



Quick Reference Guide



Digital Daily Time Switch TS 2 0 3

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INTRODUCTION

Thank you for purchasing EAPL'S Time switch. This instruction manual describes every aspect of installation, set-up, and operation of the Time switch. If you run into difficulties and need technical assistance, feel free to call our technical support at (080) 8462561 available between 9 AM – 5:30PM IST or visit our web site at www.eaplindia.com.

EAPL, an ISO 9001 company, leaders in Timer Technology Brings to you a new range of micro controller based programmable timers. High reliability, accuracy, compactness are some of the striking design features.

Uncompromising quality with cost effectiveness has been the watchword at EAPL.

For Customer Use

Enter below the serial Number which is located on the timer cabinet. Retain this information for future reference.

Model No:

Serial No:

Batch No:

Date of Purchase:

Purchase Point:

Accessories

- Time Switch - 1 no.
- Quick reference guide

Note: Please acknowledge that we reserve the right to make changes in product performance or specifications without prior notice. Also please note that we bear no responsibility for mistakes, misprints or omissions of the instruction manual Specifications.

Salient Features

- Multiple program time switch with four switching
- Elegant 72 x 72 mm ABS enclosure
- Battery operated real time clock in 24 Hrs. format
- LCD display for real time clock
- User friendly programming
- Manual over ride facility
- 16 Amps relay for control output.

Ordering Information

Model	Function	Source Voltage	Time Range
TS 203	Digital daily Time switch with 4 programs	240V AC	1min to 23 hrs 59mins

Specifications

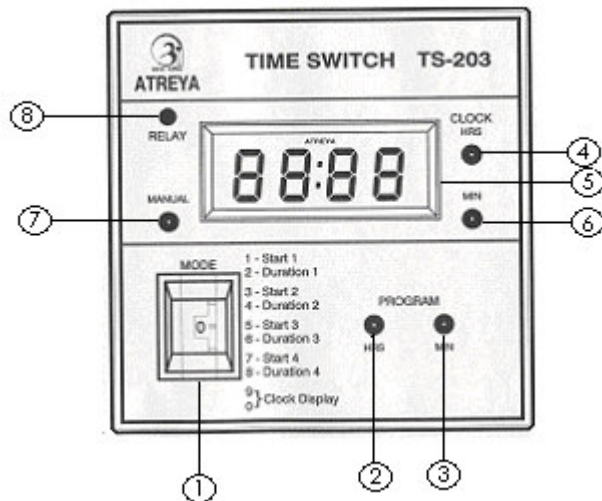
Rated Supply Voltage	240 V AC
Operating voltage range	-20 % to 10% of the rated voltage
Rated frequency	50HZ + 5%
Power Consumption	from mains: AC approx.12.5VA(2.5 W)
Battery Backup	1 year minimum
Control output	1 C/O rated for 16A@250 V AC/28VDC Restive Load
Time range for TS 203	ON Time: 00 H 00 M to 23 H 59 M Duration: 00 H 00 M to 23 H 59 M
Display of RTC	0.39" LCD
Switching Accuracy	±2sec max
Recovery time	100 m sec
Accuracy	Crystal Accuracy
Ambient Temperature	0° C to 50° C
Humidity	Max 85 % RH @ 40° C
Service Life (under no load)	10 ⁶ operations minimum
Electrical life (under full load)	10 ⁵ operations minimum
Insulation resistance	>100 M ohms @500V DC
Dielectric Strength	a) 2.5 KV AC, 50 HZ for 1 minute (between current carrying and non-current carrying parts) b)1.5 KV AC,50 HZ for 1 minute (between contacts and control circuits) c) 1KV AC, 50 HZ for 1 minute (between non continuous relay contacts)
Electrical Connections	Screw type terminals with self lifting clamps

Operating Instructions



- DO NOT apply potential to terminals P1 and P2 as this will damage the Time switch permanently. Shorting of P1 and P2 should be potential free and should be done with mains disconnected.
- DO NOT reverse the battery polarity while installing as this will damage the Time switch permanently.
- DO NOT source the output relay by tapping the line from A1 or A2 terminals as this may lead to malfunction of the Time switch. Use separate wires for sourcing the Time switch and control relay.
- Switch off the power while replacing the batteries to avoid getting an electric shock.

Front Panel



- 1 **MODE SWITCH**
This is a thumb wheel switch used to select different mode positions like 1 to 8 for start time and duration time for each program and 9 or 0 position to display the real time clock.

- 2,3 **PROGRAM HRS / MIN**
This button is used to program the required time.

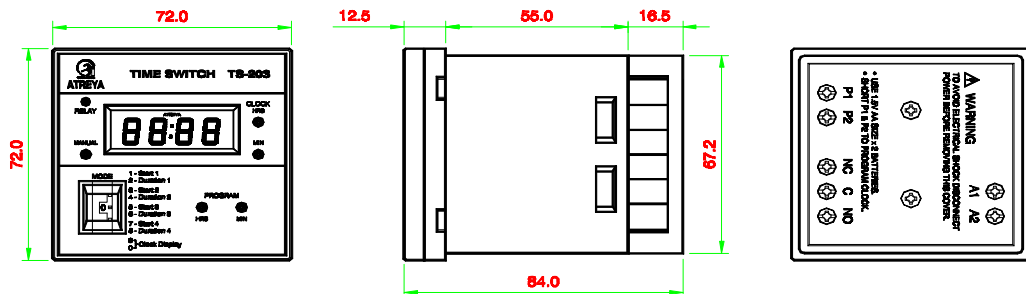
- 4,6 **HRS/MIN**
This button is used to set the real time clock.

- 5 **DISPLAY**
It displays the real time.

- 7 **MANUAL**
By pressing this button user can change the output relay status (ON to OFF and vice-versa).

- 8 **INDICATOR**
It is relay status indicator.

Dimensions



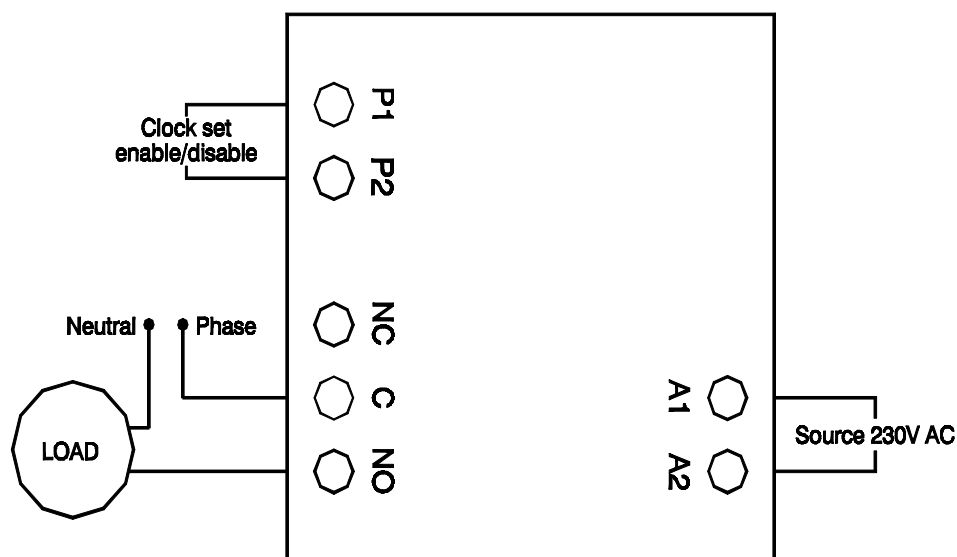
NOTE : ALL DIMENSIONS ARE IN mm.

Terminal Details

A1 and A2	: Power
NC	: Normally closed contact
C	: Common
NO	: Normally open
P1 and P2	: Clock set Open – Disable, Short - Enable

Connection Diagram

CONNECTION FOR TS-203 TIME SWITCH



Programming the Time Switch

- Keep the mode switch in the required position. Press program “Hrs” or “Min” button to program required timing.
- Repeat the previous step for remaining settings.
- After setting 4 programs, the mode switch must be kept either in position 0 or 9 to save time settings, as well as to display real time clock.

How to set the clock

- Short terminals P1 and P2 at the rear using a piece of wire. The shorting should be potential free.
- Connect mains to terminals A1 and A2 on the rear. The LCD displays the real time Clock in 24 Hrs format with dots (.) blinking in between Hrs. and Mins.
- To alter the Hrs. press “Hrs.” button on the front panel. The display rolls between 00 to 23.
- To alter the Min. press “Min.” button on the front panel. The display rolls between 00 to 59.
- After adjusting the real time clock, disconnect mains and remove the shorting across P1 and P2. Removal of shorting across P1 and P2 disables the clock setting button. This facility will prevent tampering of clock.

Note:

- In case of power failure, the real time clock display goes off. However, the clock continues to run with the battery back up provided in the unit. The display comes ON after a small delay when the power is resumed.
- TS 203 allows the user to program 4 switching in span of 24 Hrs. By selecting the mode switch, position 1 through 8, the start time and duration time of each program can be set.

MODE SWITCH POSITION

FUNCTION

1	To set start time of program 1
2	To set duration time of program 1
3	To set start time of program 2
4	To set duration time of program 2
5	To set start time of program 3
6	To set duration time of program 3
7	To set start time of program 4
8	To set duration time of program 4
9	To display real time clock (Mode switch in 0 or 9)
0	

Manual Over Ride Facility

- TS 203 has been provided with manual over ride facility. By pressing the manual button provided on the front panel, the user can change the output relay status (ON to OFF and vice versa) thereby over riding the actual program.
- However, this facility is conditional and gets terminated when any of the following occurs or attempted.
 - 1.Power failure
 - 2.Alterng and clock
 - 3.Completion of the originally intended program
 - 4.Changes in program settings.

Note: The manual over ride status is indicated by flashing of the real time clock.

Battery Installation

- Disconnect the power supply to the time switch.
- Remove the rear terminal cover by loosening the two star head screws.
- Install 2 x 1.5 V AA size batteries as per polarity marked on the battery holder
- While fixing the cover back, care should be taken to ensure correct orientation of the Cover with respect to terminal markings..