

## Description

ESRD-TPW2 digital time switch are used for realization of time functions in the control systems and automation. 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.






## Features

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

## Technical data

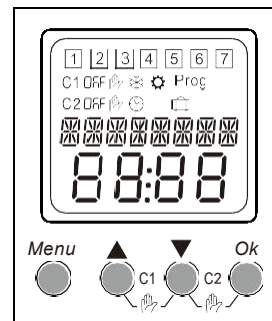
Supply terminals	A1-A2
Rated voltage	AC/DC 24-264V
Rated frequency	50/60Hz
Power consumption	2W
Supply voltage tolerance	±10%
Number of channels	Double channels
Number of programs	100
Program	weekly program, daily program
Mode of work	manual, automatic, holiday
Summer/winter time	off, automatic changes
Time tolerance	≤1s/day at 25°C
Power reserve	10 year
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 <sup>6</sup>
Electrical life	10 <sup>5</sup>
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 <sup>2</sup> ~ 4mm <sup>2</sup>
Tightening torque	0.5Nm
Mounting	TH-35 Rail(EN60715)
Dimensions	90*36*64mm
Standard	IEC60947-1/IEC60947-2-7

## Maximum pilotable power






				
2300W	2300W	1000W	500W	500W

## Operating instruction

### Screen display and keys







### Symbol legend

- 1 2 3 4 5 6 7 — Days of the week Monday, Tuesday, ...Sunday  
 C1 — Channel 1  
 C2 — Channel 2  
 On OFF — Relay status  
 — Automatic mode  
 — Manual mode  
 — Holiday mode  
 — Winter time  
 — Summer time  
 Prog —Program setting

### Backlight display

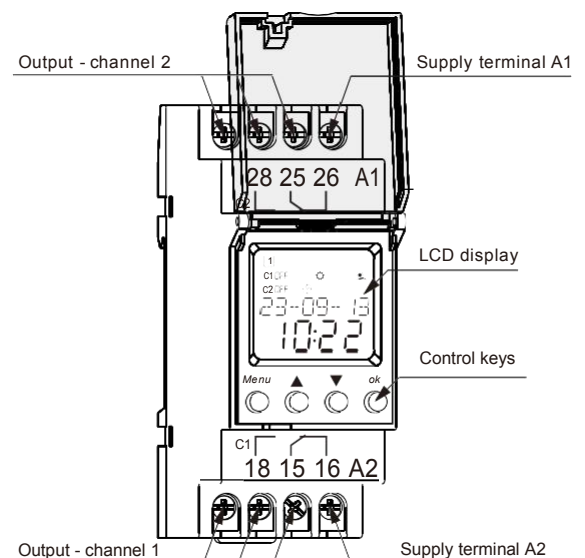
After the external power supply is applied and then press any of four keys, the backlight display will be illuminated. Otherwise, only symbols are displayed on the screen.

### Keys

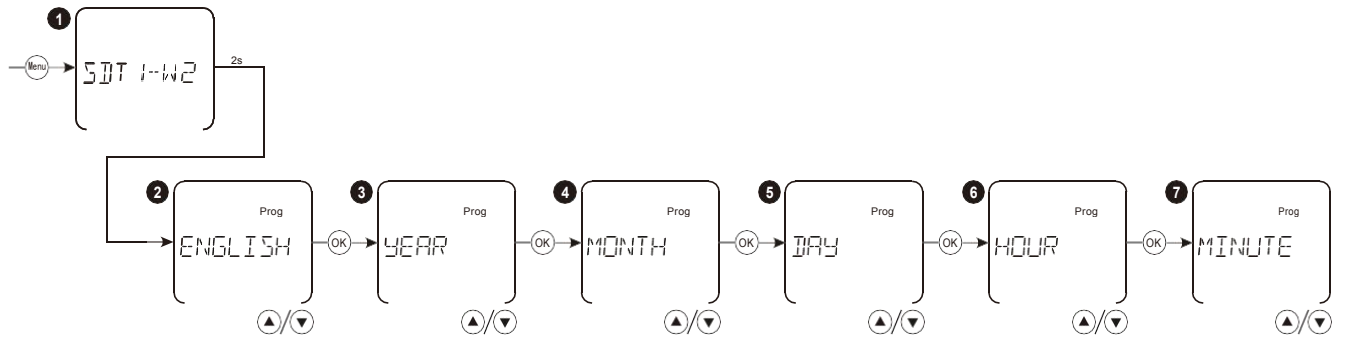
Menu	○ Enter main menu ○ Back to main menu	Ok	○ Confirm selection
	○ Select menu ○ Increase a numerical value		○ Select menu ○ Decrease a numerical value
	○ C1 manual operation		○ C2 manual operation

### Date display

20-1-14 : DD-MM-YY, 20th.January.2014



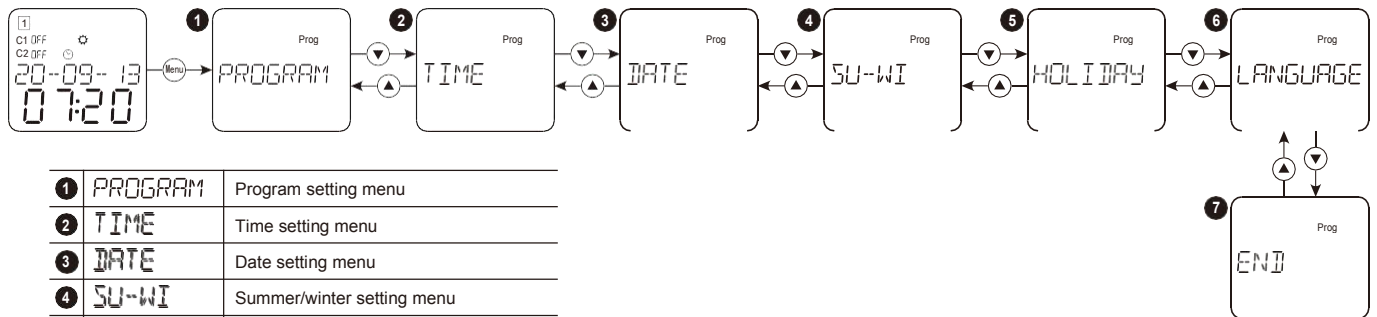
## □ Initial operation



- 1 Press "Menu" key, the model of the device will display 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 adequate minute with "▲▼" keys and press "Ok" key.

Note: If the settings were not ended and without operating 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.

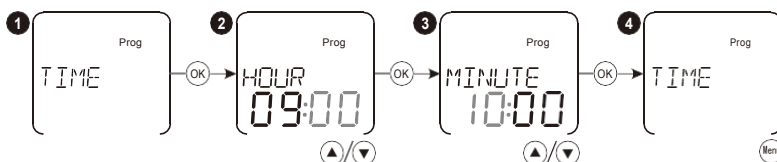
## □ Main menu



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

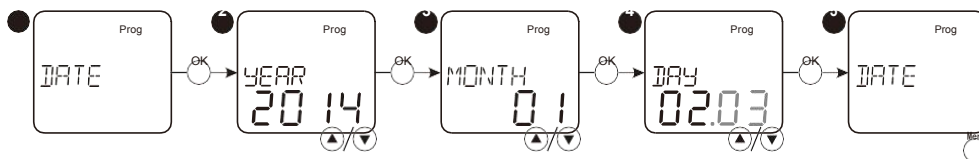
### ● Set time



- 1 Select **TIME** and press "Ok" key.
- 2 Choose adequate hour with "▲▼" keys and press "Ok" key. adjusting range is 0~23.
- 3 Choose 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

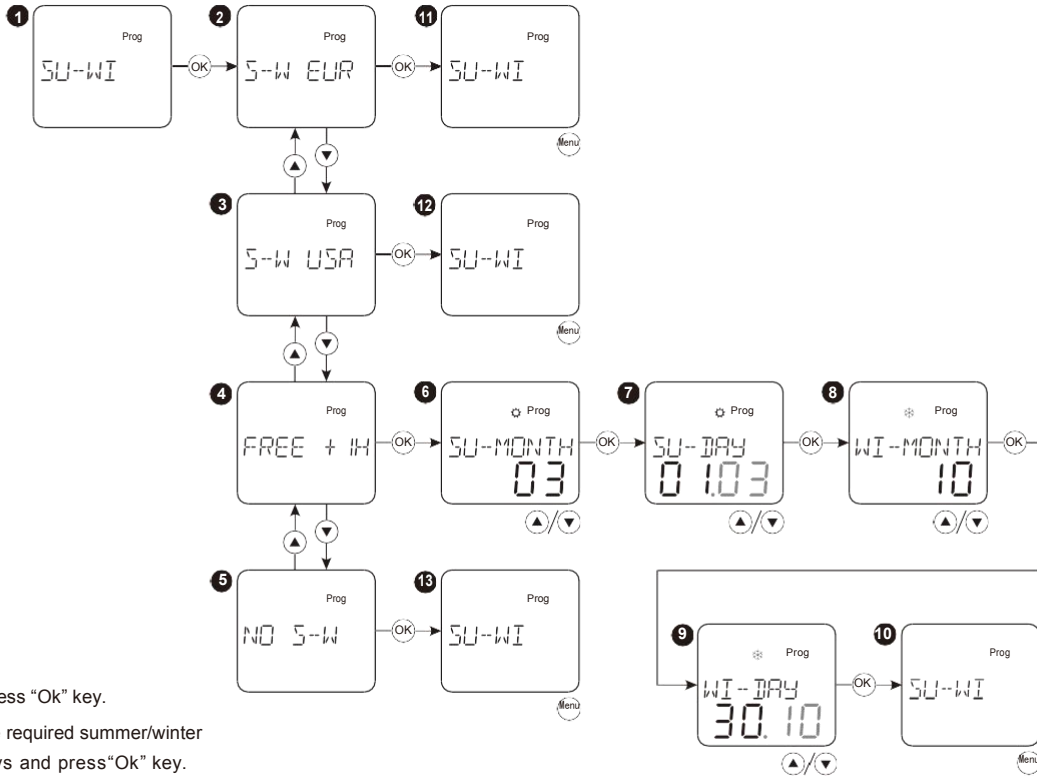
### ● Set date



- 1 Select **DATE** and press "Ok" key.
- 2 Choose adequate year with "▲▼" keys and press "Ok" key. adjusting range is 2000~2095. Choose adequate month with "▲▼" keys and press "Ok" key.
- 3 Choose adequate day with "▲▼" keys and press "Ok" key. 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

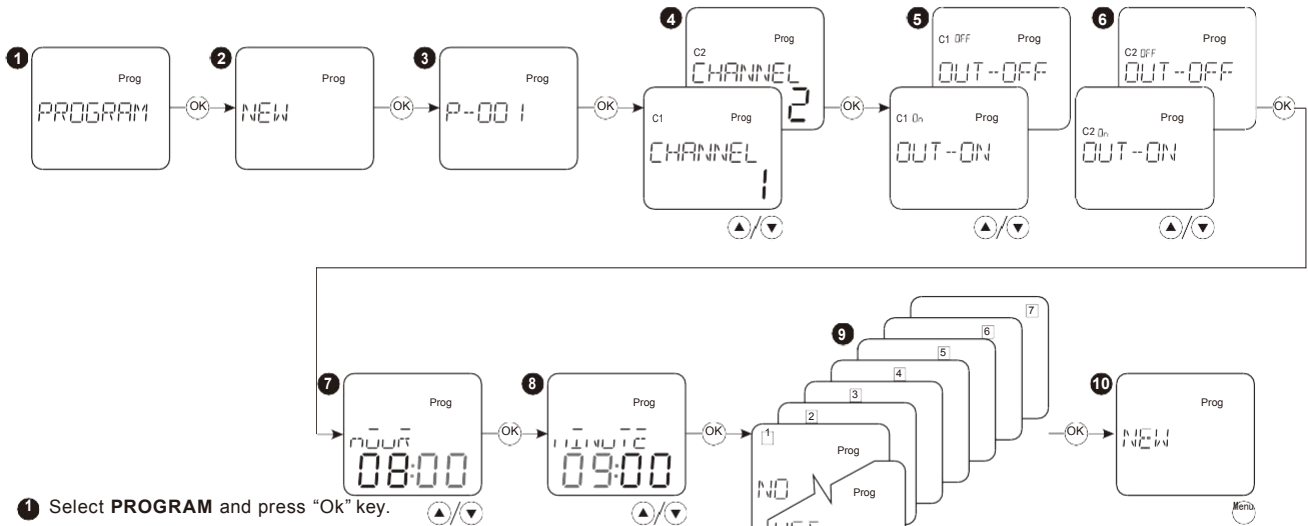
● Switchover summertime/wintertime



- 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.

Display	Function	Summer switching	Winter switching
S-W EUR	Europe sum/win	Last Sunday in March	Last Sunday in October
S-W USA	U.S.A sum/win	Second Sunday in March	First Sunday in November
FREE + 1H	Free sum/win	Freely programmed	Freely programmed
NO S-W	No sum/win	None	None

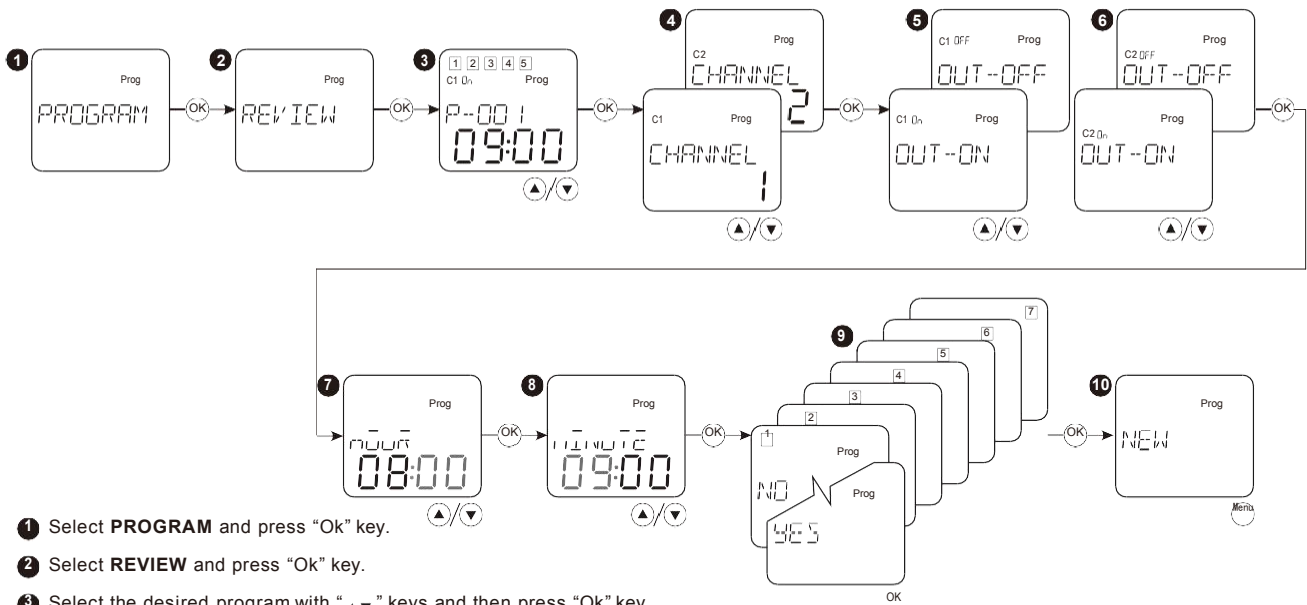
● Create a new program



- 1 Select **PROGRAM** and press “Ok” key.
- 2 Select **NEW** and press “Ok” key.
- 3 Display new program number and press “Ok” key.  
When the programs memory is full, new program will not be created, symbol “FULL” appears on the screen.
- 4 Select **CHANNEL 1** or **CHANNEL 2** with “▲▼” and press “Ok” key.
- 5 Display the output state of channel 1. Choose “ON” or “OFF” with “▲▼” keys and then press “Ok” key.
- 6 Display the output state of channel 2. Choose “ON” or “OFF” with “▲▼” keys and then press “Ok” key.
- 7 Set the hour with “▲▼” keys and then press “Ok” key.
- 8 Set the minute with “▲▼” keys and then 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

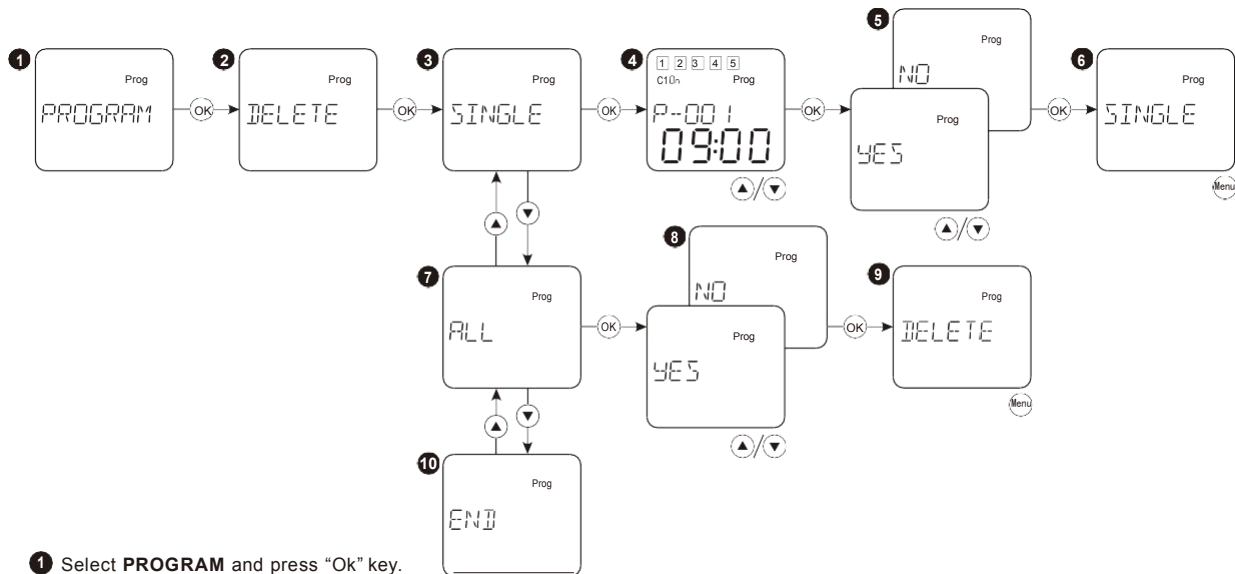
## ● Modify a program



- 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 “▲▼” and press “Ok” key.
- 5 Display the output state of channel 1. Select “ON” or “OFF” with “▲▼” keys and then press “Ok” key.
- 6 Display the output state of channel 2. Select “ON” or “OFF” with “▲▼” keys and then press “Ok” key.
- 7 Set the hour with “▲▼” keys and then press “Ok” key.
- 8 Set the minute with “▲▼” keys and then 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.

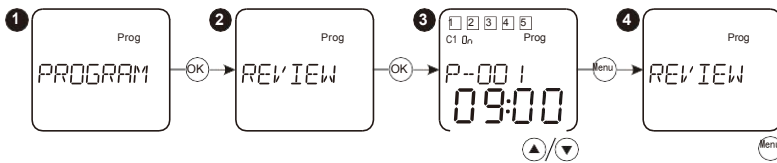
Long press 0.5s, increase the numerical value quickly Long press 0.5s, decrease the numerical value quickly

## Delete a program



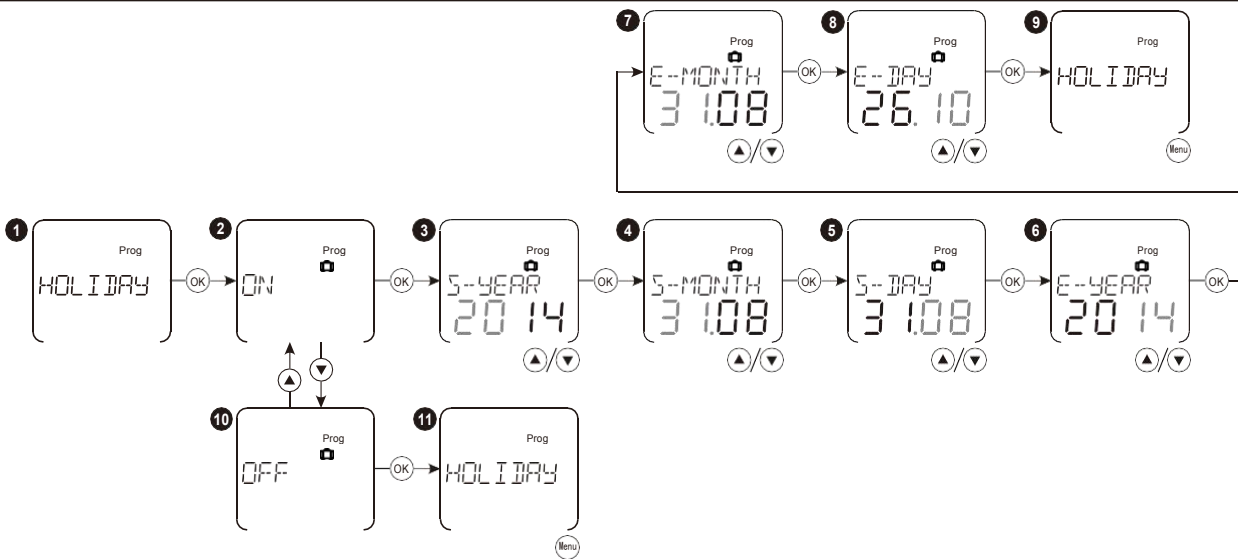
- 1 Select **PROGRAM** and press “Ok” key.
- 2 Select **DELETE** and press “Ok” key.
- 3 Select **SINGLE** to delete single program and press “Ok” key.
- 4 Select the desired program with “▲▼” keys and press “Ok” key.
- 5 Select **YES** or **NO** with “▲▼” keys and press “Ok” key.
- 6 Return to **SINGLE** sub-menu, Exit from the setting by pressing “Menu”.
- 7 Select **ALL** to delete all programs and press “Ok” key.
- 8 Select “YES” or “NO” with “▲▼” keys and press “Ok” key.
- 9 Return to **DELETE** sub-menu, Exit from the setting by pressing “Menu”.
- 10 End program setting.

## Check a program



- Select **PROGRAM** and press "Ok" key.
- Select **REVIEW** and press "Ok" key.
- View the operation of the set programs with "Exit ▲▼" keys and press "Ok" key.
- from the setting by pressing "Menu" key.

## ● Holiday program

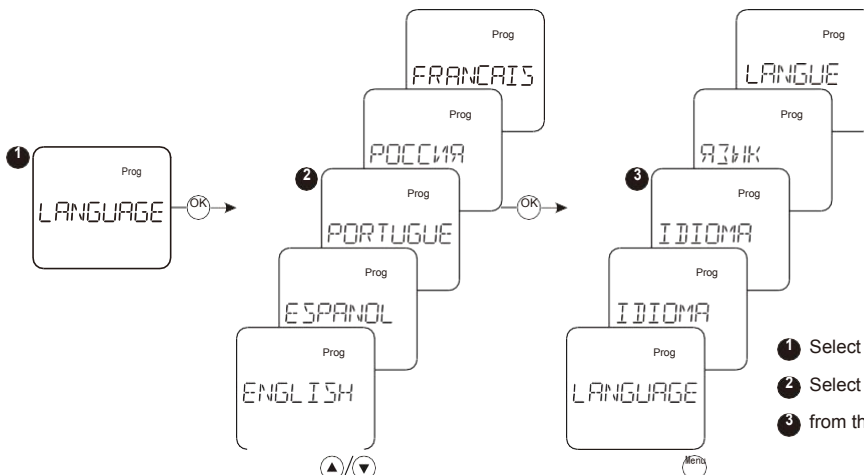


- Select **HOLIDAY** and press "Ok" key.
- Select **ON** to activate holiday mode and press "Ok" key.
- Set the start year of holiday with "▲▼" keys and press "Ok" key.
- Set the start month of holiday with "▲▼" keys and press "Ok" key.
- Set the start day of holiday with "▲▼" keys and press "Ok" key.
- Set the end year of holiday with "▲▼" keys and press "Ok" key.
- Set the end month of holiday with "▲▼" keys and press "Ok" key.
- Set the end day of holiday with "▲▼" keys and press "Ok" key.
- Return to **HOLIDAY** menu. Exit from the setting by pressing "Menu" key.
- Select **OFF** to deactivate holiday mode and press "Ok" key.
- Return to **HOLIDAY** menu. Exit from the setting by pressing "Menu" key.

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 Long press ▲0.5s, increase the numerical value quickly  
 Long press ▼0.5s, decrease the numerical value quickly  
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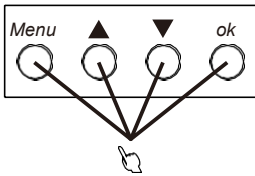
## □ Language setting

### Select menu language



- Select **LANGUAGE** and press "Ok" key.
- Select the desired language with "▲▼" and press "Ok" key Exit
- from the setting by pressing "Menu" key.

**Reset**



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

**Keys combination for MANUAL control**

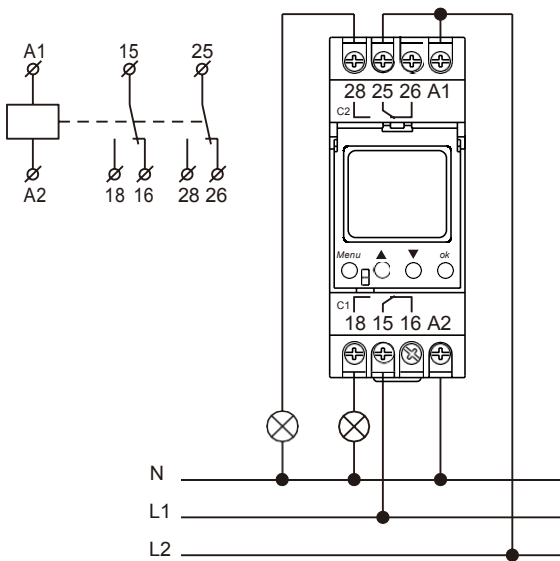


Press “▲▼” keys simultaneously, the output state of channel 1 switches to MANUAL.  
When the output states of other operation modes was changed, Manual mode exits automatically.



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.

**Wiring diagram**



**Safety instruction**



**WARNING**

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

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

**Dimensions**

