



APT-8S / APT-9S

WEEKLY PROGRAMMABLE TIMER

User's Manual

SAFETY PRECAUTION This manual uses the following symbols to ensure safe operation of this timer.

- WARNING** Warnings are indicated when mishandling this controller might result in death or serious injury to user.
- CAUTION** Cautions are indicated when mishandling this controller might result in minor injury to the user, or only physical damage to the timer.

WARNING

- Note this incorrect wiring of this controller can damage it and lead to other hazards. Make sure the controller has been correctly wired before turning the power ON.
- Before wiring, or removing / mounting the controller, be sure to turn the power OFF. Failure to do so might cause electric shock.
- Do not touch electrically charged parts such as the power terminals. Doing so might cause electric shock.
- Do not disassemble the controller. Doing so might cause electric shock or faulty operation.

CAUTION

- Use the controller within the operating ranges recommended in the specification (temperature, humidity, voltage, shock, mounting direction, atmosphere and etc.). Failure to do so might cause fire or faulty operation.
- Firmly tighten the terminal screws. Insufficient tightening of terminal screws might cause electric shock or fire.

RESTRICTIONS ON USE

When using this product in applications that require particular safety or when using this product in important facilities, please pay attention to the safety of the overall system and equipment. Install fail-safe mechanisms, perform redundancy checks and periodic inspections and adopt other appropriate safety measures when it is necessary.

SPECIFICATIONS	BUTTON and SWITCH FUNCTIONS
Operating voltage	AC/DC : 12 ~ 48V / AC/DC : 100 ~ 240V
Allowable operating voltage range	85 ~ 110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	240VAC 7A(N.O.), 240VAC 5A(N.C.) Resistive load
Indicator operating	POWER - Red / RELAY ON - Green
Power consumption	Approx. 3.3VA
Life	Mechanical : 5,000,000 times / Electrical : 100,000 times
Ambient temperature	-10 ~ +50 °C
Ambient humidity	MAX 85% RH
Weight	Approx. 170g

DAY	: Weekday setting	+1H	: Daylight-saving-time setting
HR	: Hour setting	MAN	: Mandatory contact enable or disable
MIN	: Minute setting	RESET	: Program reset
SEC	: Second setting	TIMER	: Timer mode
MODE	: Mode status selecting	PULSE	: Pluse mode
PROG.	: Program number setting	min	: Unit of minute (in TWIN TIMER)
START	: Normal mode setting	sec	: Unit of second (in TWIN TIMER)
CLEAR	: Clear setting	ON	: Power on (Battery on)
12/24H	: 12H or 24H setting	OFF	: Power off (Battery off)

OPERATING FLOWCHART

CLOCK MODE



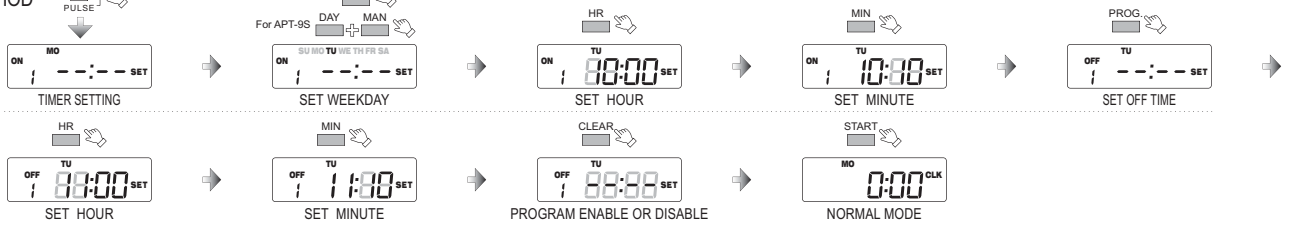
NORMAL MODE



PROGRAM MODE (Choose ONE method ONLY)



TIMER METHOD

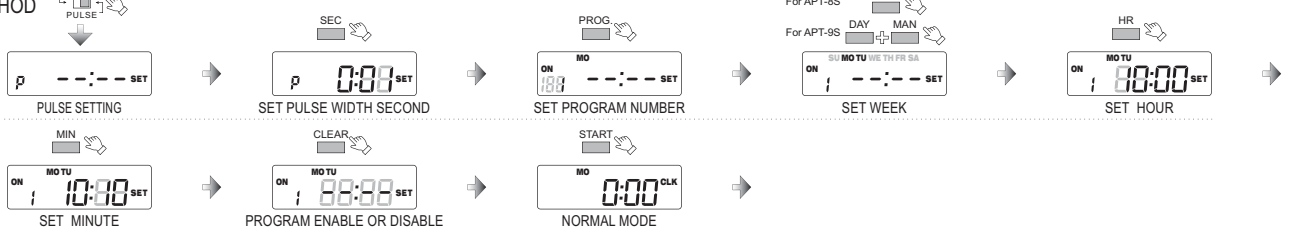


Setting example :

There is a machine needed to be turned on at 8:00 AM and to be turned off at 5:00 PM, from Monday to Friday. In addition, the machine needed to be turned on at 9:00 AM to 11:00 AM every Saturday for inspection. The correct setting display should be as follows.



PULSE METHOD



Setting example :

The factory has a buzz to remind workers their business hours, break time and etc. The buzz should be activated at 8:00, 12:00, 13:00, and 17:00 from Monday to Saturday. The buzz should be activated 10 seconds every time. The correct setting display should be as follows.



HOLIDAY SUSPENSION MODE

(You may skip this step and setup this function later.)



Setting example :

9 days holiday suspension from Saturday

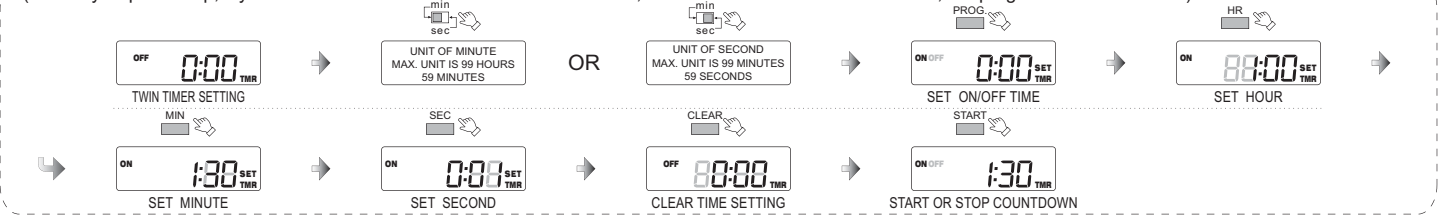


4

CHANGE TO THE HOLIDAY SUSPENSION MODE

TWIN TIMER MODE

(You may skip this step, if you do not need this function. Please be noticed, when twin timer function is enabled, the program will be disabled.)



5

CHANGE TO THE TWIN TIMER MODE

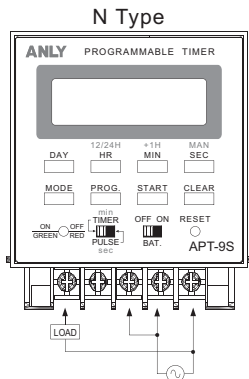
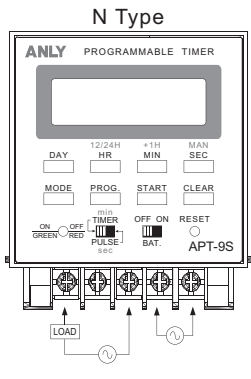
BACK TO THE CLOCK MODE

CONNECTION

POWER BACKUP FEATURE

When a time switch and load power supply are separate.

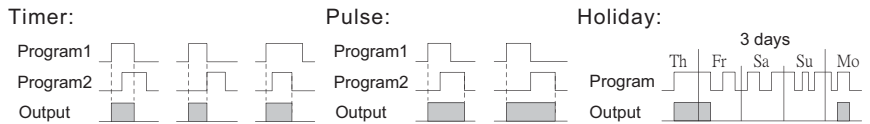
When a time switch and load power supply are the same.



The timer retains clock operation and program memory when external power fail. With external power failure, the contact position will be held in OFF position until the power is restored. (See right chart) The program will stay ON regardless of the external power failure. (When program setting is ON) However, when external power is restored, it also restores contact status.

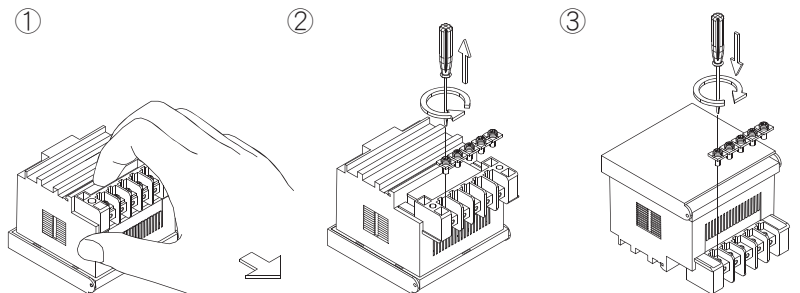
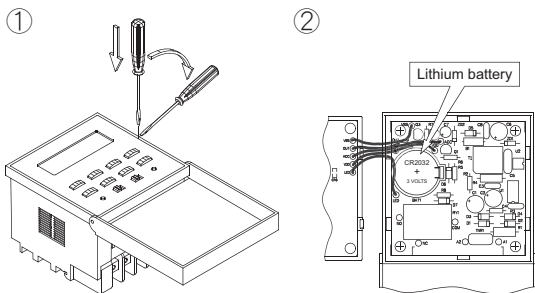


PROGRAM OVERLAPPING TIMEING CHART



BATTERY CHANGE

CONVERT Y TYPE (Flush Mounting) TO N TYPE (Surface Mounting)



CONVERT N TYPE (Surface Mounting) TO Y TYPE (Flush Mounting)

