contact your retailer. For technical support or service inquiries, please reach out to the RWRAPS customer service department through the contact

information provided with your product or on the official RWRAPS website.