

Model P4470

Save A Watt™ Operation Manual

Thank you for purchasing the P4470 Save A Watt™. This operating manual will provide an overview of the product, safety instructions, a quick guide to operation, and complete instructions for correct usage. Take the time to completely review these instructions as well as safety warnings to ensure your best use of the product.

Simply connect your appliances to the Save A Watt™ -- then you can program ON/OFF periods to save money.

The unit combines the advantages of traditional mechanical and electronic timers. It is easy to program on quarter-hour basis ON/OFF periods for 7 days and 24 hours the same as you would program a traditional mechanical timer, and not limited to one day only. On normal electronic timers it is easy to forget which days and which periods are ON or OFF. The P4470 eliminates the need to take notes. You can just press keys to see the detailed 7 day 24 hour ON/OFF setting information.

Advanced features also included:

- Zero power crossing switch provides a spike free ON/OFF relay control to prolong your appliance usage life.
- LEDs provide a LCD backlight, and a nightlight function.

With the innovative Save A Watt™ you'll have peace of mind in more ways than one.

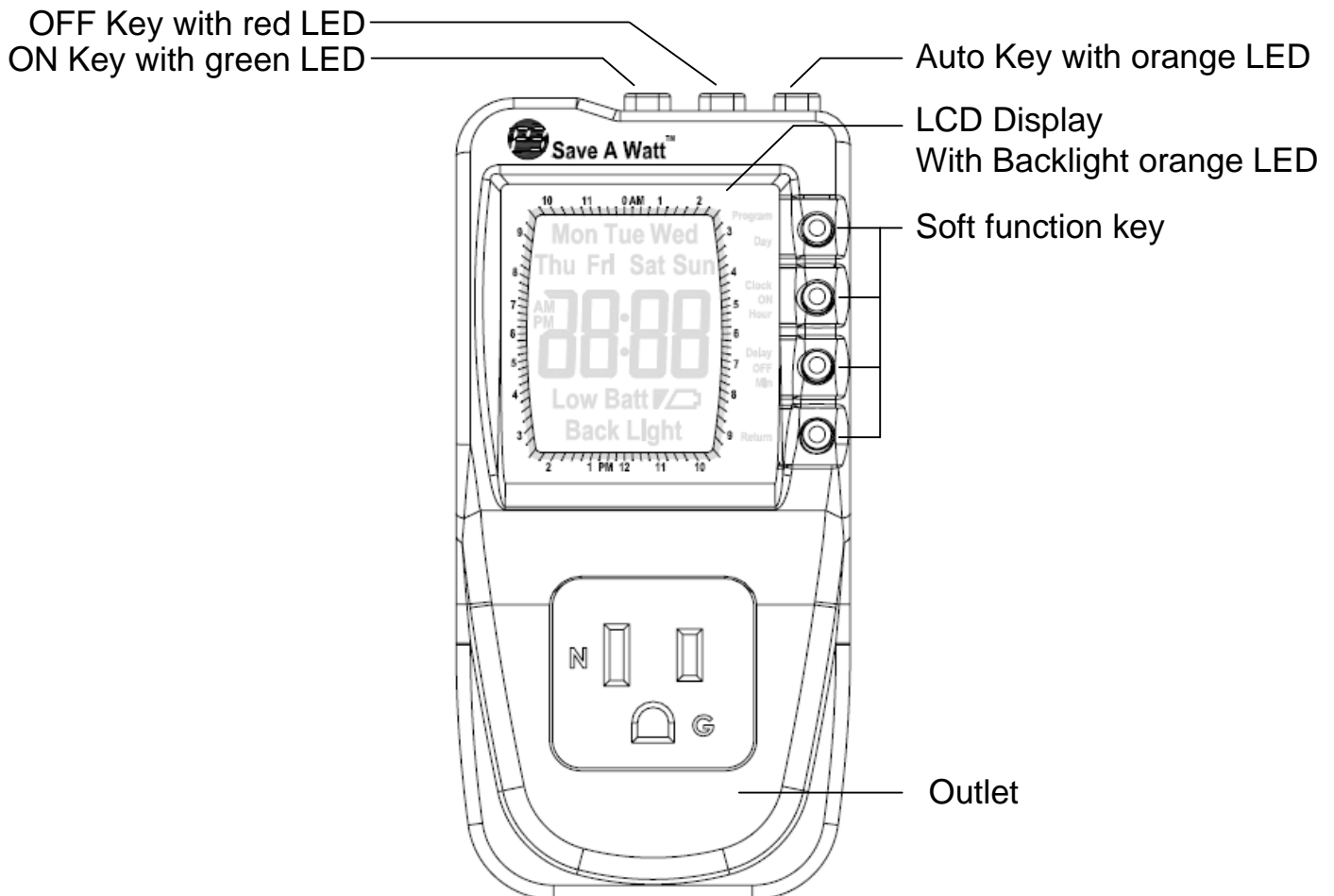
Safety Instructions:

- The operating voltage is limited to +/- 10% of Line voltage 120Vac. Do not use it in other voltage rating.
- The maximum output current is 15A.
- To reduce the risk of electric shock, do not remove cover. No user-serviceable parts inside. Refer servicing to qualified service personnel.

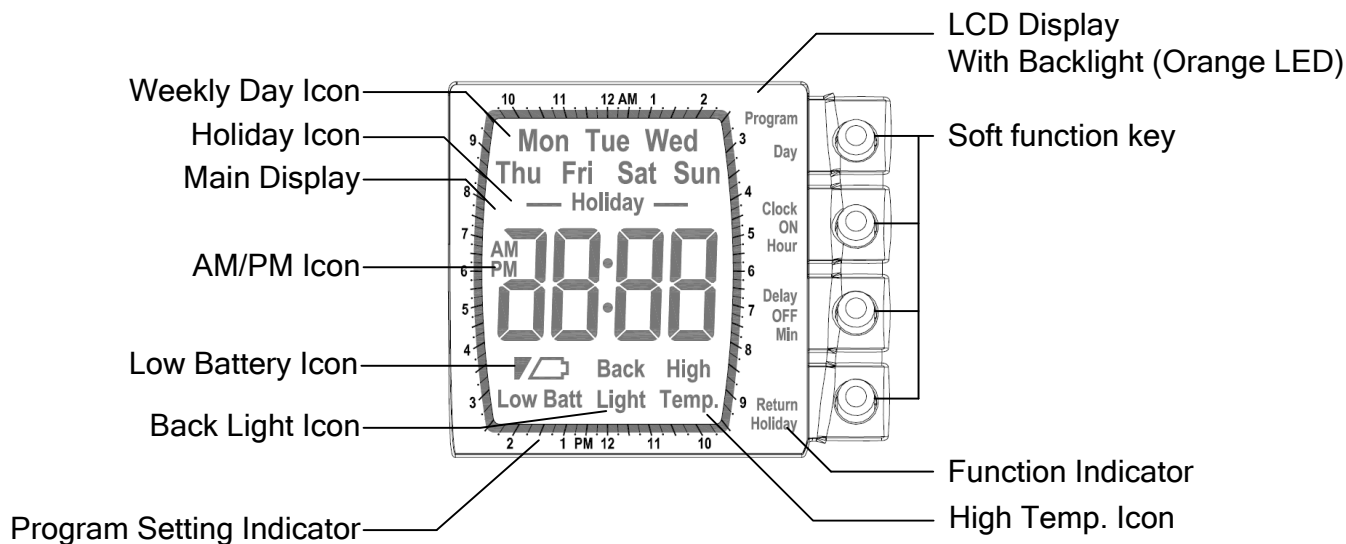
Warning:

- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

Feature Locations:



Display Panel:



Quick Start Guide:

Use these quick start instructions to get up and running in just a few minutes. Be sure to review all the operating instructions later to ensure full enjoyment of the product.

1. Using the appropriate flat screwdriver open the battery holder, and insert 3 (AAA/no. 4) batteries, according to the +/- terminal. When the batteries are in place, press the battery holder back into its original position. **Now you can operate the unit by battery power allowing you to program the unit without plugging it into a wall outlet.**
2. Connect the Save A Watt™ unit to the outlet and the appliance to the unit.
3. Clock mode is the initial mode, the main display will be a flashing clock, please refer to clock mode to set clock time later. 4. Press the OFF key. The OFF key will illuminate red.
5. Press the ON key. The ON key will illuminate green and the attached appliance will be powered. Turn on the appliance.
6. Press the Program Function key, one segment of outer LCD will flash, and main display will show Mon. Pressing the Day key will cycle through Mon, Tue, Wed, Thu, Fri, Sat, Sun and Back Light.
7. Press the Delay Off Function key, Delay Off initial value is 30 minute and will show on main display.
8. Press the Clock Function key, the main display will show the flashing clock.
9. Press the Return key to function key menu.
10. Any key press, will illuminate the orange backlight for around 5 seconds.
11. Review the complete operating instructions to familiarize yourself with all features.

Installation:

1. Using the appropriate flat screwdriver open the battery holder, and insert 3 (AAA/no. 4) batteries, according to the +/- terminal. When the batteries are in place, press the battery holder back into its original position. **Now you can operate the unit by battery power allowing you to program the unit without plugging it into a wall outlet.**
2. Turn off the appliance before connection to the unit and remove the power cord from the outlet. Connect the Save A Watt™ unit to the outlet and appliance to the unit.
3. The main display of LCD will be flashing in **Clock** mode. This is normal when the unit is first connected to power, please refer to **Clock** mode to set the clock time.
4. Press the **ON** key, and Turn the appliance back on and confirm normal operation. If the appliance does not function, please recheck your installation.

ON, OFF and Auto key function:

1. Pressing the **OFF** key will turn off power to outlet at once. The **OFF** key will illuminate in red, and the function keys and LCD display will continue to operate.
2. Pressing the **ON** key will turn power on to outlet at once. The **ON** key will illuminate in green. The unit features a spike-free switch function which activates at zero-crossing and will present clean power to your connected appliance, and the function keys and LCD display will operate.
3. Pressing the **Auto** key to **Auto** mode, the **Auto** key will illuminate in orange. It will activate the unit automatically ON or OFF according to the Program. If the Program is ON, the unit will be ON at once no matter the previous status. If the Program is OFF, the unit will be OFF at once no matter the previous status.
Pressing the **Auto** key again to Manual mode can disable auto **ON** or **OFF** function and the Auto key LED will be dark. The unit will always switch **ON** or **OFF** according to the latest ON or OFF status until you press the **ON** or **OFF** or **Auto** key.

Clock mode: (Clock Function key → Day key, Hour key, or Minute key can adjust Clock → Return key).

1. Press the **Clock** Function key to **Clock** mode, the main display will be the flashing clock, and **Mon** is displayed. This is normal when the unit is first connected to power, it will always flash until the current time is set.
2. Pressing **Day** key - main display will flash and pressing **Day** key again will cycle through **Mon, Tue, Wed, Thu, Fri, Sat** and **Sun**.
3. Pressing **Hour** key - main display will flash and pressing **Hour** key again will increase in one hour steps.
4. Pressing **Min** key - main display will flash and pressing **Min** key again will increase in one minute steps.
5. Press the **Return** key to return back to the function key menu.

Program mode:

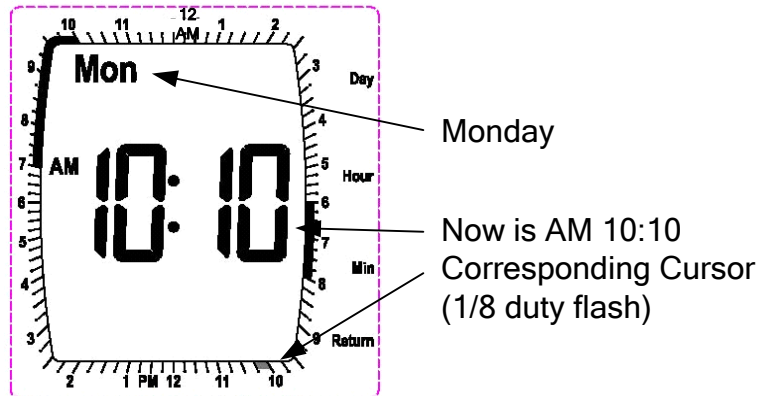
(Program Function key → Day key, on/I key, or off/0 key can program Timer ON/OFF in 7 days 24 hours → Return key).

(Program Function key → Day key to no weekly day display → on/ I key, off/0 key can program Back Light → Return key).

1. Press the **Program** Function key to **Program** mode - main display shows current time, the current time corresponding cursor of the outer LCD will be flashing, the segment is a quarter-hour (15 minute) period.
2. Pressing the **Day** key will cycle through **Mon, Tue, Wed, Thu, Fri, Sat, Sun** and **Back Light**. Please select the correct day.
3. Pressing the **on/I** key, the current flashing cursor of outer LCD will be set to on and flashing cursor will be moved to the next segment for setting.
4. Pressing **off/0** key, the current flashing cursor of outer LCD will be set to off and flashing cursor will be moved to the next segment for setting.
5. Press the **Return** key to back to function key menu.
6. In **Back Light** mode, the orange back light will be turned on or off according to program setting automatically, independent of the unit ON or OFF condition.
7. The **Auto** key has no function under **Program** mode.

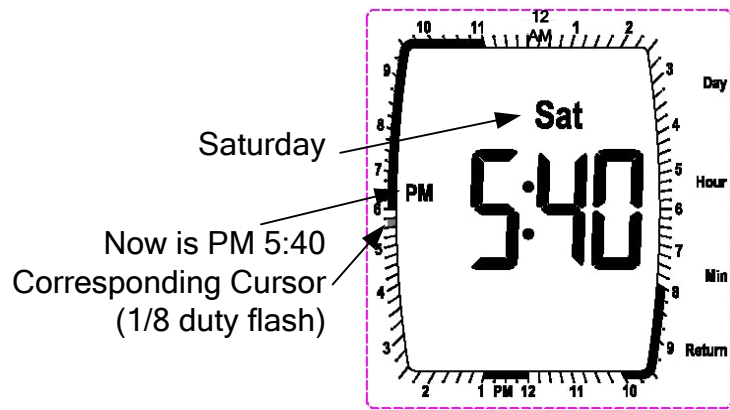
**Example: Monday AM 06:00 to AM 08:00 is ON,
PM 07:00 to PM 10:00 is ON,
Other time period is OFF.**

Program function key → Day key to Mon → off/0 key until main display to AM 06:00 → on/I key until main display to AM 08:00 → off/0 key until main display to PM 07:00 → on/I key until main display to PM 10:00 → Return key.



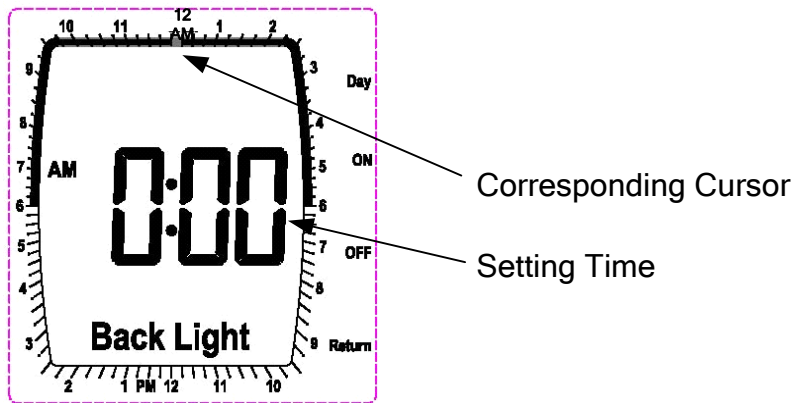
**Example: Saturday AM 08:00 to AM 10:00 is ON,
PM12:00 to PM 01:00 is ON,
PM 06:00 to PM 11:00 IS ON,
Other time period is OFF.**

Program function key → Day key to Sat → off/0 key until main display to AM 08:00 → on/I key until main display to AM 10:00 → off/0 key until main display to PM 12:00 → on/I key until main display to PM 01:00 → off/0 key until main display to PM 06:00 → on/I key until main display to PM 11:00 → Return key.



Example: Back Light for every PM 06:00 to AM 06:00.

Program function key → Day key until no Mon to Sun icon show up → on/I key until AM 06:00 → off/O key until PM 06:00 → on/I key until AM 00:00 → Return key.



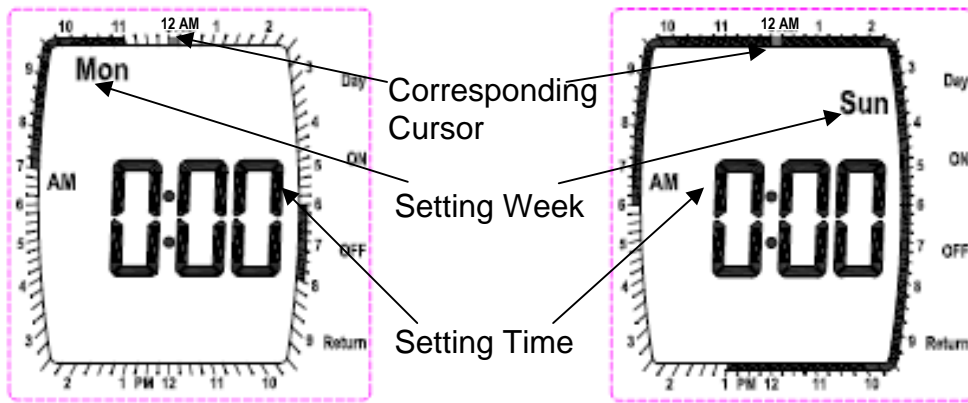
Understanding the Auto Copy function:

For initial programming (first time to program) or holding the first key (**Program** or **Day** key) and the fourth key (**Return** key) simultaneously for around 3 seconds – the unit will reset all segments to be off. Now you can program Monday and by pressing the **Day** key to function key menu you will get the **Auto Copy** function, Monday's program will automatically copy to the other days, **Tue** to **Sun**. Now all 7 days programming is identical and it is easy for you to make slight modifications to adapt 7 days schedule to your preference.

Understand the Holiday mode:

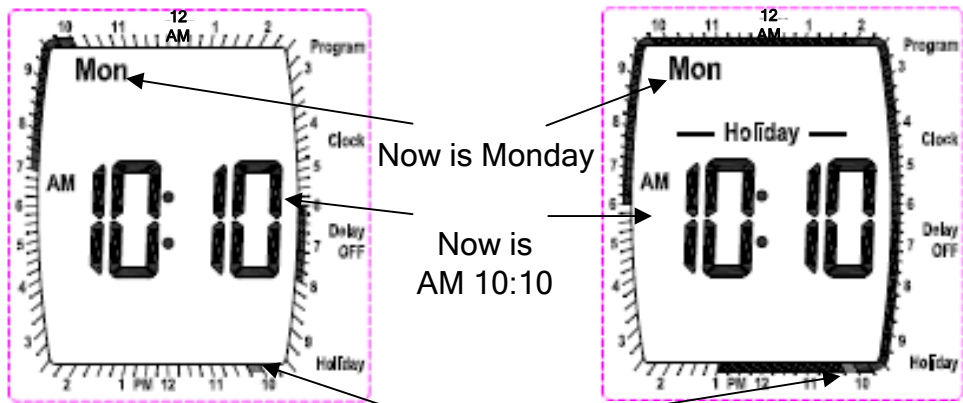
Press the **Holiday** function key to activate the **Holiday** mode - the main display shows the current time, the current time corresponding cursor of the outer LCD will be flashing, but the Timer **on/off** program function follows the programming for Sunday. This is a great advantage for you to use the Timer when you are on a holiday, but it is not on Sunday. Pressing the **Holiday** function key again will return to the original status.

**Example: Monday AM 06:00 to AM 08:00 is ON.
 PM 07:00 to PM 11:00 is ON.
 Other time period is OFF.
 Sunday PM 01:00 to PM 06:00 is OFF.
 Other time period is ON.**



Monday
 AM 06:00~AM 08:00 ON
 PM 07:00~PM 11:00 ON
 The other is OFF

Sunday
 PM 01:00~PM 06:00 OFF
 The other is ON



Monday
 AM 06:00~AM 08:00 ON
 PM 07:00~PM 10:00 ON
 The other is OFF

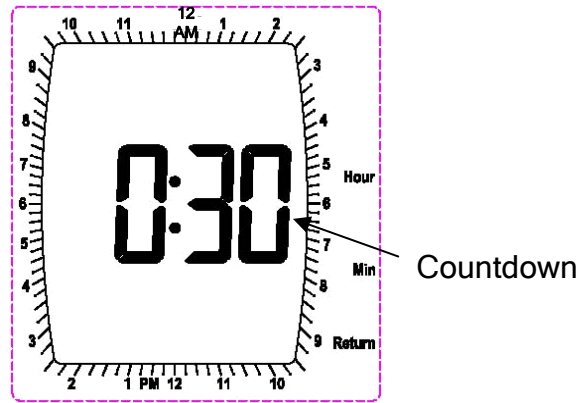
Holiday
 PM 01:00~PM 06:00 OFF
 The other is ON

Delay OFF mode: (Delay OFF function key → Hour key, Minute key can set count down period → Return key).

1. Press the **Delay OFF** function key to select the **Delay OFF** mode. The main display will show the latest set count down time or 30 minutes (factory default), the colon between hour and minute will be flashing to start the count down. The unit will be in the ON mode now. After the count down time reaches zero, the unit will switch to the OFF mode.
2. Pressing the **Hour** key will increment the hour setting by one, and cycle through 0 to 23.
3. Pressing the **Minute** key will increment the minute setting by one and cycle through 0 to 59.
4. Pressing the **Return** key returns back to the function key menu.
5. Pressing **OFF** key will stop the count down time. For example, the start time is 30 minutes, when there are 17 minutes left, then press the **OFF** key. The unit will stay at 17 minute left. When you press the **ON** key, the unit will re-start to count down from the original time (default 30 minutes).
6. The **Auto** key has no function under **Delay OFF** mode.

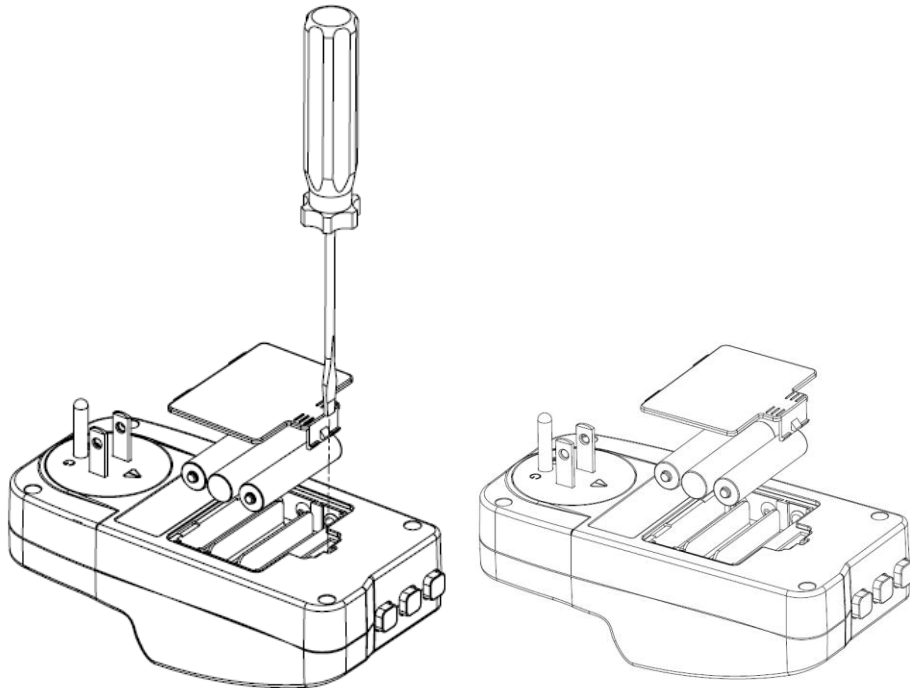
Example: Countdown 30 minutes.

Delay OFF Function key → Return → ON key (if OFF condition).



Battery back up function:

1. When power to the unit is interrupted, the internal power supply will be switched to battery back up mode immediately. The LED backlight is disabled if AC power is interrupted.
2. This allows the user to take unit anywhere to set and enter programming. It is more convenient for the user to set and enter programming the unit when not plugged into the wall.
3. When the unit is plugged back in or AC line power is restored, the internal power supply will be switched back to AC line power. The batter will be conserved for future use.
4. To replace Battery- using the appropriate flat screwdriver open the battery holder, and position the 3 (AAA/no. 4) batteries, according to the +/- terminal. When the batteries are in place, press the battery holder back into its original position.

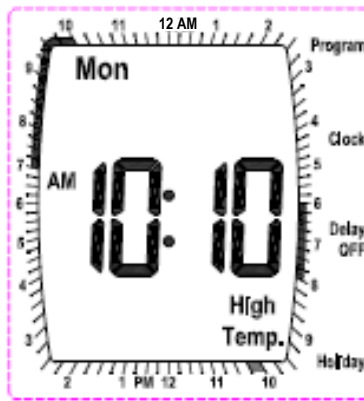


Retained Program:

1. User programmed Timer ON/OFF and Delay OFF settings are retained in EEPROM after every update, to prevent the loss of settings when power is interrupted or when the backup batteries are exhausted.

Over temperature protection function:

In an over current condition or if the plug and socket contact is not strong, the plug and socket contact temperature may increase. Under this condition, the power will be switched off to the outlet. The OFF key will illuminate in red. The main display High Temp. Icon will flash, and the audible alarm will sound. Remove the appliance, press the OFF key to turn off the audible alarm and erase the main display High Temp. icon. Then press ON key to turn the power back on.



Specification:

Item	Range	Resolution	Accuracy		Remark
			Typ.	Max.	
Clock	7 Day, 12 Hour (AM/PM)	1 min	30 ppm		
Timer(Program)	7 Day, 12 Hour (AM/PM)	15 min	30 ppm		
Count down (Delay OFF)	23 Hour 59 Min.	1 min	30 ppm		
Back-Light	12 Hour (AM/PM), 3 LED (Orange)	15 min	30 ppm		To be a night light at night. Lit 5 seconds if any key press.
Output Control	Manual or Auto Condition Indicator : LED, ON : Green, OFF : Red, AUTO : Orange	---	---		
Output Outlet	3-prong grounded plug and receptacle.	---	---		
Spike free switch	ON/OFF on zero power	---	---		Increasing connected appliance and switch usage life.
Buzzer	Key : 1 short sound Delay OFF 3 sec : 3 short and 1 long sound	---	---		no function if AC line power is interrupted.
Battery	No. 4(AAA) × 3	---	---		Low Battery indicator

ENVIRONMENT CONDITIONS
IN DOOR USE ONLY
ALTITUDE : UP TO 2000M
OPERATION TEMPERATURE : 0°C ~ 50°C, Max. R.H. 90%
NON OPERATION TEMPERATURE : -10°C ~ 60°C Max.R.H. 95%
OPERATION VOLTAGE IS LIMITED TO ±10% OF LINE VOLTAGE
POLLUTION DEGREE : 2
CAT II

GENERAL SPECIFICATION	
POWER RATING	120 Vrms ± 10%, 50/60Hz
POWER CONSUMPTION	Max. 0.8 Watt
Ratings	15Amp (1980 Watts) Resistive and Inductive, 600 Watts Tungsten, 1/3 H.P. 120V.A.C.
L/W/H	68.5mm x 66mm x 140mm
WEIGHT	Around 230g

Trouble Shooting:

Item	Symptoms	Action	Description
1	The main display flashes when the unit is first connected to wall outlet.	Clock setting	1. This is normal operation, Clock is not set yet. 2. New unit connect to AC line or battery change will reset the clock
2	LCD shows low battery icon	Replace Battery.	This is a low battery warning signal.
3	No display in the LCD, no response from pressing keys.	1. Check that the unit connected to an energized AC wall outlet or battery. 2. Request technical support.	When the unit is not connected to an energized AC power source and the battery is exhausted, there will be no display in the LCD, no response from pressing keys.

Maintenance

- Protect the Timer from adverse weather conditions. The Timer is not waterproof. Do not expose the LCD display to direct sunlight for long periods of time.
- CAUTION: To avoid damage to the Timer, do not expose it to sprays, liquids, or solvents.
- Clean the exterior of the Timer by removing dust with a lint-free cloth.
- Use care to avoid scratching the clear plastic display filter.
- For further cleaning, use a soft cloth or paper towel dampened with water. You can use a 75% isopropyl alcohol solution for more efficient cleaning.
- CAUTION: To avoid damage to the surface of the Timer, do not use abrasive or chemical cleaning agents.

P3 INTERNATIONAL CORPORATION LIMITED WARRANTY

P3 INTERNATIONAL CORPORATION ("P3") warrants to the original retail purchaser only, that its product is free from defects in material or workmanship under the condition of normal use and service for a period of six (6) months from the date of purchase. In the event that a defect, malfunction or failure occurs or is discovered during the warranty period, P3 will repair or replace at its option the product or component part(s) which shall appear in the reasonable judgment of P3 to be defective or not to factory specifications. A product requiring service is to be returned to P3 along with the sales receipt or other proof of purchase acceptable to P3 and a statement describing the defect or malfunction. All transportation costs shall be borne by the owner and the risk of loss shall be upon the party initiating the transportation. All items repaired or replaced thereunder shall be subjected to the same limited warranty for a period of six (6) months from the day P3 ships the repaired or replaced product. The warranty does not apply to any product that has been subject to misuse, tampering, neglect, or accident or as a result of unauthorized alterations or repairs to the product. This warranty is void if the serial number (if any) has been removed, altered, or defaced. This warranty is in lieu of all warranties expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose which are expressly excluded or disclaimed. P3 shall not be responsible for consequential, incidental or other damages, and P3 expressly excludes and disclaims liability for any damages resulting from the use, operation, improper application, malfunction or defeat of any P3 product covered by this limited warranty. P3's obligation is strictly and exclusively limited to the replacement or repair of any defective product or component part(s). Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. P3 does not assume or authorize anyone to assume for it any other obligation whatsoever. Some states do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you. It is the owner/user's responsibility to comply with local, state, or federal regulations, if any, that may pertain to P3 products or their use. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. If you experience difficulty in the operation of your unit, or if your unit requires repair please contact:

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TECHNICAL SUPPORT
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