

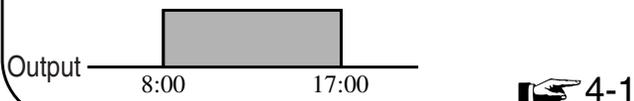
★ How would you like to use the Time Switch?

The H5S Time Switch offers **simple operation** to set various time controls.

You want the Time Switch to turn an output ON/OFF at a scheduled time.

- <Cases>
- You want to put a machine into operation between certain times.
 - You want to turn on a light between certain times.

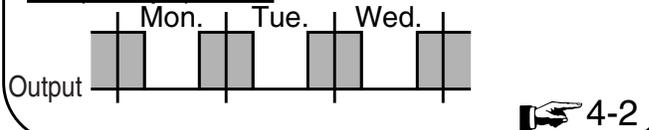
Timer operation is recommended.



You want the Time Switch to turn outputs ON/OFF over several days.

- <Cases>
- You want to put a machine into operation from 22:00 to 8:00 in the next morning.
 - You want to turn ON an output at 10:00 on Monday and turn it OFF at 17:00 on Friday.

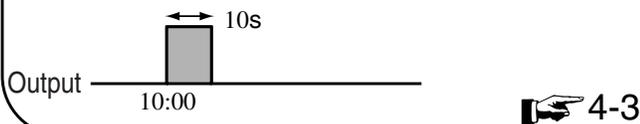
Multiple-day operation is recommended.



You need a pulse-output for a short time.

- <Cases>
- You need an ON pulse-output to activate a device for preheating.
 - You want to ring a chime or time signal.

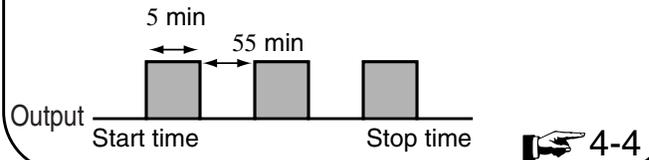
Pulse-output operation is recommended.



You want the Time Switch to turn outputs ON/OFF at the same intervals.

- <Case>
- You want to water plants for five minutes every hour from 9:00 to 17:00.

Cyclic operation is recommended.

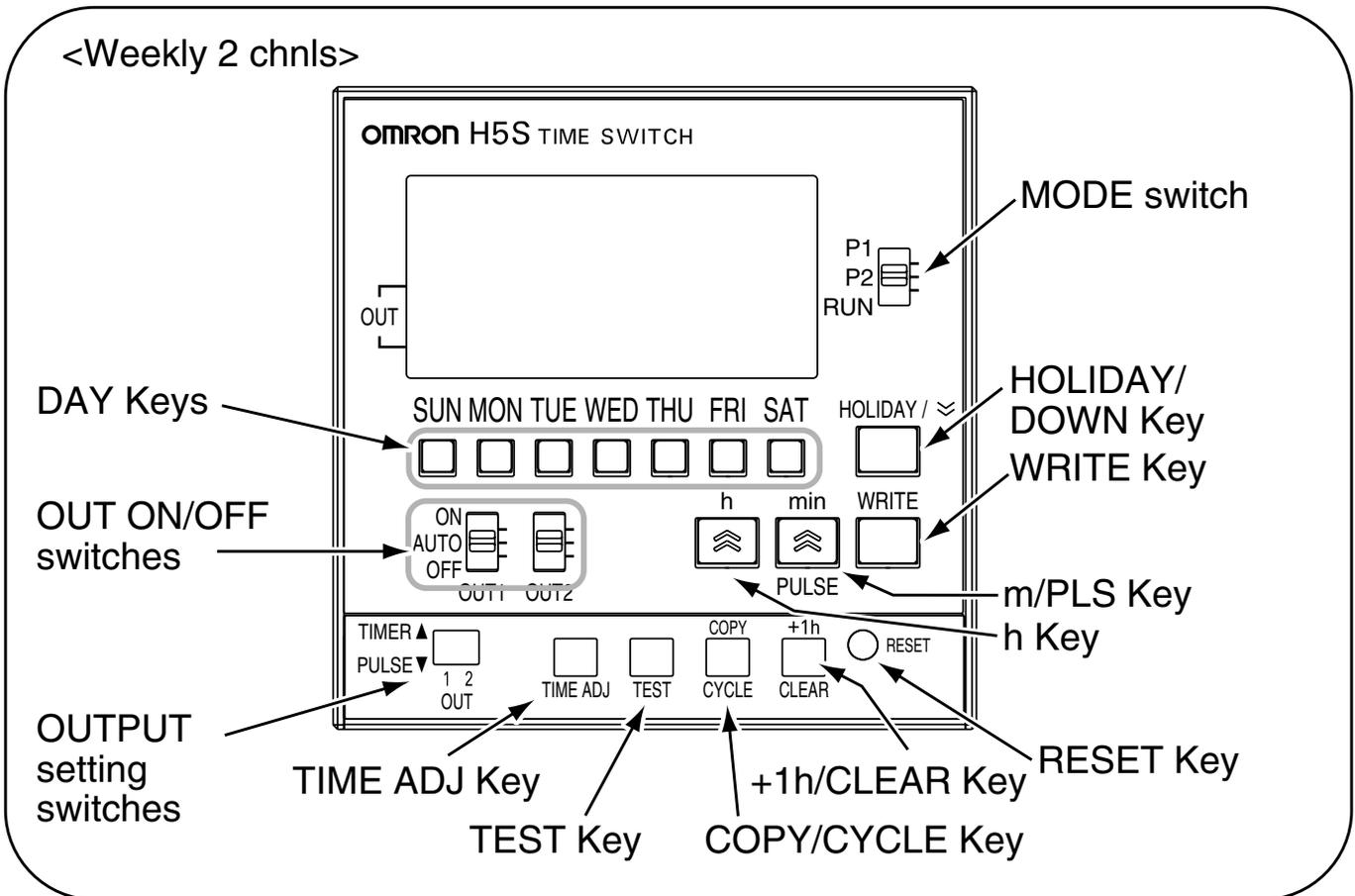


※ Refer to the main part to know the other functions or those details.

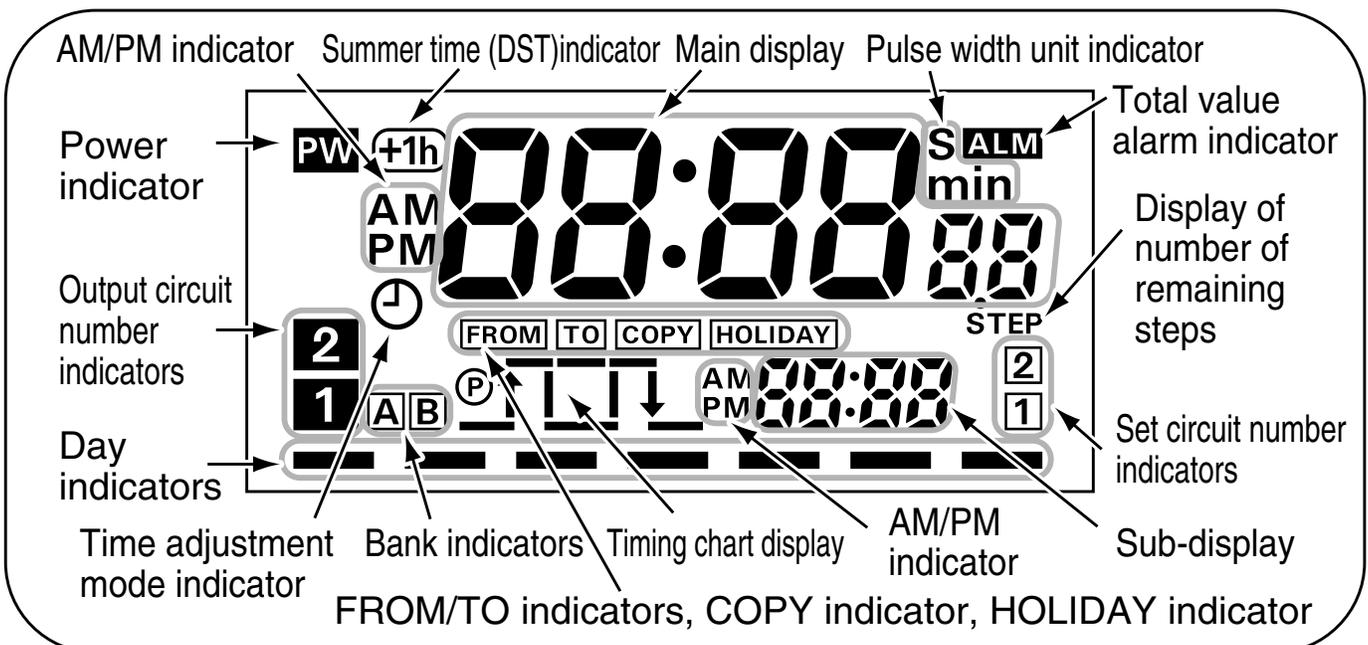
2. Nomenclature

Weekly
2 chnls

<Front panel>



<Display>

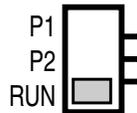


3. Time Adjustment

Weekly
2 chnls

【Example】 The current time (day/hour/minute) is set to Saturday 17:28.

- ① Set the Mode Switch to RUN.

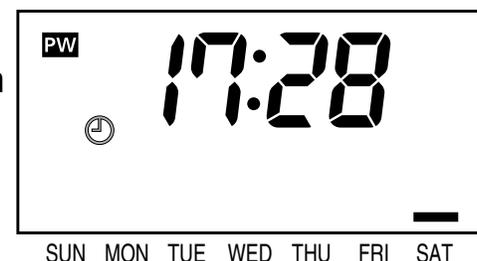


The  color indicates flashing.

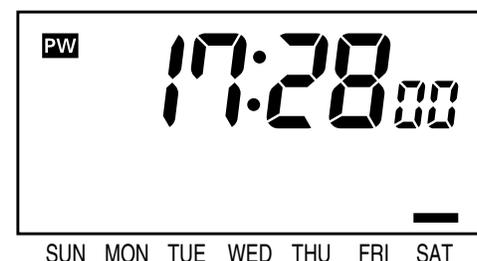
- ② Press **TIME ADJ** for 2 s or more.
The  symbol flashes.



- ③ Press **SAT**.
(The bar () mark at the Saturday position will turn ON.)
Set the time with **h** and **m** . ※1



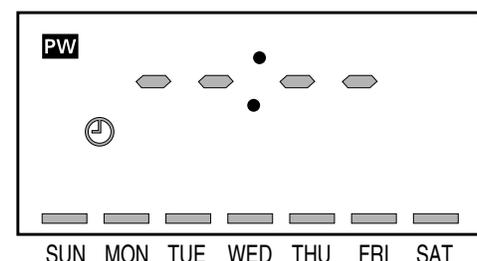
- ④ Press **WRITE** to confirm the setting, and the Time Switch will start timing from 0 second.



- ※1 Holding down these Keys rapidly advances the value.
Pressing  decrements the value of the Key that was last pressed.

《Note》

- On first power-up or after a reset ( Section 8), the time adjustment display appears on the screen. Adjust the time by following the steps ③ and ④.
- If **TIME ADJ** is pressed again before confirming the time adjustment setting, the setting is cancelled.



4. Basic Operations

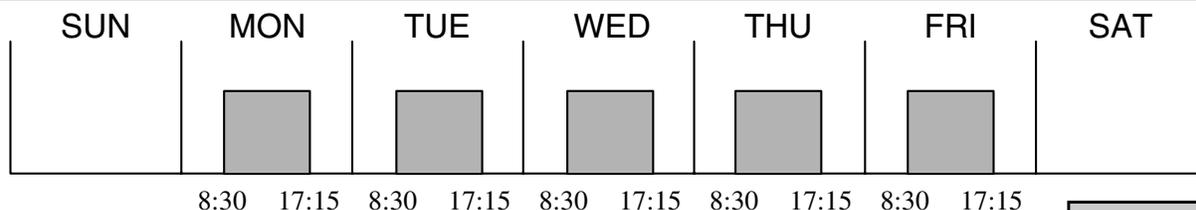
4-1. Ordinary Timer Operation

Weekly
2 chnls

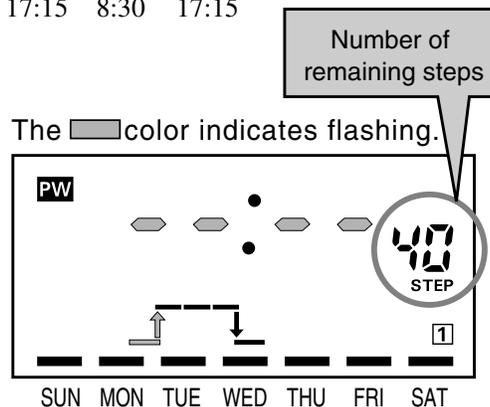
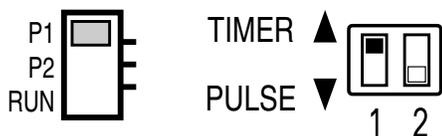
Yearly
2 chnls

Yearly
4 chnls

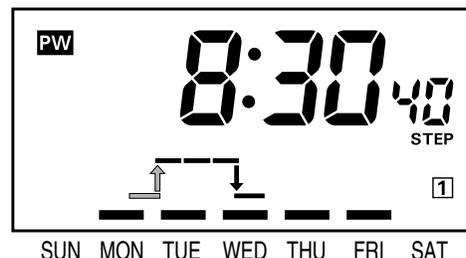
【Example】 The Time Switch turns ON circuit 1 or circuit 2 at 8:30 and turns it OFF at 17:15 from Monday through Friday.



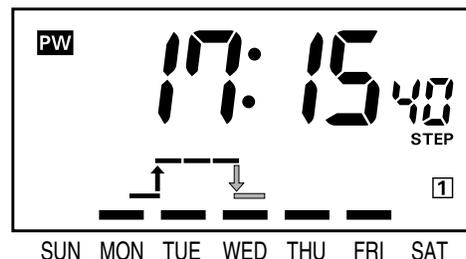
- ① Set the Mode Switch to P1 or P2. ※1
→See Section 4-5 for 4 channel type.



- ② Press the DAY Keys to turn on the bars (—) at the positions of Monday through Friday. Set the ON time with [h] and [m]. ※2



- ③ Press [WRITE]. Set the OFF time with [h] and [m]. ※2



- ④ Press [WRITE] to confirm the settings.

- ※1 If one or more programs have already been set, the display starts showing the set programs. To add another program, press [WRITE] repeatedly until "--:--" is displayed.
- ※2 Holding down these Keys rapidly advances the value. Pressing [] decrements the value of the Key that was last pressed.

«Note»

- If multiple settings are required, repeat the steps ② through ④.
- Both the ON and OFF times must be set.
- All the set weekly programs can be checked by pressing **WRITE** in program setting mode.
- When the Mode Switch is set to P1 or P2 (to PRGM for 4 channel type), the Time Switch stop automatic operation. To forcibly turn ON or OFF the output, use the OUT ON/OFF switches.
- The set data will be cleared if the OUTPUT setting switch is moved between the TIMER and PULSE positions after the data has been set.

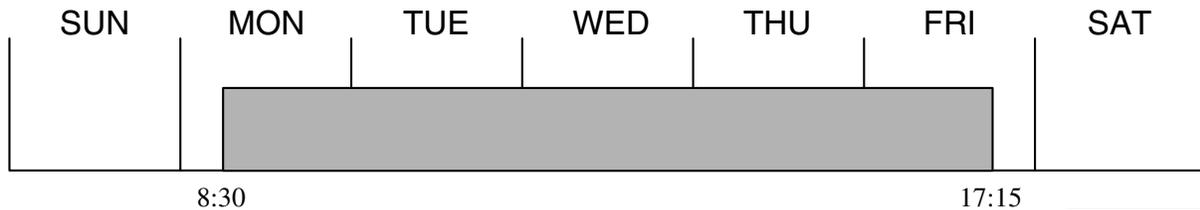
4-2. Multiple-day operation

Weekly
2 chnls

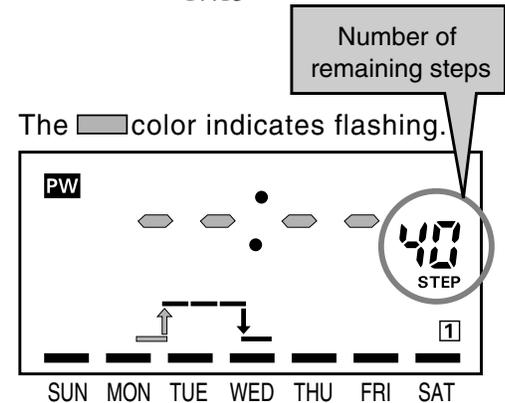
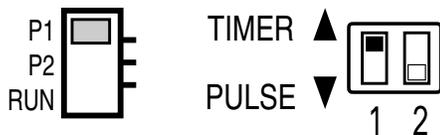
Yearly
2 chnls

Yearly
4 chnls

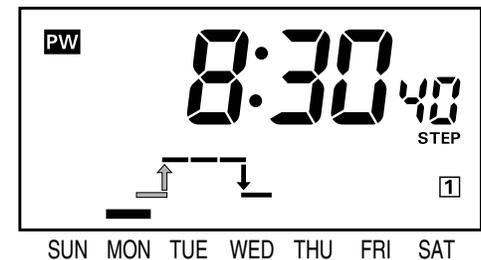
【Example1】 The Time Switch turns circuit 1 or circuit 2 ON continuously between 8:30 on Monday and 17:15 on Friday.



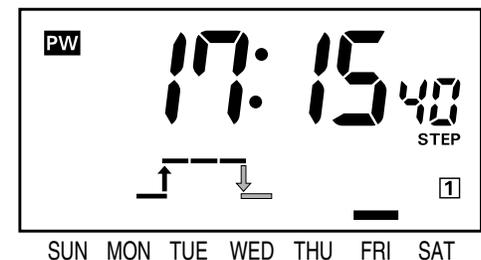
- ① Set the Mode Switch to P1 or P2. ※1
→See Section 4-5 for 4 channel type.



- ② Press **MON** to turn on the bar (—) at the Monday position.
Set the ON time with **h** and **m**. ※2



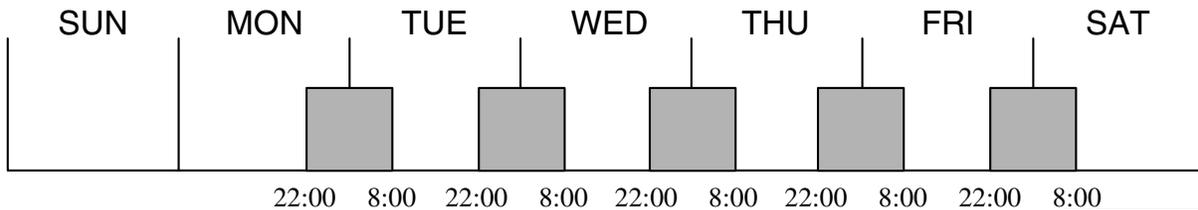
- ③ Press **WRITE**.
Press MON to turn off the bar (—) at the Monday position and press FRI to turn on the bar (—) at the Friday position.
Set the OFF time with **h** and **m**. ※2



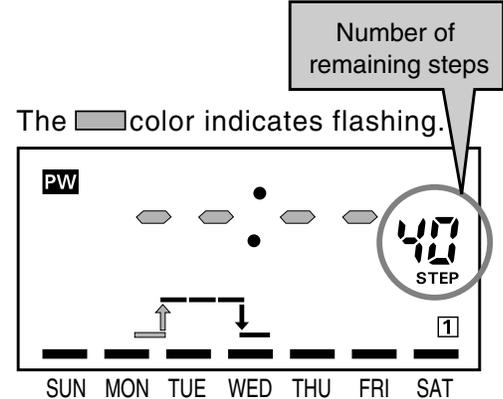
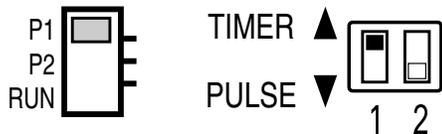
- ④ Press **WRITE** to confirm the settings.

- ※1 If one or more programs have already been set, the display starts showing the set programs. To add another program, press **WRITE** repeatedly until " - - : - - " is displayed.
- ※2 Holding down these Keys rapidly advances the value. Pressing **≡** decrements the value of the Key that was last pressed.

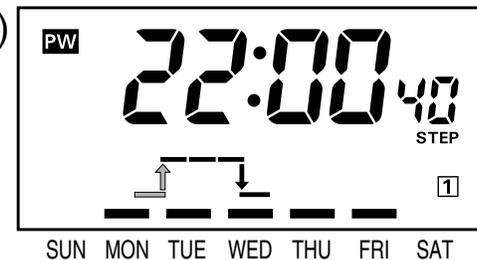
【Example 2】 The Time Switch turns ON circuit 1 or circuit 2 at 22:00 from Monday through Friday and turns it OFF at 8:00 each following morning.



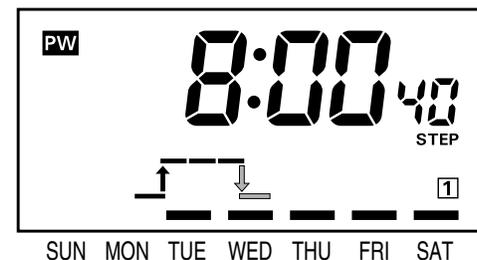
- ① Set the Mode Switch to P1 or P2. ※1
→ See Section 4-5 for 4 channel type.



- ② Press the DAY Keys to turn on the bars (—) at the positions of Monday through Friday. Set the ON time with [h] and [m]. ※2



- ③ Press [WRITE]. Press [MON] to turn off the bar (—) at the Monday position and press [SAT] to turn on the bar (—) at the Saturday position. Set the OFF time with [h] and [m]. ※2



- ④ Press [WRITE] to confirm the settings.

- ※1 If one or more programs have already been set, the display starts showing the set programs. To add another program, press [WRITE] repeatedly until "--:--" is displayed.
- ※2 Holding down these Keys rapidly advances the value. Pressing [≡] decrements the value of the Key that was last pressed.

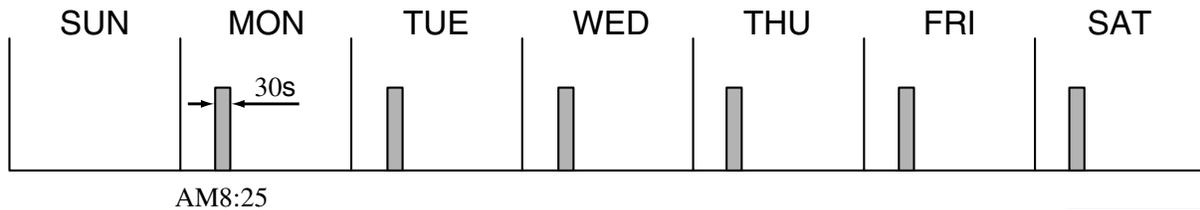
4-3. Pulse-output Operation

Weekly
2 chnls

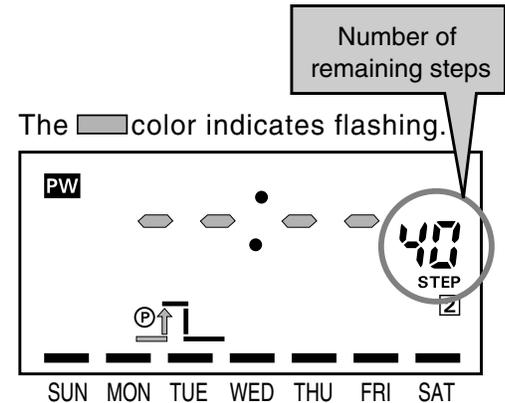
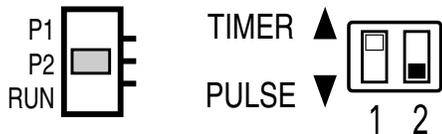
Yearly
2 chnls

Yearly
4 chnls

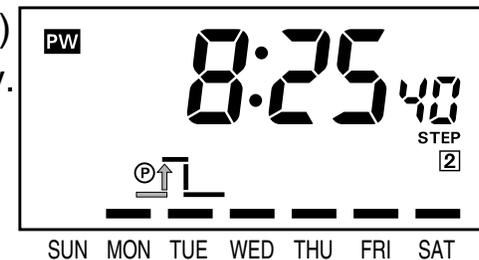
【Example】 The Time Switch turns ON circuit 1 or circuit 2 for 30 seconds at 8:25 am from Monday through Saturday.



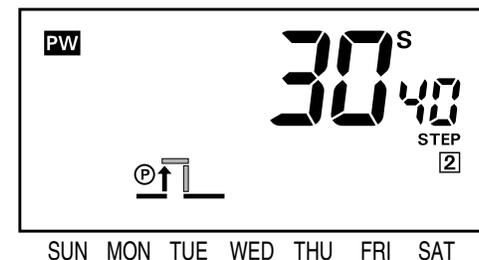
- ① Set the Mode Switch to P1 or P2. ※1
→See Section 4-5 for 4 channel type.



- ② Press the DAY Keys to turn on the bars (—) at the positions of Monday through Saturday. Set the ON time with **[h]** and **[m]**. ※2



- ③ Press **[WRITE]**.
Set the pulse width with **[PLS]**. ※2
The displayed pulse width changes by pressing this Key in the following order.
1s→2s→...→59s→1m→...59m→60m→1s



- ④ Press **[WRITE]** to confirm the settings.

- ※1 If one or more programs have already been set, the display starts showing the set programs. To add another program, press **[WRITE]** repeatedly until " - - : - - " is displayed.
- ※2 Holding down these Keys rapidly advances the value. Pressing **[▽]** decrements the value of the Key that was last pressed.

«Note»

- If multiple settings are required, repeat the steps ② through ④.
- Both the ON time and pulse width must be set.
- All the set weekly programs can be checked by pressing **WRITE** in program setting mode.
- When the Mode Switch is set to P1 or P2 (to PRGM for 4 channel type), the Time Switch stops automatic operation. To forcibly turn ON or OFF the output, use the OUT ON/OFF switches.
- The set data will be cleared if the OUTPUT setting switch is moved between the TIMER and PULSE positions after the data has been set.

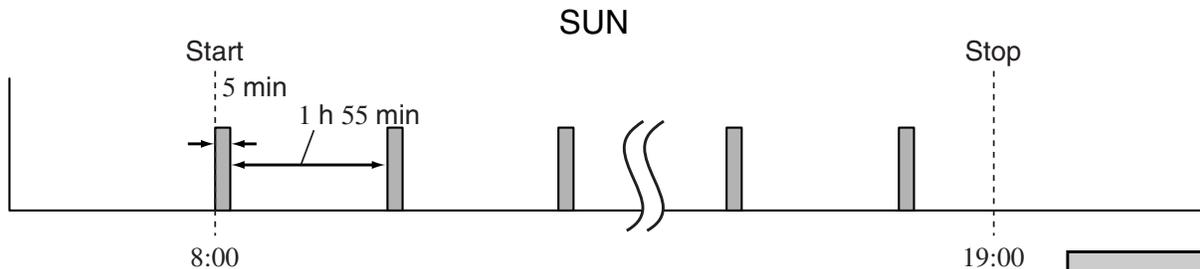
4-4. Cyclic Operation

Weekly
2 chnls

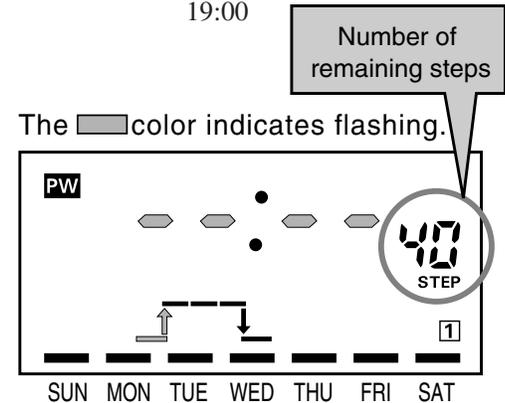
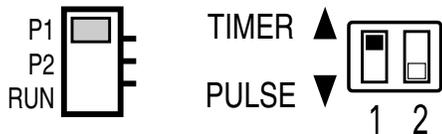
Yearly
2 chnls

Yearly
4 chnls

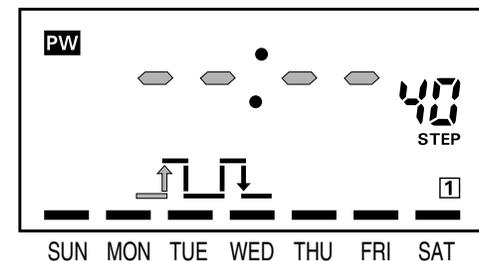
[Example] The Time Switch turns circuit 1 or circuit 2 ON for 5 minutes and OFF for 1 hour 55 minutes repeatedly from 8:00 to 19:00 on Sunday.



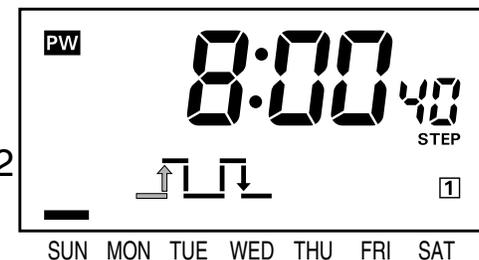
- ① Set the Mode Switch to P1 or P2. ※1
→See Section 4-5 for 4 channel type.



- ② Press **CYCLE**.
(The display moves to cyclic program setting mode.)



- ③ Press **SUN** to turn on the bar (—) at the Sunday position.
Set the start time to 8:00 with **h** and **m**. ※2



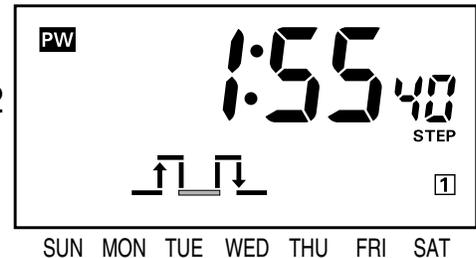
- ④ Press **WRITE**.
Set the stop time to 19:00 with **h** and **m**. ※2



- ⑤ Press **WRITE** .
Set the ON time period with **h** and **m**. ※2



- ⑥ Press **WRITE** .
Set the OFF time period with **h** and **m**. ※2



- ⑦ Press **WRITE** to confirm the settings.

- ※1 If one or more programs have already been set, the display starts showing the set programs. To add another program, press **WRITE** repeatedly until "--:--" is displayed.
- ※2 Holding down these Keys rapidly advances the value. Pressing **≡** decrements the value of the Key that was last pressed.

《《Note》》

- If multiple settings are required, repeat the steps ② through ⑦.
- All the start/stop times, ON/OFF time periods must be set.
- All the set weekly programs can be checked by pressing **WRITE** in program setting mode.
- When the Mode Switch is set to P1 or P2 (to PRGM for 4 channel type), the Time Switch stops automatic operation. To forcibly turn ON or OFF the output, use the OUT ON/OFF switches.
- Set Cyclic operation so as not to overlap other operations in individual circuits.
- The set data will be cleared if the OUTPUT setting switch is moved between the TIMER and PULSE positions after the data has been set.

4-9. Clearing the Settings

Weekly
2 chnls

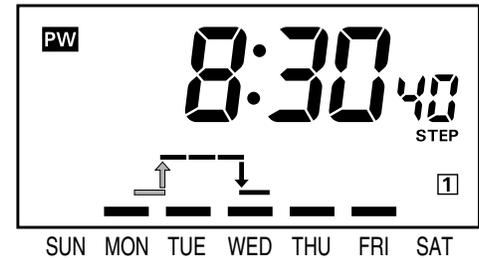
Yearly
2 chnls

Yearly
4 chnls

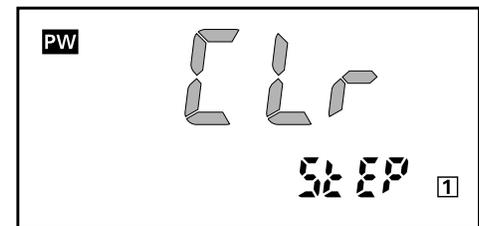
【Example 1】 Clearing a part of the settings.

- ① Set the Mode Switch to P1 or P2 and select a setting to be cleared.
See Section 4-5 for 4 channel type.

The  color indicates flashing.



- ② Give a short press on **CLEAR** .
("CLR" appears on the main display and "STEP" on the sub-display.)
※ If **CLEAR** is held down for 3 s or more, the display moves to the mode for clearing all the settings of the circuit.
- ③ Press **WRITE** to clear the setting.



《Note》

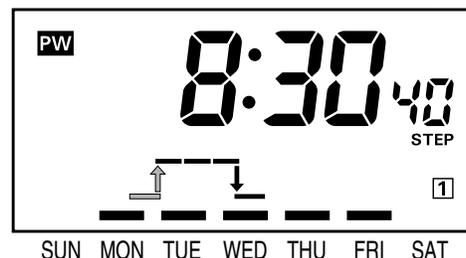
- If **CLEAR** is pressed while "CLR" is flashing, clearing operation is cancelled.
- Each operation clears the following combination of settings.

Timer operation (weekly)	Both the ON/OFF times
Pulse-output operation (weekly)	Both the ON time and pulse width
Cyclic operation (weekly)	Both the start/stop times and ON/OFF time periods
Timer operation (yearly)	Both the start/end dates and ON/OFF times
Pulse-output operation (yearly)	Both the start/end dates, ON time and pulse width
Holiday operation (weekly)	All the holiday settings
Holiday operation (yearly)	Both the start/end dates
Day override operation (weekly)	All the day override operation settings

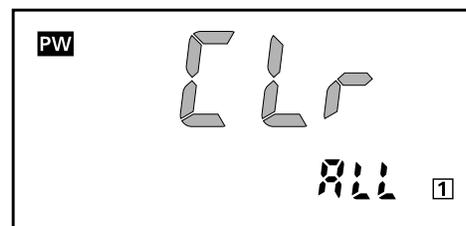
【Example 2】 Clearing **all the settings** of each circuit.

- ① Set the Mode Switch to the position of the circuit whose settings are to be cleared.
See Section 4-5 for 4 channel type.

The  color indicates flashing.



- ② Hold down **CLEAR** for 3 s or more.
("CLR" appears on the main display and "ALL" on the sub-display.)



- ③ Press **WRITE** to clear all the settings of the circuit.

《Note》

- If **CLEAR** is pressed while "CLR" is flashing, clearing operation is cancelled.
- The current time, set data of initial setting mode, holiday settings, or day override settings cannot be cleared in the same manner.
- Yearly programs are also cleared with the yearly types.

5-2. Program Check Function

Weekly
2 chnls

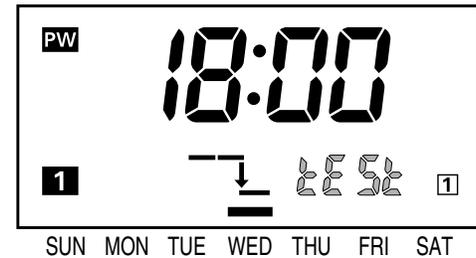
Yearly
2 chnls

Yearly
4 chnls

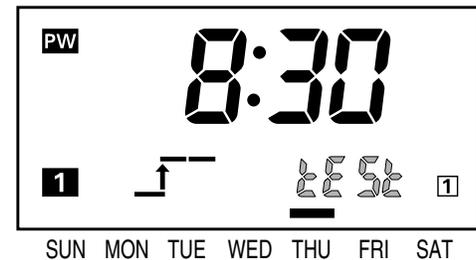
The set days and times when output turns ON and OFF over the course of one week can be displayed in the sequence the Time Switch is to operate.

- ① Press **TEST** for 2 s or more in run mode. (“**TEST**” flashes and the day and time of the next change in output state is displayed.)

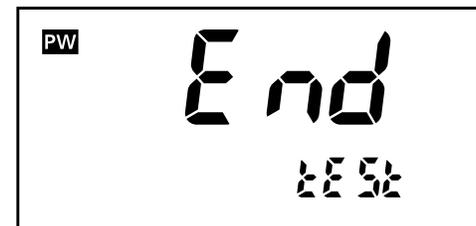
The color indicates flashing.



- ② Press **WRITE**.
The display shows the time of the next change in output state.
Each time **WRITE** is pressed, the display shows the days and times for one week.



- ③ If **WRITE** is pressed while displaying the last setting for the week, “**End**” is displayed for 2 s and the Time Switch automatically returns to run mode.



《Note》

- Output is not turned ON or OFF according to displays in program check mode but according to settings and the current time.
- Program check mode can be entered from run mode only.
- Holiday settings (➡ Section 5-1), day override operation settings (➡ Section 5-4: weekly type only), and yearly settings (➡ Section 4-6: yearly types only) are also displayed.
- Settings for one week from the current day on can be checked with this function.
- After one-week schedule set for the circuit 1 is displayed, the display starts to show one-week schedule set for the circuit 2.
- If no Key input is entered within 30 s or if **TEST** is pressed again for 2 s or more, the display automatically returns to run mode.

5-3. Checking the Settings

Weekly
2 chnls

Yearly
2 chnls

Yearly
4 chnls

The set times for one day can be checked.

- ① Press one of the DAY keys for 2 s or more in run mode to check settings for the day. (“CHEE” flashes and the time of the next On time is displayed.)

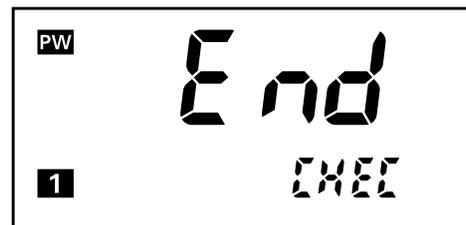
The color indicates flashing.



- ② Press **WRITE**.
The display shows the time of the next change in output state.



- ③ If **WRITE** is pressed with the last setting of the day displayed, “End” is displayed for 2 s before the Time Switch automatically returns to run mode.



«Note»

- This mode can be entered from run mode only.
- Output is not turned ON or OFF according to displays but according to settings and the current time.
- Holiday settings (➡ Section 5-1), day override operation settings (➡ Section 5-4: weekly type only), and yearly settings (➡ Section 4-6: yearly types only) are also displayed.
- If no Key input is entered within 30 s or if one of the DAY keys is pressed again for 2 s or more, the display automatically returns to run mode.

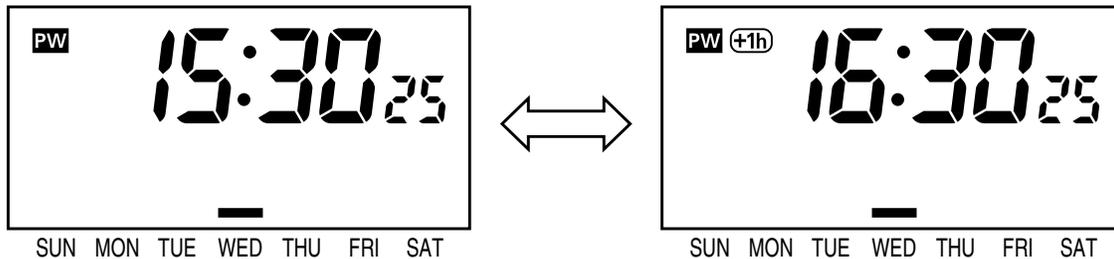
5-5. Summer Time (DST) Adjustment (Manual)

Weekly
2 chnls

Yearly
2 chnls

Yearly
4 chnls

Each time **+1h** is pressed for 2 s or more, the current time switches between the current time and the current time+1 hour.



«Note»

- The **+1h** indicator is turned on during summer time.
- Manual summer time adjustment is possible in run mode only.
- If summer time adjustment (☛ Section 6-6-6) is set to automatic for the yearly types, manual adjustment is disabled.
- The settings are not changed by summer time adjustment.

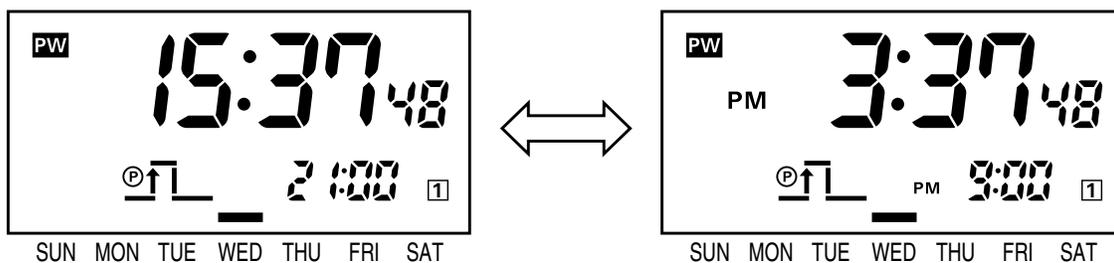
5-6. Switching between 12-hour and 24-hour display

Weekly
2 chnls

Yearly
2 chnls

Yearly
4 chnls

Each time **h** is pressed for 2 s or more, the current time switches between 12-hour (am/pm) and 24-hour display.



«Note»

- Switching is possible only in run mode.
- The factory setting is 24-hour display.

5-7. Display Switching Weekly 2 chnls

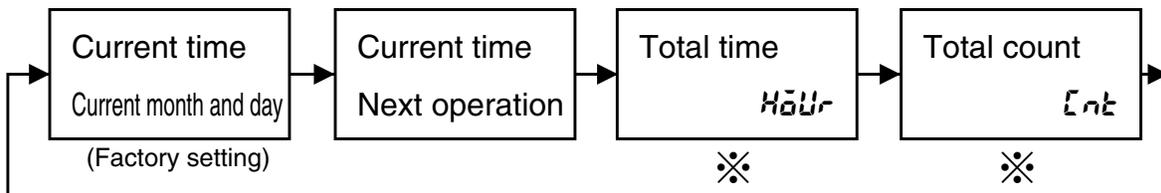
Each time **m** is pressed for 2 s or more, the displayed content switches as shown below.



※Displays only when the input selection is set to “**トータル**”. (Section 6-6-2)

5-7. Display Switching Yearly 2 chnls

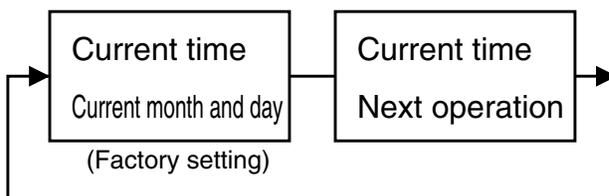
Each time **m** is pressed for 2 s or more, the displayed content switches as shown below.



※Displays only when the input selection is set to “**トータル**”. (Section 6-6-2)

5-7. Display Switching Yearly 4 chnls

Each time **m** is pressed for 2 s or more, the displayed content switches as shown below.



7. Operation while the Power Supply is OFF

Weekly
2 chnls

Yearly
2 chnls

Yearly
4 chnls

The display can be activated even when the power is OFF.
The current time can be displayed and settings can be made.

- While power is OFF, output as well as the output indicator and the power indicator are turned OFF.
- If no key input is entered within 2 min or more, the display is automatically turned off. To activate the display, press any Key for 1 s or more.
※ Except for slide switches and DIP switches.
- A next operation is not displayed during the power off.
- Override and automatic return operation is not available.



8. Resetting

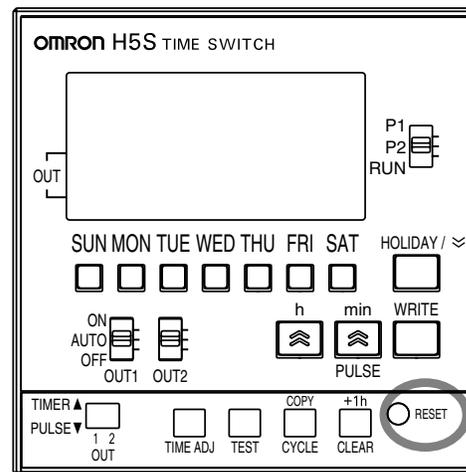
Weekly
2 chnls

Yearly
2 chnls

Yearly
4 chnls

All the set data including the current time can be reset (initialized).

- Resetting is possible in any mode from run mode to setting mode.



<Diagram with the front cover open>

11. Troubleshooting

Weekly
2 chnls

Yearly
2 chnls

Yearly
4 chnls

◆ Self-check function

When an error occurs, the following error codes are displayed.

Error code	Meaning	Output	Countermeasures
E1	CPU error	OFF	Press RESET .
E2	Memory error	OFF	Press RESET .

◆ Troubleshooting

If there is a problem with the Time Switch, check the following items.

Problems	Check items	Section
The Time Switch does not operate when the power is turned ON.	Is the power actually ON? Check that the PW indicator is turned on.	<Operation>2
The Time Switch does not operate according to the settings.	Is the Time Switch wired correctly? Check the wiring.	<Installation>2,3
	Is the OUT ON/OFF switch set to AUTO?	<Operation>2
	Is the Time Switch set correctly?	<Operation>4
	Isn't the Time Switch set for holiday operation?	<Operation>5-1
	Isn't the Time Switch set for override and automatic return operation?	<Operation>5-8
	Isn't the Time Switch set for day override operation? (Weekly type only)	<Operation>5-4
	Isn't the Time Switch set for yearly operation? (Yearly types only)	<Operation>4-6
Output does not turned ON when the OUT ON/OFF switch is set to ON.	Are banks (weekly type only) or seasons (yearly types only) set correctly?	<Operation>6-4 <Operation>6-5
	Is the power actually ON? Check that the PW indicator is turned on.	<Operation>2
The time is fast or slow.	The time accuracy is influenced by the ambient temperature. Correct the present time in time adjustment mode.	<Operation>9 <Operation>3
	Is the Time Switch installed in a location subject to excessive noise? Timing performance may be adversely affected if the Time Switch is installed in a location subject to excessive noise. Separate the Time Switch from any sources of noise.	—
The display does not appear.	If no Key input is entered within 2 minutes with the power OFF, the display is turned off.	<Operation>7
The display is incorrect.	The Time Switch may be affected by noise or surge. Separate the Time Switch from any sources of noise.	—
There is a black spot on the LCD display's surface.	Black spot may appear due to static electricity. The spot disappears after a while.	—