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› RWRAPS Digital Electronic Lighting Timer Switch KG316S User Manual

RWRAPS KG316S

RWRAPS Digital Electronic Lighting Timer Switch KG316S User Manual

Model: KG316S (220V Version)

1. INTRODUCTION

The RWRAPS Digital Electronic Lighting Timer Switch KG316S is designed for precise, automatic control of various electrical equipment. This device allows users to program specific on/off times over a 7-day period with a 1-second interval, making it suitable for applications requiring accurate timing. Its high-accuracy chip and strong anti-jamming capabilities ensure reliable performance. This manual provides comprehensive instructions for installation, operation, and maintenance of the KG316S timer switch.



Figure 1: Front view of the RWRAPS KG316S Digital Electronic Lighting Timer Switch, showing the LCD display and control buttons.

2. KEY FEATURES

- **High Accuracy:** Time error less than 1 second per day, ensuring precise timing.

- **Programmable:** Up to 32 on/off programs can be set daily or weekly.
- **Wide Timing Range:** Programs can be set from 1 second up to 168 hours.
- **Automatic Control:** Capable of automatically switching electrical equipment on and off at preset times.
- **Clock Correction/Calibration:** Includes a function for maintaining accurate time.
- **Keyboard Lock:** Prevents accidental operations.
- **Durable Components:** Features long-life silicone buttons and a high-power relay output for extended service life.
- **High Load Capacity:** Supports up to 25A 250VAC.

3. SPECIFICATIONS

Parameter	Value
Voltage	220V 50-60HZ (Customizable: 110V, 12V, 24V)
Capacity	25A 250VAC
Programs	32 ON/OFF settings per day or week
Timer Range	1 Second to 168 Hours
Minimum Interval	1 Minute
Hysteresis	2 seconds/day (at 25°C)
Average Error	1 second/24 hours (at 25°C)
Battery Power Reserve	5 years
Power Consumption	1 VA (Maximum)
Operating Temperature	-25°C to +60°C
Mounting	DIN rail or M3 screws
Item Weight	7.1 ounces (approx. 200 grams)

4. SETUP AND INSTALLATION

The KG316S timer switch offers two primary installation methods: DIN rail mounting and wall mounting using M3 screws. Ensure the power supply is disconnected before proceeding with any installation.

4.1 Wiring Diagram

Refer to the diagram on the side of the unit for correct wiring. The timer has terminals for power input and load output. Connect the live and neutral wires from your power source to the input terminals, and connect your appliance's live and neutral wires to the output terminals. Ensure all connections are secure.

Precise Timing, Automatic Calibration



30A Big Load Relay
Enough Load
Safe And More Stable



Figure 2: The KG316S timer switch showing the side with the wiring diagram and an external relay, indicating its high load capacity.

4.2 Mounting Options

- **DIN Rail Mounted:** Snap the timer onto a standard DIN rail.
- **Wall Mounted:** Use M3 screws to secure the timer to a flat surface.

TWO TYPES OF INSTALLATION

MEET DIFFERENT INSTALLATION OCCASIONS

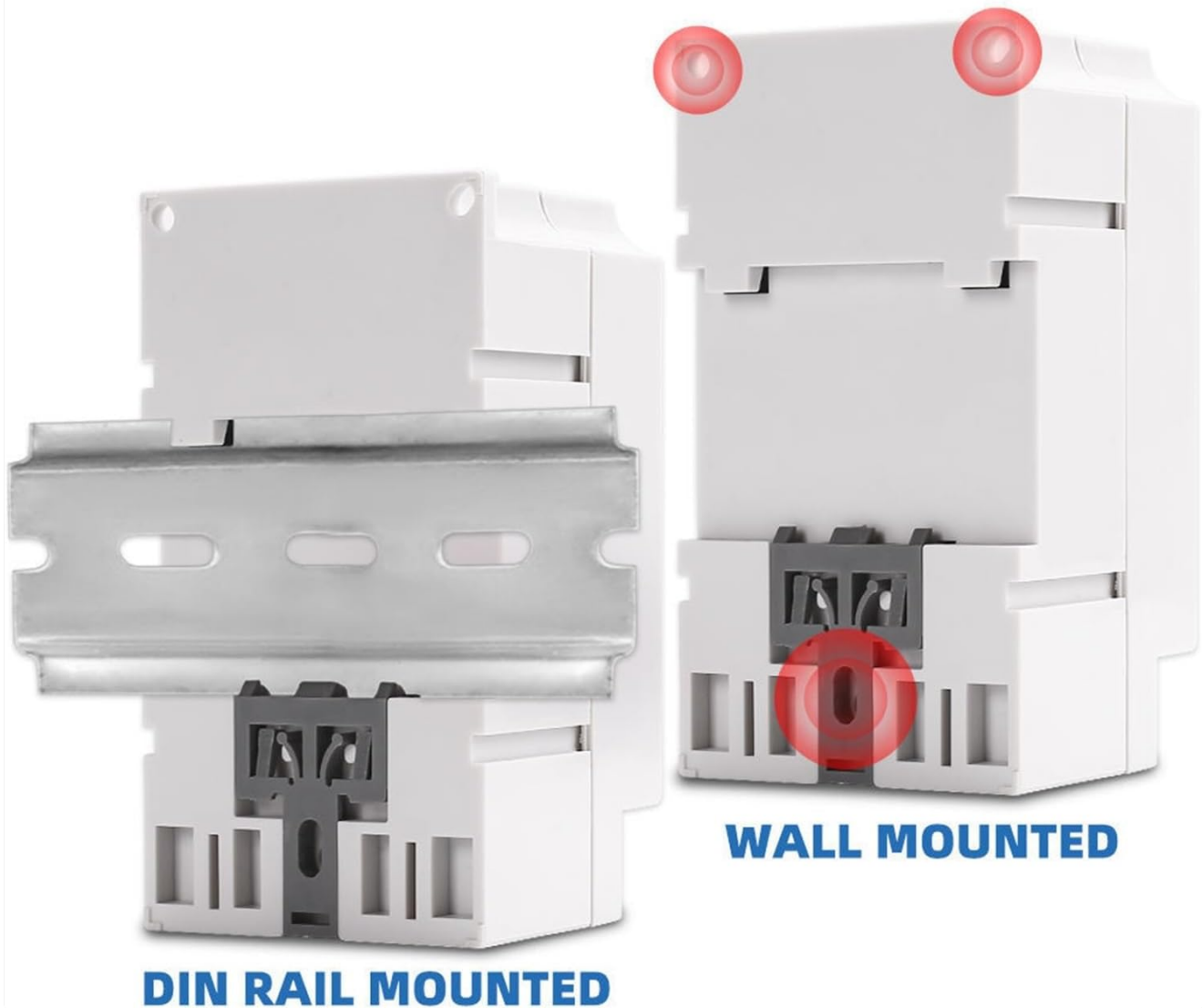


Figure 3: Illustration of the two installation methods: DIN rail mounting (left) and wall mounting (right) for the KG316S timer switch.

5. OPERATING INSTRUCTIONS

The KG316S timer switch is designed for simple and intuitive programming. Follow these steps to set the current time and program your desired on/off cycles.

5.1 Initial Setup and Clock Setting

1. **Power On:** Connect the timer to power. The LCD display will illuminate.
2. **Reset (Optional):** If the display is erratic or you wish to clear all settings, press the **C/R** button for 3 seconds to reset the unit.
3. **Set Current Time:**
 - Press the **CLOCK** button.
 - While holding **CLOCK**, press **WEEK** to set the current day of the week.
 - While holding **CLOCK**, press **H** to set the current hour.
 - While holding **CLOCK**, press **M** to set the current minute.
 - While holding **CLOCK**, press **S** to set the current second.

5.2 Programming ON/OFF Cycles

The timer supports up to 32 ON/OFF programs. Each program consists of an ON time and an OFF time.

1. Press the **TIMER** button once. The display will show "1 ON".
2. Press **WEEK** to select the desired day(s) for the first ON event. You can choose individual days, weekdays, weekends, or all days.
3. Press **H** to set the hour for the first ON event.
4. Press **M** to set the minute for the first ON event.
5. Press **S** to set the second for the first ON event.
6. Press the **TIMER** button again. The display will show "1 OFF".
7. Repeat steps 2-5 to set the day(s), hour, minute, and second for the first OFF event.
8. Continue pressing **TIMER** to cycle through "2 ON", "2 OFF", up to "32 ON", "32 OFF", setting each program as needed.
9. After setting all desired programs, press the **CLOCK** button to return to the current time display.

Example: To turn a lamp on at 8:00:01 AM on Monday and off at 8:30:30 AM on Tuesday:

- Set "1 ON" for Monday at 08:00:01.
- Set "1 OFF" for Tuesday at 08:30:30.

5.3 Manual Override and Mode Selection

The **MANUAL** button allows you to override the programmed settings or select the operating mode.

- Press **MANUAL** repeatedly to cycle through the modes:
 - **AUTO ON:** The timer will follow programmed ON events and is currently ON.
 - **AUTO OFF:** The timer will follow programmed OFF events and is currently OFF.
 - **ON:** The output is continuously ON, overriding all programs.
 - **OFF:** The output is continuously OFF, overriding all programs.
- For automatic operation, ensure the display shows either "AUTO ON" or "AUTO OFF".

Simple To Set Up



1

Intelligent **32** Groups
On/Off Every Day

2

Switching Time Can Be
Cycled By Day/Week

3

It Has Auto On Off Three
Status

4

Min Setting Time:1 Second

Figure 4: The KG316S timer switch highlighting its ease of setup and key features like 32 programs, daily/weekly cycling, and AUTO ON/OFF status.

5.4 Keyboard Lock Function

To prevent accidental changes to settings, the timer features a keyboard lock.

- To **lock** the keyboard: Press and hold the **C/R** button for approximately 3 seconds until a lock icon appears on the display.
- To **unlock** the keyboard: Press and hold the **C/R** button again for approximately 3 seconds until the lock icon disappears.

AUTOMATIC LOCK TO PREVENT MISOPERATION

Press C/R Button 3 Seconds, Then Set The Timer



Figure 5: The KG316S timer switch display showing the lock icon, indicating the keyboard lock feature is active.

6. MAINTENANCE

- **Cleaning:** Wipe the unit with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Environment:** Ensure the timer is installed in a dry environment, away from direct sunlight, extreme temperatures, and corrosive gases.
- **Battery:** The internal battery has a life of approximately 5 years. If the display becomes dim or settings are lost frequently during power outages, the battery may need replacement by a qualified technician.
- **Inspection:** Periodically check wiring connections for tightness and signs of wear.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Timer not turning ON/OFF as programmed	Incorrect program settings; Timer in manual ON/OFF mode; Incorrect current time setting; Power supply issue.	Verify program settings (ON/OFF times and days). Ensure the timer is in "AUTO ON" or "AUTO OFF" mode. Check and correct the current time. Verify power connections.
Display is blank or dim	No power supply; Internal battery low or depleted.	Check power connection to the timer. If power is present, the internal battery may need replacement.
Buttons are unresponsive	Keyboard lock is active.	Press and hold the C/R button for 3 seconds to unlock the keyboard.
Time drift is significant	Environmental factors; Internal clock issue.	Ensure the operating temperature is within specifications. If the issue persists, the unit may require service.

8. APPLICATIONS

The RWRAPS KG316S timer switch is versatile and can be used in a wide range of applications requiring scheduled power control. Some common uses include:

- **Lighting Control:** Streetlights, neon signs, lamps, billboard lighting.
- **Home Appliances:** Water heaters, air conditioners, electric cookers.
- **Industrial/Commercial:** Boosters, sprayers, bottlers, preheaters, warehouse exhaust and dehumidification systems.
- **Agriculture:** Agricultural facilities, automatic preheating for breeding.
- **Broadcasting:** Control of broadcasting equipment.

Suitable for power equipment need to be turned on and off regularly
Agricultural breeding, warehouse exhaust and dehumidification, automatic preheating

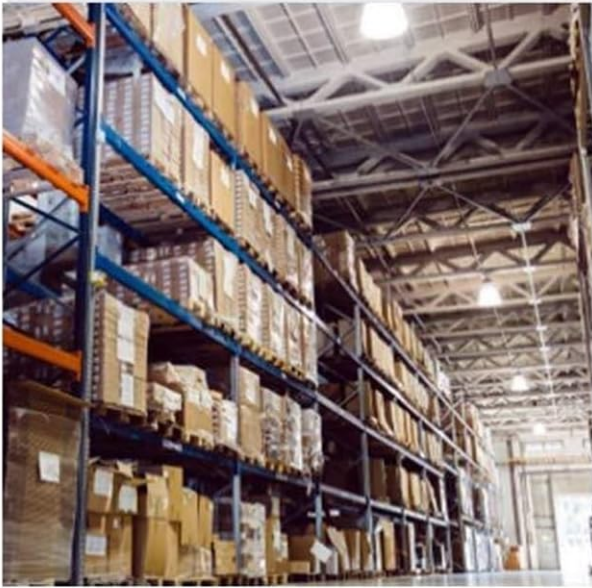


Figure 6: Various applications where the KG316S timer switch can be utilized for scheduled power control.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your purchase or contact RWRAPS customer service. Keep your purchase receipt as proof of purchase for any warranty claims.

Manufacturer: RWRAPS