ANV ELECTRIC

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APT1-S
WEEKLY PROGRAMMABLE TIMER
MANUAL

⚠ **WARNING** — Indicating a message , If not complied, May cause a misoperation to cause a person to receive Damage or property damage.

This product contains battery ! battery may be in danger of leaking or explosion and causing personal injury.
Do not use the product at temperature of more than 55 degrees Celsius. Do not contact with liquid.
Battery life depends on the usege.

⚠ **CAUTION**

Do not contact the terminal when the power ON.
This may be caused by an electric shock or personal injury.
terminal cover must be installed after the wiring.

🚫 Do not use in places with inflammable and explosive gases.

❗ Tighten the terminal screws to the rated torque.
Please cut off the power of the load or manual output to OFF and confirm the security of the system before changing the setting. Otherwise, it may cause damage to the machine.

⚠ Serious injury may occasionally occur due to fire or explosion of a battery, or leakage from a battery. Never attempt to short the positive and negative terminals, recharge, disassemble, deform by applying excessive pressure, or expose the battery to fire.
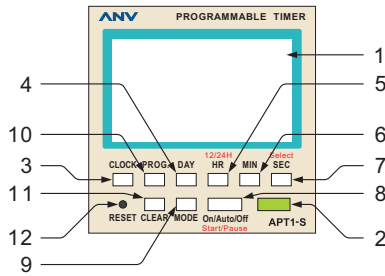
■ NOTICE

1. Have the Timer installed only by qualified electrical workers.
2. Use the Timer within the specified ratings for operating temperature and humidity.
3. The Timer is not waterproof or oil resistant. Do not use it in locations subject to water or oil.
   Do not use the Timer in locations subject to excessive dust, corrosive gas, or direct sunlight.
4. Be sure to wire the terminals correctly and correct polarity.
5. Take adequate protective measures (such as a breaker, or fuse)for the power supply of the Timer.
6. Do not touch the input terminal while power is being supplied; touching live terminals may result in electric shock.
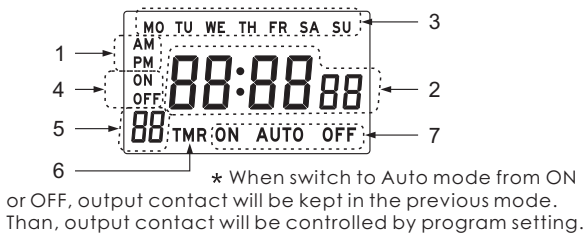
■ SPECIFICATIONS

Rated Voltage	100~240VAC/DC ; 12~60VDC/AC 50/60Hz
Voltage Range	Rated 90~110%
Contact Rating	250VAC 15A Resistive load
Backlight	With Backlight
Mounting & Socket	Surface : P2CF-08 Flush : Y-50+US-08 ; Y-50+P3G-08
Indicator Operating	ON : Green ; OFF : Red
Life	Mechanical: 5000000 times Electrical: 100000 times
Dielectric Strength	1000V AC for 1 minute between input terminals and case(ground) 1500V AC for 1 minute between output terminals and case(ground)
Power Consumption	Approx. 3VA
Ambient Temperature	-10℃~+50℃
Ambient Humidity	45~85%RH
Weight	Approx. 130g

■ PARTS DESCRIPTION

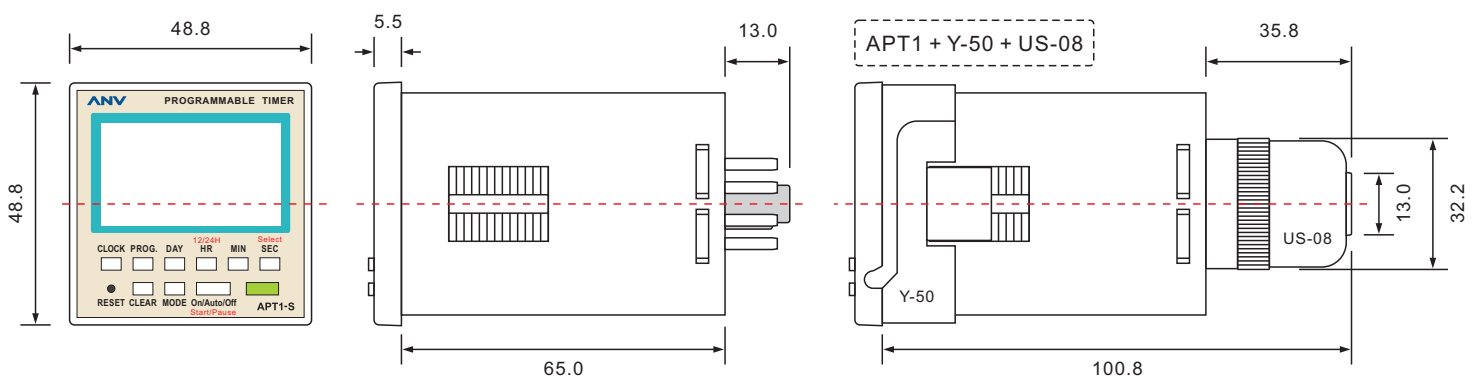| SYMBOL	NAME	FUNCTION
1	LCD Display	Display working status (See DISPLAY DESCRIPTION table)
2	Output Indicator	ON: Green light ; OFF: Red light
3	Clock Key	Shift key of clock setting
4	Week Key	Weekday setting
5	Hour Key/ 12/24H Key	Hour setting / Change clock mode 12H/24H
6	Minute Key	Minute setting
7	Second Key / Select Key	Second setting / Memory and backlight option select key
8	Manual Output Key / Start Key / Pause Key	Keep output cantact state open or close / Start program ; Star or pause program in twin timer mode
9	Mode Key	Mode function setting
10	Program Key	Program number setting ; Maximum of 80 programs ON/OFF
11	Clear Key	Clear setting
12	Reset Key	Hold down 2 seconds to reset and restore manufature default

■ DISPLAY DESCRIPTION

* When switch to Auto mode from ON or OFF, output contact will be kept in the previous mode. Than, output contact will be controlled by program setting.

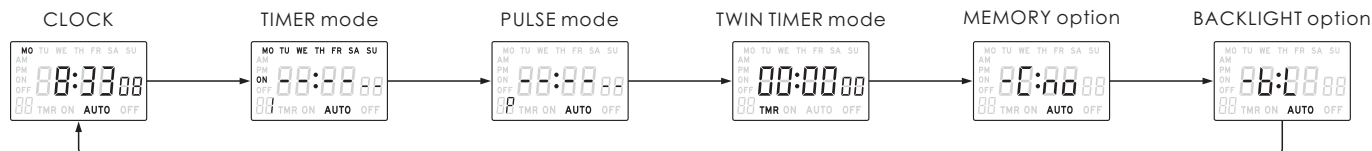| SYMBOL	DESCRIPTION
1	Display AM or PM
2	Display hours, minutes and seconds
3	Display weekly
4	Display program ON or OFF
5	Display program number
6	Display twin timer mode
7	Display output status

■ TIME ADJUSTMENT

- Press **CLOCK** key+ **DAY** key set the current weekday.
- Press **CLOCK** key+ **HR** key set the current hour.
- Press **CLOCK** key+ **MIN** key set the current minute.
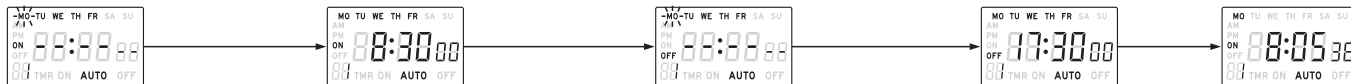- Press **CLOCK** key+ **SEC** key set the current second.

■ DIMENSIONS

APT1 + Y-50 + US-08

48.8   5.5   13.0   35.8   13.0   32.2   65.0   100.8

■ FUNCTION MODE   Press [MODE] key cyclic selection.

CLOCK	TIMER mode	PULSE mode	TWIN TIMER mode	MEMORY option	BACKLIGHT option

■ FUNCTION OPERATION

TIMER mode operation
Controls the output according to the set time of ON and OFF.(Example : ON at 8:30 and OFF at 17:30 on Manday through Friday.)

ON time of program1 in TIMER mode, press [DAY] key switch to MO then press [CLOCK] key to choose. Repeatedly operating until FR.	Press [HR] key or [MIN] key or [SEC] key setting time to 08:30.	Press [PROG.] key switch to OFF time of program1. Press [DAY] key switch to MO then press [CLOCK] key to select. Repeatedly operating until FR.	Press [HR] key or [MIN] key or [SEC] key setting time to 17:30.	Press [Start/Pause] key start program and return to clock status.

PULSE mode operation
Output turns on for a fixed period(pulse width) at the set ON time.(Example : ON at 8:30, 12:00, 13:00 and 17:30 on Manday through Friday. Pulse width 15 seconds.)

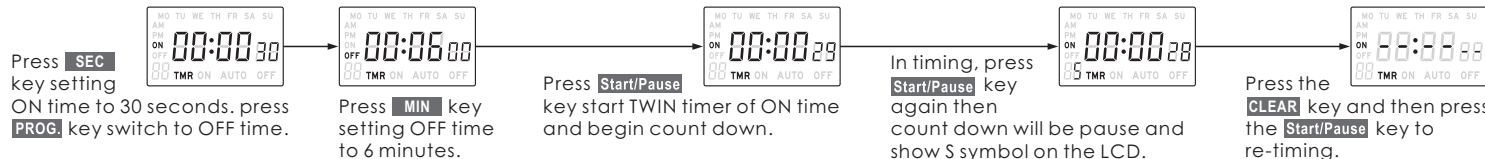| In PULSE mode, press [SEC] key set pulse width to 15 sec. press [PROG.] key switch to ON time of program1.	press [DAY] key switch to MO then press [CLOCK] key to choose, repeatedly operating until FR. Press [HR] key or [MIN] key setting time to 08:30, then Press [PROG.] key switch to program2.	Setting weekly from MO to FR. Setting time to 12:00. Press [PROG.] key switch to program3.	Setting weekly from MO to FR. Setting time to 13:00. Press [PROG.] key switch to program4.	Setting weekly from MO to FR. Setting time to 17:30.	Press [Start/Pause] key start program and return to clock status.

TWIN TIMER mode operation
Repeatedly turns ON and OFF during the period from the cyclic start time to the stop time. Independent ON and OFF time settings are possible.(Example : ON time width 30 seconds and OFF time width 6 minutes.)

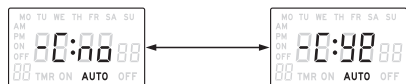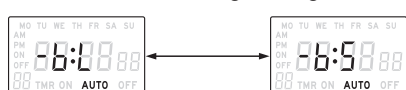| Press [SEC] key setting ON time to 30 seconds. press [PROG.] key switch to OFF time.	Press [MIN] key setting OFF time to 6 minutes.	Press [Start/Pause] key start TWIN timer of ON time and begin count down.	In timing, press [Start/Pause] key again then count down will be pause and show S symbol on the LCD.	Press the [CLEAR] key and then press the [Start/Pause] key to re-timing.

MEMORY option
Press [Select] key to select memory or non-memory.
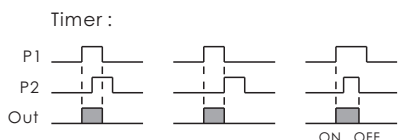

SYMBOL	FUNCTION	DESCRIPTION
-C:no	Non-Memory	After reset clock and setting value will be restore to menufacture default
-C:yE	Memory	After reset setting value still exists, but clock vaule is reset

BACKLIGHT option
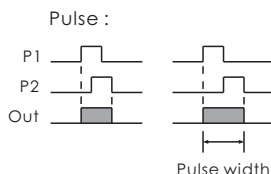Press [Select] key to select long backlight or short backlight.

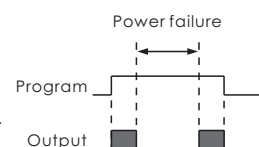| SYMBOL	FUNCTION	DESCRIPTION
-b:L	Long Backlight	Backlight keep on (if no input power then backlight keep off)
-b:5	Short Backlight	Press any key backlight keep on 30 seconds (if no input power then backlight keep off)

■ PROGRAM OVERLAPPING TIMEING CHART

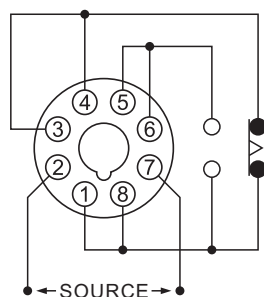Note : P1=Program1 ; P2=Program2 ; Out=Output

■ POWER BACKUP FEATURE

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.
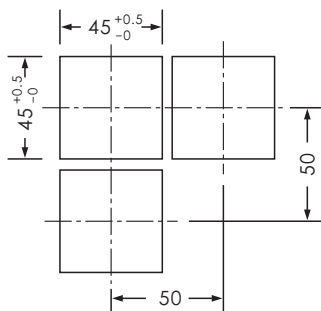
See right chart:

■ CONNECTION DIAGRAMS

← SOURCE →

■ HOLE SIZE

■ PRODUCT

- Timer
- Counter
- Level Switch
- Power Relay
- TF Series PID Temperature Controller
- Thermocouple
- Accessories
- Panel Meter
- Limit Switch
- Protective Relay
- Solid State Relay
- Temperature Controller
- PID Temperature Controller

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