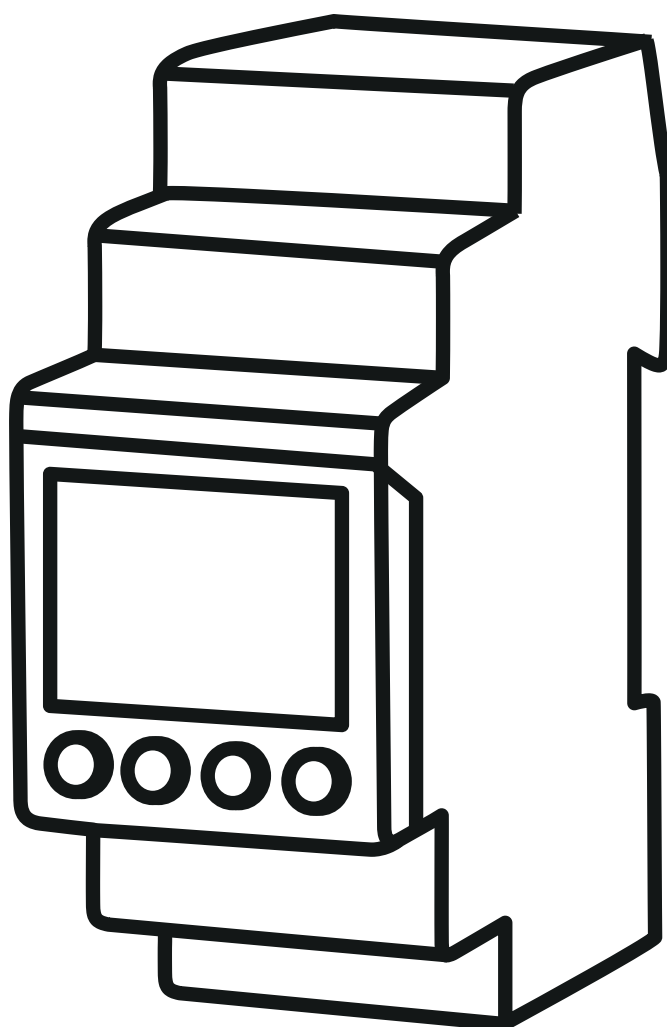


INSTRUCTION

Electronic timer 7D

TPE2



1. Description

TPE2 electronic timer is 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

- Electronic timer with weekly and pulse programs.
- Replaceable battery (CR2032 lithium battery).
- 50 on/off.
- 50 PULSE programs.
- Sealable cover of the front panel, easy setting by 4 keys.
- Automatic summer/winter time changeover.
- LCD display with backlight.
- Holiday mode.
- Single channel.
- Manual control by keys combination.
- Automatic transfer of weekdays.
- 24-264VAC/DC input supply.
- Double-module, mounted on TH-35 rail.

3. Safety instruction



WARNING

Security

Before mounting, read the instructions and disconnect the power supply. Installation should be performed by a qualified user authorized to mount electrical devices depending on the applicable regulations in a given country, in accordance with the mounting diagram. Modifications to the product may cause threat and loss of warranty. Use protection against frost when working below 0 °C.

Maintenance

All maintenance work should be carried out after disconnecting the power supply. The product temperature may rise to an elevated value. Before commencing maintenance, make sure that the product temperature is safe to make it. Guarantee unrestricted air supply, do not cover the product. Use dry and delicate materials for cleaning. Do not use chemical agents. Product not adapted to work in an environment with unfavorable conditions, i.e. high dustiness / humidity, water, explosive zones, vibrations, chemical fumes.

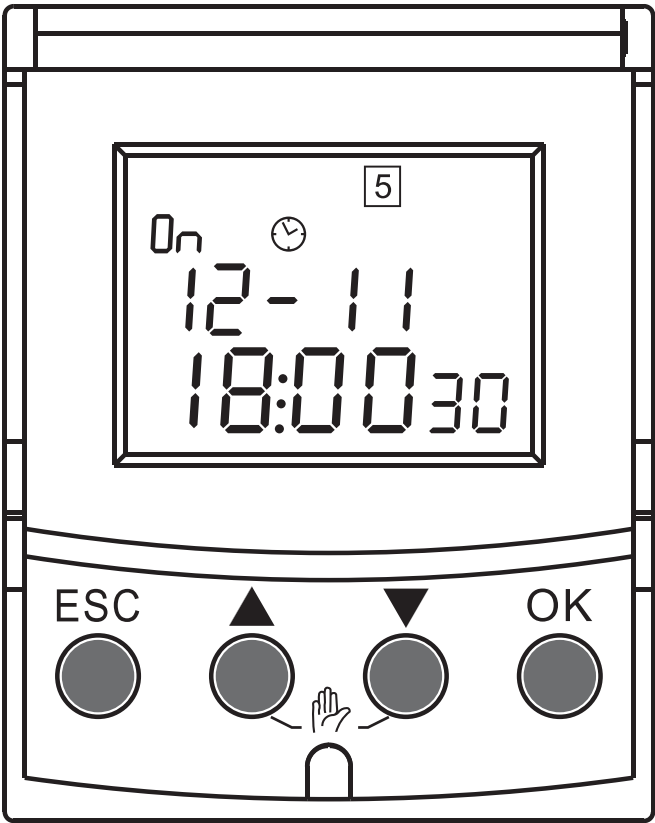
Recommendations

Failure to follow the instructions in the manual may result in a fire, electric shock, burns or other damage. Bemko sp. O.o. is not responsible for failure to comply with the above recommendations. We also reserve the right to make changes to the manual - the current version is available at www.bemko.eu.

4. Technical data

Supply terminals	A1,A2
Rated voltage	AC/DC 24-264V
Rated frequency	50/60Hz
Power consumption	1W
Number of programs	50 on/off
Program	weekly, daily and pulse programs
Mode of work	manual, automatic, holiday
Summer/winter time	off, automatic changes
Time tolerance	≤1s/day at 25°C
Replaceable battery	CR2032
Data readout	Back-lighted LCD display
Number of contacts	1 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	≤ 2000m
Ambient temperature	-20°C~55°C
Permissible relative humidity	≤ 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	IEC 60730-1/IEC 60730-2-7

5.Display and keys



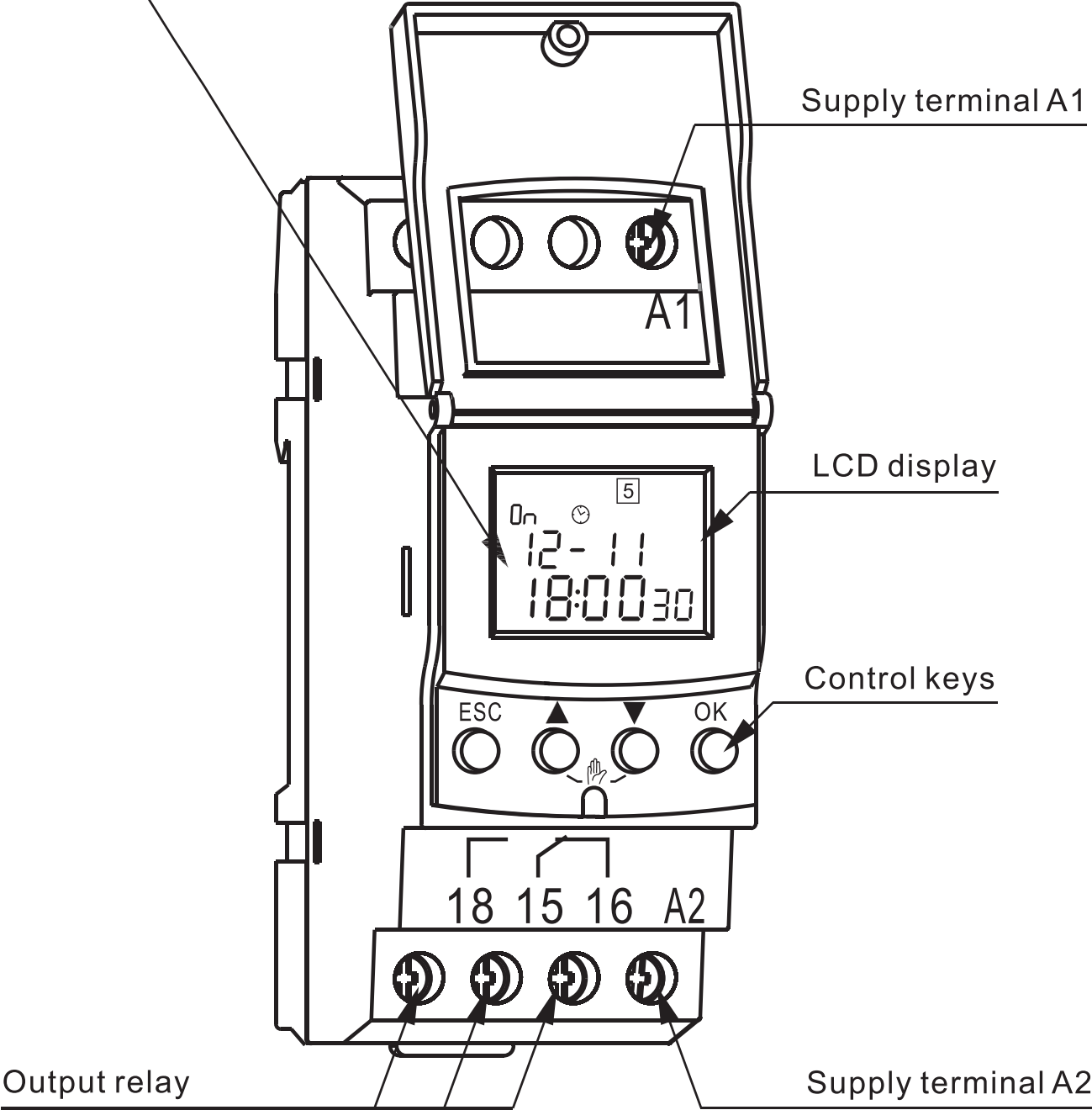
Mo Tu We Th Fr Sa Su Days of the week, Monday, Tuesday,.....Sunday

On OFF Relay status: **On** Activate
OFF Deactivate

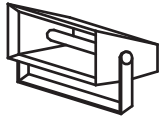
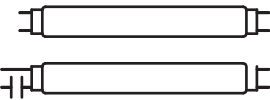
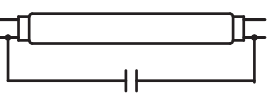
- | | | | |
|--|----------------|--|---------------|
| | Automatic mode | | Summer time |
| | Manual mode | | Pulse setting |
| | Winter time | | Low battery |

ESC 	☐ Back from menu ☐ Restore/cancel programs	OK 	☐ Enter main menu ☐ Confirm selection
	☐ Select menu ☐ Increase a numerical value		☐ Select menu ☐ Decrease a numerical value
 ☐ manual operation			

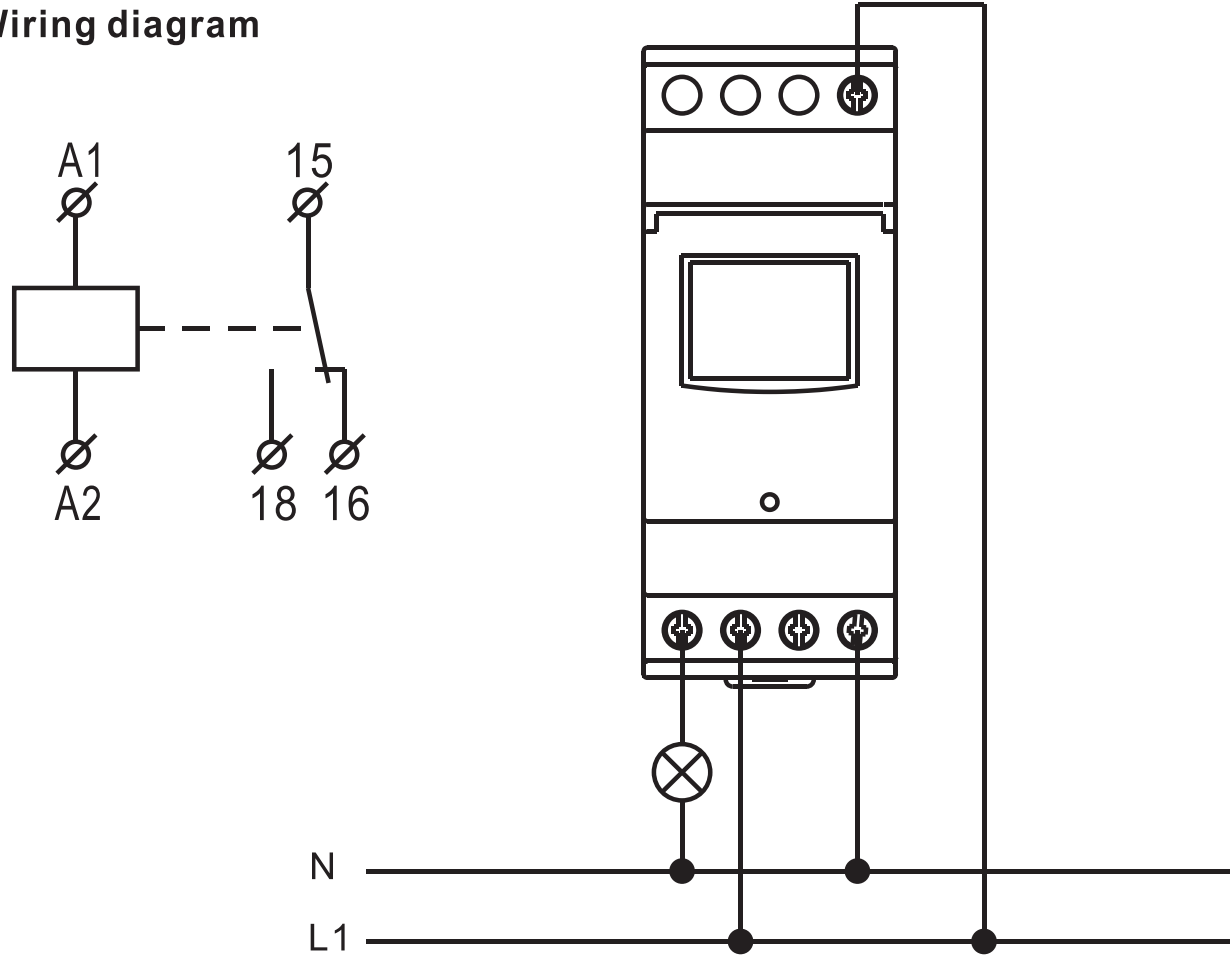
12-11 DD-MM, 12th.November



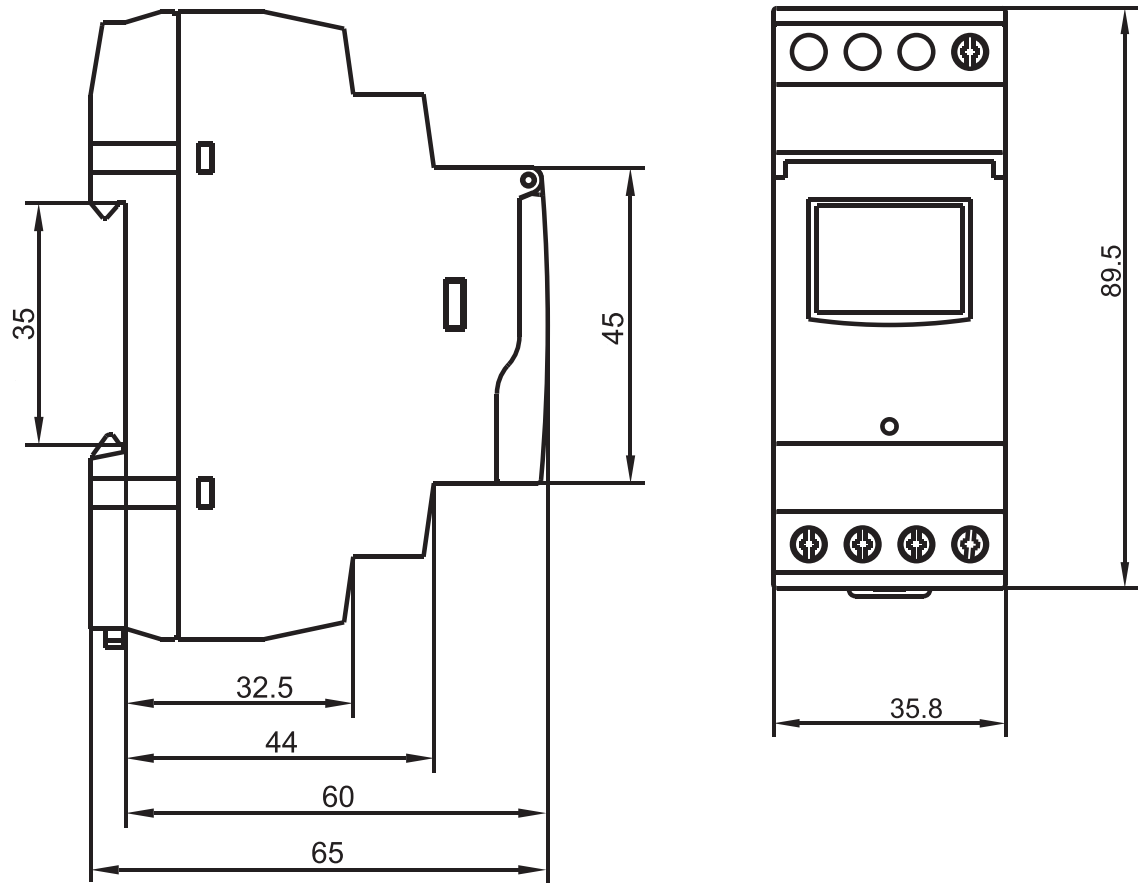
6.Maximum pilotable power

				
2000W	2000W	1000W	500W	500W

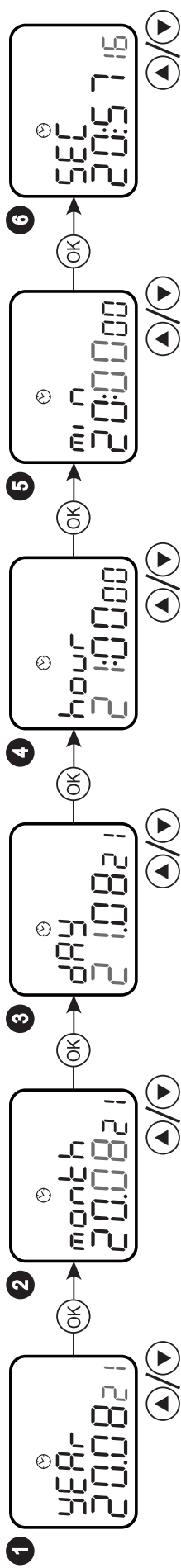
7. Wiring diagram



8. Dimensions



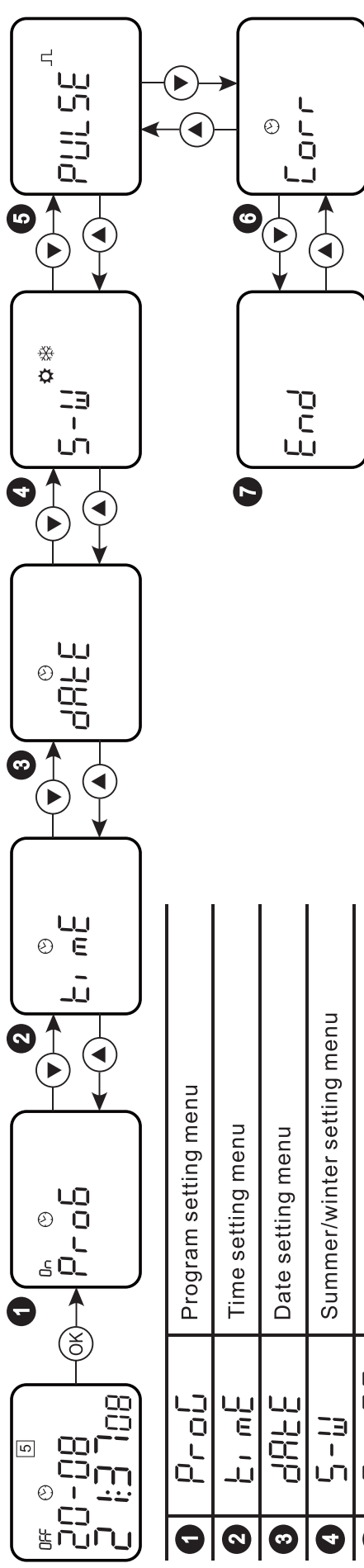
9. Initial operation



- 1 Select adequate year with “▲▼” keys and press “OK” key.
- 2 Select adequate month with “▲▼” keys and press “OK” key.
- 3 Select adequate day with “▲▼” keys and press “OK” key.
- 4 Select adequate hour with “▲▼” keys and press “OK” key.
- 5 Select the minute with “▲▼” keys and press “OK” key.
- 6 Select the seconds 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 1 year setting.

10. Main menu

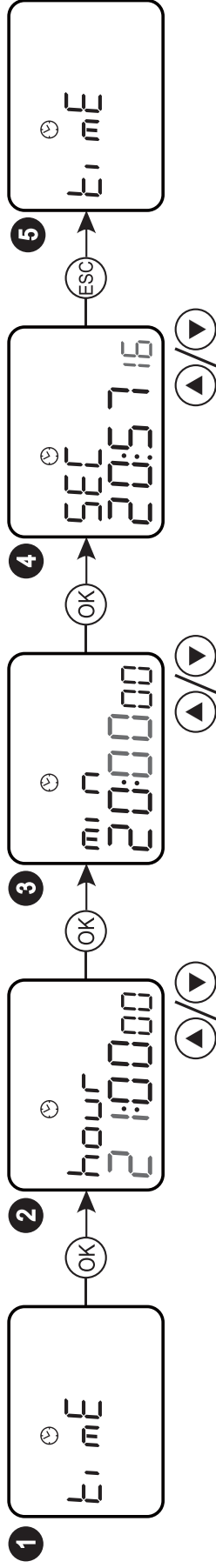


1	Prog	Program setting menu
2	t, mE	Time setting menu
3	dAtE	Date setting menu
4	S-W	Summer/winter setting menu
5	PULSE	Pulse setting menu
6	Corr	Time correction setting menu
7	End	End settings and exit from menu

- Press “OK” key to enter menus setting.
- If not operated for 2 minutes, the device will automatically exit from setting.
- Select the desired menu by pressing “▲▼” keys

11. Program setting

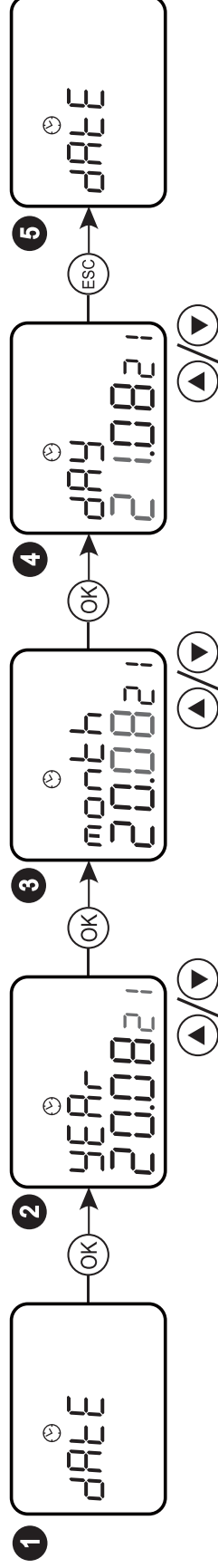
● Time setting



- 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 Select adequate second with "▲▼" keys and press "OK" key. adjusting range is 0~59.
- 5 Exit from the setting by pressing "ESC" key.

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

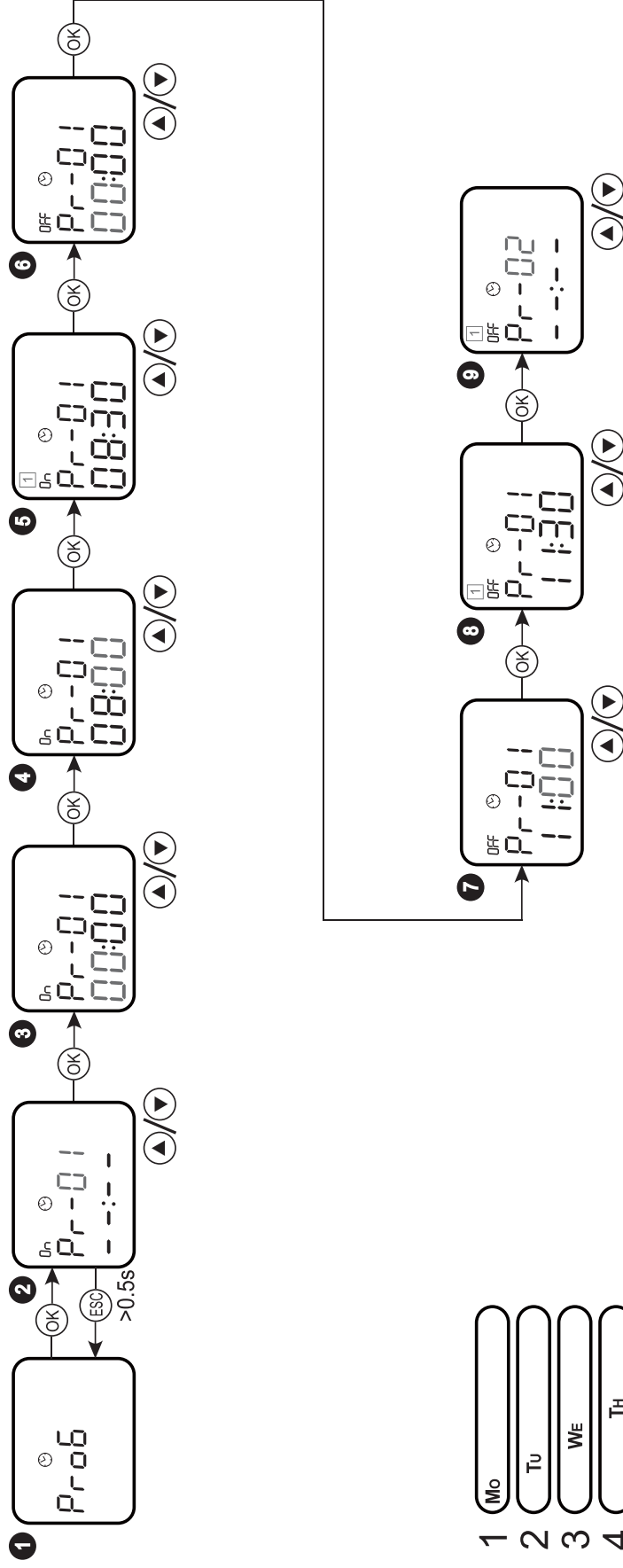
● Date setting



- 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 "ESC" key.

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

● Program setting



1 Select **PROG** and press "OK" key.

2 Select the number of program and press "OK" key. If exit, press "ESC" for more than 0.5s. The programs are numbered as pairs(ON/OFF)

3 Set the hour of ON time by pressing "▲▼" keys.

4 Set the minute of ON time by pressing "▲▼" keys.

5 Set the week's day of ON time by pressing "▲▼" keys.

6 Set the hour of OFF time by pressing "▲▼" keys.

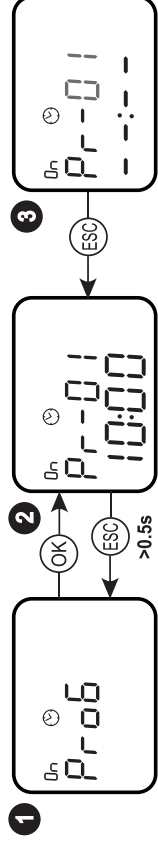
7 Set the minute of OFF time by pressing "▲▼" keys.

8 Set the week's day of OFF time by pressing "▲▼" keys.

9 End the setting of one pair program and back to Program number selection.

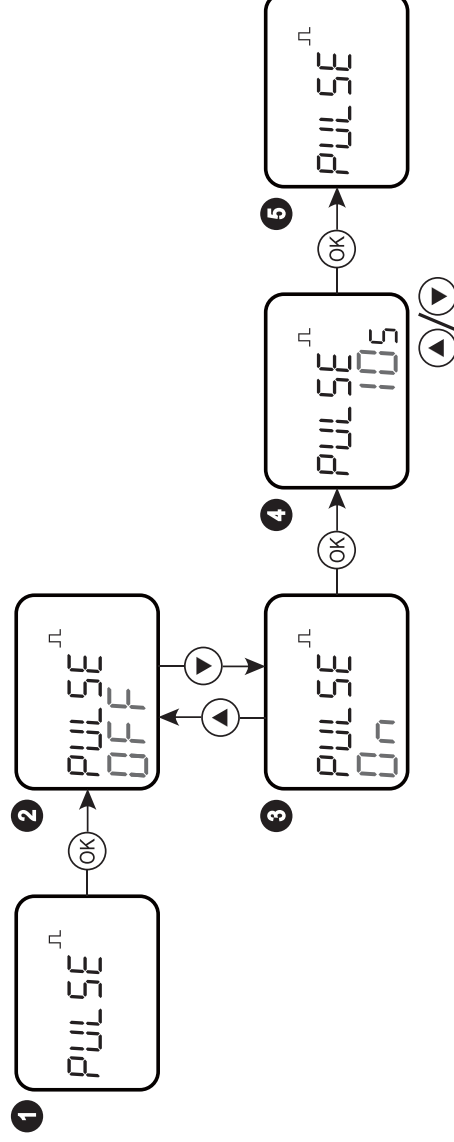
- 1 Mo
- 2 Tu
- 3 We
- 4 Th
- 5 Fr
- 6 Sa
- 7 Su
- 8 Mo Tu We Th Fr Sa Su
- 9 Mo Tu We Th Fr
- 10 Sa Su
- 11 Mo We Fr
- 12 Tu Th Sa
- 13 Mo Tu We
- 14 Th Fr Sa Su
- 15 Mo We Fr Su

- Program cancel



- 1** Select **PROG** and press “OK” key.
- 2** Select the program to be cancelled and press “OK” key. If exit, press “ESC” for more than 0.5s.
- 3** Press “ESC” key to cancel the program

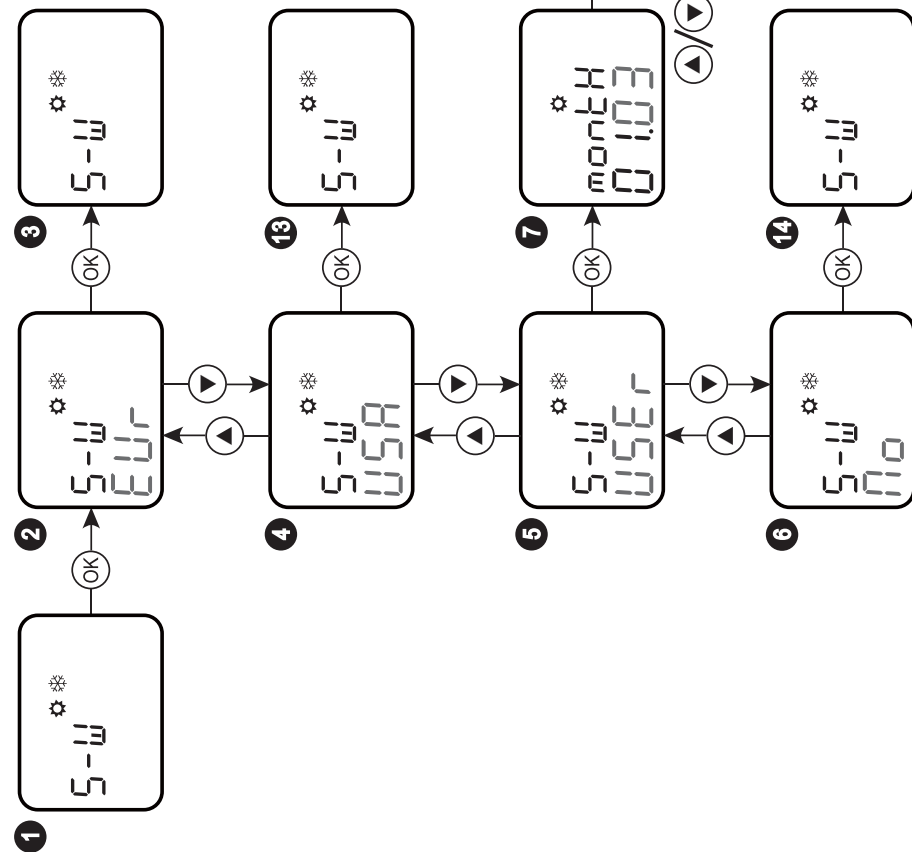
- Impulse program setting



- ➊ Select **PULSE** and press “OK” key.
- ➋ Select **OFF** to switch off the pulse function.
- ➌ Select **ON** to switch on the pulse function, acknowledge with “OK” key.
- ➍ Set impulse duration time with “▲▼” keys and then press “OK” key. Setting range is 1-99s.
- ➎ Return to pulse setting menu.

- Long press $\blacktriangle 0.5s$, increase the numerical value rapidly
- Long press $\blacktriangledown 0.5s$, decrease the numerical value rapidly

● Summer/winter time setting



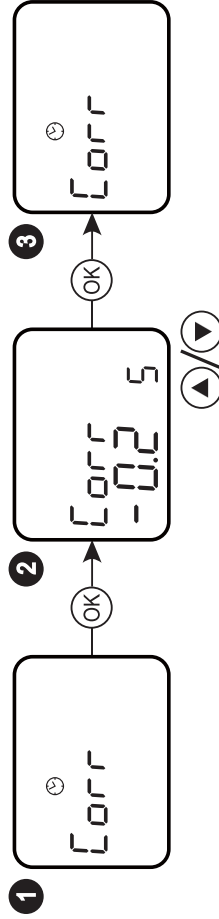
☀: Winter time
☀: Summer time

- 1 Select **S-W** 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.

Display	Function	Summer switching	Winter switching
EUR	Europe sum/win	Last Sunday in March	Last Sunday in October
USA	U.S.A sum/win	Second Sunday in March	First Sunday in November
USEr	Free sum/win	Freely programmed	Freely programmed
No	No sum/win	None	None

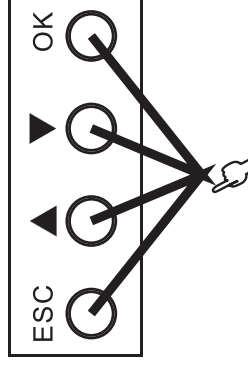
Long press ▲ 0.5s, increase the numerical value quickly
Long press ▼ 0.5s, decrease the numerical value quickly

Time correction setting



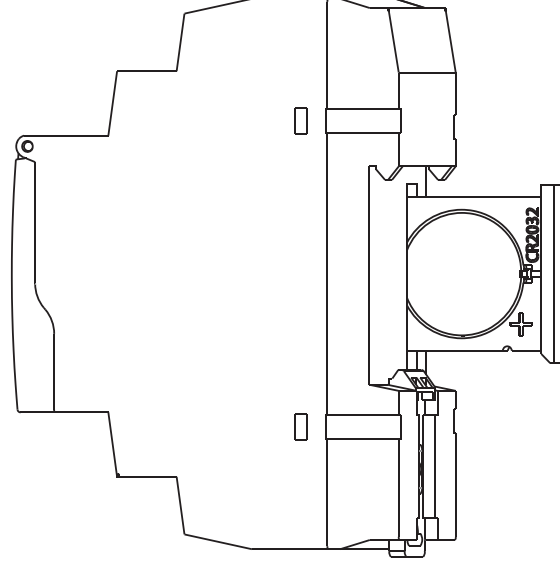
- 1 Select **CORR** and press “OK” key.
- 2 Set correction time with “▲▼” keys and press “OK” key.
Correction time range: -9.9~+9.9s; Step value: 0.1s
- 3 Return back to main menu by pressing “ESC” key.

13.Reset



Press the four keys simultaneously for 0.5 second to reset automatically. The device was restored to factory settings.

14.Battery replacement



1. Disconnect the main connection.
2. Open the battery cover and insert the battery with the positive(+) side facing up as shown in the figure.
3. Make sure the battery is seated correctly in the battery slot and close the battery cover.

12.Keys combination for MANUAL control

○ AUTO/MANUAL

- ▲ ▼ 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.

○ PERM ON/PERM OFF

- ▲ ▼ Press “▲▼” keys simultaneously for 2s,
the output state of channel 1 switches to PERM ON/PERM OFF.
⏻ flashes.
>2s

AUTO	AUTO mode
MANUAL	MANUAL mode
PERM ON	PERMANENT ON mode
PERM OFF	PERMANENT ON mode