



## TS16 TS20 TS30

\*These instructions should be read in full and retained after installation for future reference.

### Safety

## ⚠ CAUTIONS

- 1.This TS shall be installed by skilled electricians.
- 2.Before installation or maintenance ,ensure that the power supply is turned off and adequately isolated.
- 3.Make sure the TS has been correctly wired and firmly tightened.
- 4.Do not disassemble or repair TS which may cause an electric shock, fire or other accidents.

### Description

Digital time switch for controlling of electrical installations with daily or weekly programs

### Features

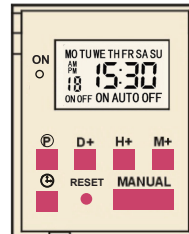
- Din rail mounting
- Daily or weekly programs
- Real time LCD display
- Built-in lithium battery to guarantee the normal working when power failure
- 16 ON/OFF program settings, and can be ON/OFF at any time .
- 16 modes of day's selection
- Set 18 pulses of (ringing the bell) program with adjustable pulse duration 1 s ~ 59m59s.
- Set the countdown program with countdown duration 1 s ~ 59m59s.
- Automatic correction time of per week (- 30 seconds≤Δt≤ 30 seconds).

### Operation mode setting

Press MANUAL key to select ON,AUTO or OFF

- ON AUTO: with automatic state ON
- ON: Set the output permanent ON irrespective of preset programs.
- OFF: Set the output permanent OFF irrespective of preset programs.
- AUTO OFF:with automatic state OFF

### Key function



- P: Programming
- D+: Day setting
- H+: Hour setting
- M+: Minute setting
- ⊕ : Clock setting & exit programming
- Reset: Initiating and resetting
- MANUAL: Operation mode setting

### Basic setting

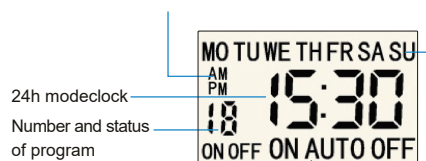
1. Press P key to check or change the setting time.
2. Press RESET to initiate in case there is no display after 5 seconds of power on.
3. Press RESET to restart if time is paused and function is abnormal.
4. Press M+ and D+ for 3 seconds to power off the display and clear all programs.
5. Press MANUAL to ON and OFF at any time.

### Clock setting

- 1.Press ⊕ and D+ together to set correct day.
- 2.Press ⊕ and H+ together to set correct hour.
- 3.Press ⊕ and M+ together to set correct minute.

### LCD display

When powered on,it is in 24h mode clock.Press ⊕ for 3 seconds,it is changed to 12h mode clock(AM means morning,PM means afternoon).Press ⊕ for 3 seconds again,it comes back to 24h mode clock



Operation mode: ON/AUTO/OFF

### Dayselection: 15 modes

1. MO TU WE TH FR SA SU
2. MO /TU/WE/TH/FR/SA/SU (working time is different each day)
3. MO TU WE TH FR
4. MO TU WE TH FR SA
5. SA SU
6. MO WE FR
7. TH TH SA
8. MO TU WE
9. TH FR SA
10. MO
11. TU
12. WE
13. TH
14. FR
15. SA
16. SU

### Programming instruction : For ON/OFF setting

Step	Key	Programming
1	Press P	Set 1 ON time (Display 1 ON)
2	Press D+	Select days of week
3	Press H+/M+	Set hour and minute of ON
4	Press MANUAL	Cancel setting (Display --:--), press again to restore setting
5	Press P	Set 1 OFF time (Display 1 OFF)
6	Press D+	Select days of week
7	Press H+/M+	Set hour and minute of OFF
8	Press MANUAL	Cancel setting (Display --:--), press again to restore setting
9	Repeat 1-8	Set 2-16 ON/OFF programs
10	Press ⊕	Exit to time setting
11	Press "H+" & "D+" together	OFF display screen and cancel program

\*If ON and OFF time settings are the same, the open time of product's relay is 30 seconds.

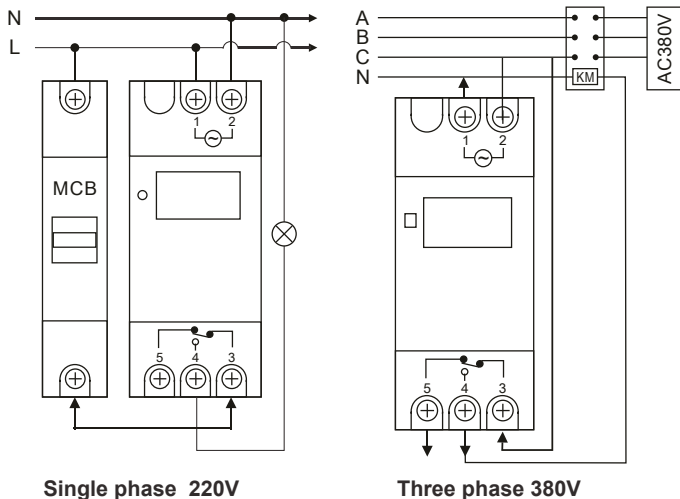
### Programming instruction : For Countdown

Step	Key	Programming
1	Press P & ⊕	Press for 3 seconds to countdown setting (Display d=0:00)
2	Press ⊕ & H+/M+	Setting of Minutes/Seconds (Max 59min 59sec)
3	Press MANUAL	Start Countdown
4	Press P	Exit the Countdown state
5	Press P & ⊕	Press for 3 seconds to exit

### AUTO time correction(weekly)

Step	Key	Programming
1	Press P & MANUAL	Access to time correction programme (Display 7d:00')
2	Press D+ & MANUAL	Adjust the error time Setting of -30 sec/+ 30 sec
3	Press ⊕	Confirm and exit

### Wiring Diagram



### Programming instruction : For Pulse setting

Step	Key	Programming
1	Press H+&M+	Press for 3 seconds to Pulse setting (Display P=0:00)
2	Press ⊕ & H+/M+	Select Pulse time range from 1 second to 59 min 59 sec. "P" flashes after 1 min
3	Press P	Set 1 ON time(Display 1ON)
4	Press D+	Select days of week
5	Press H+/M+	Set hour and minute of ON
6	Repeat 3-5	Set 2-18 pulse programs
7	Press H+&M+	Press for 3 seconds to exit Pulse setting

### Technical Data

Type	TS16	TS20	TS30
Rated voltage (selectable)	AC220-240V	AC110-120V	AC380V AC/DC12V AC/DC24V AC/DC48V AC85-260V
Contact rating	16A(8A): 1NO+ 1NC	20A(10A): 1NO+ 1NC	30A(15A): 1NO
Frequency	50/60Hz		
Programming range	1Minute-168Hours(1 week)		
Minimum setting interval	1Minute		
Time precision	≤ 1 second/day (25 C )		
Display	LCD		
Operation mode	ON / AUTO / OFF		
Power consumption	< 4 VA		
No. of ON/OFF setting	16		
Power reserve	3 years		
Working temperature	- 10 ~ 40 C		
Ambient humidity	35 ~ 85% RH		
Electrical life	10 <sup>5</sup> times		
Mechanical life	10 <sup>7</sup> times		
Mounting	DIN RAIL (35x7.5mm)		
Weight	123g	124.5g	133g
Dimension	89 x 36 x 65mm		

### Dimension (mm)

