

## **Product Descriptions**

# Timer Switch with Daily Multiple Period Settings (No Neutral Required)

Model #: BRT-400

**BRT-400B** 

(Please visit our website <a href="www.a-brt.com">www.a-brt.com</a> for more info)



#### **Features:**

BRT-400 and BRT-400B are the most advanced timer switches. They are controlled by a micro controller unit and have very accurate timing capability. They are designed for easy installation and retrofit, directly fit into standard wall box with no need for the neutral.

BRT-400 has accurate timing setting to a second, while BRT-400B has accurate timing setting to a minute.

- Up to 20 timing periods available within each day, and memory function for the settings;
- LCD display showing current time, timing period # and next On time;
- Manual control or automatic control available. User friendly front panel key pads for easy manual operation or automatic timing settings;
- Load up to 2000W;
- ABS-V0 flame resistance material; and
- Classical 86 series design and high quality build.

#### **LCD Display and Front Panel Buttons:**

Fig. 1 and Fig. 2 show the front view and the back view of the BRT-400 and BRT-400B timer switches respectively.



Fig. 1 Front View



Fig. 2 Back View

As shown in Fig. 3, the BRT-400 and BRT-400B timer switches have an LCD display and 6 buttons in the front. The LCD display shows the clock time, timing period #, and the timer On time for the current timing period.



Fig.3 Front Control Panel and LCD Display

The 6 buttons are used to turn on/off the load, and set clock time and timing settings.

ON: Power on the load. It can override the timer's automatic control; and

In the timer setup mode, press the button can go to the previous timing period.

**OFF:** Power off the load. It can override the timer's automatic control; and In the timer setup mode, press the button can go to the next timing period.

**Clock:** Press the button to enter clock setup mode.

**Timer:** Press the button to enter timer setup mode.

Press the button to decrease the time, when the clock setting mode or the timer setting mode is selected and the digits are flashing; or

When the clock digits are not flashing, press and hold the button for 3 seconds can go to the previous timing period or press and hold the button for 5 seconds can check the previous timing setting.

Press the button to increase the time, when the clock setting mode or the timer setting mode is selected and the digits are flashing; or

When the clock digits are not flashing, press and hold the button for 3 seconds can go to the next timing period or press and hold the button for 5 seconds can check the next timing setting.

Product Description of BRT400/BRT400B

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## Specification Parameters:

Input Voltage	220~240V(50Hz/60Hz)	Operation Environment	No-condensation 20-90% RH, -20°C~40°C
Wattage	2000W	Load type	All Types*
Mounting Hole Spacing	60mm	Matching Box	75mm x 75mm x 50mm
Dimension	86mm x 86mm x 50.5mm	Weight	155g

<sup>\*</sup> For capacitive loads, an adaptor is needed. Please talk to our sales representatives.

## Wiring Diagram and Installation Guide:

BRT-400 timer switch and BRT-400B timer switch only require two wires for installation:

Hot wire (ACL): Coming from the power line with 220V; and

Load wire:

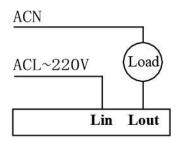


Fig. 4 BRT-400/400B wiring diagram

## Warning: Please make sure power is turned off before starting installation!

Fig. 4 shows the wiring diagram and Fig. 5 shows the step-by-step installation instructions. There are three easy steps:

Step one: Use a screwdriver to pry off the front plate in position A;

Step two: Wiring according to the diagram and the labelled ports of the switch; and

Step three: Install screws and front plate.

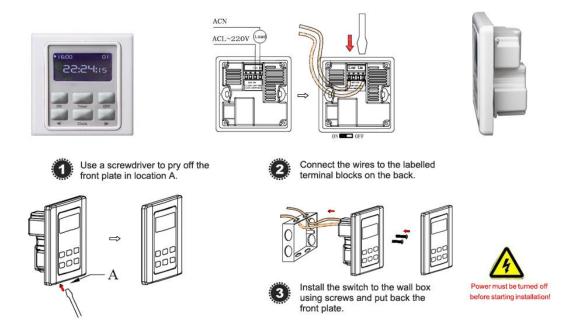


Fig. 5 BRT-400/400B installation guide

## **BRT-400 Timer Switch Setup:**

#### 1. Set up the clock:

- 1.1 Press the "Clock" button and hold for 3 seconds to enter the clock setup mode, the hour display starts to flash; press " " or " " " to adjust the hours (holding down " " or " " " will adjust the hours quickly);
- 1.2 Press the "Clock" button again, the minute display starts to flash; press " ◀ " or " ▶ " to adjust the minutes (holding down " ◀ " or " ▶ " will adjust the minutes quickly);
- 1.3 Press and hold the "Clock" button until clock display stops flashing. The clock settings are saved.

(Note: If there is no button operation for 15 seconds, the clock settings will be automatically saved).

#### 2. Set up timer On time and duration:

Timer On time:

- 2.1 Press the "Timer" button and hold for 3 seconds to enter timer setup mode, the display will show "--:-- op" (timer start time);
- 2.2 When the display hour is flashing, press " ◀ " and " ▶ " to adjust the hours, (holding down " ◀ " or " ▶ " will adjust the hours quickly);
- 2.3 Press the "Timer" button again, the minute display starts to flash; press " ◀ " or " ▶ " to adjust the minutes (holding down " ◀ " or " ▶ " will adjust the minutes quickly);

Once the Auto On time is set up, proceed to set up the timer On duration (delay time):

- 2.4 Press the "Timer" button again, the display will show "--:-- du" (timer On duration);
- 2.5 When the display minute is flashing, press " " and " " to adjust the minutes, (holding down " " or " " will adjust the minutes quickly);
- 2.6 Press the "Timer" button again, the second display starts to flash; press " ◀ " or " ▶ " to adjust the seconds (holding down " ◀ " or " ▶ " will adjust the seconds quickly);

Once timer on time and duration are setup, there are three options:

Press "Off" button to start setting up the next timer On time and duration, or Press "On" button to go back to modify the previous timer On time and duration, or Press and hold the "Timer" button until clock display stops flashing. The timer settings are saved.

(Note: If there is no button operation for 15 seconds, the timer settings will be automatically saved).

The longest timer duration for BRT-400 is 90 minutes. If a longer timer On period is needed, please use overlapping timer periods, i.e., the next timing period starts before the last timing period is finished.

#### 3. Delete timer settings

Press the "Timer" button and hold for 3 seconds to enter into the timer setup mode. Press "ON" or "OFF" until the timing period to be deleted displays. Then, press " " or " " "to set the time on time to "--:--op" and set the timer duration to "--:--du". The timing period is deleted.

#### **BRT-400B Timer Switch Setup:**

## 1. Set up the clock:

- 1.1 Press the "Clock" button and hold for 3 seconds to enter the clock setup mode, the hour display starts to flash; press " " or " " " to adjust the hours (holding down " " or " " " will adjust the hours quickly);
- 1.2 Press the "Clock" button again, the minute display starts to flash; press " ◀ " or " ▶ " to adjust the minutes (holding down " ◀ " or " ▶ " will adjust the minutes quickly);
- 1.3 Press and hold the "Clock" button until clock display stops flashing. The clock settings are saved.

(Note: If there is no button operation for 15 seconds, the clock settings will be automatically saved).

#### 2. Set up timer On time and timer Off time:

Timer On time:

- 2.1 Press the "Timer" button and hold for 3 seconds to enter timer setup mode, the display will show "--:-- op" (timer start time);
- 2.2 When the display hour flashing, press " " and " " to adjust the hours, (holding down " " or " " " will adjust the hours quickly);
- 2.3 Press the "Timer" button again, the minute display starts to flash; press " ◀" or "▶" to adjust the minutes (holding down " ◀" or "▶" will adjust the minutes quickly);

Once the Auto On time is set up, proceed to set up the timer Off time:

- 2.4 Press the "Timer" button again, the display will show "--:-- cl" (timer Off time);
- 2.5 When the display hour flashing, press " " and " " to adjust the hours, (holding down " or " " will adjust the hours quickly);
- 2.6 Press the "Timer" button again, the minute display starts to flash; press " ◀ " or " ▶ " to adjust the minutes (holding down " ◀ " or " ▶ " will adjust the minutes quickly);

Once timer On time and timer Off time are setup, there are three options:

Press "Off" button to start setting up the next timer On time and timer off time, or Press "On" button to go back to modify the previous timer On time and timer off time, or

Press and hold the "Timer" button until clock display stops flashing. The timer settings are saved

(Note: If there is no button operation for 15 seconds, the timer settings will be automatically saved).

#### 3. Delete timer settings

Press the "Timer" button and hold for 3 seconds to enter into the timer setup mode. Press "ON" or "OFF" until the time period to be deleted displays. Then, press " " or " " "to set the time on time to "--:--op" and set the timer off time to "--:--cl". The timer period will be deleted.

## Applications:

BRT-400 timer switch and BRT-400B timer switch are used for automatically turning on and/or turning off various loads such as fans, lights, appliances, or other kinds of electrical equipment. They are perfect for saving energy and bringing convenience and safety to our daily life and work.

They have wide applications at various locations such as homes, schools, laboratories, hospitals, offices, etc. The typical application scenes include:

**Schools:** Automatically ring the bells according to a fixed timetable to relieve manual intervention.

**Hospitals or Laboratories:** Automatically turn on and turn off UV disinfection equipment to isolate operators from harmful UV exposure.

*Farms:* Automatically turn on or turn off breeding equipment or lighting equipment for animals.

## How to Order:

Please contact us: Shenzhen Asia Bright Co., Ltd.

Floor 2<sup>nd</sup>~3<sup>rd</sup>, Building E, North Area No.2 of Shangxue

Science Park, Bantian, Shenzhen, China

Tel: +86-755-89748200 +86-755-89748211 Email: <u>sales@a-brt.com</u> Website: <u>www.a-brt.com</u>