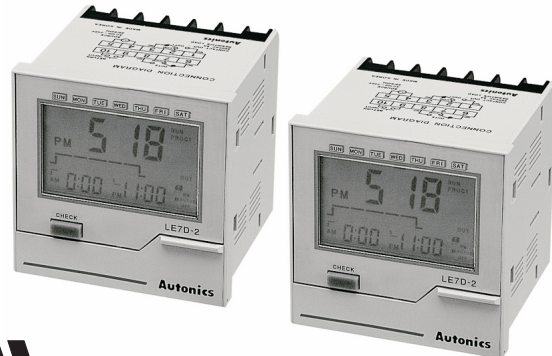


LE7D-2

DIN Size W72×H72mm, Weekly Timer

■ Features

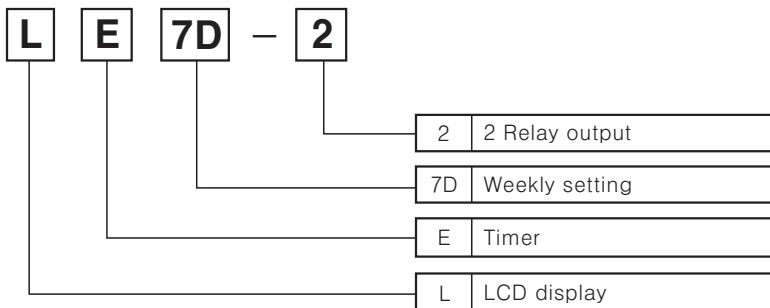
- Program is easily checked or changed while operating
- Individual programming of each day or each week
- Independently controlled two outputs, relay, built-in
- Hardware included for both panel and DIN rail mounting
- When mounting base plate, DIN rail mounting is available



⚠ Please read "Caution for your safety" in operation manual before using.



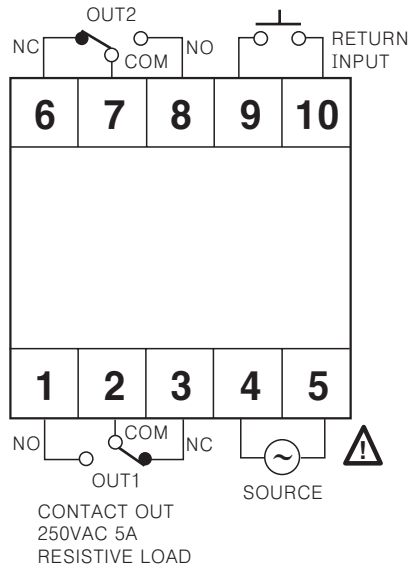
■ Ordering information



■ Specifications

Model		LE7D-2
Power supply		100-240VAC 50/60Hz
Allowable voltage range		90 ~ 110% of rated voltage
Power consumption		Approx. 3VA (240VAC 60Hz)
RETURN input		Short-circuit or open by switch or relay
Timing program		Programmable 24 STEP
Operation mode		ON/OFF mode, Cycle mode, Pulse mode
Operation cycle		1 week (7days)
Mounting		Front panel, Surface, DIN rail
Time deviation		±15sec/month(25℃) (±4sec/week)
Memory retention		5years without power, 10years with power applied
Control Output	Contact type	Time limit DPDT(2c)
	Contact capacity	250VAC 5A resistive load
	Output number	Independent 2 output(1c × 2)
Relay life cycle	Mechanical	Min.10,000,000 times
	Electrical	Min. 100,000 times (250VAC 5A resistive load)
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
Approval		
Weight		Approx. 250g

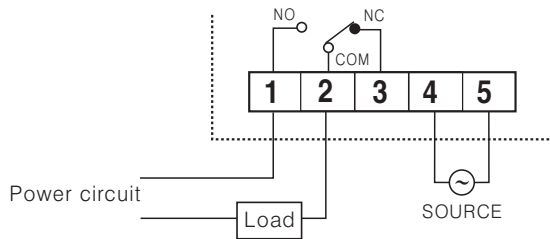
■ Connections



■ Load connections for load

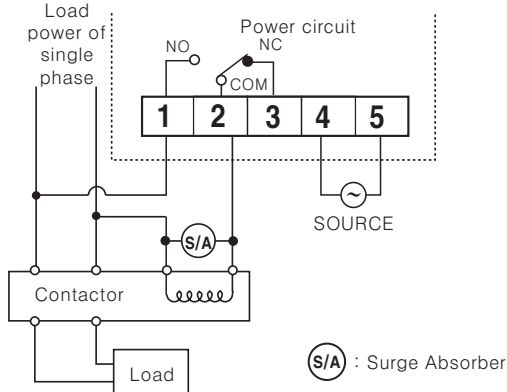
When controlling a non-resistive load, please use a contactor and also connect a surge absorber across the coil of the contactor.

- In case of controlling the load directly

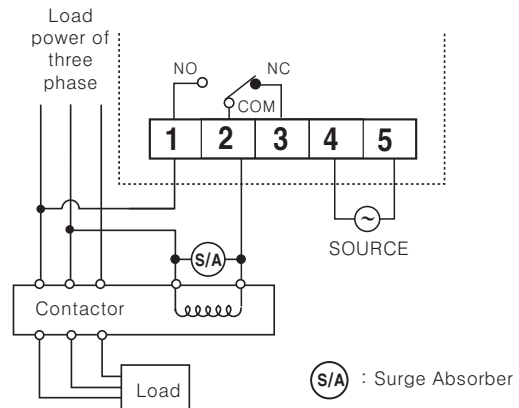


- In case of controlling the load by using a contactor

[Single phase]



[Three phase]



(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)
Proximity
sensor

(J)
Photo
electric
sensor

(K)
Pressure
sensor

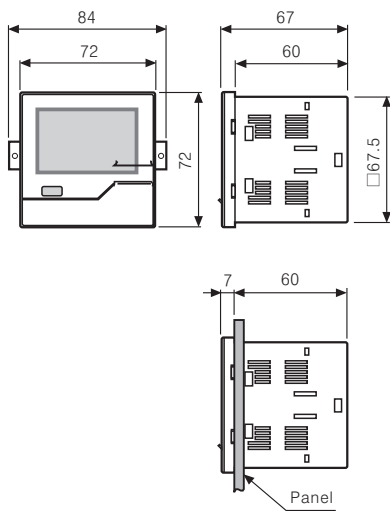
(L)
Rotary
encoder

(M)
5-Phase
stepping
motor &
Driver &
Controller

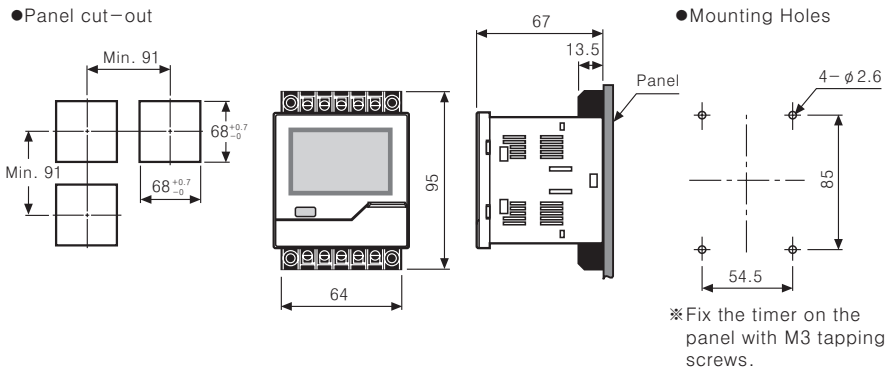
LE7D-2

Dimension & Mounting

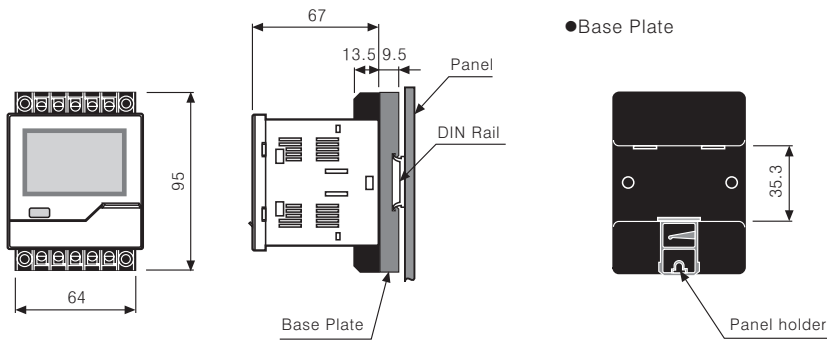
1) Panel mounting



1) Surface mounting



3) Mounting ON DIN Rail

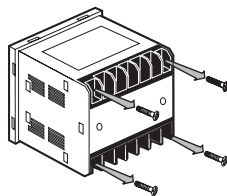


Unit:mm

How to modify the mounting method from the front panel to surface mount

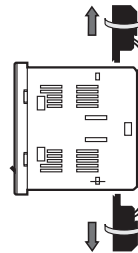
Remove terminals from the body after unscrewing terminal screws, and then assemble terminals to the body after rotating terminals as below figure.

① Unscrew 4bolts from terminal block.

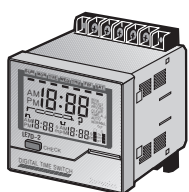
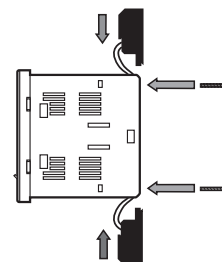


(Front panel mounting)

② Detach terminal block from case and then rotate it 180°.

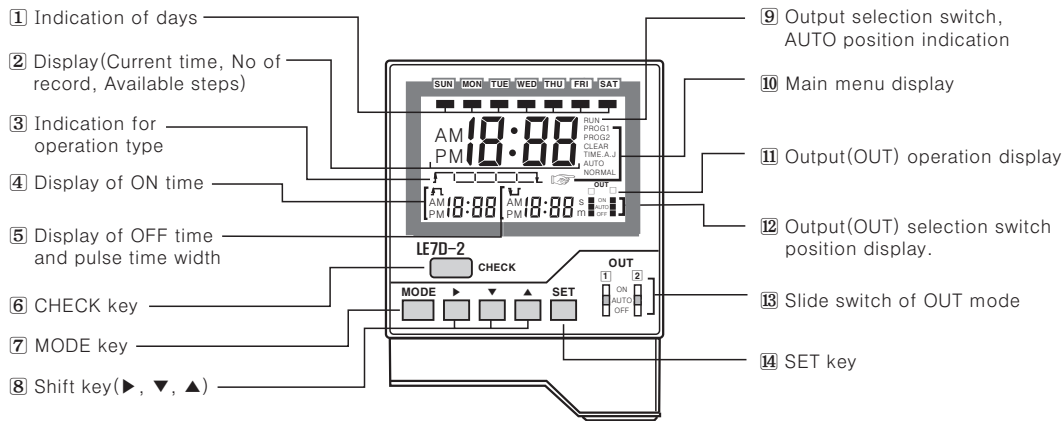


③ Assemble terminal block to case by using the 4 bolts

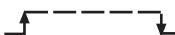




(Surface mounting)

Front Panel identification



Front panel

- ① Indication of week day(s)
- Light ON: Status of the day has been set.
 - Light OFF: Status of the day has not been set.
 - ☞ When the flicker is on the day has been set : Repeatedly flickers by turn(0.25sec)
 - ☞ When the flicker is on the day has not been set : Repeatedly flickers by turn(0.5sec)
- ② Display(Current time, No of record, Available steps)
- RUN mode : Display the current time
 - Program modify and check mode : Display the record No. of program that has been set.
 - Program setting mode : Display available steps remaining, Total steps:24 steps
- ③ Indication of operation type
- Display the type of operation which have been set at "PROG1" and "PROG2".
- ON/OFF operation 
 - Cycle operation 
 - Pulse operation 
- ④ Display of ON time
- Display ON time that has been set in "PROG1" and "PROG2".
- ⑤ Display of OFF time and pulse time width
- Display ON time that has been set in "PROG1" and "PROG2".
- It displays OFF time during ON/OFF operation and Cycle operation.
 - It displays the width of pulse time during Pulse operation.
- ⑥ CHECK Key
- This key can be used to set, modify program or change day.
- ⑦ MODE Key
- This key can be used to set, modify, remove program and set current time, select AUTO or NORMAL mode.
- ⑧ Shift key(▶, ▼, ▲)
- This key can be used to set, modify program or change day.
- ⑨ Output selection switch, AUTO position indication
- Display status of OUT selection switches.
- RUN Indicator ON : The OUT selection switches are both set on AUTO position.
 - RUN indicator OFF : One of OUT selection switches is set on ON or OFF position.
- Note)RUN indicator is shown during RUN mode.

- ⑩ Main menu display
- "PROG1"

PROGRAM1 operation(Light ON), modification and setting of PROGRAM1, Check PROGRAM1 (Flicker)

 - "PROG2"

PROGRAM2 operation(Light ON), modification and setting of PROGRAM2, Check PROGRAM2 (Flicker)

※If "PROG1" and "PROG2" are operating at the same time, "PROG1" and "PROG2" will be illuminated.

 - "PROG1" and "CLEAR"

This mode is to delete the content of "PROG1".

※When it is flickering, it will be deleted by pressing **[SET]** key for 3sec.

 - Select returning to origin.

※AUTO

After power failure, Operation continues according to program setting.

※NORMAL

When it turns on after power failure("⏏" Mark flashes) apply Return input signal(Terminal ⑨, ⑩) ("⏏" mark turn off), and then the output operates as set program. "⏏" mark applies for "NORMAL" mode only and indicates when it turns on after power failure.
- ⑪ OUTPUT(OUT) operation display
- Display operation of OUT1 and OUT2.
- No output : Blank
 - Output : OUT1 : Display **1**
OUT2 : Display **2**
- ⑫ Output(OUT) selection switch position display
- Display position of Output(OUT) selection switches.
- ⑬ Slide switch of OUT mode
- This switch is used to select between operating the output(OUT1,2) according to the program or manually.
- ON : Output always ON not related to program.
 - OFF : Output always OFF not related to program.
 - AUTO : Output operates according to program. <Output1(OUT1) & Output2(OUT2) are selected independently>□
- ⑭ SET key
- Using when set the programed, corrected or changed data.

(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)
Proximity
sensor

(J)
Photo
electric
sensor

(K)
Pressure
sensor

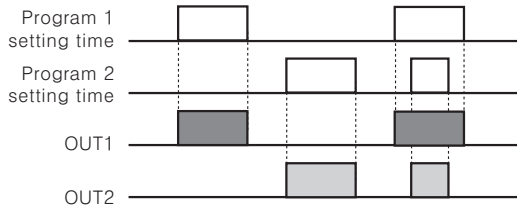
(L)
Rotary
encoder

(M)
5-Phase
stepping
motor &
Driver &
Controller

Function

1) Programs

There are PROG1 and PROG2 in this unit and 2 outputs. These programs work independantly then drive OUT1 and OUT2. (PROG1 : OUT1, PROG2 : OUT2)



2) Select the day

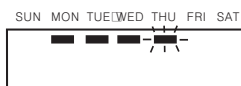
① Cursor operation when setting the day

When entering into the mode in order to set the day, Sunday will flicker first. After moving the day cursor by pressing \leftarrow key, select the day by pressing \rightarrow , \uparrow key.

Ex) When intending to set Monday, Tuesday, Wednesday



Move the cursor to Monday from Sunday by pressing \leftarrow .



It will be selected as shown in LCD by pressing \rightarrow , \downarrow key. (Monday, Tuesday, Wednesday are steady on and Thursday will flicker.)

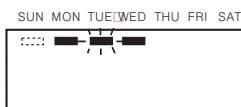


The day selection is completed by pressing SET key.

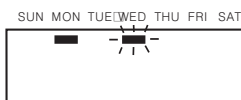
② Cursor operation when changing the day

Move the flickering cursor to target day by \leftarrow key, then turn off the cursor by \rightarrow , \downarrow key to complete the day change.

Ex) When need to change Monday, Tuesday, Wednesday to Monday, Wednesday.



When entering into the mode in order to set the day, Sunday will flicker first. (It will flicker by turning on 0.5sec. cycle) Move the flickering cursor to Tuesday by \leftarrow key.



Turn off the light on Tuesday cursor and change the flickering cursor to Wednesday by \rightarrow , \downarrow key. (It will flicker by turning on 0.25sec. cycle)



Press SET key to complete setting.

*If move the cursor with wrong key operation, the previous setting day cursor will be turned off and target setting day cursor will be turned on.

*If the flickering cursor is located on a previously set day, it will flicker by turning on 0.25sec. and it will flicker by turning on 0.5sec. cycle when the cursor is located on the target setting day that is not previously set.

3) Step

● Programmable number of STEPS is 24STEP

This is total number of PROG1 and PROG2.

Also when entering into program setting mode, available STEPS will be displayed.

● Required number of STEP for 1 time setting by each operation form.

*ON/OFF operation : Total 2 Step

<u>ON day, ON time</u>	<u>OFF day, OFF time</u>
1 Step	1 Step

*CYCLE operation : Total 4 Step

<u>ON day, ON time</u>	<u>OFF day, OFF time</u>
1 Step	1 Step

<u>ON time width</u>	<u>OFF time width</u>
1 Step	1 Step

*PULSE operation : Total 1 STEP

<u>ON day, ON time, ON time width</u>
1 Step

4) Operation

① ON/OFF operation

Output will be ON at ON time that has been set in Program and output will be OFF at OFF time that has been set in Program.

- You can set ON day and OFF day differently.

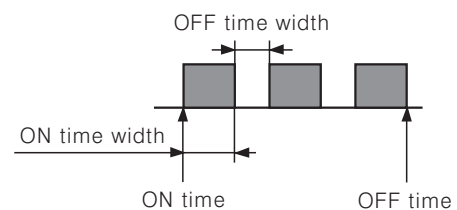
- Min. time setting unit : 1 minute



② CYCLE operation

Output will be ON for ON time width and OFF for OFF time width for ON time and OFF time that have been set in Program.

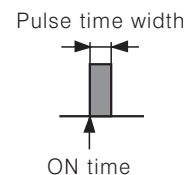
- Min. time width of ON or OFF setting unit : 1 minute.



③ PULSE operation

Output will be ON for programmed time at ON time that has been set in Program then OFF.

- Output ON pulse time width : 1sec. ~ 59min.



5) Time indication

PM 12:00 will be displayed PM0:00.

Ex) PM 12:20 will be displayed PM 0:20.

Function

6) Memory retention

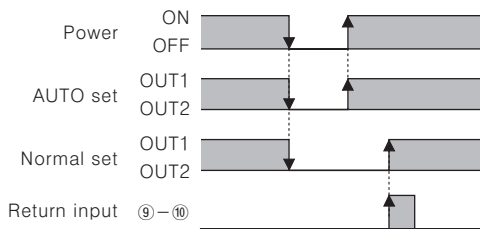
●In case of setting AUTO

When power on again after power off, the output(OUT1, OUT2) operates according to program status.

When selecting "AUTO", the power will be supplied after power failure automatically. Therefore it might cause accident. Please select NORMAL instead of "AUTO" if the possibility of an accident exists.

●In case of setting Normal

When power on again after power off, the output(OUT1, OUT2) operates when the signal is applied at external return input terminal. When power on again after power off, "i" mark in display window appears and flickers. The output operates according to program status by applying Return input.



7)How to apply Return input

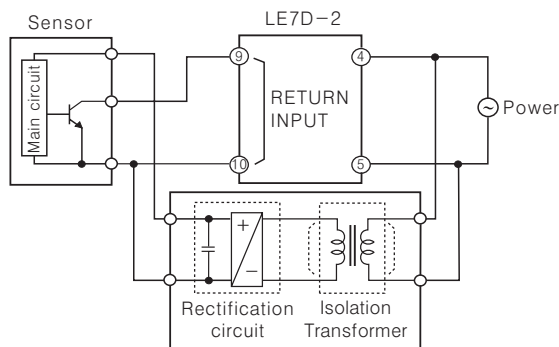
●Contact signal input

Please select reliable contact if using a switch or Relay

●Solid state signal input

When using solid state input, please use isolation transformer with a separated primary and secondary. If cannot use isolated transformer, please use photo-coupler to separat the input device.

Also be sure to check polarity when using solid state element.



<External power supply for sensor >

8)RECORD

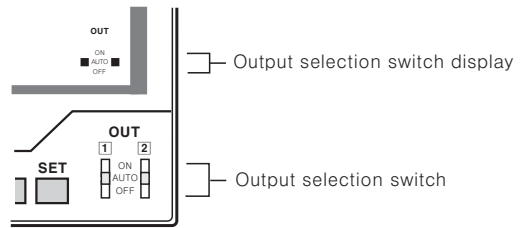
①This is basic unit of Program to control output.

When checking Program, "r01 to r24" as RECORD will be displayed in LCD.

②Setable number of STEP in 1 RECORD

- ON/OFF operation : 2 STEP per 1 RECORD
(ON day, ON time, OFF day, OFF time setting will be 1RECORD)
- CYCLE operation : 4 STEP per 1 RECORD
(ON day, ON time, OFF day, OFF time, ON time width, OFF time width setting will be 1 RECORD)
- PULSE operation : 1 STEP per 1 RECORD.
(ON day, ON time, Output operation time width setting will be 1 RECORD)

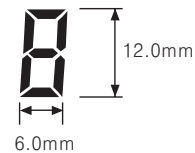
9)Manual output ON/OFF operation



- Output selection switch AUTO position : Output operation as programmed.
 - Output selection switch ON position : Output is ON not related to program.
 - Output selection switch OFF position : Output is OFF not related to program.
- *Output selection switch position is displayed in LCD always.

10)Display in LCD

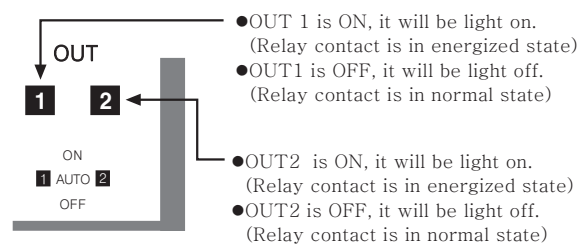
①The size of Display (Time display)



②Operation type display

- ON/OFF operation display : [Waveform showing a single pulse]
- CYCLE operation display : [Waveform showing a square wave]
- PULSE operation display : [Waveform showing a narrow pulse]

③Output operation display



④Time/Time width display

- ON time display : [Waveform showing a pulse]
- OFF time display : [Waveform showing a gap]
- ON operation time width display : [Waveform showing a pulse with width]
- OFF operation time width display : [Waveform showing a gap with width]

(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)
Proximity
sensor

(J)
Photo
electric
sensor

(K)
Pressure
sensor

(L)
Rotary
encoder

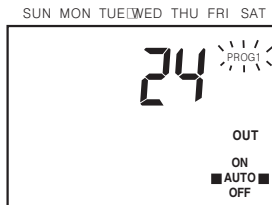
(M)
5-Phase
stepping
motor &
Driver &
Controller

■ The current time setting

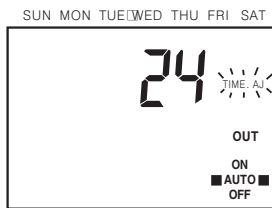
When supplying the power for the first time, the display will appear as shown.

Then please set the current time.

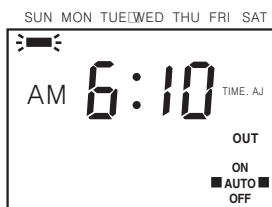
Ex) When setting the current time as AM 9:00 Monday



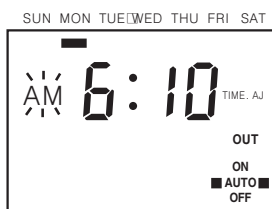
Pressing **[MODE]** key for more than 1sec., "PROG1" will be flickering and the total number of STEPS will be displayed.



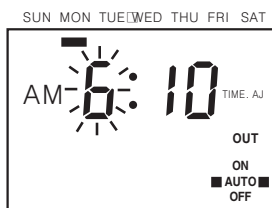
Then press **[MODE]** key 4 times, "TIME.AJ" will be flickering.



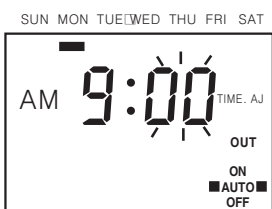
Press **[SET]** key. The time will be displayed as shown and the cursor will flicker on Sunday.



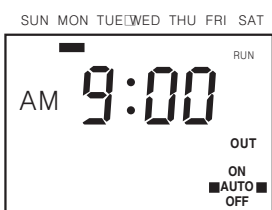
After moving the day cursor to Monday by pressing **[▶]** key press the **[▼]**, **[▲]** key to select Monday. It will change from flickering to steady. "AM" is now flickering.



Pressing **[▶]** key. Then "AM" is steady on and "Hour" position is flickering. If the setting time is PM, change AM to PM by pressing **[▼]**, **[▲]** key then press **[▶]** key.

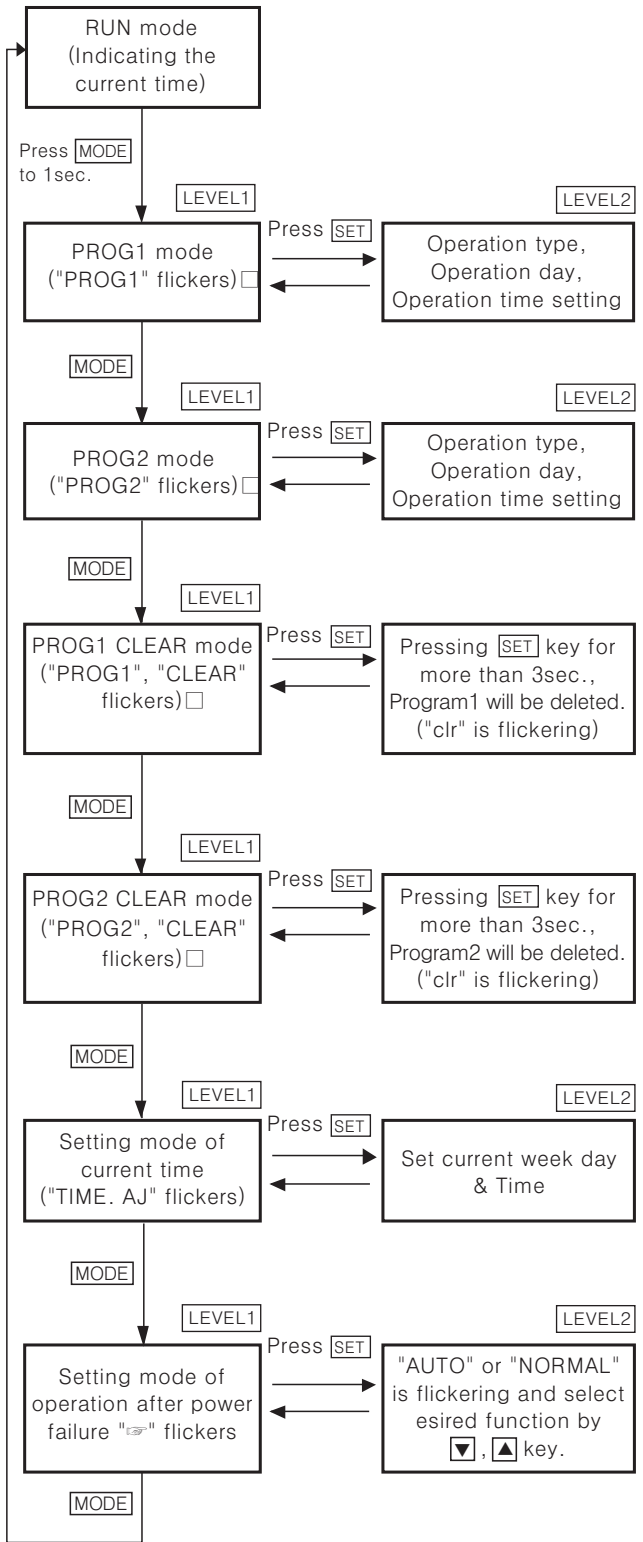


After changing to 9 o'clock with **[▲]** key then "9" will be steady on by pressing **[▶]** key and "Minute" position is flickering. After changing to "00" minute by pressing **[▲]** key then press **[SET]** key to complete the current time setting.



Pressing **[MODE]** key 2times, it will return to RUN mode then display the current time.

■ Program setting

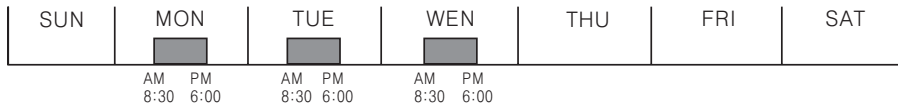


- It no key is touched for 30sec. at **[LEVEL1]**, it will be returned to operating mode automatically.
- It no key is touched for 30sec. at **[LEVEL2]**, it will be returned to **[LEVEL1]** automatically.
- If **[MODE]** key is pushed at **[LEVEL2]**, modified program is cancelled and returned to **[LEVEL1]** automatically.

■ Program setting

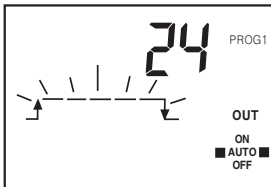
1) Set ON/OFF mode in PROG1

Every week Monday, Tuesday, Wednesday OUT1 is ON at AM 8:30 and OUT1 is OFF at PM 6:00.



① PROGRAM selection

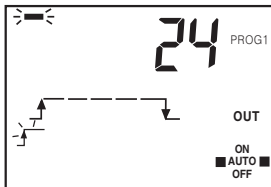
SUN MON TUE WEN THU FRI SAT



Press **[MODE]** key for more 1sec. then "PROG1" will flicker.
Press **[SET]** key to turn on "PROG1" then ON/OFF operation is flickering.

② Select operation mode

SUN MON TUE WEN THU FRI SAT

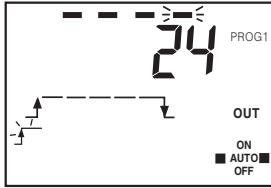


ON/OFF operation is being displayed, so press **[SET]** key to complete setting of ON/OFF operation.
(The day cursor is flickering on Sunday, "S" is flickering indication.)

[MODE]

③ ON day(s) setting

SUN MON TUE WEN THU FRI SAT



After move the day cursor to Monday by pressing **[▶]** key 1time (Monday is flickering) then set ON day by pressing **[▲]**, **[▼]** key.
(Monday, Tuesday, Wednesday cursor will be light on, Thursday cursor is flickering) Then press **[SET]** key to complete the ON day setting.
(Thursday cursor is light off and "AM" is flickering)

④ AM/PM setting of ON time

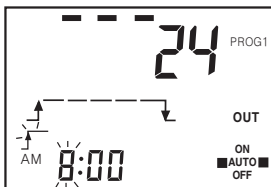
SUN MON TUE WEN THU FRI SAT



Because ON time is "AM", press **[▶]** key to complete AM setting.
("S", and Hour position are flickering)
*If ON time is "PM", press **[▲]**, **[▼]** key to select "PM" then **[▶]** key.

⑤ ON time "Hour" setting

SUN MON TUE WEN THU FRI SAT



After setting "8" with **[▲]** key, press **[▶]** key to complete ON time "Hour" setting. "AM" and "8" are steady on, "S" and "Minute" position are flickering)

⑥ ON time "Minute" setting

SUN MON TUE WEN THU FRI SAT



After setting 30minutes by pressing **[▲]** key then press **[SET]** key to complete ON time "Minute" setting.
(Sunday cursor is flickering, "S" is flickering indication)
*ON time "Minute" setting will be completed and STEP indication will be decreased by 1.

⑦ OFF day(s) setting

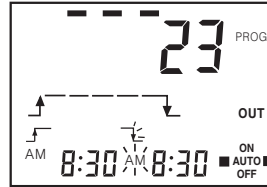
SUN MON TUE WED THU FRI SAT



Because ON day and OFF day are the same, therefore press **[SET]** key, OFF day setting will be completed.
("AM" and "S" are flickering while ON time of ON day is displayed at OFF time display)

⑧ AM/PM setting of OFF time

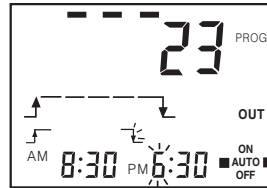
SUN MON TUE WED THU FRI SAT



Because OFF time is "PM", after selecting "PM" by **[▲]** or **[▼]** key then press **[▶]** key to complete setting.
("S" and "Hour" position are flickering indication)

⑨ "Hour" setting of OFF time

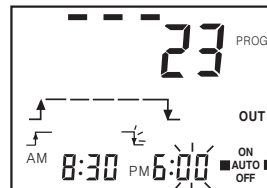
SUN MON TUE WED THU FRI SAT



After changing it to "6" at "Hour" position by **[▼]** key then press **[▶]** key to complete OFF time "Hour" setting.
("PM" and "6" : On steady, "S" and "Minute" position : Flickering)

⑩ "Minute" setting of OFF time

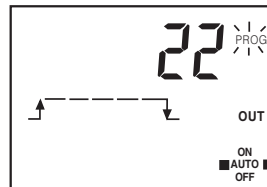
SUN MON TUE WED THU FRI SAT



After changing it to "00" minute by **[▼]** key then press **[SET]** key to complete OFF time "Minute" setting.
*STEP indication will be decreased by 1 when OFF time "Minute" setting is completed.

⑪ Setting complete display

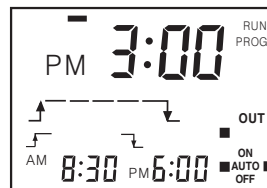
SUN MON TUE WED THU FRI SAT



After completing the ON/OFF operation setting, PROG1 will be flickering which would allow you to enter another program.

⑫ RUN mode

SUN MON TUE WED THU FRI SAT



If programming is completed, press the **[MODE]** key 6 times to return to the RUN mode.
The current day, time and program will be displayed.

(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) Proximity sensor

(J) Photo electric sensor

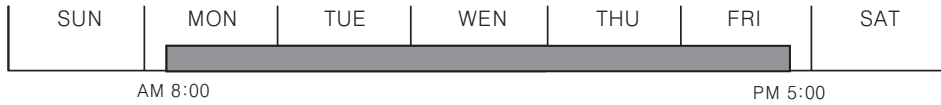
(K) Pressure sensor

(L) Rotary encoder

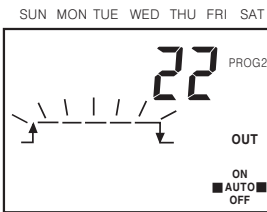
(M) 5-Phase stepping motor & Driver & Controller

2) Set ON/OFF mode in PROG2

Turn OUT2 on at AM 8:00 every Monday and turn OUT2 off at PM 5:00 Friday.

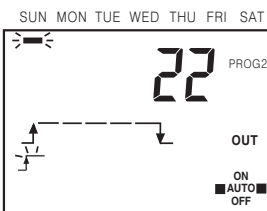


① PROGRAM selection



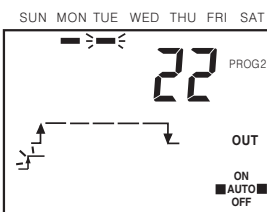
Press **[MODE]** key for more than 1sec. PROG1 flashes.
Press **[MODE]** key once again, then PROG2 flashes.
Then press **[SET]** key, "PROG2" turns on and ON/OFF mode flashes.

② Select operation mode



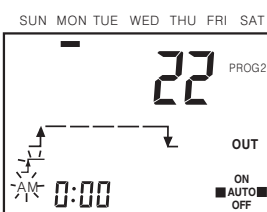
ON/OFF mode is displayed then press **[SET]** key ON/OFF mode is set.
※If desired mode is Cycle mode, press **[]** to select Cycle mode (Day cursor flashes at SUN(Sunday), and " " mark flashes.

③ Select ON weekday



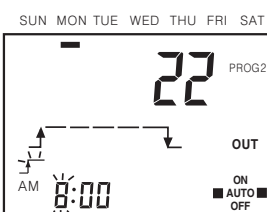
Press **[]** key to move the day cursor to MON and then press **[]** or **[]** once. (MON turns on, TUE flashes)
If press **[SET]** key, ON weekday is set. (TUE cursor turns off, " " and "AM" flash)

④ Select AM/PM of ON time



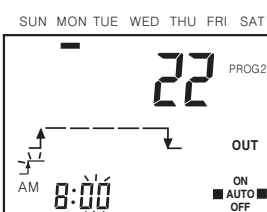
Press **[]** key to set "AM" ON time then AM is set. (" ", Hour digit flash)
※If ON time is "PM", press **[]**, **[]** key to select "PM" then **[]** key.

⑤ Select "Hour" of ON time



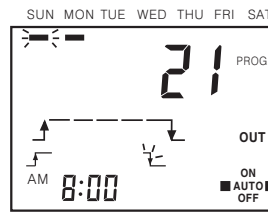
Press **[]** key to set 8 hour, and then press **[]** key, Hour time is set. ("AM" and "8" turn on steady, and minute digits flash) press.

⑥ Select "Minute" of ON time



Set value is "00", so press **[SET]** key then Minute is set. (Day cursor flashes at SUN. " " flashes)
※Minute of ON time is set and STEP indication is reduced by 1.

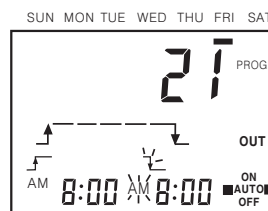
⑦ Select OFF weekday



Press **[]** key to move the day cursor to MON then press **[]** or **[]** key once. MON turns off and TUE flashes. Move the day cursor to FRI by pressing **[]**, then press **[]** or **[]** key once. (FRI turns on SAT flashes)
Press **[SET]** key, OFF weekday is set.

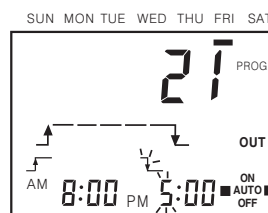
(SAT cursor turns off and ON time of ON day is displayed in OFF time display "AM" and " " are flashing.)

⑧ AM/PM setting of OFF time



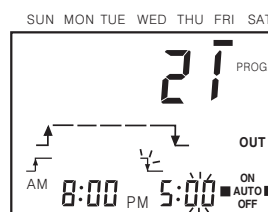
OFF time is "PM", therefore press **[]** or **[]** key to select "PM". Then press **[]** key to set PM. (" " and Hour digit flash)

⑨ Select "Hour" of OFF time



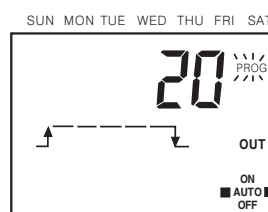
After changing it to 5 at "Hour position by pressing **[]** key, then press **[]** key, Hour time is set. ("PM", Hour digit turn on, " " and Minute digit flash)

⑩ Select "Minute" of OFF time



Set value is "00", so press **[SET]** key, then Minute is set.
※Minute of OFF time is set and STEP indication is reduced by 1.

⑪ End setting display

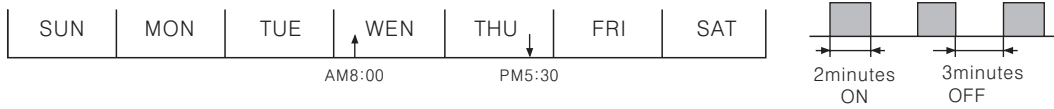


When ON/OFF setting is complete the display to set next program mode appears.

Weekly Timer

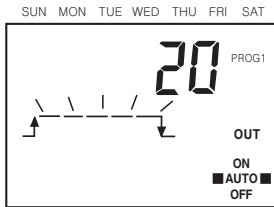
3) Set Cycle mode

From Wednesday AM 8:00 to Thursday PM 5:30, OUT1 turns on for 2 minute and turns off for 3 minute repeatedly.



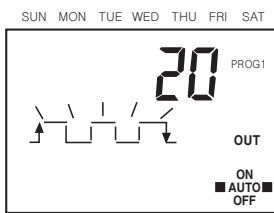
- (A) Counter
- (B) Timer
- (C) Temp. controller
- (D) Power controller
- (E) Panel meter
- (F) Tacho/Speed/Pulse meter
- (G) Display unit
- (H) Sensor controller
- (I) Proximity sensor
- (J) Photo electric sensor
- (K) Pressure sensor
- (L) Rotary encoder
- (M) 5-Phase stepping motor & Driver & Controller

①PROGRAM selection



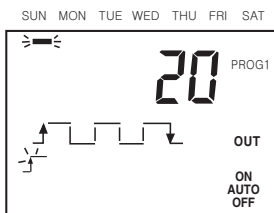
Press **[MODE]** key for more than 1sec. then "PROG1" flashes.
Press **[SET]** key to turn on "PROG1". (ON/OFF mode flashes)

②Select Cycle mode



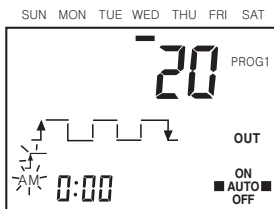
Press **[>]** key to select Cycle mode, then Cycle mode flashes.
Press **[SET]** key. Cycle mode is set (SUN cursor flashes, **[<]** flashes)

③Select ON weekday



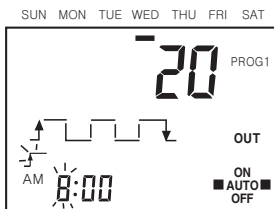
Press **[>]** key to move SUN cursor to WED then press **[<]** or **[>]** once. (WED turns on THU flashes)
Press **[SET]** key, then ON weekday is set (WED cursor turns on steady, **[<]** " flashes)

④Select AM/PM of ON time



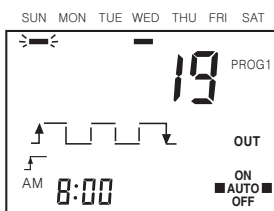
Press **[>]** key to set AM of ON time then AM is set. ("**[<]**", Hour digit flash)

⑤Select Hour of ON time



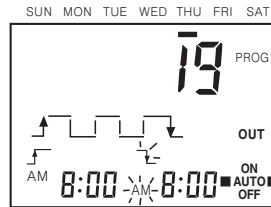
Set 8 hour by pressing **[<]** key then Press **[SET]** key, then Hour of ON time is set. (SUN cursor flashes, "**[<]**" flashes)
*If select minute, press **[>]** key instead of **[SET]** key. then press **[<]** or **[>]** key to set minute..
*Hour of ON time is set and STEP indication is reduced by 1.

⑥OFF day setting



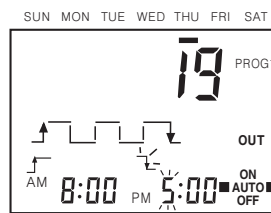
Press **[>]** key to move SUN cursor to WED, then press **[<]** or **[>]** once (WED cursor turns off, THU cursor flashes) press **[<]** or **[>]** once, then THU cursor turns on, FRI cursor flashes). Then press **[SET]** key, OFF weekday is set. "AM" and **[<]** are flashing while ON time of ON day is displayed at OFF time display.)

⑦Select AM/PM of OFF time



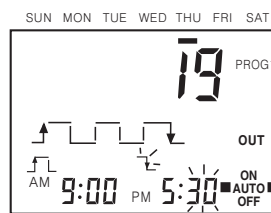
OFF time is PM, therefore press **[<]** or **[>]** key to select PM, then press **[>]** to set. ("**[<]**", Hour digit flash)

⑧"Hour" setting of OFF time



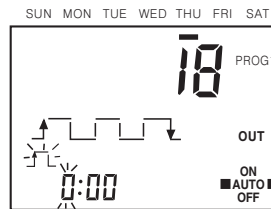
Press **[<]** or **[>]** key to select 5 then press **[SET]** key to set Hour of OFF time. ("PM" & "5" are on steady and "**[<]**" and digit of Minute flash.)

⑨"Minute" setting of OFF time



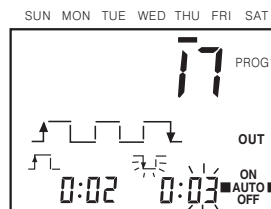
Press **[<]** or **[>]** key to select 30, then press **[SET]** key to set Minute of OFF time. ("**[<]**" & Hour digit of ON time width flash).
*Hour of OFF time is set and STEP indication is reduced by 1.

⑩Select time width of ON time



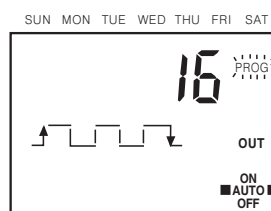
Press **[>]** key to shift to Mlnute digit, then press **[<]** key to select 2 of ON time width.
Press **[SET]** key to set time width of ON time. ("**[<]**" & Hour digit of OFF time width flash)
*Minute of ON time width is set and STEP indication is reduced by 1.

⑪Select time width of OFF time



Press **[>]** to shift to minute digit, then press **[<]** key to select 3 of OFF time width, then press **[SET]** key to set time width of OFF time.
*Minute of OFF time width is set and STEP indication is reduced by 1.

⑫Setting end display



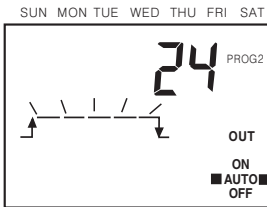
When Cycle setting is complete, the display to set next program appears.

4) Set PULSE mode

OUT2 turns on for 10sec. at AM 8:50 in Mon.Tue.& Wed.

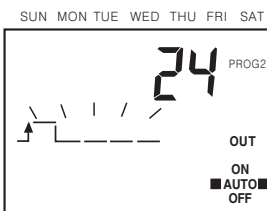


①PROGRAM selection



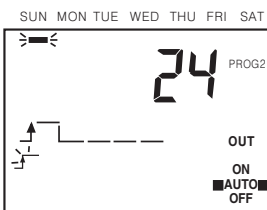
Select PROG2 use OUT2.
Press **[MODE]** key for more than 1sec. PROG1 flashes, if press **[MODE]** once again. PROG2 flashes, then press **[SET]** key to set PROG2.
("PROG2" turns on, " " flashes)

②Select the operation mode



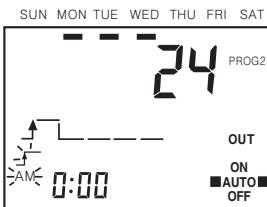
Press **[]** key twice to select pulse mode, then pulse mode flashes.
Press **[SET]** key to set pulse mode.
(SUN cursor flashes, " " flashes)

③Select ON weekday



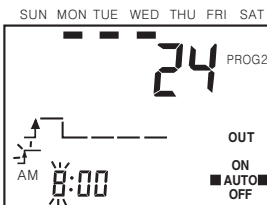
Press **[]** key once to shift SUN cursor to MON, and press **[]** or **[]** key to set ON weekday.
(MON, TUE, Wed cursor turn on steady, THU cursor flashes)
Press **[SET]** key to set ON weekday
(THU cursor turns off, "AM" of ON time flashes)

④Select AM/PM of ON time



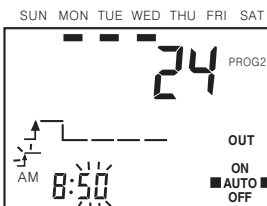
ON time is AM, therefore press **[]** key to set AM.
(" " , Hour digit flash)
*If ON time is PM, select PM by **[]** or **[]** key, then set PM by pressing **[]** key.

⑤Select Hour of ON time



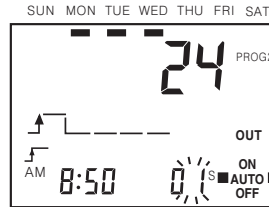
Select 8 by **[]** key, then press **[]** to set hour of ON time.
("AM" & "8" turn on steady, " " & minute digit flash)

⑥Select Minute digit of ON time



Press **[]** or **[]** key to set 50minute, then press **[SET]** key to set minute of ON time.
(" " & "50" turn on steady, "01s" flashes)

⑦Select operation time of output



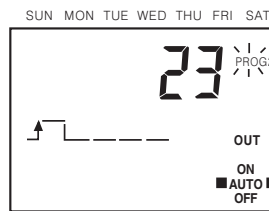
Select 10sec. by pressing **[]** key, then press **[SET]** key to set PROG2.
*Output operation time is set and STEP indication is reduced by 1.

Note)Output operation time can be selected from 1sec. to 59min.

If press **[]** key, it can select 1sec → 59sec → 1min → 59min
time range as follows:

If press **[]** key, it can select 59min → 1min → 59sec → 1sec
time range as follows:

⑧Setting end display



If PULSE mode setting is complete. the display to set next program appears.

*When returning to RUN mode, if current time is later than programmed time, only current time is displayed and output does not operate that day.

*Indication of set time will appear at TUE & WED AM 0:00 of next operation, and when current time reaches set time, output operates 10sec. Then indication of set time disappears.
(Note) Set program does not cancel.

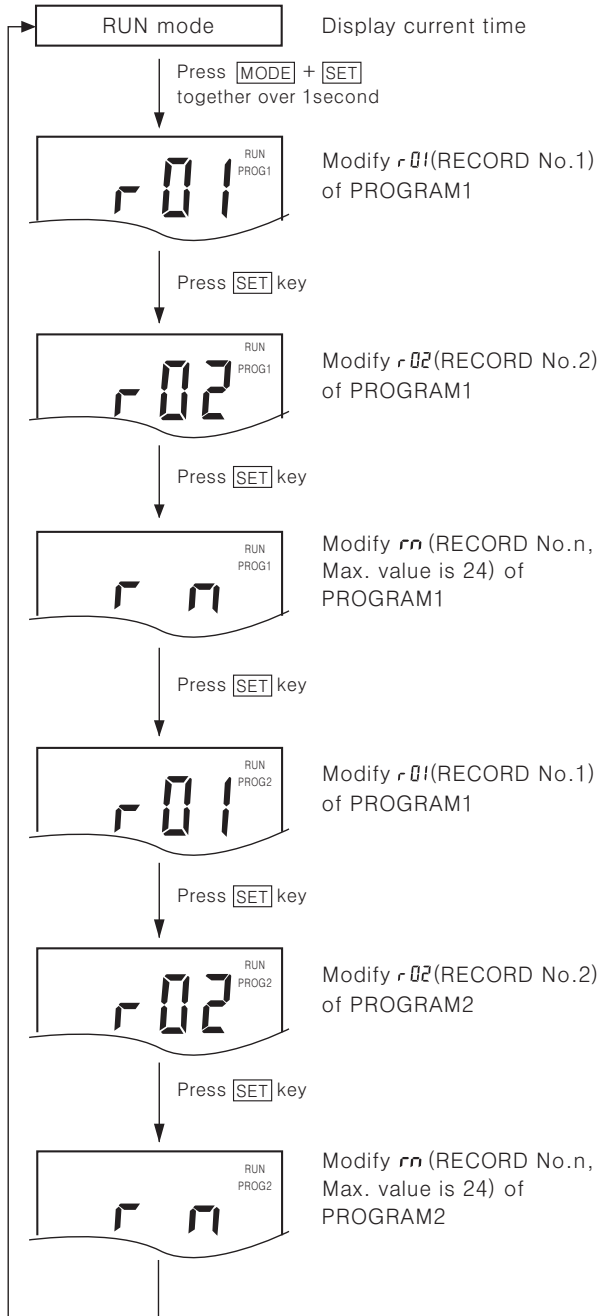
*When selecting pulse () mode at PROG1(or PROG2). If adding program at PROG1(or PROG2), operation mode of PROG1 (or PROG2) is fixed as pulse() mode.

*When ON/OFF() or cycle mode() was selected at PROG1(or PROG2), pulse mode () cannot be added at PROG1(or PROG2).

How to change program

1) Program modify

The status of several programs are set, this function is used to modify particular part without erasing program.

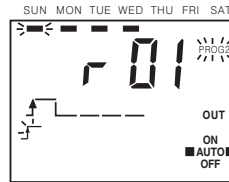


- ※ To check program of each record, Use **SET** key.
Press 4 times for ON/OFF mode, press 6times for CYCLE mode, press 3times for PULSE mode, then display will shift to next RECORD.
- ※ Change set value each record, then press **SET** key to set it. If press **MODE** key instead of **SET** key, program is not changed.
- ※ If no key is touched for 30sec., the status will be retruned to RUN mode should put External key input within 30second otherwise the status will be returned to RUN mode.

2) Example of program modify

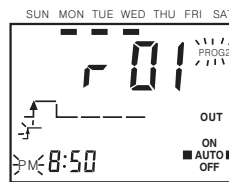
If you want to modify the operation of OUT2 which is ON for 10 second every AM 8:50 on Monday, Tuesday, Wednesday to the operation of OUT2 is ON for 3minute every PM 8:50 on Monday, Tuesday, Wednesday.

① ON day modify



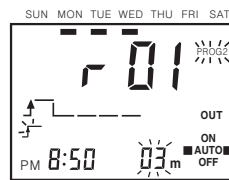
Press **SET** key because there is no change of day.
If there is modification of ON day, change to ON day setting.

② ON time modify



Change AM to PM by pressing **▼** key then **SET**.

③ PULSE time width modify



Set 3 minute with **▲** key then **SET**.

Day modify

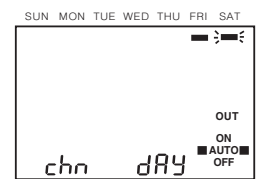
The program is set to turn on OUT1 at AM 8:30 and turn off at PM 6:00 from every Monday to Saturday. This Friday is special holiday. To change this Friday to Sunday (Holiday) program as follow:

① Day change operation



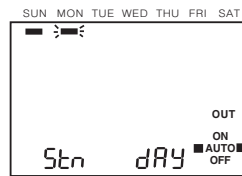
Able to enter the status of day change operation by pressing **CHECK** key for 3second continuously in RUN mode.

② Changing day selection



Move day cursor to Friday with **▶** key and select Friday with **▲** or **▼** key then **SET**.

③ Standard day selection



Select Sunday as standard day with **▲** or **▼** key then **SET** (Setting will be completed and return to RUN mode)

- Change of Weekday applies to next modified day.
- When output of special weekday complete, program of special weekday is cancelled automatically, then returns to prior program.
- If you set full week as holiday, it cannot select standard weekday, therefore it is impossible to change full week.

(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) Proximity sensor

(J) Photo electric sensor

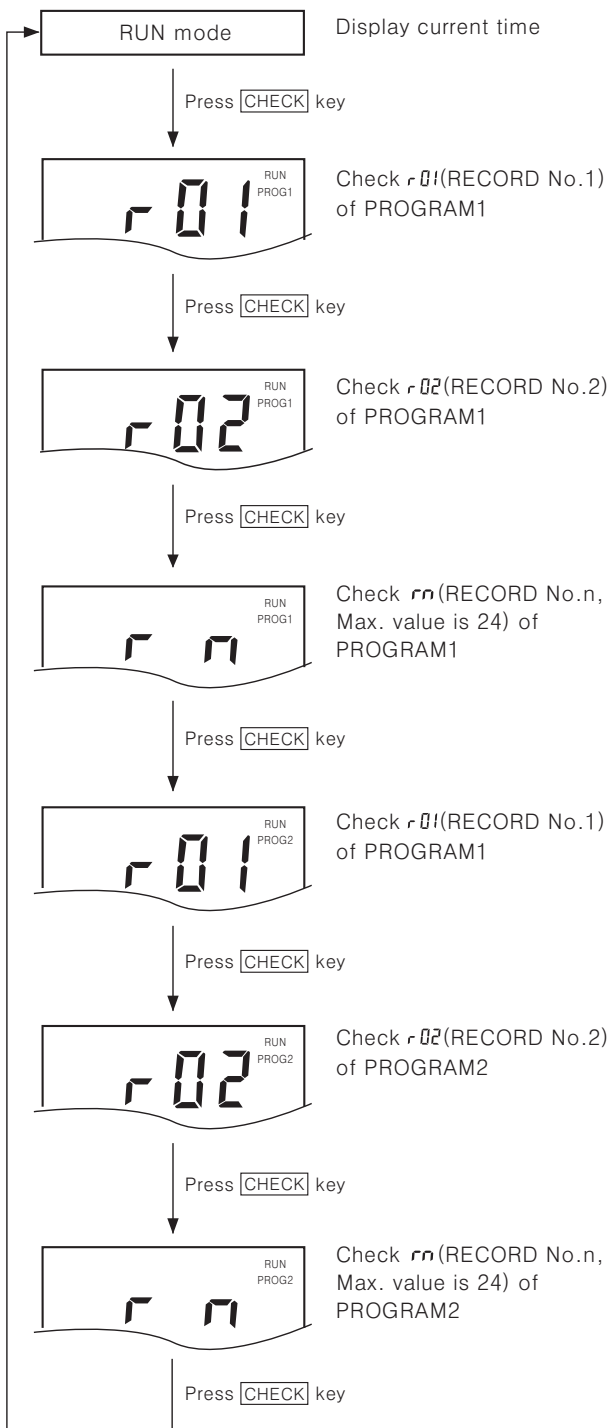
(K) Pressure sensor

(L) Rotary encoder

(M) 5-Phase stepping motor & Driver & Controller

■ Program check

: Press **CHECK** key to check program for PROG1 and PROG2.



※ On checking each RECORD, if you press **MODE** key, or do not touch any key for 30sec. It will return to RUN mode.

■ How to change memory retention mode

: Change "AUTO" of memory retention mode to "NORMAL" of non-memory retention mode as follow.

