# TB388Instruction

Please read the instructions carefully before using, in order to correctly use. After reading, please safekeeping.

## Safety precautions

### ⚠ WARNING

- Do not use the time switch in any equlpment that supports human death or significant social problems and this switch is esiicitly not intended for such appiications.
- If you want to use the time switch in equipment that could cause a financial loss if a fallure occurs(such as in heaters and refrigerators),select a model with excess capacity in terms of characteristics and performance. then also take safety measures such as providing duplicate circuits

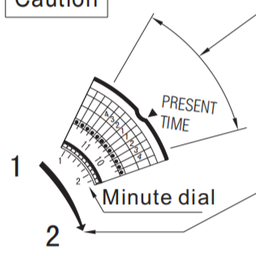
### ⚠ CAUTION

- Do not disassemble or modify the time switch. You may receive an electrical shock ,cause a fire,or damage the switch.
- Please do not touch the termina,After the power is on, Otherwise there will be the danger of electric shock.
- If it is found that the terminal part of the rusting, please as soon as possible replacement of good or you may cause a fire by poor contact
- Dont use the time switch where it mighe be splashed by water or oil.you mayreceive an electrical shock ,cause a fire,or damage the switch.

## ① Setting the operating time

- Fold the setting pin inside(OFF)or outside(ON) at the desired time you want the action to occur.

Caution

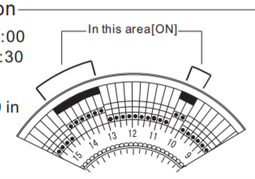



①Do not try to fold the four setting pins next to the current time display(▲).you can not set these times. if you force it,you maby damage the switch.

②If the time you want is in this area,turn the minute in the direction shown by the arrow and then fold the setting pin.

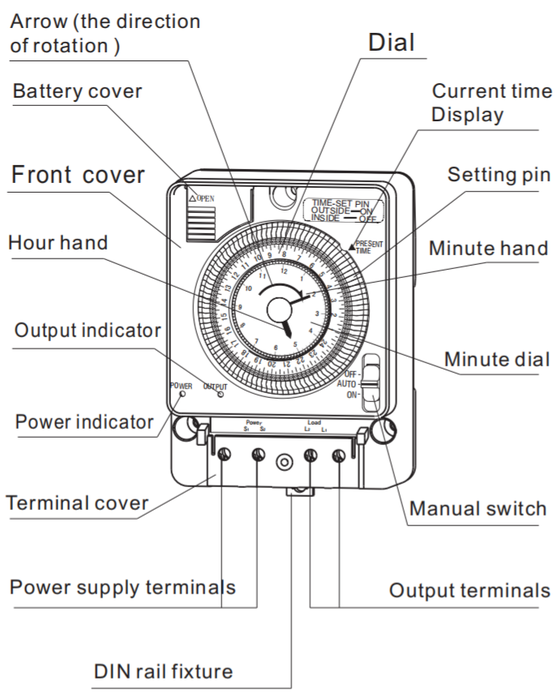
[Example]This occasion

- The setting like this at 10:00 in the morning [ON ] at 10:30 in the morning [OFF ]
- The setting like this 01:00 in the afternoon [ ON ] and 2:30 in the afternoon [ OFF ]



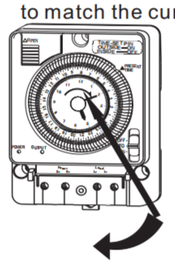

CAUTION Please bring hope time set button successive defeat. Set the button down, be sure to hear" Khaki" the exact sound.

## Names of each parts




## ② Adjusting the current time

- Turn the minute dial the direction shown by the arrow to match the current time.



Caution

Make sure to turn the minute hand knob only in the direction shown by the arow. Turning it backward forcibly may damage the switch Do not try to turn the dial palte itself.you may cause a malfunction.
The dial shows the time using a 24 hour system.
When adjusting the current time be careful not confuse AM and PM.

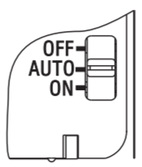
## Setting the manual switch

- Set the manual switch to the「AUTO」position.

「AUTO」: The output will be turned on and off at the set times.

「ON」: The outputwill be on ,regardless of the settings(continuously ON).

「OFF」:The output will be off,regardless of the settings(continuously OF).



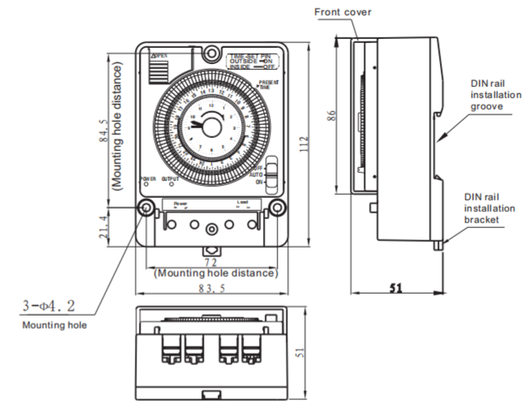

■You Can use a manual switch load operation test and please set to "ON" or "OFF" position

CAUTION Please turn it to「AUTO」position affter you finished your testing

## Use matters needing attention

- Proofing time, please be sure to hand in the direction of the arrow. Mandatory rotates in the reverse direction or rotary dial will result in failure.
- In the purchase of the product, the built-in battery for its discharge and power decrease phenomenon. In full discharge of the case, even if the power on, clockwise will immediately stop. At this time, please connect power after its charging 2 to 3 minutes, then proofe the time

## Dimensions (unit:mm)




## About life

Under normal circumstances, the everage life expectancy is shown as follows

- Contact switch frequency 50,000 times( impedance load: 250VAC 20A)
- Life time 5years (temperature 25℃、relative hunidity65%)
- Nickel-cadmium battery 3 years(temperature 25 ℃、relative hunidity65%)

AS long as there is one of the zhove mentioned reaches it`s life, please change for a new product

## When you belive that there is a failure

| Phenomenon | Cause and countermesure |
|---|---|
| Load do not action ad the detenimed time | The time switch for 24 hours.perhaps you have fixed morning and afernoon.please confirm thepresent moment of the time switch. |
| | this is a mechanical time switch .All of this kind of products have around ±3minutes error when action |
| Clockwise unormal | When it happened power outage as esceed block out compensation time(300hours)clockwise will stop,and the now moment will be deviation.Please co llect it to present moment |
| Clockwise step running and Electricity lights flashing | Indicated that the nickel-cadmium battery , piease entrust it to agents or our compary |

## Specification list

| | | |
|---|---|---|
| Model | | TB388 |
| working voltage | | 110-240VAC general |
| power frequency | | 50HZ/60HZ general |
| Drive Modle | | Quartz mtor type |
| Blackout compensation | | 300H(operation temperrature20℃) |
| Time precision | | Poor reading 30s(operation temperature 25℃) |
| Action time precision | | ±3 minutes(Not including initial time to adjust error) |
| Cycle | | 24 hours |
| Power consumption | | 110VAC1W 220VAC2W |
| Output contacts | | SPST ( —◡— ) |
| Contact capacity | Resistance load | 20A |
| | Incandescent lamp load | 10A |
| | Inductivloade (cosΦ=0.7) | 12A |
| | Motor load (cosΦ=0.7) | AC110.750W AC220V.1500W |
| Setting time | Minimum setting unit | 15 minutes |
| | Minimum setting | 15 minutes |
| | NO.of on/off operation | 96 operations/day |
| Ambient operating temperature | | -10℃ to +50℃ |
| Ambient operating humidity | | less than 85% |
| Weight | | 250g |

Provide replacement parts ( please change for ordering when it Lost or damaged )

| Component name | Type | Remarks |
|---|---|---|
| Front cover | TB38801001 | —— |
| Setting pin | TB38801002 | —— |
| Nickel hydrogen battery | TB38801003 | 1. 2V 110mAH |

## Aabout time switch action time precision

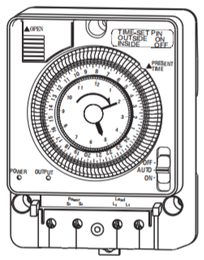
The action of time switch time precision is ±3 points.
Not including the initial time of adjustment error.
Temperature conditions for 25℃situation.
Not affected by power frequency variation.

# TB388
# Time switch

# Instruction

- Read the instruction carfully before using it .to ensure correct construction.
- The workers must be have recoginzed electrical constructionqualion by goverment

Save these instruction



## Safety precautions

### ⚠WARNING

- Do not use the time switch in any equlpment that supports human death or significant social problems and this switch is esiicitly not intended for such appiications.
- If you want to use the time switch in equipment that could cause a financial loss if a fallure occurs(such as in heaters and refrigerators),select a model with excess capacity in terms of characteristics and performance. then also take safety measures such as providing supllcate circuits.

### ⚠CAUTION

- Do not repair it by youself, break down, or reform. Otherwise it will cause shock, fire or failure.
- Please use the appropriate power wire.
  If you use appropriate power wire, will lead to a damaged or fire
- Please connected the bolt of terminal firmly.
  it will lead to a damage or fire if loose
- Dont use the time switch where it mighe be splashed by water or oll.you mayreceive an electrical shock ,cause a fire,or damage the switch.
- please cut the main power supply,before you operation inspection it Otherwise, you may be shock by the electric.
- Do not connect to the rated power outside of the power supply.
  Or it will cause a fire and damage.
- Please do not directly control the load whitch above rated load ,will lead to a damaged or fire.In this case, please use the electromagnetic contactor and other equipment.

## Attention in the construction

- Do use it in the following situations.Otherwise it will lead to malfunction, failure or leakage.
  - The use of placesbelow-10℃ or above+50℃
  - Suchas rainor sunshine outdoor directly the place
  - The place where condensation of dew.
  - The place where with sulfurous acid gas or ammonia and other corrosive gas
  - The useing place with Heavy moisture or more powder
  - The place where occurr vibration or shock.
  - High frequency noise,electricfield,magnetic field strong places
- Output circuit same as the power circuit TB388 type,the output voltage same as the power circuit voltage.
- Please do not put the power terminal and the output terminal of confusion.
- Load capacity exceeds the rated load of the occasion, or load for the three-phase load situation, please use the electromagnetic contactor and other equipment.
- Construction ended, please fully confirm the correctness of the connection, and then the main power supply is switched on for trial operation.

## About Nickel metal hydride battery compensation

### ●About time power compensation

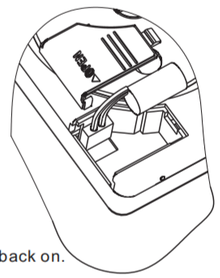
The timing switch has built-in power compensation of nickel-hydrogen battery.

- If the timer switch is switched on, nickel-metal hydride batteries start charging automatically.
- The timer will be full of power after three days of continuous switching.
- Power outages or exceed the power cut compensation time long time power failure will make the battery life.

### ●Nickel metal hydride battery replacement method

Battery life of about3years, the use of higher temperature, life will be moreshortened.So please advance the battery replacement. ( model: TBS01003)

⚠CAUTION Please be sure to cut off power supply befor replace the battery . Or have the risk of electric shock



1.Remove the battery cover.

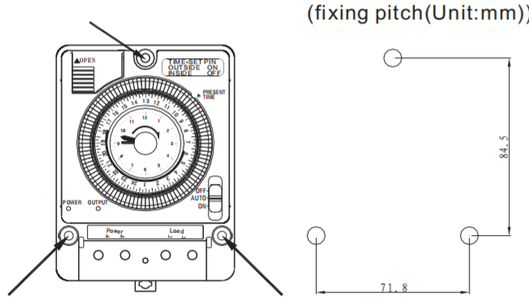
2.Take the nickel-hydrogen battery out of the battery compartment and disconnect the connector

3.Connector to the newbattery,and store the battery in the compartment

4.Make sure to put the battery cover back on.

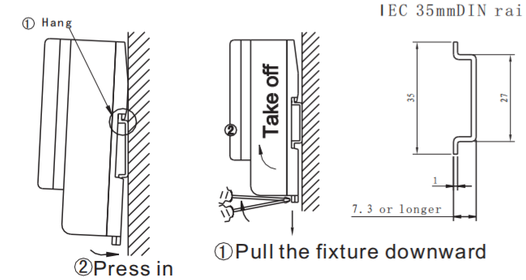
## ① How to install

○To install the time switch on a wall or other vertical suface.
Fix the switch at the three holes with screws or the like.
(fixing pitch(Unit:mm))




② When use the DIN rail

| Installation | Removal | compatible DIN rail |
|---|---|---|
| | | IEC 35mmDIN rail |




## ② Wiring examples

●Suitable wire(Please use 600V plastic insulated wire)

- singlet wire..... Φ1.2 ～ Φ2.0 mm
- Stranded wire.....1.25 ～ 2 mm2

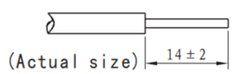
⚠Caution

1、The use of inappropriate wire will become a fire damaged or the cause of the fire.
2、Please do not use welding wire. The welding line is not firm and caused by poor contact will be the cause of the fire.

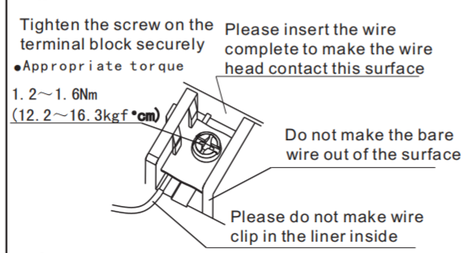
●Wire processing

**When using a single wire**

- Strip the coverback 14±2mm。

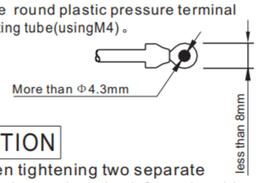



●Please connect the wire to terminal as shown below



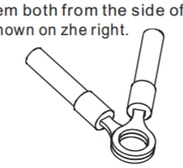

**When using a twisted wire**

- Please use round plastic pressure terminal with insulating tube(usingM4)。




CAUTION

1. when tightening two separate ines,insert them both from the side of the screw asshown on zhe right.



2.Not in a terminal connecting three or more wires. Otherwise it will cause bad contact and lead to a fever, fire and other accident.

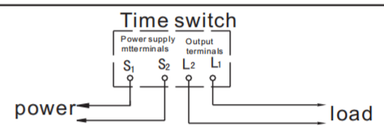
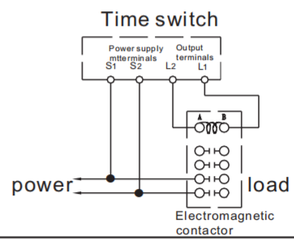
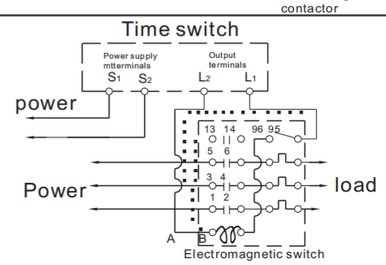
●Connection confirmation

After the end of the wire connection please fully recognized wiring if there is wrong.

CAUTION When Load circuit short circuit occurs, will lead to timing switch failure.

## CIRCUIT DIAGRAMS

- please draw contains timer switch control equipment of the whole system hookup, Before the wire connection

| | | Time switch and load for the same power occasion. |
|---|---|---|
| Use timing switch direct load control | |  |
| Load exceeds the rated load, or load for three-phase power. | one phase |  |
| | Three phase |  (Caution) Removal of electromagnetic switch transition line, otherwise cannot correct action. |