



DTS-102
Digital weekly time switch

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1. Description

DTS-102 digital time switches are used for realization of time functions in the control and automation systems. It operates according to the set time schedule planned by the user.

There is an internal battery which can protect real time clock and all the settings when the electric power supply is off.

2.Features

- Digital time switch with weekly program.
- 10 years power reserve(lithium battery).
- 100 programs.
- Sealable cover of the front panel, easy setting by 4 keys.
- Automatic summer/winter time changeover.
- LCD display with backlight.
- Holiday mode.
- Double channels.
- Manual control by keys combination.
- Automatic transfer of weekdays.
- 24-264V AC/DC input supply.
- Double-module, mounted on TH-35 rail.

3.Safety instruction



WARNING

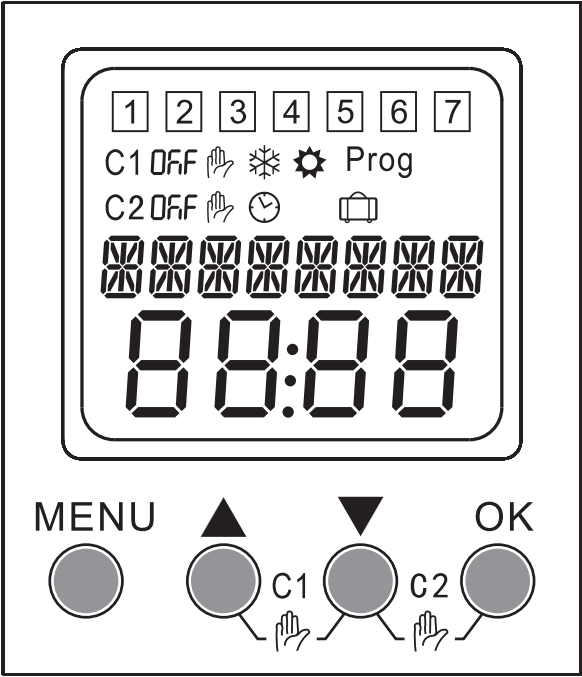
- Please disconnect the power supply before installation.**
- Connect the supply voltage as stated on the product.**

- 3.1.The device should be installed, operated and maintained by qualified personnel.
3. 2.Don't dismantle or repair the device whether it operates normally, otherwise no responsibility is assumed by manufacturer or seller.
3. 3.Please refer to wiring diagram when connecting.
3. 4.Never use the product at the site which can be invaded by corrode gas, strong sunshine light or rain.

4. Technical data

Model	DTS-102
Supply terminals	A1-A2
Rated voltage	AC/DC 24-264V
Rated frequency	50/60Hz
Power consumption	2W
Number of programs	100
Program	weekly program, daily program
Mode of work	manual, automatic, holiday
Summer/winter time	off, automatic changes
Time tolerance	$\leq 1\text{s/day}$ at 25°C
Power reserve	10 years
Data readout	LCD display with backlight
Number of contacts	2 C/O
Current of contacts	16A/250V AC1
Switching capacity	4000VA/AC1, 384W/DC
Mechanical life	10^6
Electrical life	10^5
Rated insulation voltage	250V
Protection degree	IP20
Pollution degree	3
Altitude	$\leq 2000\text{m}$
Ambient temperature	-20°C~55°C
Permissible relative humidity	$\leq 50\%$ (40°C, without condensation)
Storage temperature	-30°C~70°C
Wire size	1mm ² ~ 4mm ²
Tightening torque	0.5Nm
Mounting	TH-35 Rail(EN60715)
Standard	EN 60730-1/EN 60730-2-7

5.Display and keys



1 2 3 4 5 6 7 Days of the week, Monday, Tuesday,.....Sunday

C1 Channel 1

C2 Channel 2

On OFF Relay status: On Activate
OFF Deactivate

⌚ Automatic mode

👉 Manual mode

📅 Holiday mode

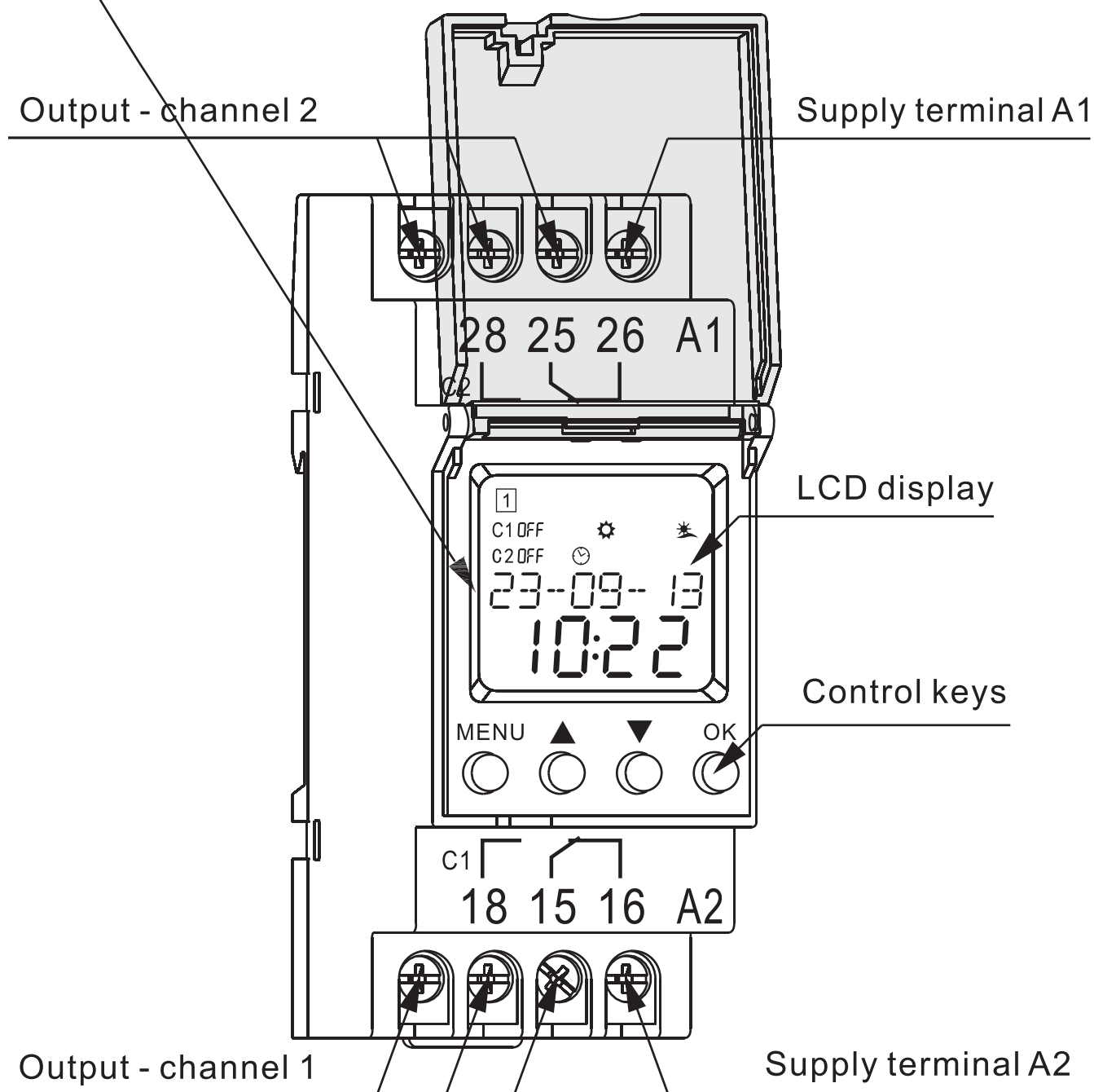
❄ Winter time

☀ Summer time

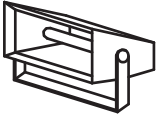
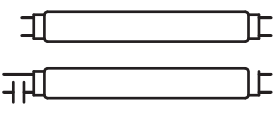
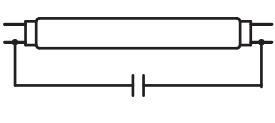
Prog Program setting

MENU Enter main menu Back to main menu	OK Confirm selection
Select menu Increase a numerical value	Select menu Decrease a numerical value
C1 manual operation	C2 manual operation

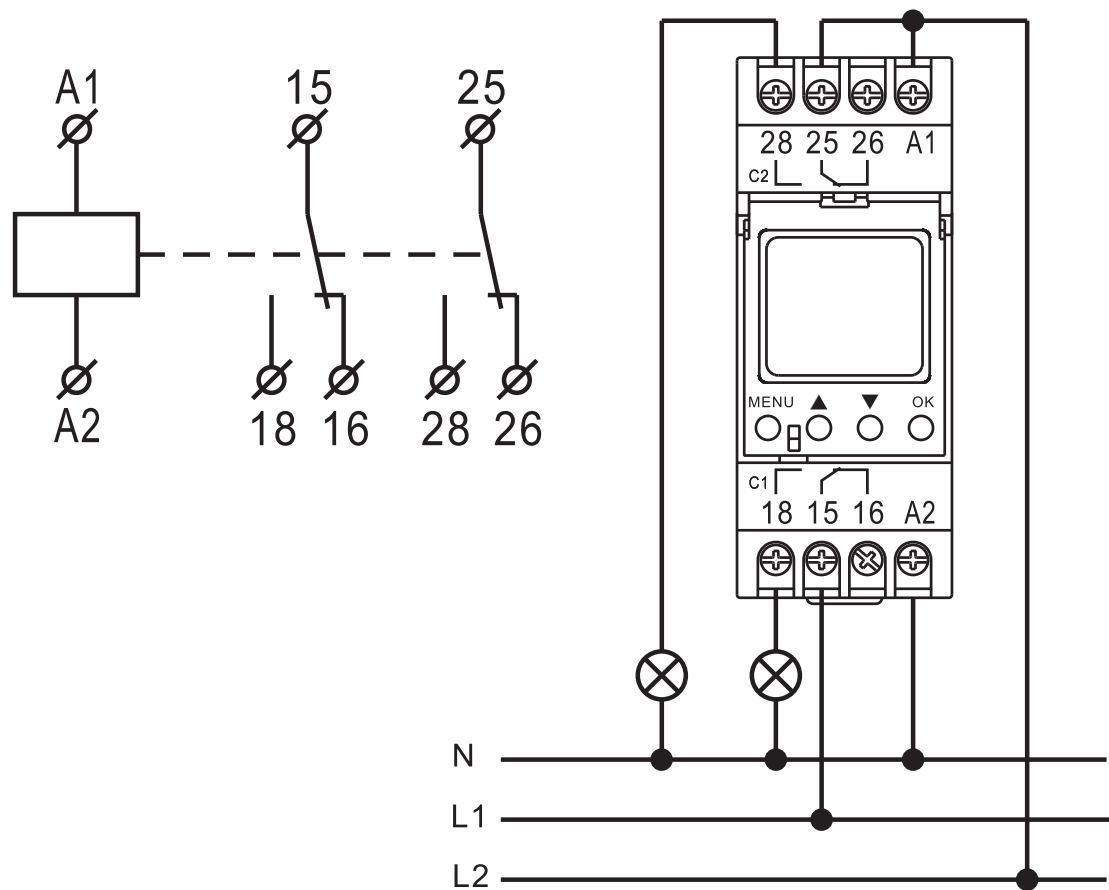
23-09-13 : DD-MM-YY, 23th.September.2013



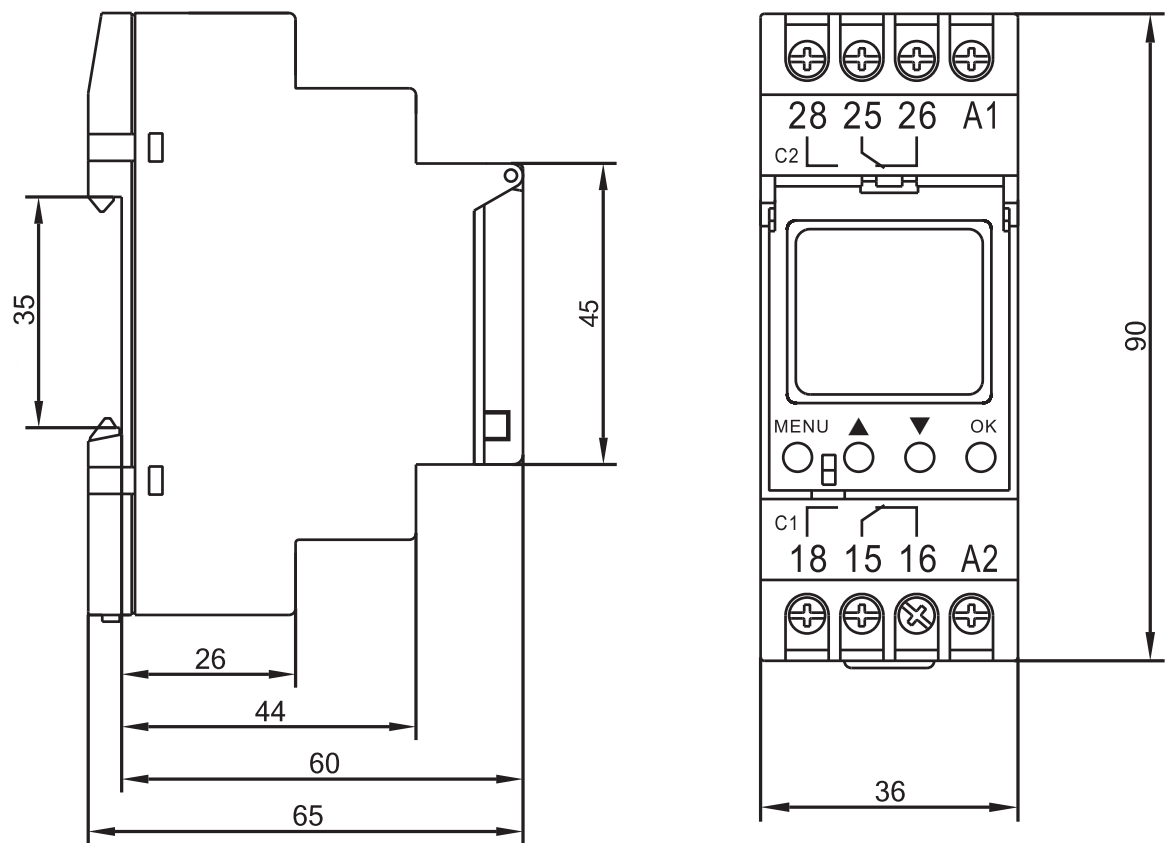
6.Maximum pilotable power

				
2300W	2300W	1000W	500W	500W

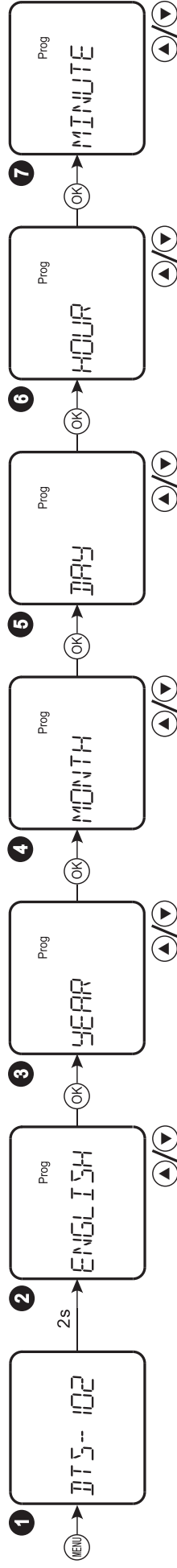
7. Wiring diagram



8. Dimensions



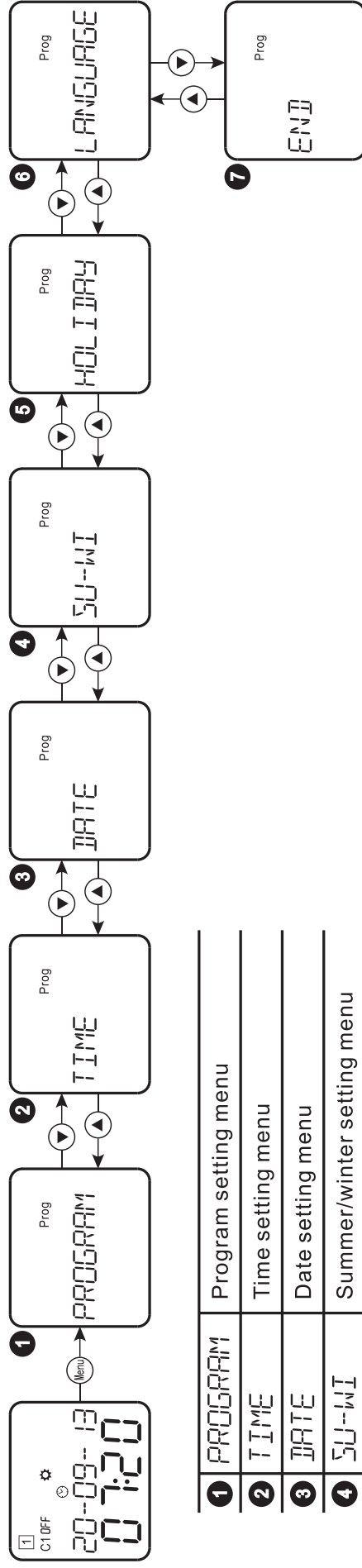
9. Initial operation



- 1 Press "MENU" key, the screen will display the mode for 2 seconds.
- 2 Select the desired language with "▲▼" keys and press "OK" key.
- 3 Select adequate year with "▲▼" keys and press "OK" key.
- 4 Select adequate month with "▲▼" keys and press "OK" key.
- 5 Select adequate day with "▲▼" keys and press "OK" key.
- 6 Select adequate hour with "▲▼" keys and press "OK" key.
- 7 Select the minute with "▲▼" keys and press "OK" key.

Note: If the settings were not ended and not operated by keys for 2 minutes, device will return to **ENGLISH** menu. and backlight is switched off. Pressing any keys can switch on display and backlight.

10. Main menu

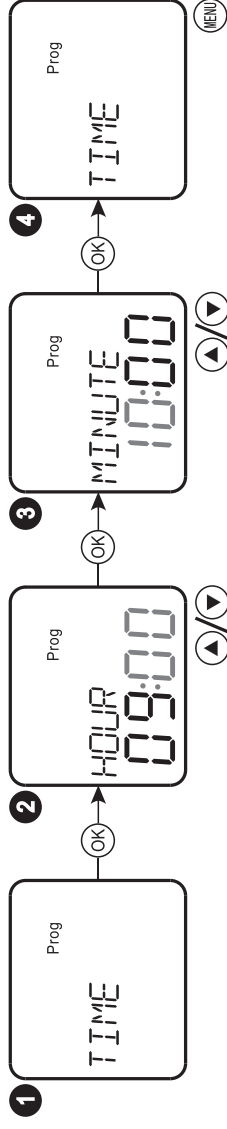


1	PROGRAM	Program setting menu
2	TIME	Time setting menu
3	DATE	Date setting menu
4	SU-WI	Summer/winter setting menu
5	HOLIDAY	Holiday mode setting menu
6	LANGUAGE	Language setting menu
7	END	End settings and exit from menu

- Press "MENU" key to enter menus setting, and symbol **Prog** appears.
- If not operated for 1 minute, the device will automatically exit from setting.
- Select the desired menu by pressing "▲▼" keys

11. Program setting

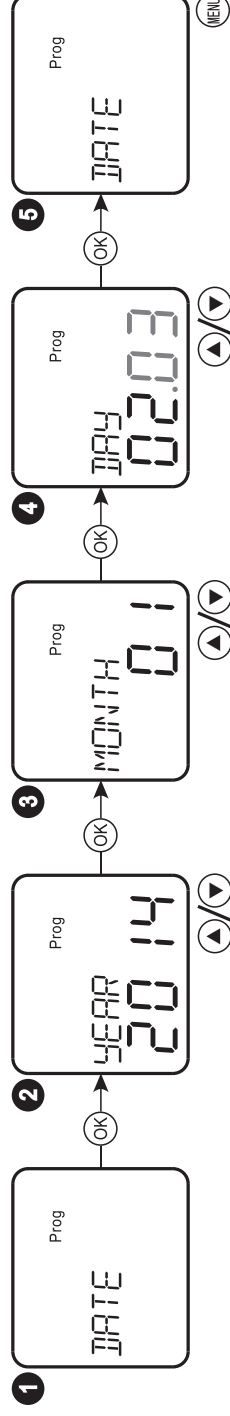
● Time setting



- 1 Select **TIME** and press "OK" key.
- 2 Select adequate hour with "▲▼" keys and press "OK" key. adjusting range is 0~23.
- 3 Select adequate minute with "▲▼" keys and press "OK" key. adjusting range is 0~59.
- 4 Exit from the setting by pressing "MENU" key.

Long press ▲ 0.5s, increase the numerical value quickly
 Long press ▼ 0.5s, decrease the numerical value quickly

● Date setting

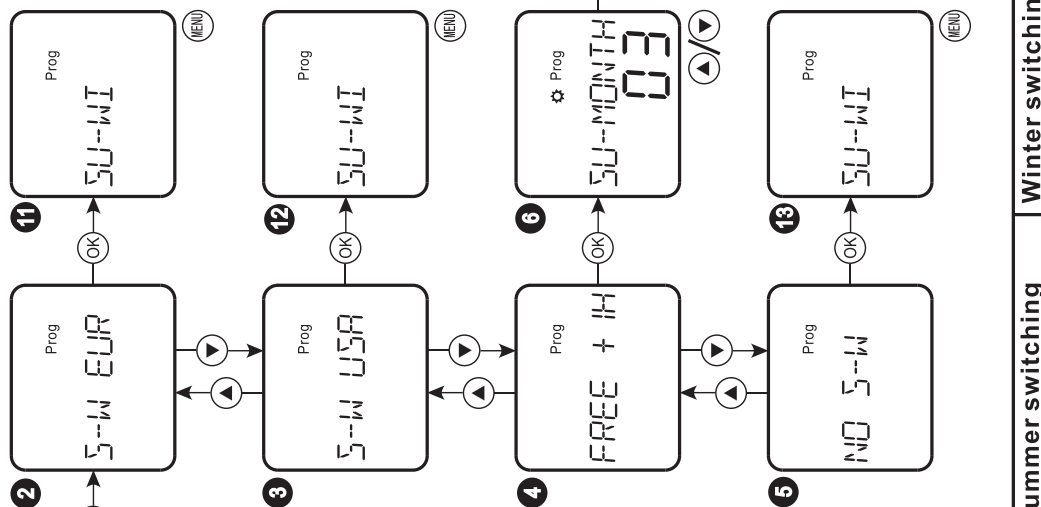


- 1 Select **DATE** and press "OK" key.
- 2 Select adequate year with "▲▼" keys and press "OK" key. adjusting range is 2000~2095.
- 3 Select adequate month with "▲▼" keys and press "OK" key.
- 4 Select adequate day with "▲▼" keys and press "OK" key.
- 5 Exit from the setting by pressing "MENU" key.

Long press ▲ 0.5s, increase the numerical value quickly
 Long press ▼ 0.5s, decrease the numerical value quickly

● Summer/winter time setting

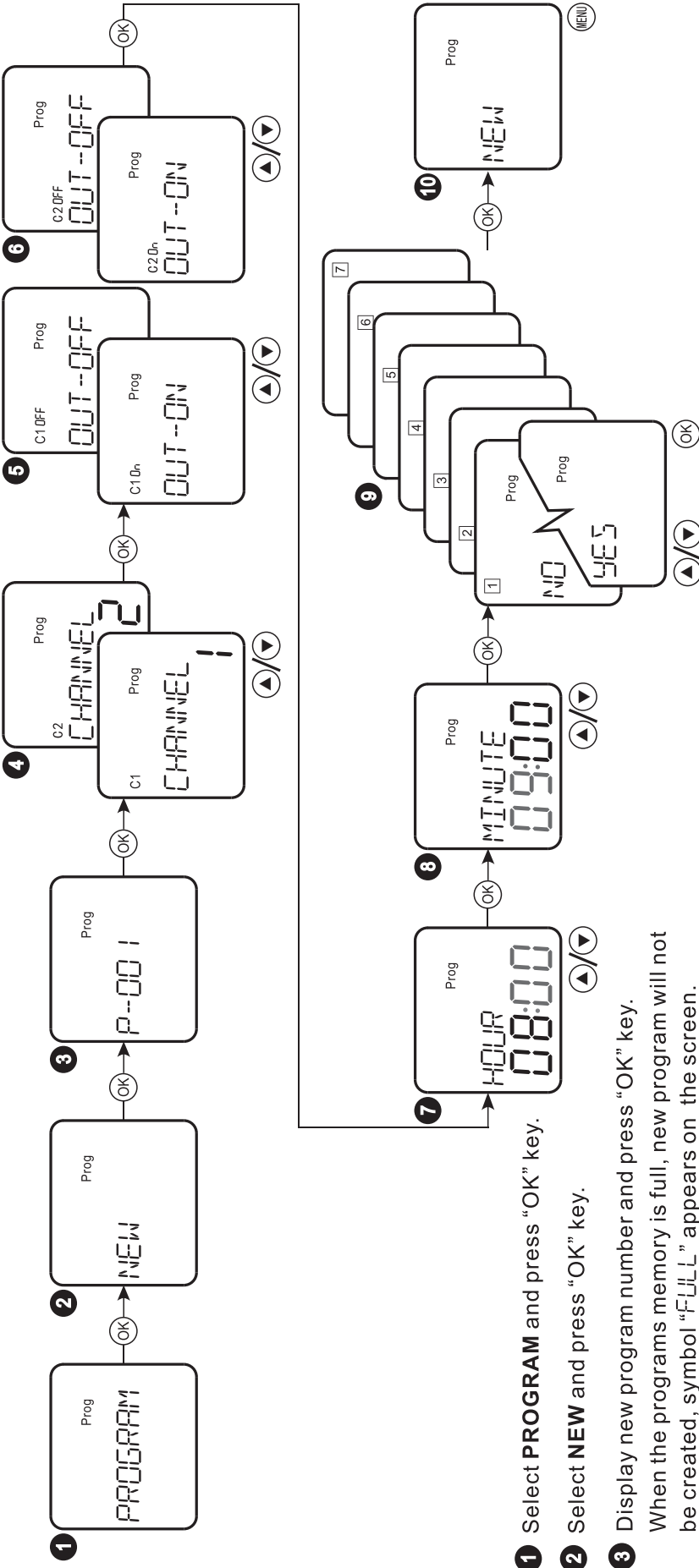
- 1 Select **SU--WI** and press "OK" key.
- 2 3 4 5 Select the required summer/winter mode with "▲▼" keys and press "OK" key.
- 6 Set the start month of summer time and press "OK" key.
- 7 Set the start day of summer time and press "OK" key.
- 8 Set the start month of winter time and press "OK" key.
- 9 Set the start day of winter time and press "OK" key.
- 10 11 12 13 Exit from the setting by pressing "MENU" key.



Long press ▲ 0.5s, increase the numerical value quickly
 Long press ▼ 0.5s, decrease the numerical value quickly

Display	Function	Summer switching	Winter switching
SU--W EUR	Europe sum/win	Last Sunday in March	Last Sunday in October
SU--W USA	U.S.A sum/win	Second Sunday in March	First Sunday in November
FREE + IH	Free sum/win	Freely programmed	Freely programmed
NO S--W	No sum/win	None	None

- Creating a new program



- ➊ Select **PROGRAM** and press “OK” key.
- ➋ Select **NEW** and press “OK” key.
- ➌ Display new program number and press **ENTER**.
When the programs memory is full, new programs will be created, symbol “FULL” appears on the display.
- ➍ Select **CHANNEL 1** or **CHANNEL 2** with **CH** key.
- ➎ Display the output state of channel 1. S.
- ➏ Display the output state of channel 2. S.
- ➐ Set the hour with “▲▼” keys and press “ENTER”.
- ➑ Set the minute with “▲▼” keys and press “ENTER”.
- ➒ Set the program activity on a week day (MON-FRI) is selected, program operation is started.
- ➓ Exit from the setting by pressing “ENU” key.

7 Set the hour with “▲▼” keys and press “OK” key.

8 Set the minute with “▲▼” keys and press “OK” key.

9 Set the program activity on a week day(from Monday to Sunday) with “▲▼” keys.

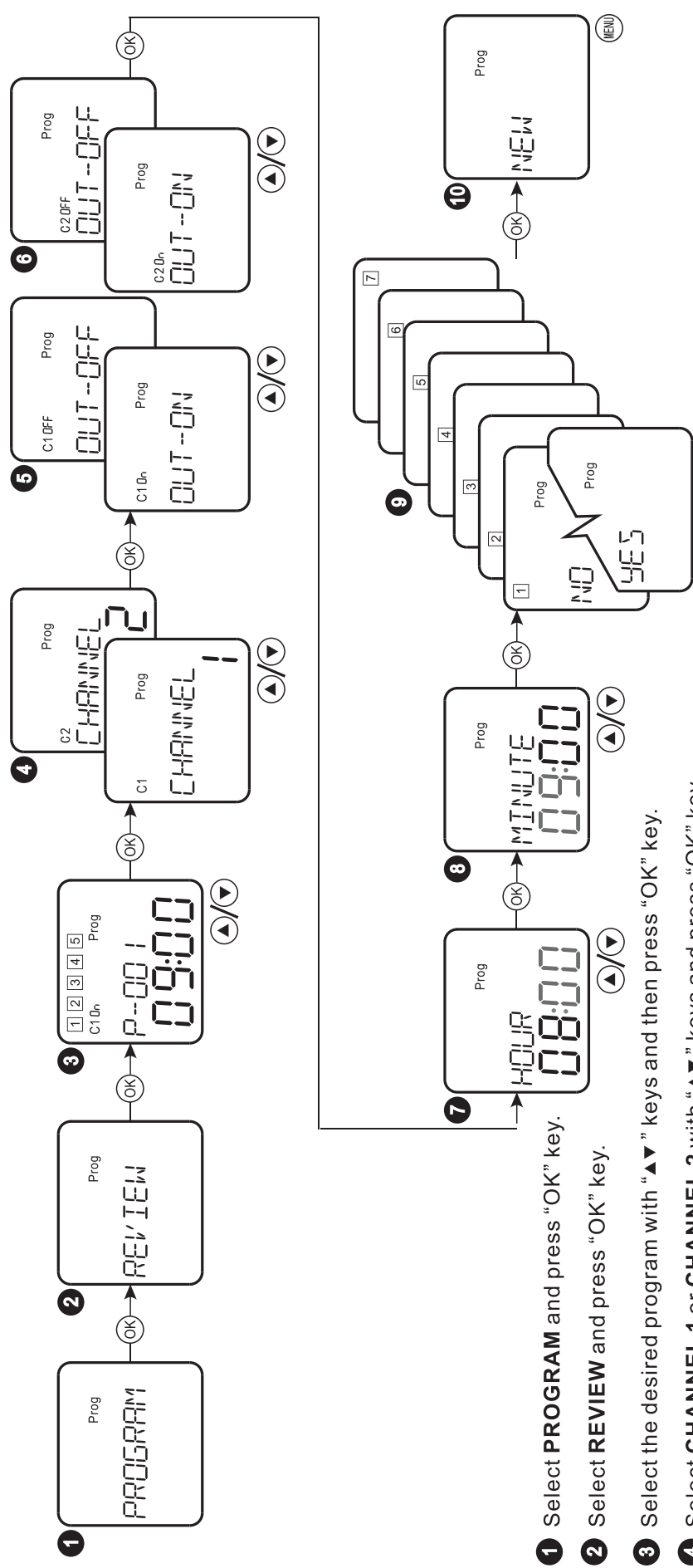
If **YES** is selected, program operation is enabled for flashing day. If **NO** is selected, program is not used for flashing day.

10 Exit from the setting by pressing “ENU” key.

Long press $\Delta 0.5s$, increase the numerical value quickly

Long press ▼ 0.5s, decrease the numerical value quickly

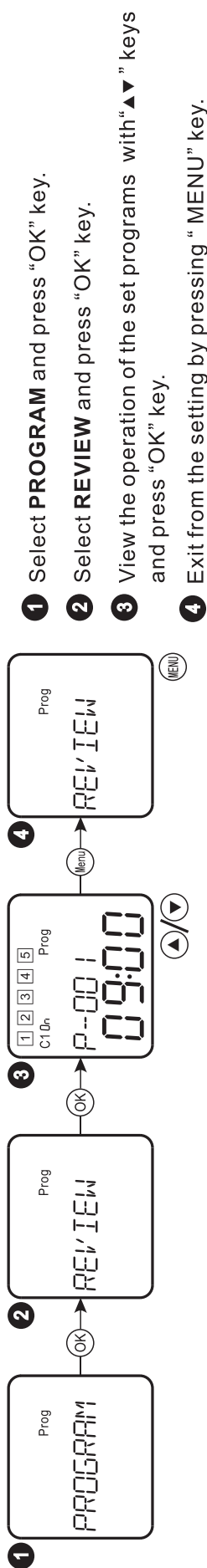
● Program modifying



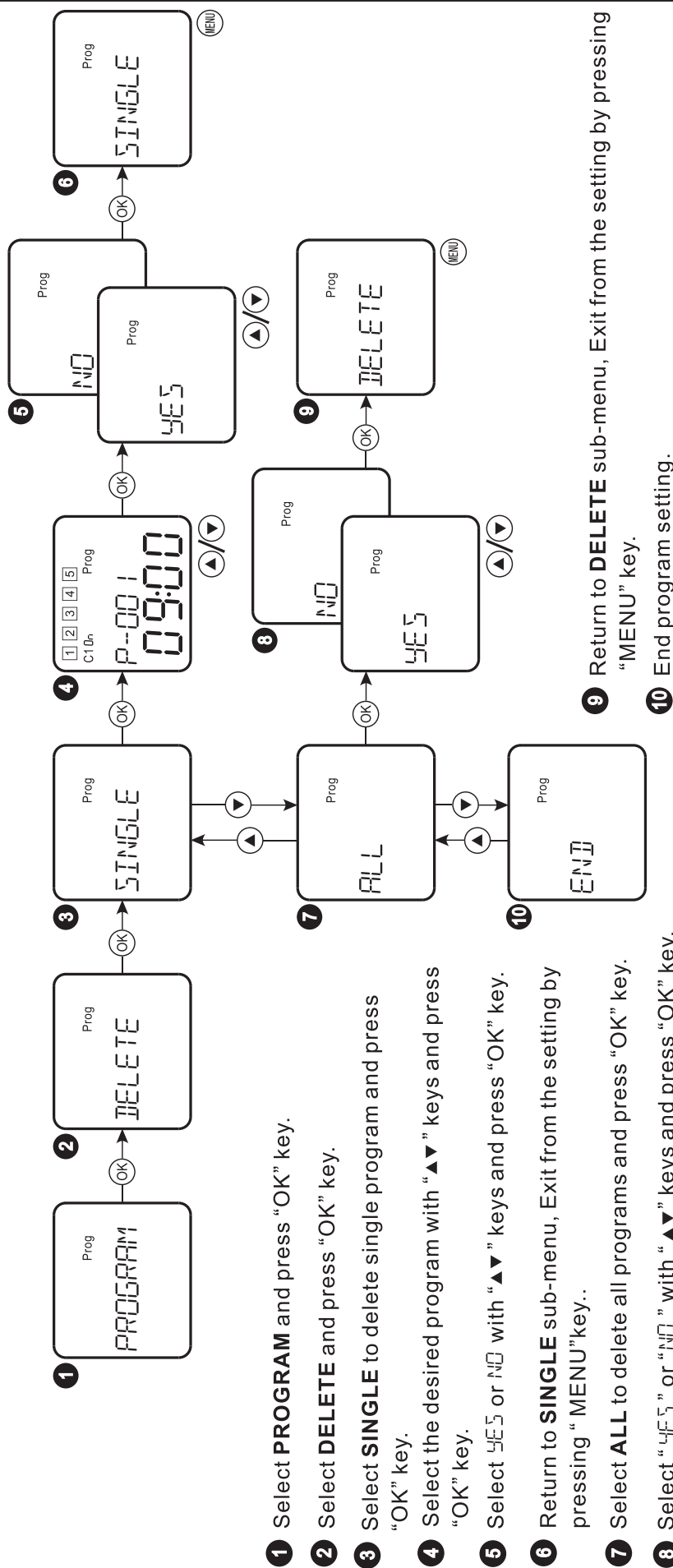
- 1 Select **PROGRAM** and press “OK” key.
- 2 Select **REVIEW** and press “OK” key.
- 3 Select the desired program with “▲▼” keys and then press “OK” key.
- 4 Select **CHANNEL 1** or **CHANNEL 2** with “▲▼” keys and press “OK” key.
- 5 Display the output state of channel 1. Select **OUT-ON** or **OUT-OFF** with “▲▼” keys and press “OK” key.
- 6 Display the output state of channel 2. Select **OUT-ON** or **OUT-OFF** with “▲▼” keys and press “OK” key.
- 7 Set the hour with “▲▼” keys and press “OK” key.
- 8 Set the minute with “▲▼” keys and press “OK” key.
- 9 Set the program activity on a week day(from Monday to Sunday) with “▲▼” keys
If YES is selected, program operation is enabled for flashing day. If NO is selected, program is not used for flashing day.
- 10 Exit from the setting by pressing “MENU” key.

 | Long press ▲ 0.5s, increase the numerical value quickly |
Long press ▼ 0.5s, decrease the numerical value quickly

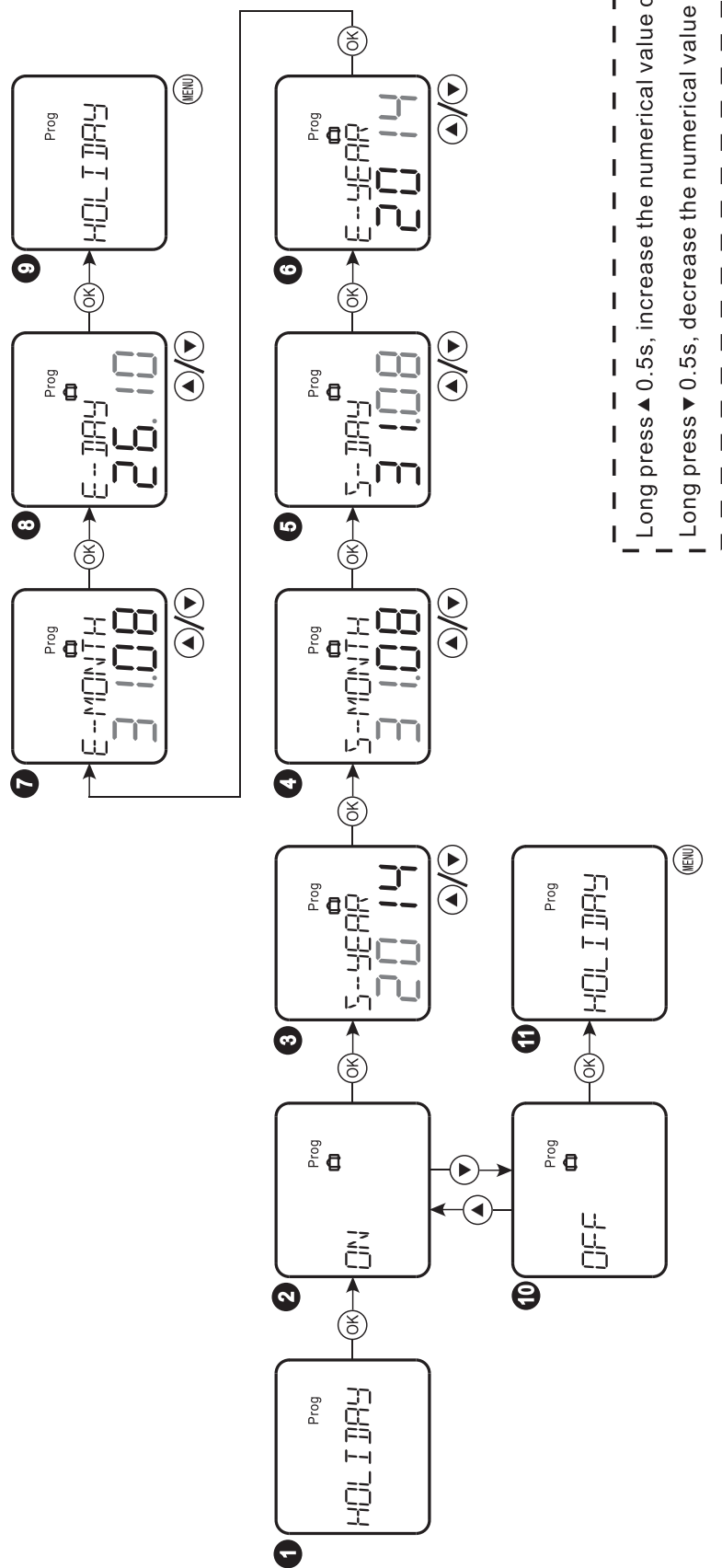
● Program reviewing



● Program deleting



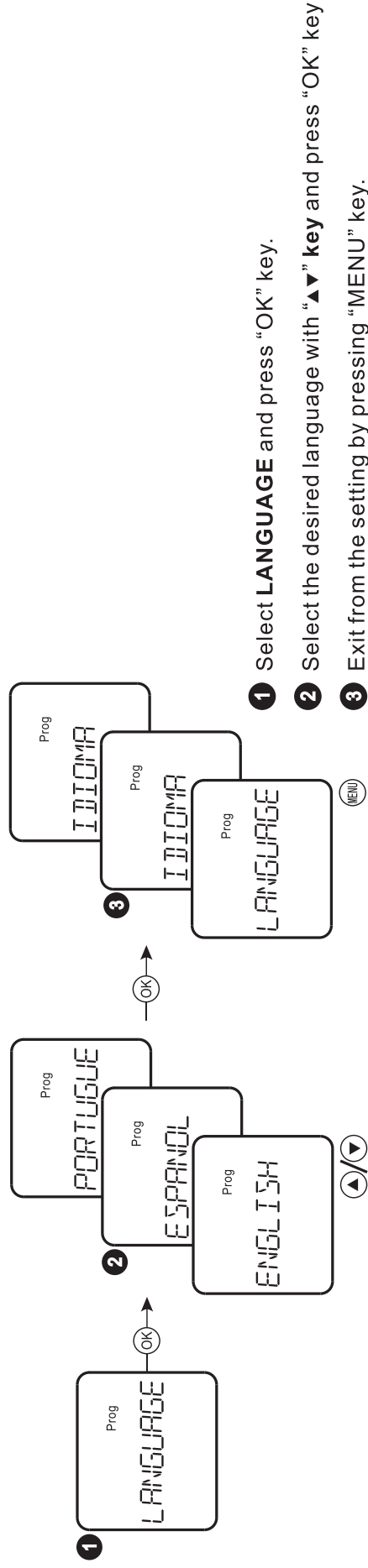
● Holiday mode



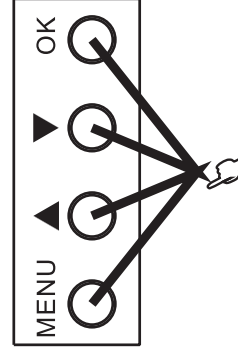
- 1 Select **HOLIDAY** and press “OK” key.
- 2 Select **ON** to activate holiday mode and press “OK” key.
- 3 Set the start year of holiday with “▲▼” keys and press “OK” key.
- 4 Set the start month of holiday with “▲▼” keys and press “OK” key.
- 5 Set the start day of holiday with “▲▼” keys and press “OK” key.
- 6 Set the end year of holiday with “▲▼” keys and press “OK” key.
- 7 Set the end month of holiday with “▲▼” keys and press “OK” key.
- 8 Set the end day of holiday with “▲▼” keys and press “OK” key.
- 9 Return to **HOLIDAY** menu. Exit from the setting by pressing “MENU” key.
- 10 Select **OFF** to deactivate holiday mode and press “OK” key.
- 11 Return to **HOLIDAY** menu. Exit from the setting by pressing “MENU” key.

12. Language setting

● Language setting

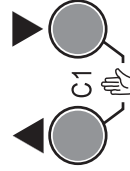


13.Reset

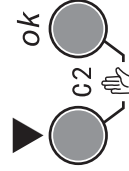


Press the four keys simultaneously for 3 seconds to reset automatically. The device was restored to factory settings.

14.Keys combination for MANUAL control



Press "▲▼" keys simultaneously, the output state of channel 1 switches to MANUAL.
When the output states of other operation modes was changed, Manual mode exits automatically.



Press "▼" and "ok" keys simultaneously, the output state of channel 2 switches to MANUAL.
When the output states of other operation modes was changed, Manual mode exits automatically.

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