## W48×H48mm, Weekly/Yearly Timer

### NEW

(A)

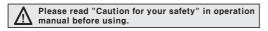
Counter

(B) Timer

(C) Temp.

### ■ Features

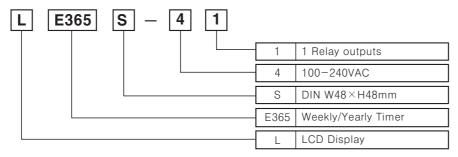
- Easy to check and change the program setting.
- •Customizable weekly or yearly unit time setting and control by user
- •Includes Daylight Saving Time function
- •1 Independent control output. (Relay)
- •Flush and Surface, DIN Rail mounting are in one unit.







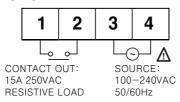
### Ordering information



### Specifications

Model		LE365S-41
Power supply		100-240VAC 50/60Hz
Allowable voltage range		90 ~ 110% of rated voltage
Power consumption		2.4VA
Timing program		48 steps for weekly, 24 steps for yearly
Operation mode		ON/OFF mode, Cycle mode, Pulse mode
Temperature error		±0.01% ±0.05sec
Mounting		Panel flush, Surface, DIN rail
Time deviation		$\pm 15 \text{sec/month} (25 \text{C}) \ (\pm 4 \text{sec/week})$
Memory protection		Over 5 years(at 25℃)
Control Output	Contact type	SPST (Single Pole Single Contact)
	Contact capacity	250VAC 15A resistive load
	Output number	Independent 1 output(1a)
Relay life cycle	Mechanical	Min. 5,000,000 operations (Switching capacity 30 times/minute)
	Electrical	50,000 operations <switching 1="" 15a(resistive="" 20="" 250vac="" at="" capacity="" load)="" minute,="" times=""></switching>
Insulation resistance		Min. 100MΩ (at 500VDC)
Dielectric strength		2000VAC 50/60Hz for 1minute
Noise strength		±2kV the square wave noise(pulse width:1μs) by the noise simulator
Ambient temperature		-10 ~ 55℃ (at non-freezing status)
Storage temperature		-25 ~ 65℃ (at non-freezing status)
Ambient humidity		35 ~ 85%RH
Unit weight		Approx. 110g

### Connections



(D) Power controller

controller

(E) meter

(F) Tacho/ Speed/ Pulse meter

(G) Display unit

Sensor controller

Switching power supply

(J) Proximity sensor

Photo electric sensor

Pressure sensor

(M) Rotary encoder

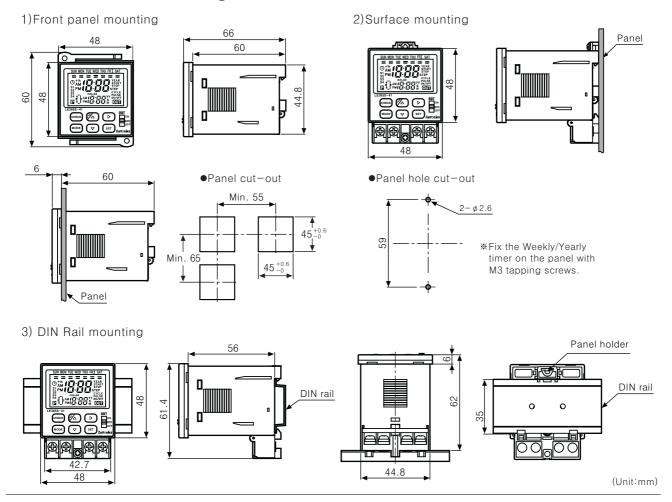
(N) Stepping motor & Driver & Controller

(O) Graphic panel

(P) Field network device

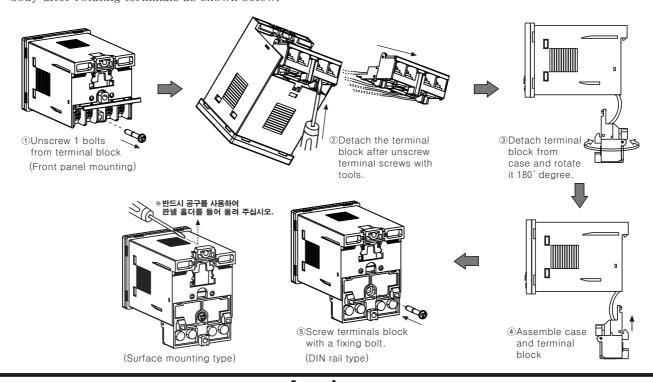
(Q) Production stoppage models & replacement

### **■**Dimensions & Mounting



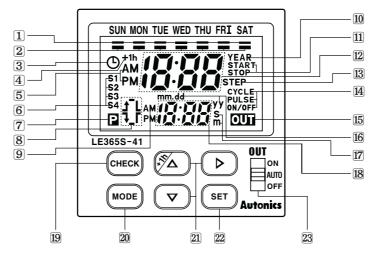
### ■How to switch from the flush mounting to surface or DIN rail mounting type

Remove terminals from the body after unscrewing terminals screws, and then assemble terminals to the body after rotating terminals as shown below.



B-67 Autonics

### ■ Front panel identification



- 1 Day indicator
- 2 Day display
  - •Light: Day is selected.
  - •Light-out: Day is not selected.
- 3 Current time setting mode indicator
- 4 DST display(Daylight Saving Time)
- 5 AM/PM display(Main display)
- 6 Season display
- 7 Program display
- **8** Display ON time/day, OFF time/day, ON time width, OFF time width
- 9 AM/PM display(Sub-display)
- 10 YEAR display: It is lighted when set, check, modify, delete yearly program, set yearly holidays and operate yearly program.
- 11 Yearly START/STOP day display
- 12 Main display

- 13 Remaining step display
- Operation mode display
- 15 Output mode display
- 16 Year, month, date display
- 17 Unit of pulse width display
- 18 Sub-display
- 19 CHECK Key
- 20 MODE Key
- ② Operation key: Press +1h key over 3sec in RUN mode,
  DST mode is set and released.
- 22 SET Key
- 23 Output selection switch
  - $\bullet \text{AUTO}:$  Control output according to the set program.
  - •ON: Output is ON. (Operation)
  - •OFF: Output is OFF.

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/ Speed/ Pulse meter

(G) Display

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

(O) Graphic panel

(P) Field network device

(Q) Production stoppage models & replacement

### **■**Functions

### ODefinitions

- •Record : A part of program that controls output operation.
- •Step: Basic component of Record.

#### Operation modes

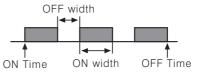
If the operation mode of Program1 (Program2) is set on Pulse mode initially, the Pulse mode is fixed for additional programs.

•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 operation by ON/OFF set time.
- Min. time setting unit: 1 min.~12:59
- 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)

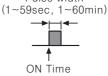


•Weekly Pulse mode

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)

Pulse width



#### ■ Functions

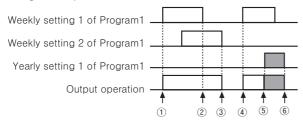
#### **OPrograms**

- 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)

#### OProgram operation



- •① ~ ②: Operated by weekly setting 1 of Program 1.
- •② ~③: Operated by weekly setting 2 of Program 1.
- •4 ~ 5 : Operated by weekly setting 1 of Program 1.
- •⑤ ~ ⑥: Operated by yearly setting 1 of Program 1.

  (During weekly program operation at 12:00 AM on START date, the weekly program operation stops, and it changes to yearly program operation mode. The yearly program operation stops at 12:00 AM on the next day of STOP date.)

#### ODisplay 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 operation mode, set ON time and OFF time to next mode. In Pulse operation mode, set Pulse ON time to next mode.

#### OPower restore mode

In setting group 2-Level 2(Power Restore), select Auto("RE") or Normal ("nor") by  $\triangle$  or  $\boxed{\mathbf{v}}$  keys, and press  $\boxed{\mathbf{SET}}$  key to set.

- •Auto("*RL*") power restore mode
  Output 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 "RET.IN" flashes on the
  panel. When Power Restore input is detected,
  "RET.IN" turns off and output operates according
  to program.

#### OSeason switching mode

In setting group 2-Level(" $\mathbf{5E_{\Omega}}$ " is lighted, " $\mathbf{oFF}$ " is flashed.), select ON(" $\mathbf{o_{\Omega}}$ ") by  $\blacktriangle$  or  $\blacktriangledown$  key Press  $\blacksquare$  key to set.

- \*Note: When the season switching mode changed from " off to " of or vice versa, previous set programs are deleted.
- ●ON("aa") mode

Weekly program is switched automatically by season switching.

- Period setting per season
- ①Press **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.)
- ②Advance to the flashing position of season selection among S1, S2, S3, S4 by ▲ or ▼ keys and press SET key.
- ③After 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 LEVEL1 of period setting per season. Add or adjust the period setting by **SET** key.
- ●It is disable to use when it is OFF(" **□FF**").

#### ODaylight Saving Time

In setting group 2-LEVEL 2("d5L" is lighted, "RL" or "nor" is flashed.), select Auto("RL") or Normal ("nor") by or very keys. press SET key to set.

- •Auto("RL") Daylight Saving Time mode Current time will be faster as an hour when it is started and slower as an hour when it is finished.
- Automatic Daylight Saving Time period setting
- ①Automatic Daylight Saving Time period setting LEVEL 1 of setting group 2.
  - (" **d5k** " is flashed and "START" and "STOP" are lighted.)
- ②Set START date (Month, date) of automatic Daylight Saving Time mode and press **SET** key.
- ③Set START time (AM/PM, Hour) of automatic Daylight Saving Time mode and press **SET** key. But, the minute will be fixed as 00.
- ⑤Set 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 or vice versa, when press
  +1h key over 3sec again.

B-69 Autonics

#### **■**Functions

©Current time setting

(Ex) Set the current time as 10, Mar, 2008, 5:10 PM.

①Advance to the current time setting mode

SUN MON TUE WED THU FRI SAT



MODE + SET keys are pressed over 3sec in RUN mode, it is advanced to current time setting of setting group 2 and clock will be flashed and t.AJ will be lighted in second display part, press SET key.

②Year, Month, Date setting sun Mon Tue wed Thu FRI SAT



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.

③Current time(AM, PM) setting

SUN MON TUE WED THU FRI SAT



Press or keys to select PM and move the flashing digit to position hour by key.

4Current time(Hour, Min.) setting

SUN MON TUE WED THU FRI SAT



Press A or V keys to set 5 PM and move the flashing digit to position min. by key. Press or V key to set 10min and press SET key and it is returned to RUN mode when press MODE key over 3sec.

- ●It advances to 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.

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/ Speed/ Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

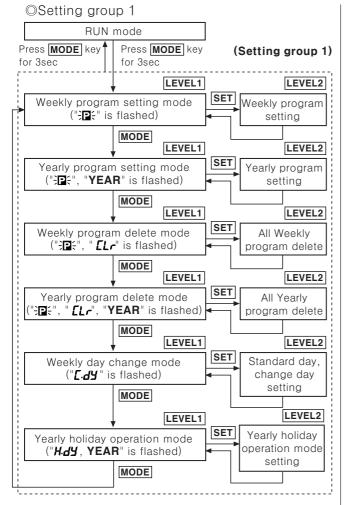
(N) Stepping motor & Driver & Controller

(O) Graphic panel

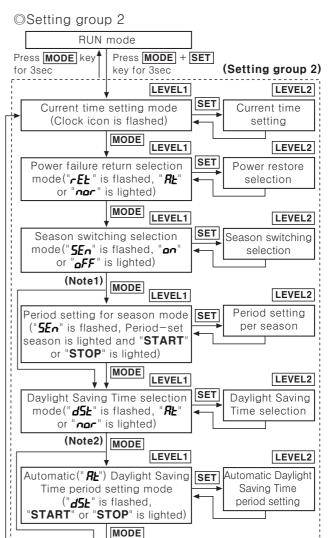
(P) Field networ device

(Q) Production stoppage models & replacement

### Program setting



- •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.



- (Note1) Season switching selection is "aFF".
   (Note2) Automatic switching selection of Daylight Saving Time is Normal("nar").
- •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 "aFF" to "an" or "an" to "aFF", previous set weekly program will be deleted.

B-71 Autonics

### ■Program setting

• 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.



①Advance to weekly program setting mode

SUN MONTUE WED THU FRI SAT



MODE key is pressed over 3sec in RUN mode, " ▶ " is flashed and press SET key.

2 Mode type setting

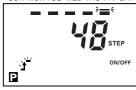
SUN MONTUE WED THU FRI SAT



Press **SET** key in ON/OFF mode.

30N day setting

SUN MONTUE WED THU FRI SAT



Press ▶ key to move the indicator to Monday, it will be lighted when ▲ or ▼ keys are pressed and move it to Tuesday by ▶ key.

Press SET key after Tuesday, Wednesday, Thursday, Friday are lighted.

④ON time setting(AM, PM)

SUN MON TUE WED THU FRI SAT



key is pressed, move the flashing to hour position and select PM by a or keys when ON time is afternoon.

⑤ON time setting(Hour, Minute)

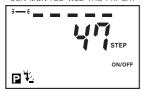
SUN MONTUE WED THU FRI SAT



Set 8:00 by ▼ key and press SET key.

6OFF day setting

SUN MONTUE WED THU FRI SAT



Press **SET** key to check ON/OFF day.

⑦OFF time setting(AM, PM)

SUN MONTUE WED THU FRI SAT



Select PM by  $\blacktriangle$  or  $\blacktriangledown$  keys and move the flashing to hour position by  $\blacktriangleright$  key.

(8) OFF time setting (Hour, Minute)

SUN MON TUE WED THU FRI SAT



Move the flashing to minute position after set 6:00 by A key and set the minute as 10 and press

SET key.

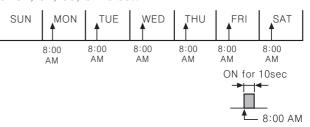
SUN MONTUE WED THU FRI SAT



Press **SET** key to set additional program.

•Weekly Pulse mode

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.



①Advance to weekly program setting mode

SUN MONTUE WED THU FRI SAT



MODE key is pressed for 3sec in RUN mode, " P " is flashed and press SET key.

②Mode type setting

SUN MON TUE WED THU FRI SAT



Press A key when ON/OFF is flashed, PULSE is flashed and press **SET** key.

③Season selection

SUN MON TUE WED THU FRI SAT



Press ▼ key to select season S2 and press SET key.

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/ Speed/ Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

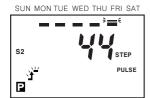
(O) Graphic panel

(P) Field network device

(Q) Production stoppage models & replacement

### ■Program setting

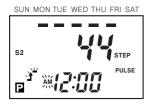
**4**ON day setting



Press key to move the indicator to Monday, it will be lighted when or wey keys are pressed and move it to Tuesday by key.

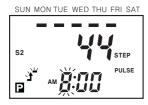
Press SET key after light Tuesday, Wednesday, Thursday and Friday.

#### (5) ON time setting (AM, PM)



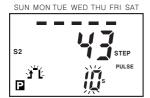
Press key, move the flashing to hour position and select PM by select very keys when ON time is afternoon.

#### **6**ON time setting(Hour, Minute)



Set 8:00 by ▼ key and press SET key.

### Pulse width setting



Press key to select pulse width as 10s(10sec.) and press **SET** key.

#### ®Complete 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.



#### ①Advance to weekly program setting mode

SUN MONTUE WED THU FRI SAT



Press **MODE** key for 3sec in RUN mode, " **B** " is flashed.

#### 2 Mode type setting

SUN MONTUE WED THU FRI SAT



Press A key when ON/OFF is flashed, CYCLE is flashed and press SET key.

#### (3) ~ (8)

Refer to ③~® of "●Weekly ON/OFF mode" to set ON day, ON time, OFF day and OFF time.

#### 



Press key to move the flashing to minute position and set as 10min by key and press **SET** key.

## **®OFF** time width setting SUN MON TUE WED THU FRI SAT



Press key to move the flashing to minute position and set as 5min by key and press **SET** key.

## (1) Complete to set



Press **SET** key to set additional program.

#### • Weekly day change

When the specified day mode is required to install in other day, it is started from the set day and returned to previous program setting automatically when it is finished.

#### •Weekly day change cancellation

- ①Change current year, month, date in current time setting mode
- 2 Change standard day
- ③Delete all program in program
- **4**Season switching

#### •Setting example

Output is ON in Saturday at 9:00AM and OFF at 12:00PM and it is ON 8:30AM and OFF at 6:00PM from Monday to Friday and the mode of Monday and Tuesday is operated temporarily as Saturday (standard) program.

B-73 Autonics

### ■Program setting

①Advance to weekly day change mode



Press MODE key over 3sec to move to the setting group1 in RUN mode and press it repeatedly until "L.Jy" is flashed in second display part and press SET key.

②Standard day selection SUN MON TUE WED THU FRI SAT



Press key to move the indicator to Saturday and press SET key. after select Saturday as standard day(Sat is lighted) by a or vkeys.

3 Change day selection SUN MON TUE WED THU FRI SAT



Press key to move the indicator to Monday and select Monday to change (Mon is lighted) by or wkeys and repeat the procedure to select Tuesday to change (Tue is lighted) and press SET key to complete.

#### OYearly holiday mode

It operates to off the output without program adjustment during previously set yearly holiday period available from present year to 31, Dec of the next year.

Designate the start date of yearly holiday and year of end date as every year("--") to repeat the holiday mode for specified in every year.

Setting example

Set every year 5, May to off the output.

①Advance to yearly holiday mode

SUN MON TUE WED THU FRI SAT



Press MODE key over 3sec to move to the setting group1 in RUN mode and press it repeatedly until "Hdy" is flashed in second display part and press SET key.

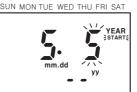
2 Yearly holiday No. display

SUN MON TUE WED THU FRI SAT



Press **SET** key after check yearly holiday No.

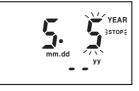
Start date of yearly holiday setting



Press key until month position is flashed and set May by key and press key until date position is flashed. Press SET key after set 5th by key.

4 End date of yearly holiday setting

SUN MONTUE WED THU FRI SAT



The flashing is moved to month position directly and press key to set May and press key until date position is flashed.

Press SET key after set 5th by key.

(5) Complete to yearly holiday SUN MON TUE WED THU FRI SAT



Press MODE key to finish the additional yearly holiday setting and press SET key to set . \*\*It is able to set yearly holiday up to 12 times.

#### OYearly 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.

①Advance to Program1 (P1) yearly program setting mode SUN MON TUE WED THU FRI SAT



Press MODE key for 3 sec in RUN mode, " " is flashed and press MODE key once, then, " " and YEAR are flashed and press SET key to set.

②Mode type setting



Press **SET** key when ON/OFF is flashed.

Start date setting SUN MON TUE WED THU FRI SAT



Press key until month position is flashed and set Apr by key and press key until date position is flashed. Press SET key after set 5th by key.

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/ Speed/ Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

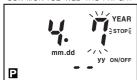
(O) Graphic panel

(P) Field network device

(Q) Production stoppage models & replacement

### ■Program setting

4 End date setting SUN MON TUE WED THU FRI SAT



The flashing is moved to month position directly and press key to set Apr and press key until date position is flashed.

Press **SET** key after set 7th by Akey.

⑤ON time setting(AM, PM) SUN MON TUE WED THU FRI SAT



key is pressed, move the flashing to hour position and select PM by a or keys when ON time is afternoon.

**6**ON time setting(Hour, Minute)



Press \( \bar{\bar{\textbf{key}}}\) key to set 9 and press \( \bar{\textbf{SET}}\) key after check 00min.

(7) OFF time setting (AM, PM) SUN MON TUE WED THU FRI SAT



Select PM by  $\blacktriangle$  or  $\blacktriangledown$  keys and move the flashing to hour position by  $\blacktriangleright$  key.

® OFF time setting (Hour, Minute) SUN MON TUE WED THU FRI SAT



Move the flashing to minute position after set 5 by A key and set the minute as 10 and press SET key.



Press **SET** key to set additional program.

•Yearly Pulse mode

(Ex)Output(OUT) is ON from 2, Oct, 2008 to 4, Oct, 2008 at 10:00AM and OFF after 5sec. (Present is 2007.)



①Advance to yearly program setting mode SUN MON TUE WED THU FRI SAT



MODE key is pressed for 3sec in RUN mode, "PROG P1" is flashed and press MODE key again, "PROG P2 YEAR" is flashed and press SET key.

2 Mode type setting
SUN MON TUE WED THU FRI SAT



key is pressed when ON/OFF is flashed to set PULSE mode and press **SET** key.

Start date setting SUN MON TUE WED THU FRI SAT



Press A key twice to set 08(year 2008) and move to month position by key.

Set Oct by ▼ key and move to date position by ▶ key and press

SET key after set 2nd by ▲ key

4 End date setting SUN MON TUE WED THU FRI SAT



The flashing is moved to month position directly by key and set 4th by key after move it to date position by key, then press **SET** key.

(5) ON time setting (AM, PM) SUN MONTUE WED THU FRI SAT



▶ key is pressed, move the flashing to hour position and select PM by ▲ or ▼ keys when ON time is afternoon.

**©ON** time setting(Hour, Minute)



Press key twice to set 10 and press **SET** key after check 00min.

Pulse width setting



Press A key 4 times to select pulse width as 5s and press **SET** key.

® Complete to set SUN MON TUE WED THU FRI SAT



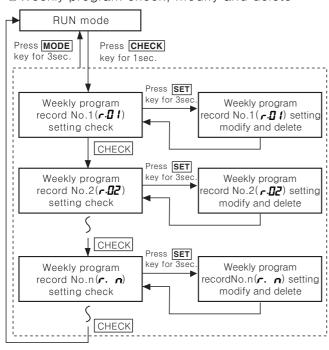
Press **SET** key to set additional program.

\*It is able to set year of start/end date in yearly program setting up to 2 years later from the present year.

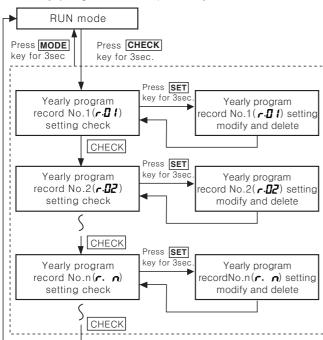
B-75 Autonics

### Program check, modify and delete

Weekly program check, modify and delete



OYearly 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 according to 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

(1) Program record modify

①When press **SET** key over 3sec in program check, " *EdL* " is flashed in second display part, press **SET** key.

②It returns to check mode when finish the modify same as the above procedure.

(2) Program record delete

①When press SET key over 3sec in program check, "Edk" is flashed in second display part, press ▲ or ▼ keys until "Elr" is flashed in second display part and press SET key.

②Press **SET** key over 3sec when "**LLr**" is lighted in second display part, it returns to program check.

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/ Speed/ Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

(O) Graphic panel

(P) Field network device

(Q) Production stoppage models & replacement