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SURAIELEC UBTD01A 7-Day Digital Box Timer Switch User Guide

Contents

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Product Information

SKU: UBTD01A

The Suraielec 7-Day Digital Box Timer Switch is a versatile timer switch designed for various applications. It has a wide input voltage range of 120-240/277VAC and operates at a frequency of 60Hz. The timer switch automatically detects the voltage without the need for any dip switch settings.

The contact ratings of the timer switch are as follows:

- 40A Resistive 120 to 277 VAC
- 30A General Purpose 120 to 277 VAC
- 20A Resistive, 30VDC
- 1HP, 120 VAC
- 2HP, 240VAC
- 20A Ballasted load 120 to 277 VAC
- 15A Tungsten, 120 VAC
- 5A Tungsten, 250VAC
- 800VA, Pilot Duty, 120VAC
- 720VA, Pilot Duty, 240 VAC
- TV-5, 120VAC

The timer switch has a terminal range of #14-#8 AWG and can operate within a temperature range specified by the manufacturer.

Product Usage Instructions

Mounting the Digital Box Timer

1. Choose the appropriate knockout size (1/2″ or 3/4″) for mounting the timer switch.
2. If using the 1/2″ knockout, carefully cut off the inner ring of the rubber plug with a knife.
3. If using the 3/4″ knockout, remove the entire rubber plug.
4. Hold the box in place and use the three mounting holes to mark the position on the mounting surface.
5. Mount the box using screws.
6. Ensure that the timer switch is installed upright in a vertical orientation.
7. Always close the rainproof door after use.

Connecting the Wires

1. Lift the plastic insulator off the retaining post to expose the terminal strip.
2. Refer to the wiring diagram for your specific application and connect the wires accordingly.
3. Make sure to connect the grounded wire to the grounding terminal.

Programming

Before initial use, plug the timer in for at least 30 minutes to recharge the internal battery. After the screen displays, the unit is ready for programming.

Safety Section

**WARNING:** Risk of Fire or Electrical Shock

- This timer should be installed by a licensed electrician. Turn power off at the main panel before servicing this switch or setting up its controls.
- Disconnect power at the circuit breaker(s) or disconnect switch(es) before installing or servicing.
- Installation and/or wiring must be in accordance with national and local electrical code requirements.
- This enclosure does not provide grounding between conduit connections. When the metallic conduit is used, you must also install grounding type bushings and jumper wire.
- Use #14-# 8 AWG wires, rated at least 75°C (167°F)-COPPER conductors ONLY.
- Make sure there is no wire insulation under the terminal plate on the time switch connector. Firmly tighten terminal screws.
- Do not remove the insulator that is covering terminals.
- KEEP THE DOOR CLOSED AT ALL TIMES when not servicing.
- Installation, Operating and Safety Instructions – Instructions for installation and use of this product are provided by the manufacturer. "Make sure to use this product together with 40A circuit breaker in the upstream" stated in the manual.

Specifications

- Input
    - 120- 240/277VAC, 60Hz Detects voltage automatically(NO DIP SWITCH SETTING REQUIRED)
- Contact Ratings
    - 40A Resistive 120 to 277 VAC;
    - 30A General Purpose 120 to 277 VAC;

- 20A Resistive, 30VDC;
- 1HP, 120 VAC;
- 2HP, 240VAC;
- 20A Ballasted load 120 to 277 VAC;
- 15A Tungsten, 120 VAC;
- 5A Tungsten, 250VAC;
- 800VA, Pilot Duty, 120VAC;
- 720VA, Pilot Duty, 240 VAC;
- TV-5, 120VAC
- Terminal range
  - #14- #8 AWG
- Operating temperature:
  - -40°F to 149°F
- Minimum ON or OFF time
  - 1 minute
- Maximum ON or OFF time
  - 23 hours, 59 minutes

Product Illustration

FIG.1 Product Illustration
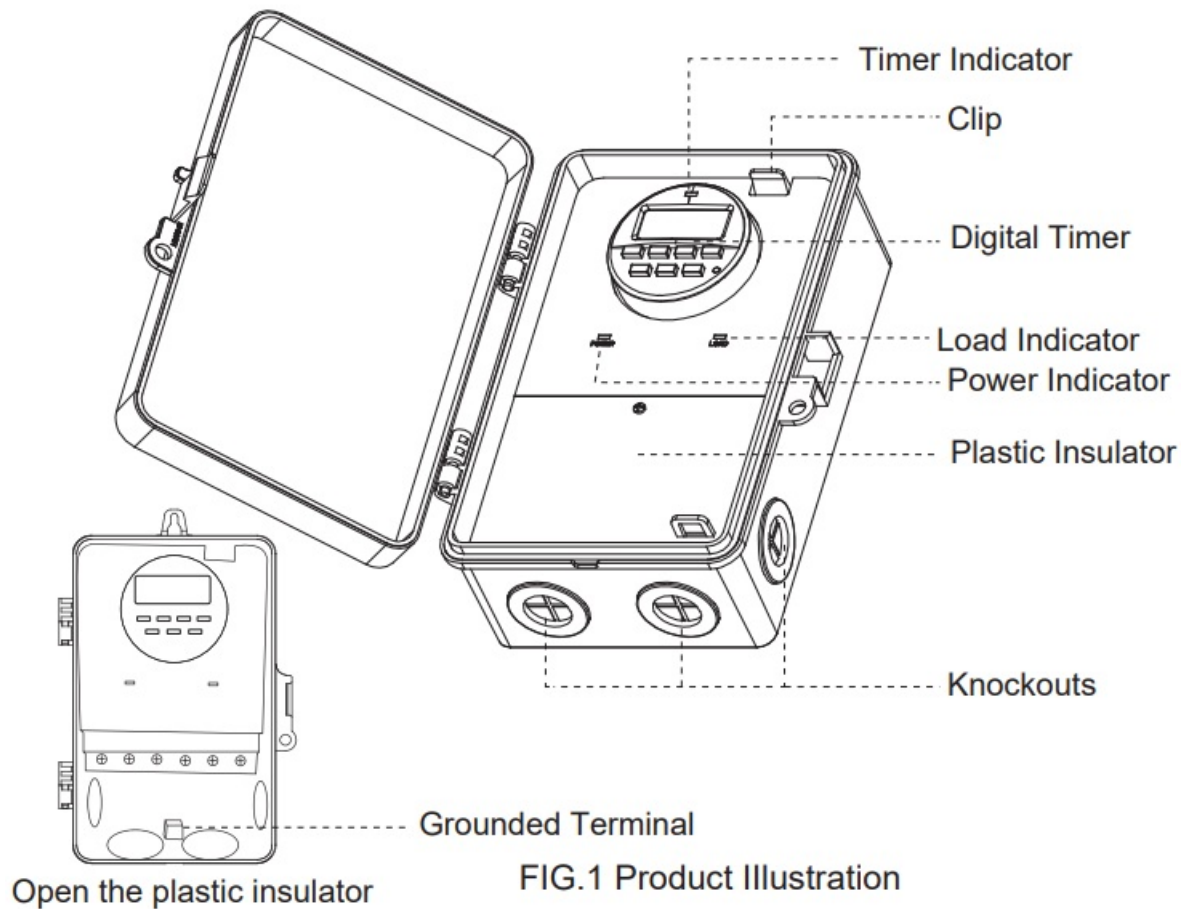
Light Chart

Name	Color	Status	Status
Power Indicator	Red	Solid	Input normal
		No Light	Input abnormal
Load Indicator	Blue	Solid	Power is on
		No Light	Power is off

Installation

Mounting the Digital Box Timer

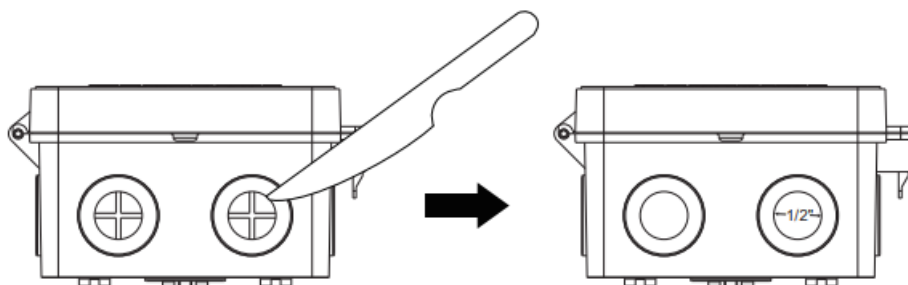1. Choose the knockouts (five 1/2'' to 3/4'' combination knockouts available)

FIG.2 1/2" knockout

- **For 1/2'' Knockouts:** If you use the 1/2″ knockout, carefully cut off the inner ring of the rubber plug with a knife (FIG.2).
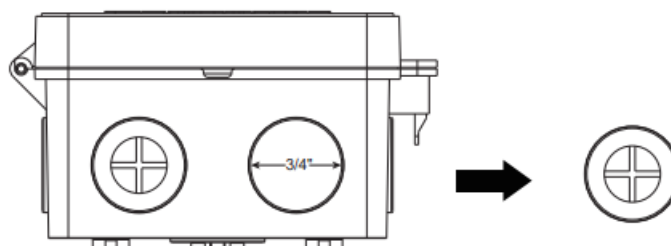

FIG.3 3/4" knockout

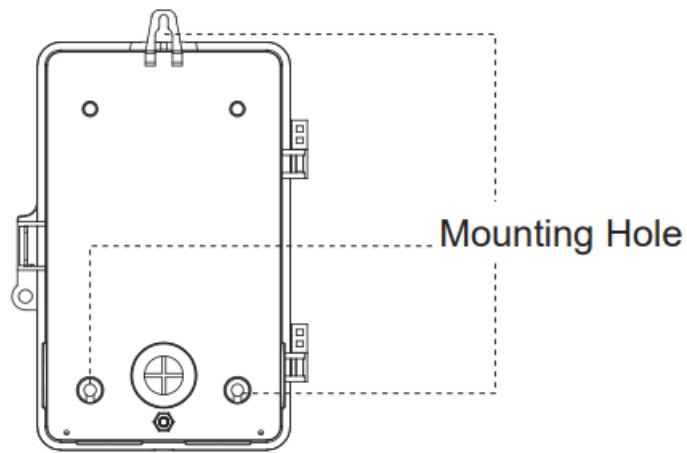- **For 3/4'' Knockouts:** If you use the 3/4″ knockout, please remove the entire rubber plug (FIG.3).

FIG.4 Mounting Holes

2. Mounting the Digital Box TimerHold the box in place and use the three holes (FIG.4) to mark position on the mounting surface.

- Mount the box with the screws

NOTE

- Install upright, in a vertical orientation.
- Always close the rainproof door after use.

Connecting the Wires

L = Live | N = Neutral | NO = Normally Open |
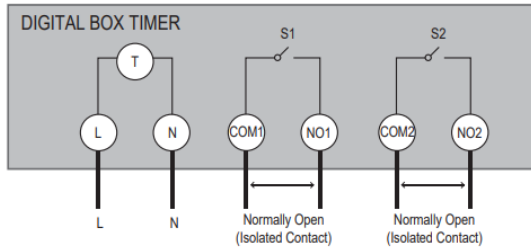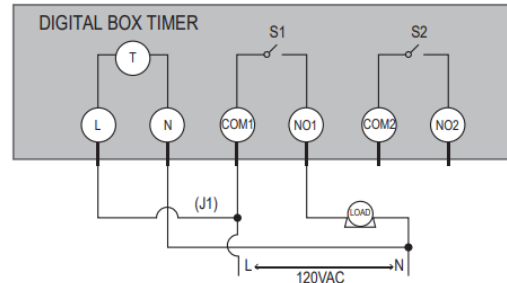COM = Common Terminal | J = Jumper Wire | T = Timer

FIG.5 TERMINAL DESIGNATIONS

FIG6. *120V Application-* Controlling One 120VAC Load
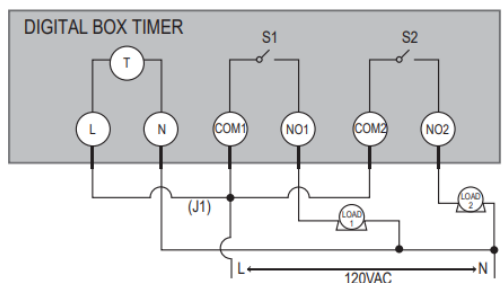
FIG7. *120VAC Application-* Controlling Two 120VAC Loads

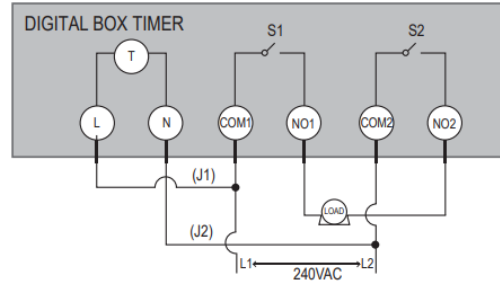FIG8. *240VAC Application-* Controlling One 240VAC Load
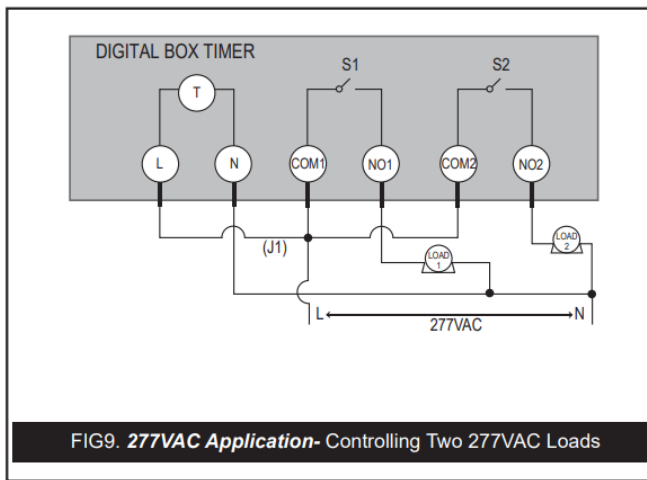
FIG9. **277VAC Application-** Controlling Two 277VAC Loads

FIG10. HOT WATER HEATER TYPICAL WIRING DIAGRAM
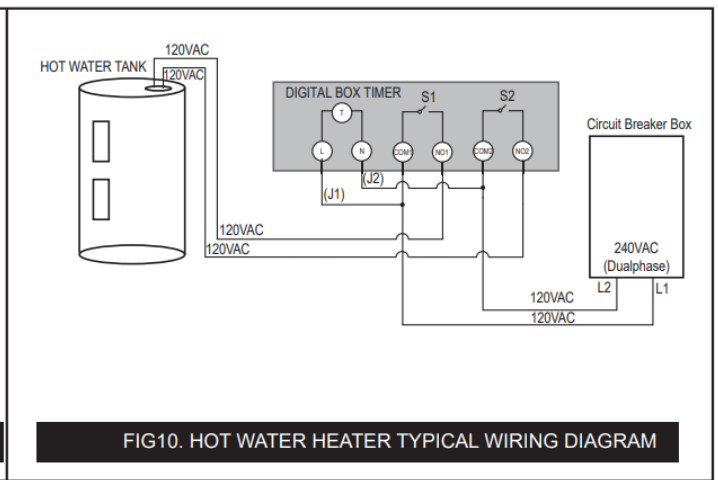
1. Lift the plastic insulator off the retaining post and away to expose the terminal strip.
2. According to the wiring diagram (TYPICAL APPLICATION WIRING DIAGRAMS) to wire.
   - **Note:** please connect the grounded wire to the grounding terminal.

Programming

Before initial use, plug the timer in for at least 30 minutes to charge the internal battery. After the screen displays, the unit is ready for programming.

Reset

Figure 11

After few seconds

- Before programming, all settings should be reset.
- The reset hole which is identified by "R" is just located below the "R/RECALL" button. Use a paper clip or ballpoint pen to stick it. See Figure 11.

Set the Current Time

- Keep the "CLOCK" button pressed during the entire setting operation.
- Press the "HOUR" button to set hours.
- Press the "MIN" button to set minutes.
- Press the "WEEK" button to select the correct day of the week.
- Release the "CLOCK" button. The time will be set.
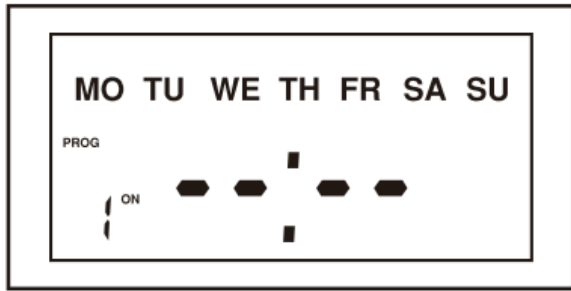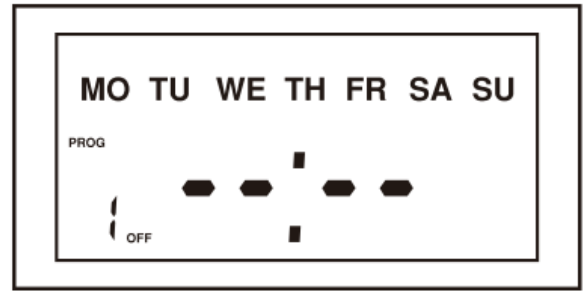
ON/OFF Program Setting

Figure 12

Figure 13

- Press the "PROG" button once, Figure 12 will appear. There are a total of 20 ON/OFF settings.
- Press the "HOUR" or "MIN" buttons to set ON time.
- Press the "WEEK" button to select the day(s).

- MO,TU,WE,TH,FR,SA,SU
- WE
- SA
- SA,SU
- MO,WE,FR
- MO,TU,WE

- MO
- TH
- SU
- MO,TU,WE,TH,FR,SA
- TU,TH,SA
- TH,FR,SA

- TU
- FR
- MO,TU,WE,TH,FR

- Press the "PROG" button to save and proceed to the "1 OFF " setting. See Figure 13
- Repeat steps a-e to set ON/OFF times. Press the "PROG" button again will advance to the other 19 ON/OFF settings.

NOTE: Timer should operate in the "AUTO ON" or "AUTO OFF" mode. See "Switching Mode Indication" section.

Reset Button

Figure 14
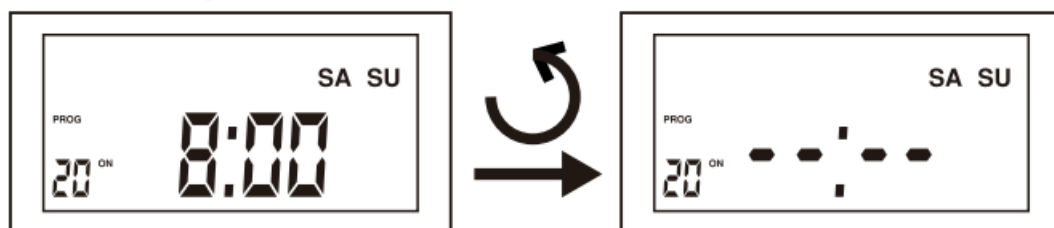
- Press the "PROG" button to select the ON/OFF setting that needs to be changed.
- Press the " R/RECALL" button to reset the current ON/OFF setting (See Figure14) without having to scroll through all the hours.

Switching Mode Indication

- The actual mode is shown on the display as "ON", "AUTO ON", "OFF", or "AUTO OFF" together with the time of day. Press the "ON/AUTO/OFF" button to adjust to the desired setting mode.

Manual Override Setting

As an independent programming, it is possible at any given time to advance to the next switching command by constantly pressing the "ON/AUTO/OFF" button, as shown below:

- **ON =** Always ON;
- **OFF =** Always OFF;
- **AUTO ON =** Power is ON currently and ON/OFF program setting is activated.
- **AUTO OFF =** Power is OFF currently and ON/OFF program setting is activated.

Daylight Saving Time (DST)
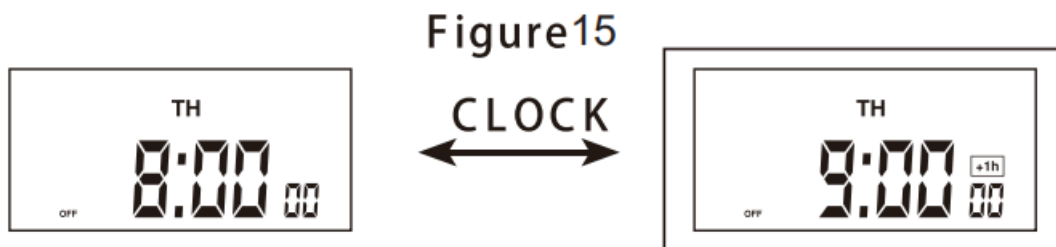
- Press and hold the "CLOCK" button for 3 seconds to advance to the current time 1 hour, "+1h" icon will appear on the display.
- Press and hold the "CLOCK" button for 3 seconds again to decrease 1 hour and the "+1h" icon will disappear. See Figure 15.

Power Back-up Feature

- In the event of a power failure, the timer will retain its settings for an estimated 3 months if the power backup is fully charged.

Limited Warranty

One Year Limited Warranty

- Suraielec warrants to the purchaser of this product, for the period of one (1) year following the date on which Purchaser purchases the product, that the product shall be free of defects in design, assembly, material, or workmanship.
- If you have any problems or questions, please contact our Consumer Care by the E-mail: **surai-tech@outlook.com**

Documents / Resources

SURAIELEC UBTD01A 7-Day Digital Box Timer Switch [pdf] User Guide
UBTD01A, UBTD01A 7-Day Digital Box Timer Switch, 7-Day Digital Box Timer Switch, Digital Box Timer Switch, Box Timer Switch, Timer Switch

References

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