

# Autonics Weekly/Yearly Timer LE365S-41

## MANUAL



Thank you very much for selecting Autonics products.  
For your safety, please read the following before using.

### Caution for your safety

- ※Please keep these instructions and review them before using this unit.
- ※Please observe the cautions that follow;
- Warning** Serious injury may result if instructions are not followed.
- Caution** Product may be damaged, or injury may result if instructions are not followed.
- ※The following is an explanation of the symbols used in the operation manual.
- ⚠ caution: Injury or danger may occur under special conditions.

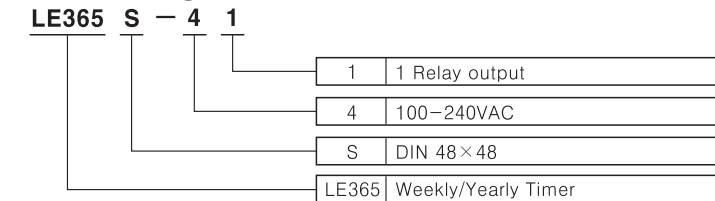
### Warning

- In case of using this unit with machinery(Nuclear power control, medical equipment, vehicle, train, airplane, combustion apparatus, entertainment or safety device etc), it is required to install fail-safe device.**  
It may cause a fire, human injury or damage to property.
- It should be mounted on Panel to use.**  
It may give an electric shock.
- Do not connect, inspect and repair when power is ON.**  
It may give an electric shock.
- Do not disassemble or modify this unit. Please contact us if it is required.**  
It may give an electric shock and cause a fire.
- Lithium battery is used for memory protection in this product, therefore do not disassemble or burn up. Please contact Autonics to replace battery.**  
It may cause an explosion.
- Safe using for battery**  
This battery has combustibles including lithium organic solvent, it may cause a fire, exothermicity, leakage and explosion, please keep the following.
  - Do not charge, short, disassemble, transform, heating and throw in a fire.
  - Do not solder on a battery directly.

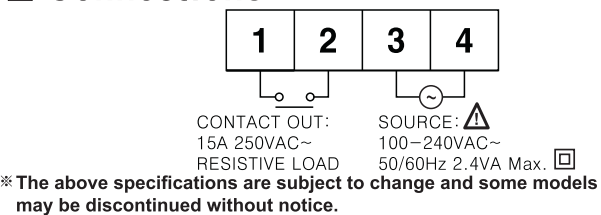
### Caution

- This unit shall not be used outdoors.**  
It might shorten the life cycle of the product or give an electric shock.
- Please use power input terminal wire over AWG NO. 20(0.50mm<sup>2</sup>), relay output terminal wire over AWG NO. 14(2.50mm<sup>2</sup>) and tighten terminal screw with 0.74~0.90N·m strength.**  
It may cause a malfunction or fire due to contact failure.
- Please observe the rated specifications.**  
It might shorten the life cycle of the product and cause a fire.
- In cleaning the unit, do not use water or an organic solvents.**  
It may give an electric shock and fire.
- Do not use this unit at place where there are flammable or explosive gas, humidity, direct ray of the sun, radiant heat, vibration and impact etc.**  
It may cause a fire or explosion.
- Do not inflow dust or wire dregs into the unit.**  
It may cause a fire or malfunction.

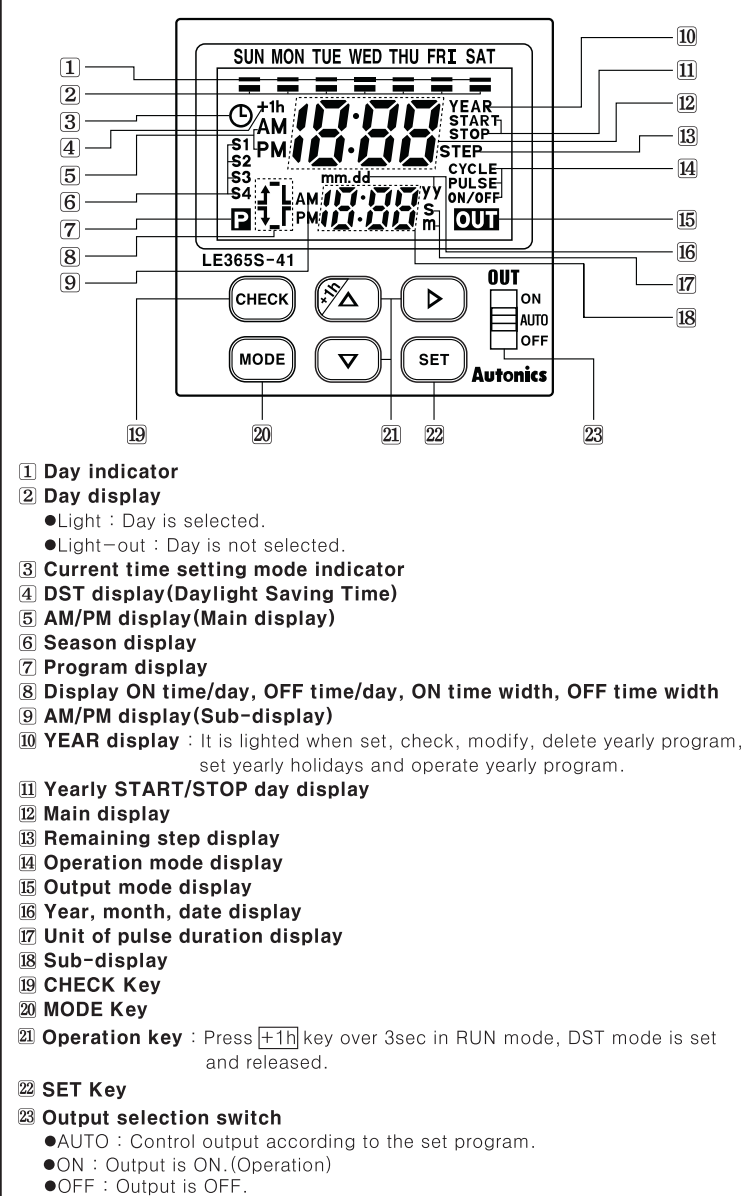
### Ordering information



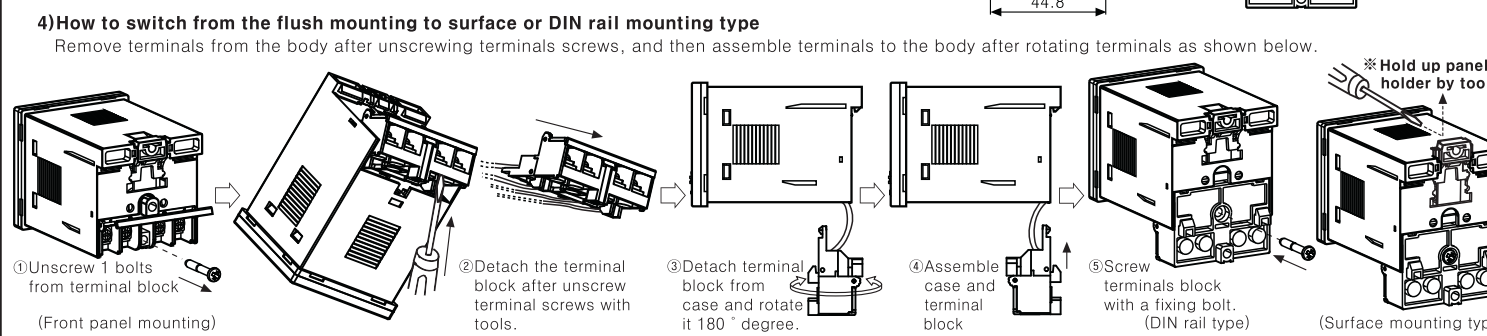
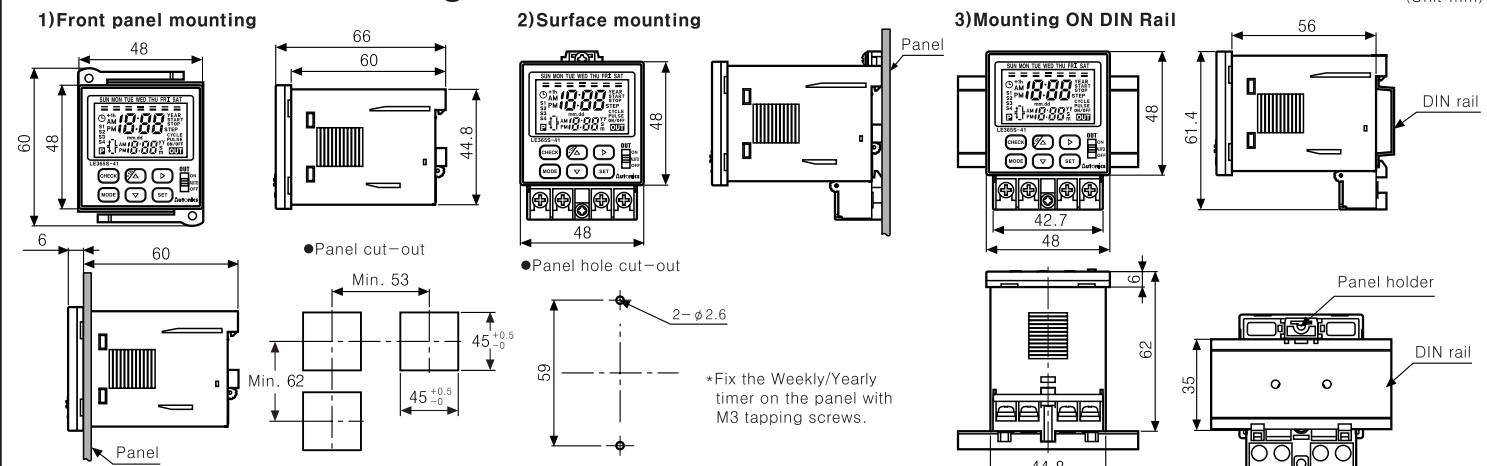
### Connections



### Front panel identification



### Dimensions & Mounting

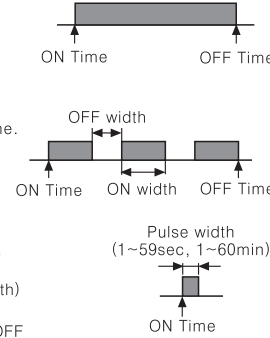


### Specifications

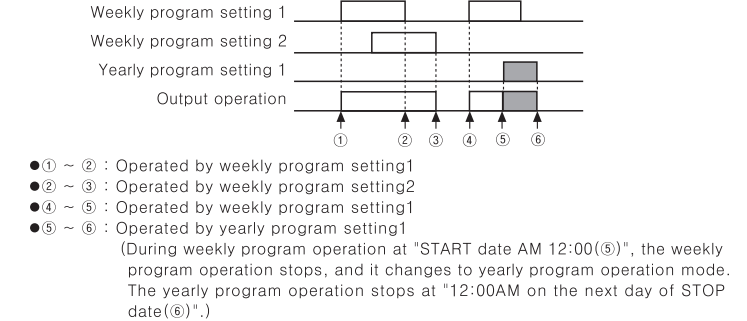
Model	LE365S-41
Power supply	100~240VAC 50/60Hz
Allowable voltage range	90 to 110% of rated voltage
Power consumption	Max. 2.4V
Control	Contact type: SPST(Single Pole Single Contact)
Output	Contact capacity: 250VAC 15A resistive load
	Number of circuits: Independent 1 circuits(1a)
Number of steps	48 steps for weekly, 24 steps for yearly
Operation mode	ON/OFF mode, Cycle mode, Pulse mode
Mounting	Front panel mounting, Surface mounting, DIN rail mounting
Time deviation	±15sec/month(Ta:25°C)
Temperature error	0.01% ±0.05sec
Memory protection	Over 5 years(25°C)
Insulation resistance	Min. 100MΩ(at 500VDC)
Dielectric strength	2000VAC 50/60Hz for 1 minute
Noise strength	±2kV the square wave noise(pulse width:1μs) by the noise simulator
Relay life cycle	Mechanical: Min. 5,000,000 operations(Switching capacity 30 times/1 minute)
	Electrical: 50,000 operations(Switching capacity 20 times/1 minute, at 250VAC 15A(resistive load))
Ambient temperature	-10 ~ +55°C(at non-freezing status)
Ambient humidity	35 ~ 85%RH
Storage temperature	-25 ~ +65°C(at non-freezing status)
Approval	CE, UL
Unit weight	Approx. 110g

### Functions

- Definitions**
  - Record : A part of program that controls output operation.
  - Step : Basic component of Record.
- Operation mode**  
If the operation mode of Program1 (Program2) is set on Pulse mode initially, the Pulse mode is fixed for additional programs.
  - Weekly ON/OFF mode**
    - Output operation by ON/OFF set time.
    - Min. time setting unit : 1 min.
    - Able to set ON/OFF day separately.
    - One Record in two Steps (ON day/ON time, OFF day/OFF time)
  - Weekly Cycle mode**
    - Output turns ON for ON time and turns OFF for OFF time.
    - And the ON/OFF cycle is repeated.
    - Range of ON/OFF time : 1 min.~12:59
    - One Record in three Steps(ON day/ON time, OFF day/OFF time, ON width/OFF width)
  - Weekly Pulse mode**
    - Output turns ON at ON time for a specified pulse width.
    - (Pulse width : 1~59sec, 1~60min)
    - One Record in two Steps(ON day/ON time, Pulse width)
  - Yearly ON/OFF mode**
    - Output turns ON at ON time on START date and turns OFF at OFF time on STOP date.
    - One Record in three Steps(START/STOP date, ON/OFF time)
  - Yearly Pulse mode**
    - Output turns ON at ON time on START date and turns OFF at OFF time on STOP time for a specified pulse width repeatedly.
    - One Record in three Steps(START/STOP date, ON time, Pulse width)



### Program operation



### Display and change of next mode

- The day of next mode in program is displayed on the day indicator, and the time of next mode is displayed on the lower row of screen.
- In ON/OFF or Cycle mode, set ON time and OFF time to next mode. In Pulse operation mode, set Pulse ON time to next mode.

### Power restore mode

- In setting group 2—LEVEL 2("rEL" is lighted, "rE" or "nor" are flashed), select Auto("rE") or Normal("nor") by [▲] or [▼] keys and press [SET] key to set.
- Auto("rE") power restore mode  
Output(OUT1, OUT2) operates according to program when power turns on again after power failure.
- Normal("nor") power restore mode  
When power turns on again after power failure, output is kept OFF and "r:n" is flashed on the lower row of screen and power restore input(press [SET] key over 3 sec., in RUN mode) is applied, "r:n" is light out and output operates according to program.

### Season switching mode

- In setting group 2—Level 2("SEn" is lighted, "oFF" is flashed.), select ON("on") by [▲] or [▼] keys and press [SET] key to set.
- (Note) : When the season switching mode changed from "oFF" to "on" or vice versa, previous set programs are deleted.
- ON("on") mode  
Weekly program is switched automatically by season switching.
  - Period setting per season
    - Press [SET] key in period setting per season mode of setting group 2. ("SEn" is flashed, season with preset period is lighted and "START" and "STOP" are lighted.)
    - Advance to the flashing position of season selection among S1, S2, S3, S4 by [▲] or [▼] keys and press [SET] key.
    - After set "START" month, date per season and press [SET] key.
    - [SET] key is pressed after set "STOP" month, date per season, it is advanced to LEVEL 1 of period setting per season. Add or adjust the period setting by [SET] key.
  - It is disable to use when it is OFF("oFF").

### Daylight Saving Time

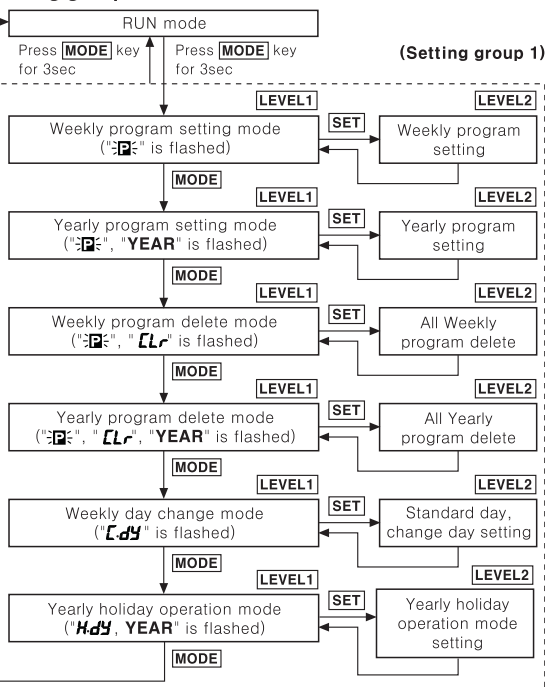
- In setting group 2—LEVEL 2("dSt" is lighted, "rE" or "nor" is flashed.), select Auto("rE") or Normal("nor") by [▲] or [▼] keys and press [SET] key to set.
- Auto("rE") Daylight Saving Time mode  
Current time will be faster as an hour when it is started and will be slower as an hour when Auto mode is finished.
  - Automatic Daylight Saving Time period setting
    - Automatic Daylight Saving Time period setting LEVEL 1 of setting group 2. ("dSt" is flashed and "START" and "STOP" are lighted.)
    - Set START date(Month, date) of automatic Daylight Saving Time mode and press [SET] key.
    - Set START time(AM/PM, Hour) of automatic Daylight Saving Time mode and press [SET] key. But, the minute will be fixed as 00.
    - Set STOP date(Month, date) of automatic Daylight Saving Time mode and press [SET] key.
    - Set STOP time(AM/PM, Hour) of automatic Daylight Saving Time mode and press [SET] key. But, the minute will be fixed as 00.
  - Normal("nor") Daylight Saving Time mode  
Press [+1h] key over 3sec in RUN mode, "+1h" is lighted and current time is faster as an hour and "+1h" is lighted out, current time will be slower as an hour when press [+1h] key over 3sec again.

### Current time setting

- (Ex) Set the current time as 10, Mar, 2008, 5:10 PM.
- Advance to the current time setting mode
  - Year, Month, Date setting  
SUN MON TUE WED THU FRI SAT  
3:00  
mm.dd  
00
  - Current time(AM, PM) setting  
SUN MON TUE WED THU FRI SAT  
12:00
  - Current time(Hour, Min.) setting  
SUN MON TUE WED THU FRI SAT  
PM 5:00
- Press [▲] or [▼] keys to select PM and move the flashing digit to position hour by [▶] key.
- Press [▲] or [▼] keys to set 08(year 2008) and move the flashing digit to position month by [▶] key. Press [SET] key after press [▲] or [▼] keys to set date 10.
- Press [▲] or [▼] keys to set 5 PM and move the flashing digit to position min. by [▶] key. Press [▲] or [▼] key to set 10min and press [SET] key and it is returned to RUN mode when press [MODE] key over 3sec.
- It advances to "①Current time setting mode" in ON status and set current time as shown above ②~④ by [SET] key.
- Current time is set up to 31, Dec, 2099.
- Check current year/month/date in RUN mode  
When [▶] key is pressed over 3sec in RUN mode, it advances to current year/month/date display. After display current year/month/date for 3sec, it returns to RUN mode displaying current display.

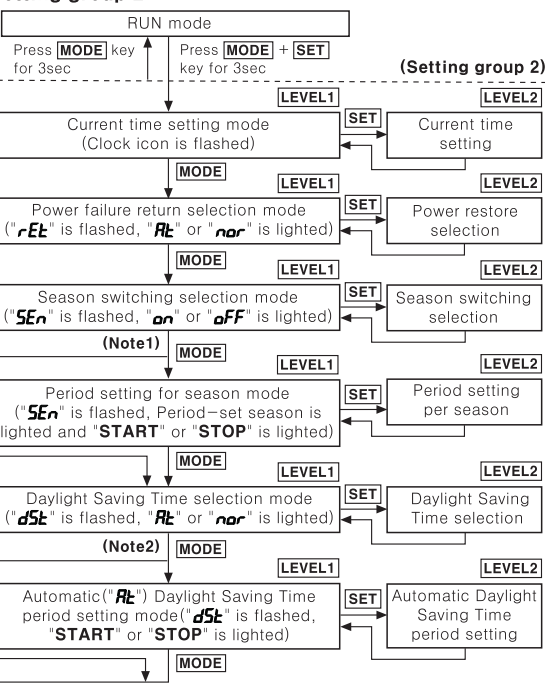
# Program setting

## Setting group 1



- When it is advanced to setting group 1 in RUN mode, output (OUT1, OUT2) will be OFF.
- It is returned to previous setting group 1 when power of time switch is ON again in setting group 1.
- When [MODE] key is pressed in LEVEL2 of setting group 1, current setting will be canceled and it is returned to previous LEVEL1.
- When press [SET] key to program over max. number of steps for weekly program in Weekly program setting mode of setting group 1-LEVEL 1, number of remaining steps and "STEP" are flashed and it returns to LEVEL 1 status.
- When press [SET] key to program over max. number of steps for yearly program in Yearly program setting mode of setting group 1-LEVEL 1, number of remaining steps and "STEP" are flashed it returns to LEVEL 1 status.

## Setting group 2

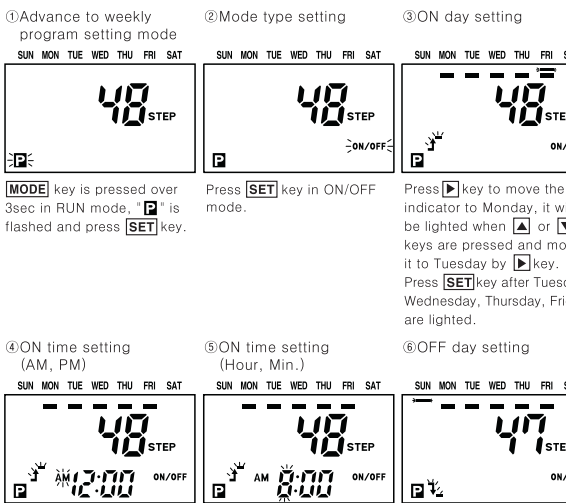
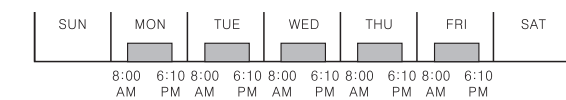


- (Note1) Season switching selection is "OFF".
- (Note2) Automatic switching selection of Daylight Saving Time is Normal ("nor").
- When it advances to setting group 2 in RUN mode, output(OUT1, OUT2) will be OFF.
- When power of time switch is ON again in setting group 2, it is returned to previous setting group 1.
- Front [MODE] key is pressed in LEVEL2 of setting group 2, it is returned to previous LEVEL1.
- When season switching selection is changed from "OFF" to "on" or "on" to "OFF", previous set weekly program will be deleted.

## Weekly program setting

### Weekly ON/OFF mode

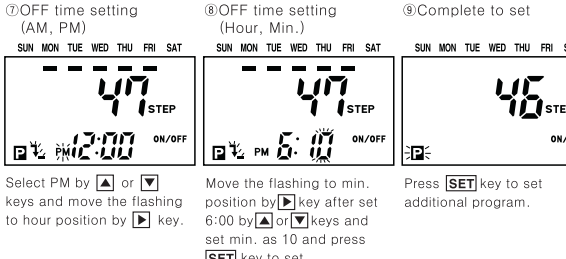
(Ex)Output1(OUT1) is ON from Monday to Friday at 8:00 AM and OFF at 6:10 PM.



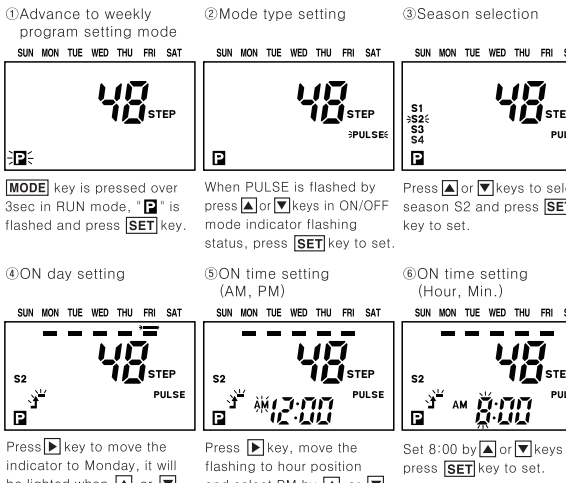
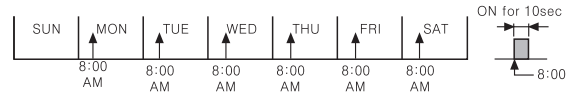
When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [SET] key.

Press [SET] key in ON/OFF mode.

Press [P] key to move the indicator to Monday, it will be lighted when [A] or [V] keys are pressed and move it to Tuesday by [P] key. Press [SET] key after Tuesday, Wednesday, Thursday, Friday are lighted.



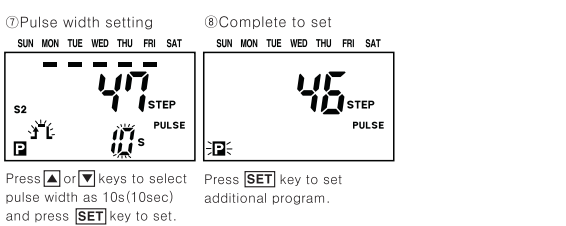
Output2(OUT2) is ON for 10sec at 8:00AM from Monday to Friday during S2 season in case, period of S1, S2, S3, S4 is set.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [SET] key.

When PULSE is flashed by press [A] or [V] keys in ON/OFF mode indicator flashing status, press [SET] key to set.

Press [A] or [V] keys to select season S2 and press [SET] key to set.

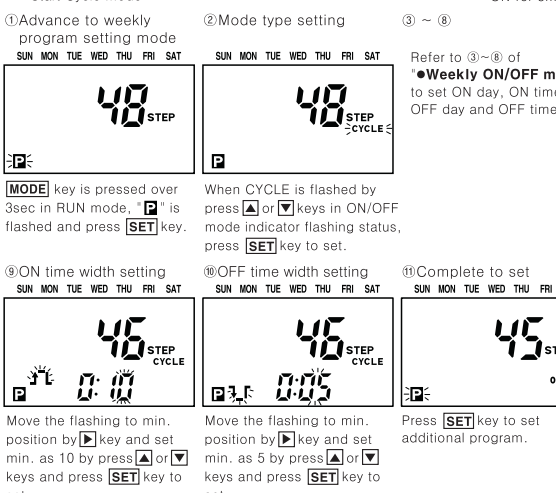
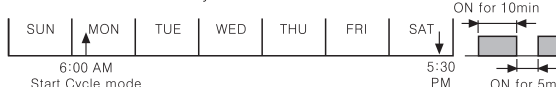


Press [A] or [V] keys to select pulse width as 10s(10sec) and press [SET] key to set.

Press [SET] key to set additional program.

## Weekly Cycle mode

(Ex)Output1(OUT1) is ON for 10min and OFF for 5min from Monday 6:00AM to Saturday 5:30PM.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [SET] key.

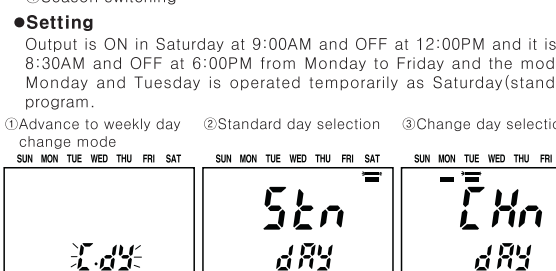
When CYCLE is flashed by press [A] or [V] keys in ON/OFF mode indicator flashing status, press [SET] key to set.

Move the flashing to min. position by [P] key and set min. as 10 by press [A] or [V] keys and press [SET] key to set.

When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [SET] key.

When PULSE is flashed by press [A] or [V] keys in ON/OFF mode indicator flashing status, press [SET] key to set.

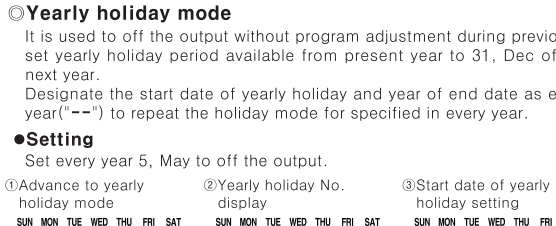
Press [A] or [V] keys to select season S2 and press [SET] key to set.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [SET] key.

When PULSE is flashed by press [A] or [V] keys in ON/OFF mode indicator flashing status, press [SET] key to set.

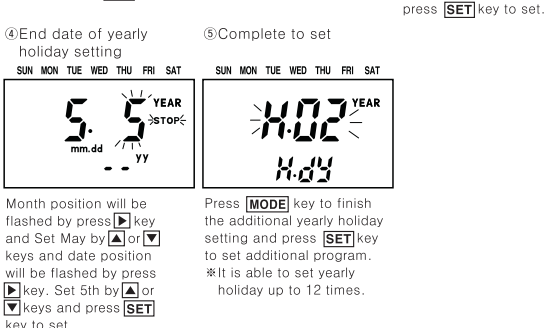
Press [A] or [V] keys to select season S2 and press [SET] key to set.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [SET] key.

When PULSE is flashed by press [A] or [V] keys in ON/OFF mode indicator flashing status, press [SET] key to set.

Press [A] or [V] keys to select season S2 and press [SET] key to set.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [SET] key.

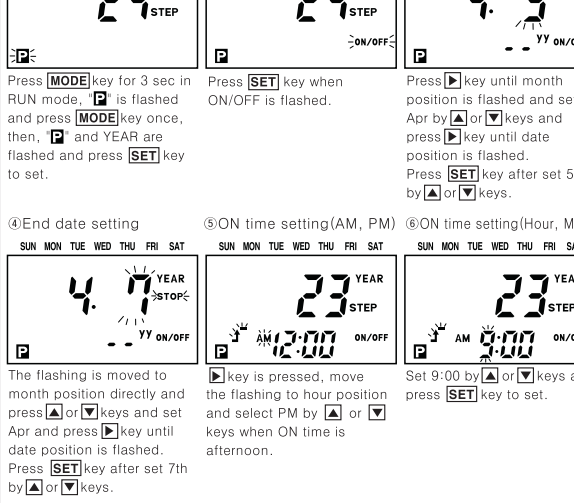
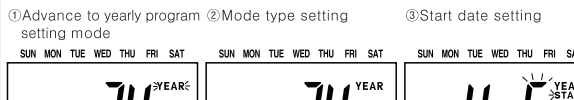
When PULSE is flashed by press [A] or [V] keys in ON/OFF mode indicator flashing status, press [SET] key to set.

Press [A] or [V] keys to select season S2 and press [SET] key to set.

## Yearly program setting

### Yearly ON/OFF mode

(Ex)Output(OUT) is ON from every 5, Apr to 7, Apr at 9:00AM and OFF 5:10PM.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [MODE] key once, then, [P] and YEAR are flashed and press [SET] key to set.

Press [SET] key when ON/OFF is flashed.

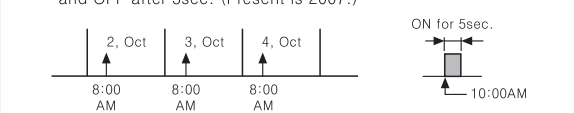
Press [P] key until month position is flashed and set Apr by [A] or [V] keys and press [P] key until date position is flashed. Press [SET] key after set 5th by [A] or [V] keys.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [MODE] key once, then, [P] and YEAR are flashed and press [SET] key to set.

Press [SET] key when ON/OFF is flashed.

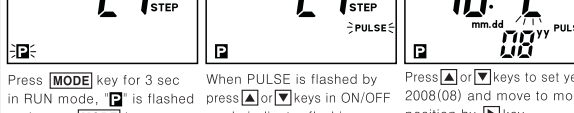
Press [P] key until month position is flashed and set Apr by [A] or [V] keys and press [P] key until date position is flashed. Press [SET] key after set 7th by [A] or [V] keys.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [MODE] key once, then, [P] and YEAR are flashed and press [SET] key to set.

Press [SET] key when ON/OFF is flashed.

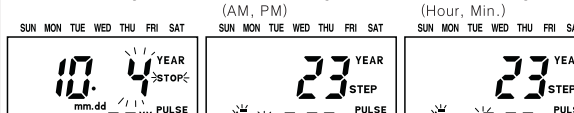
Press [P] key until month position is flashed and set Apr by [A] or [V] keys and press [P] key until date position is flashed. Press [SET] key after set 7th by [A] or [V] keys.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [MODE] key once, then, [P] and YEAR are flashed and press [SET] key to set.

Press [SET] key when ON/OFF is flashed.

Press [P] key until month position is flashed and set Apr by [A] or [V] keys and press [P] key until date position is flashed. Press [SET] key after set 7th by [A] or [V] keys.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [MODE] key once, then, [P] and YEAR are flashed and press [SET] key to set.

Press [SET] key when ON/OFF is flashed.

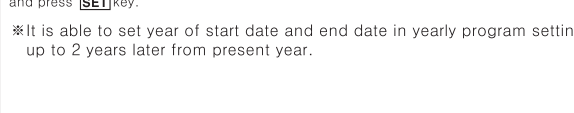
Press [P] key until month position is flashed and set Apr by [A] or [V] keys and press [P] key until date position is flashed. Press [SET] key after set 7th by [A] or [V] keys.



When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [MODE] key once, then, [P] and YEAR are flashed and press [SET] key to set.

Press [SET] key when ON/OFF is flashed.

Press [P] key until month position is flashed and set Apr by [A] or [V] keys and press [P] key until date position is flashed. Press [SET] key after set 7th by [A] or [V] keys.



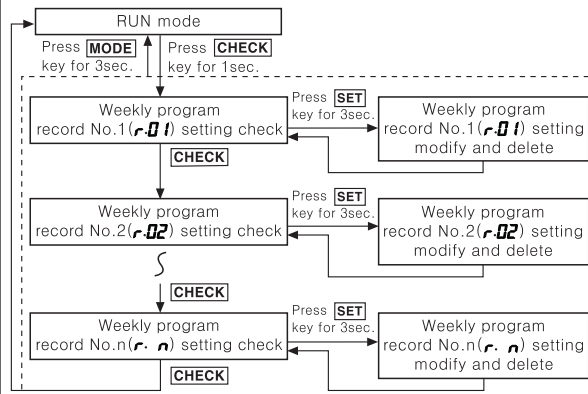
When [MODE] key is pressed over 3sec in RUN mode, [P] is flashed and press [MODE] key once, then, [P] and YEAR are flashed and press [SET] key to set.

Press [SET] key when ON/OFF is flashed.

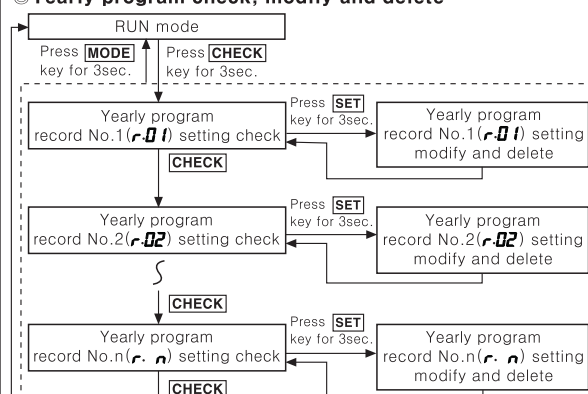
Press [P] key until month position is flashed and set Apr by [A] or [V] keys and press [P] key until date position is flashed. Press [SET] key after set 7th by [A] or [V] keys.

# Program check, modify and delete

## Weekly program check, modify and delete



## Yearly program check, modify and delete



- \*"YEAR" is lighted when check, modify or delete yearly program.
- If any key is untouched for 60sec, it is returned to RUN mode in weekly or yearly program check.
- In weekly or yearly program check, it controls output depending on program setting and output is OFF in modify or delete mode.
- When [MODE] key is pressed in weekly or yearly program record modify, delete stand by or delete mode, current work is cancelled and it is returned to check mode.
- Weekly or yearly program record modify and delete
  - Program record modify
    - When press [SET] key over 3sec in program check, "Edt" is flashed in second display part, press [SET] key.
    - It is returned to check mode when finish the modify same as the above procedure.
  - Program record delete
    - When press [SET] key over 3sec in program check, "Edt" is flashed in second display part, press [A] or [V] keys until "CLr" is flashed in second display part and press [SET] key.
    - Press [SET] key over 3sec when "CLr" is lighted in second display part, it is returned to program check.

## Caution for using

- Please use within the rated power and apply or cut the power at once to prevent from chattering.
  - When test dielectric voltage and insulation resistance of the control panel with this unit installed.
    - Please insulate this unit from the circuit of control panel.
    - Please make all terminals of this unit short-circuited.
  - When control a heater, please install the thermostatic switch at load circuit.
    - It shall be used indoor
    - Altitude Max. 2000m
    - Pollution Degree 2
    - Installation Category II.
- \*It may cause malfunction if above instructions are not followed.

## Major products

- Photoelectric sensors
- Temperature controllers
- Fiber optic sensors
- Temperature/Humidity transducers
- Door sensors
- SSR/Power controllers
- Door side sensors
- Counters
- Area sensors
- Timers
- Proximity sensors
- Panel meters
- Pressure sensors
- Tachometer/Pulse(Rate)meters
- Rotary encoders
- Display units
- Connector/Sockets
- Sensor controllers
- Switching mode power supplies
- Control switches/Lamps/Buzzers
- I/O Terminal Blocks & Cables
- Stepper motors/drivers/motion controllers
- Graphic/Logic panels
- Field network devices
- Laser marking system/Fiber, CO<sub>2</sub>, Nd:YAG
- OVERSEAS SALES: #402-404, Bucheon Techno Park, 655, Pyeongcheon-ro, Wonmi-gu, Bucheon, Gyeonggi-do, Korea TEL: 82-32-610-2730 / FAX: 82-32-329-0728 E-mail: sales@autonics.com

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