Single-channel Programmer Instruction

Display

SU MO TU WE TH FR SA
ON OFF
88:88 AM PM DST
CLOCK PROG SET

MONTH YEAR DAY
88 88

ROOM TEMP
88.8 °C

1 OFF 8 AUTO ADV +HR
ONCE

1
ADV +1HR
MODE

SELECT
SET
∧
∨
Frost ON/OFF
HOLIDAY ON/OFF
○ RESET

Channel 1 Controls
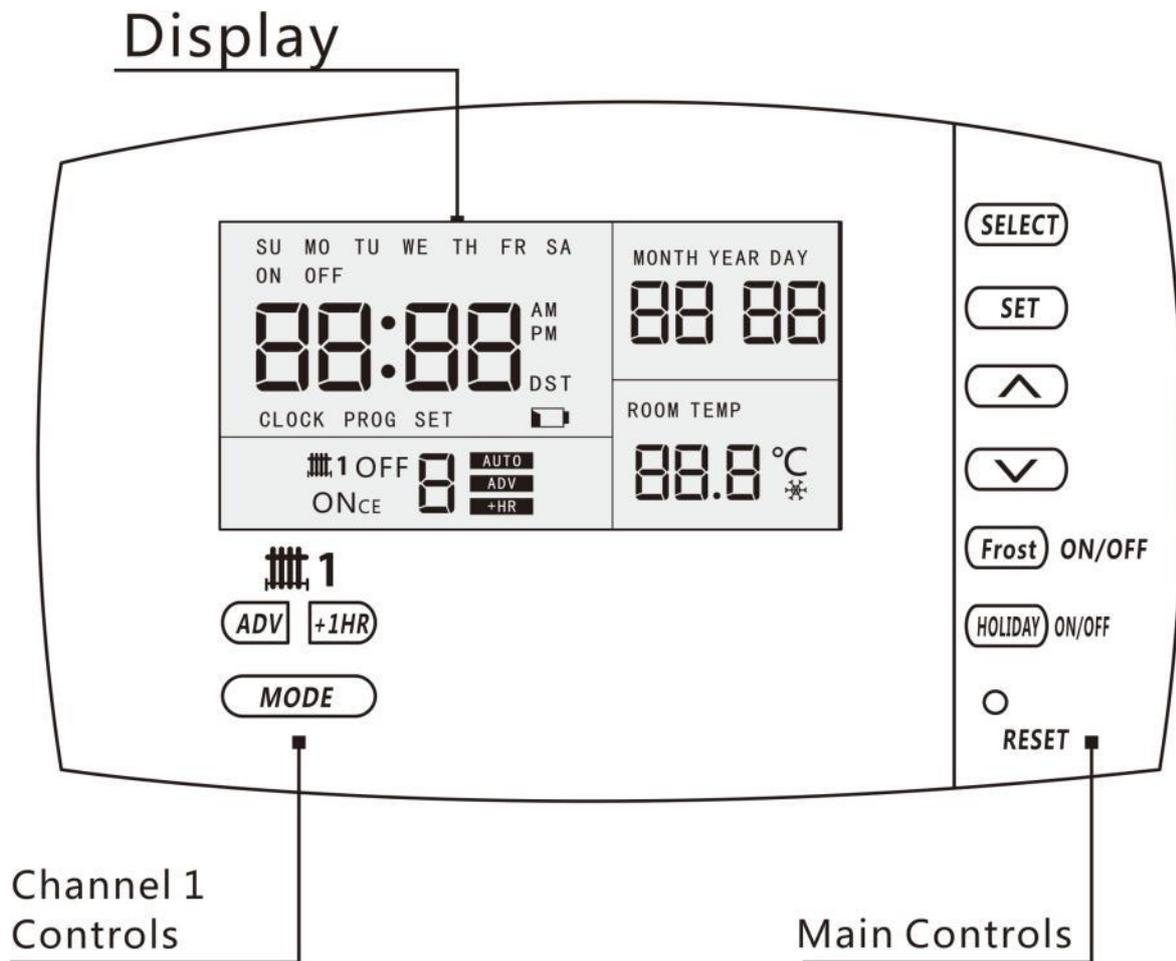
Main Controls

Channel 1 Controls

ADV	Advance mode key
+1HR	Key for temporary override
MODE	Key for operation mode selection

Main Controls

SELECT	Key for Clock/Program settings
SET	Key for Clock/Program settings
∧	Up/Increase
∨	Down/Decrease
Frost ON/OFF	Key for frost function switch and settings
HOLIDAY ON/OFF	Key for holiday function switch and settings
RESET	System reset

1.Normal Mode

```
        TH            MONTH    DAY
   13:00               11  7

   ▥1 OFF    AUTO      ROOM TEMP
                       20.0℃
```
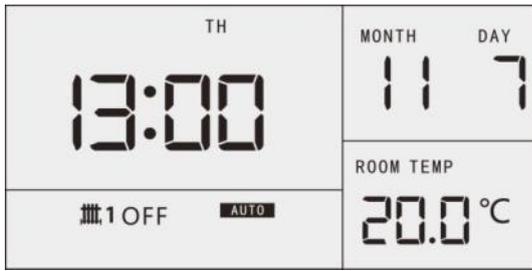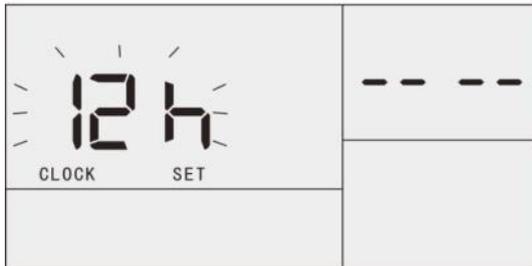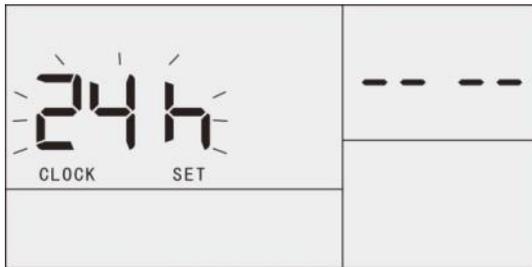
2. Clock and Date Setting

2.1

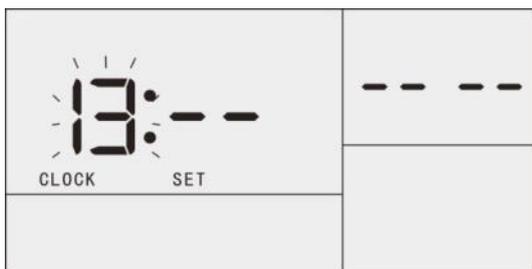Press Both [SET] and [SELECT] for 3 seconds during Normal Mode to enter the following screen.

Press [UP] or [DOWN] to select 24hr mode or 12hr mode.

```
   24h              -- --
   CLOCK   SET
```

```
   12h              -- --
   CLOCK   SET
```

2.2

Press [SELECT] button to set hour in following screen, Then press [UP] or [DOWN] to set hour.

Press and hold [UP] or [DOWN] to scroll quickly.

```
   13:--            -- --
   CLOCK   SET
```

2.3

Press [SELECT] button to set minute in following screen, Then press [UP] or [DOWN] to set minute.

Press and hold [UP] or [DOWN] to scroll quickly.

```
   13:11            -- --
   CLOCK   SET
```
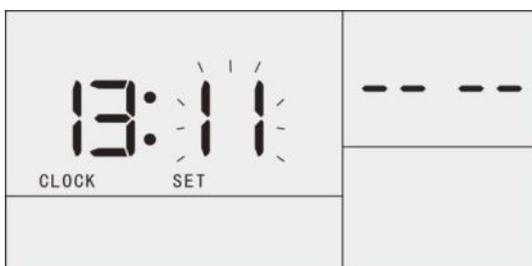
2.4

Press [SELECT] button to set year in following screen, Then press [UP] or [DOWN] to set year.

Press and hold [UP] or [DOWN] to scroll quickly.

```
                     YEAR
   13:11            20 13
   CLOCK   SET
```
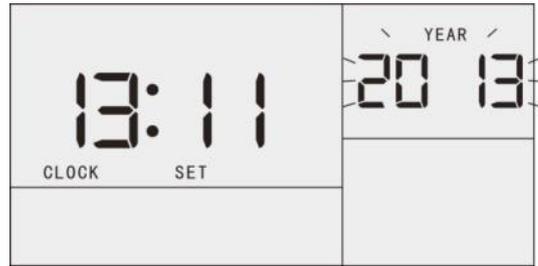
2.5

Press [SELECT] button to set month in following screen, Then press [UP] or [DOWN] to set month.

Press and hold [UP] or [DOWN] to scroll quickly.

```
                    MONTH   DAY
   13:11             11 --
   CLOCK   SET
```
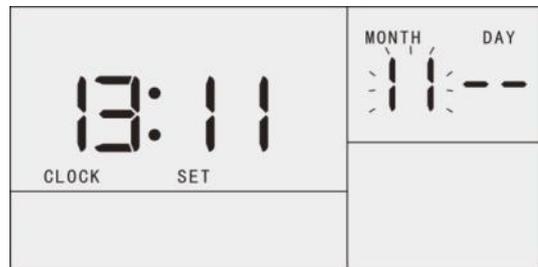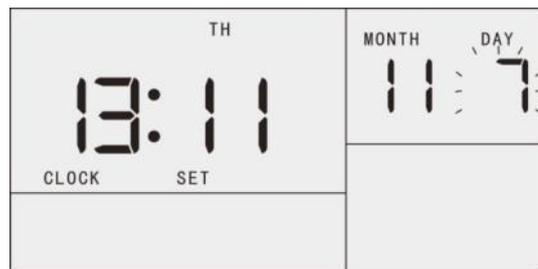
2.6

Press [SELECT] button to set day in following screen, Then press [UP] or [DOWN] to set day.

Press and hold [UP] or [DOWN] to scroll quickly.

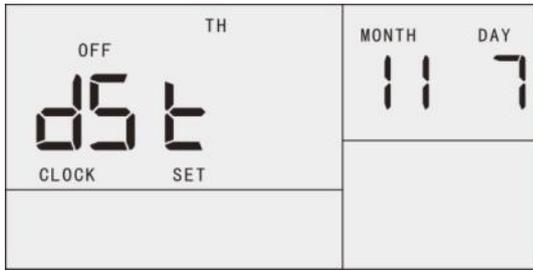The weekday will automatically calculate and display during adjusting.

```
        TH          MONTH   DAY
   13:11             11  7
   CLOCK   SET
```

2.7

Press [SELECT] button to set daylight saving time in following screen, Then press [UP] or [DOWN] to switch it on/off.

```
        TH          MONTH   DAY
   ON                11  7
   dSt        DST
   CLOCK   SET
```
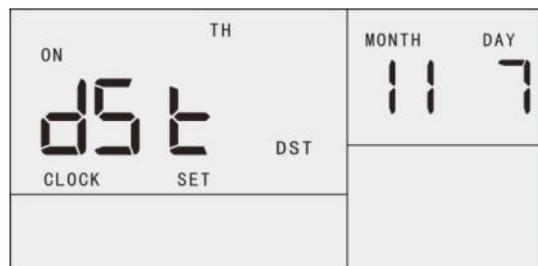
Daylight saving time is set to ON
DST symbol displays.

Daylight saving time is set to OFF
DST symbol disappears.

Daylight saving time : When enabled, the clock will

automatically shift 1 hour ahead of the set standard time
from the last Sunday in March at 2:00am until the last
Sunday in October at 2:00am.

2.8
Press [SELECT] to go back to 2.1.
Press [SET] to confirm setting and back to Normal Mode.
The device will automatically confirm settings and revert
to Normal Mode, if no button is pressed for 15 seconds

.

3. Program Setting

Type	Operation
1day	Every day of the week is programmed with the same ON/OFF times.
5/2day	Monday to Friday are programmed with the same ON/OFF times. Saturday to Sunday are programmed with the same ON/OFF times.
7days	Each day of the week is programmed independently thereby allowing different ON/OFF times.

Factory default program setting (in 24hr mode)

| Prog	Switching	[1day] [5/2day] [7days]
1	ON	6:00
1	OFF	8:00
2	ON	10:00
2	OFF	12:00
3	ON	18:00
3	OFF	22:00

3.1
Press [SET] Button at normal mode to enter into Main
Program Setting Mode.
Press [UP] or [Down] to select program type.
LCD display: 1day=Pt:1d 5/2day=Pt:52 7day=Pt:7d
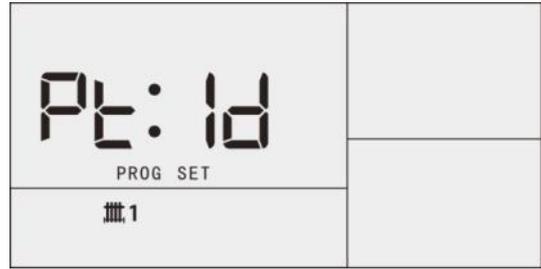
3.2.1
1day mode program setting.
After selecting the 1day program type, press the channel
1 [MODE] button to confirm and to set the channel 1
program.
To set Channel 1 P1-ON.
Press [UP] or [DOWN] to set hour. Then press [SELECT]
and press [UP] or [DOWN] to set minute.
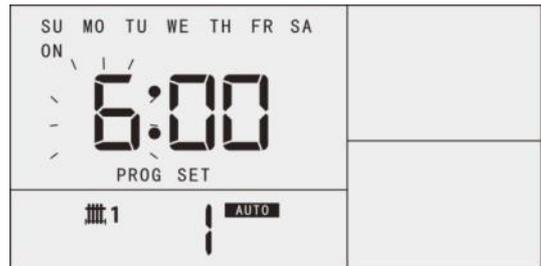
Press [SELECT] to set Channel 1 P1-OFF.
Press [UP] or [DOWN] to set hour. Then press [SELECT]
and press [UP] or [DOWN] to set minute.

Press [SELECT] to set Channel 1 P2-ON.
Press [UP] or [DOWN] to set hour. Then press [SELECT]
and press [UP] or [DOWN] to set minute.

Press [SELECT] to select among the items to be reviewed
or adjusted with the below sequences.

P1ON(Hour→Minute) → P1OFF(Hour→Minute) →
P2ON(Hour→Minute) → P2OFF(Hour→Minute) →
P3ON(Hour→Minute) → P3OFF(Hour→Minute) →
P1ON(Hour→Minute)
Press [SET] at any
time to confirm current setting and go back to main
program setting mode, then press [SET] to go back to
normal mode.
The device will automatically confirm current setting and
revert to Normal Mode, if no button is pressed for 60
seconds.

3.2.2
5/2day mode program setting.
After selecting the 5/2day program type, press the
channel 1 [MODE] button to confirm and to set the
channel 1 program.
To set Channel 1 Weekday P1-ON.
Press [UP] or [DOWN] to set hour. Then press [SELECT]
and press [UP] or [DOWN] to set minute.

Press [SELECT] to set Channel 1 Weekday P1-OFF.
Press [UP] or [DOWN] to set hour. Then press [SELECT]
and press [UP] or [DOWN] to set minute.

Press [SELECT] to set Channel 1 Weekday P2-ON.
Press [UP] or [DOWN] to set hour. Then press [SELECT]
and press [UP] or [DOWN] to set minute.

Press [SELECT] to select among the items to be reviewed
or adjusted with the below sequences.

Weekday P1ON(Hour→Minute) → Weekday
P1OFF(Hour→Minute) →
Weekday P2ON(Hour→Minute) → Weekday
P2OFF(Hour→Minute) →
Weekday P3ON(Hour→Minute) → Weekday
P3OFF(Hour→Minute) →
Weekend P1ON(Hour→Minute) → Weekend
P1OFF(Hour→Minute) →
Weekend P2ON(Hour→Minute) → Weekend
P2OFF(Hour→Minute) →
Weekend P3ON(Hour→Minute) → Weekend
P3OFF(Hour→Minute) →
cycle back to Weekday P1ON(Hour→Minute)

Press [SET] anytime to confirm current setting and go
back to main program setting mode, then press [SET] to
go back to normal mode.
The system will automatically confirm current settings
and go back to Normal Mode, if no button is pressed for
60 seconds.

3.2.2
7day mode program setting.
After selecting the 7day program type, press the channel
1 [MODE] button to confirm and to set the channel 1
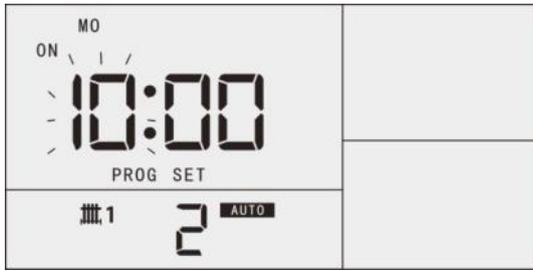program.
To set Channel 1 Monday P1-ON.
Press [UP] or [DOWN] to set hour. Then press [SELECT]
and press [UP] or [DOWN] to set minute.

Press [SELECT] to set Channel 1 Monday P1-OFF.
Press [UP] or [DOWN] to set hour. Then press [SELECT]
and press [UP] or [DOWN] to set minute.

Press [SELECT] to set Channel 1 Monday P2-ON.
Press [UP] or [DOWN] to set hour. Then press [SELECT]
and press [UP] or [DOWN] to set minute.

Press [SELECT] to select among the items to be reviewed or adjusted with the below sequences.
Monday P1ON(Hour→Minute) → Monday P1OFF(Hour→Minute) →
Monday P2ON(Hour→Minute) → Monday P2OFF(Hour→Minute) →
Monday P3ON(Hour→Minute) → Monday P3OFF(Hour→Minute) →
......
Sunday P1ON(Hour→Minute) → Sunday P1OFF(Hour→Minute) →
Sunday P2ON(Hour→Minute) → Sunday P2OFF(Hour→Minute) →
Sunday P3ON(Hour→Minute) → Sunday P3OFF(Hour→Minute) →
cycle back to Monday P1ON(Hour→Minute)

Press [SET] anytime to confirm current setting and go back to main program setting mode, then press [SET] to go back to normal mode.
The system will automatically confirm current setting and go back to Normal Mode, if no button is pressed for 60 seconds.

**Note: After confirming / adjusting the program settings, all channels will reset to auto mode.**

4. Operating Mode Selection
4.1 Normal Operating Mode

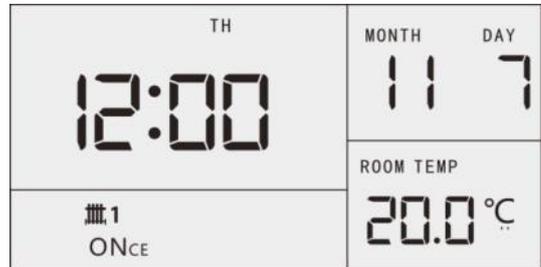| ON	Continuously on
ONCE	On for 1 period a day, from Program 1 ON to Program 3 OFF
AUTO	Automatic program control
OFF	Continuously off

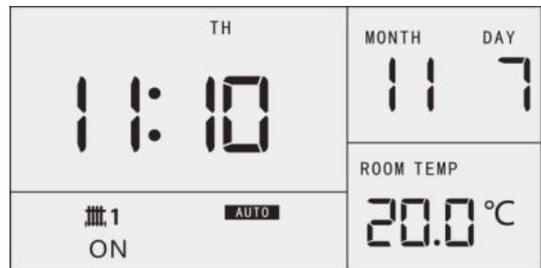Press [MODE] of Channel 1 Controls to select different operating modes with the below sequences.
ON→ONCE→AUTO→OFF→ON
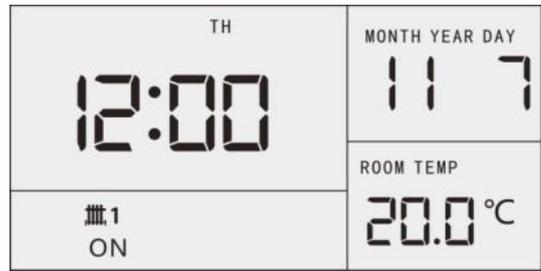
Operating mode: ON

Operating mode: ONCE


Operating mode: AUTO

Operating mode: OFF

4.2 Special Operating Mode
4.2.1 [+1Hr] function.

Press [+1Hr] of Channel 1 Controls to temporarily switch on channel 1. Subsequent press of [+1Hr] to increase the duration by 1 hour. Maximum duration is 9 hours. If the number rolls back to "0", this will disable the [+1Hr] Program Override.
Press [SET] or wait 5 seconds without key press to start counting down.
Press [+1Hr] to set the number to "0" to cancel.
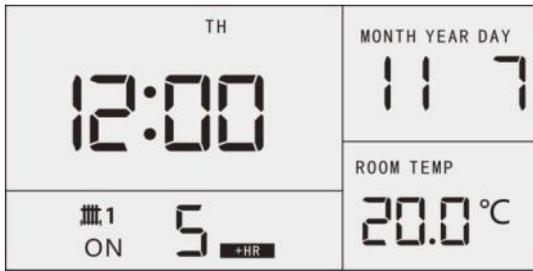
+1Hr function is activated.

Note: Remaining run time, 1minute to 60minutes will be indicated as 1hour

[+1Hr] function can be activated from AUTO, ON, ONCE and OFF modes.

4.2.2 Advance function.

This function allows the user to bring forward the next switching time.

If the channel is currently timed to be OFF and the ADV is pressed, the channel will be switched ON until the next switching time.

if the channel is currently timed to be ON and the ADV is pressed, the channel will be switched OFF until the next switching time.

Press the [ADV] button of channel 1 controls to advance channel 1.

Press the respective [ADV] button to cancel this function.
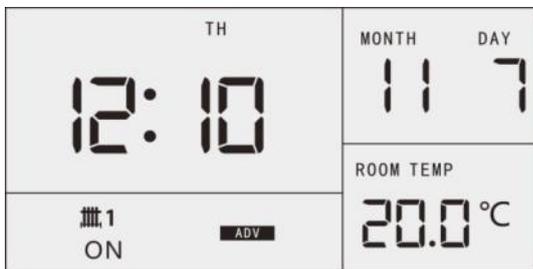
ADV function is activated

[ADV] function can be activated from AUTO and ONCE modes.

4.2.3 Note

Only one special operation mode can be activated at the same time. If [+1Hr] is activated, the [ADV] cannot be set to be activated.

When a special operation mode is activated, the normal operation mode cannot be selected, until the special operation is deactivated, or manually cancelled.

## 5. Other functions
5.1 Frost Protection function

This function is set to protect pipes against freezing or to prevent low room temperature when the programmer is programmed to be OFF, or is manually OFF.

At normal mode screen, press and hold [Frost ON/OFF] for 3seconds to set the frost protection temperature. Then press [UP] or [DOWN] to adjust. Selectable range 5~20℃ in 0.5℃ steps.
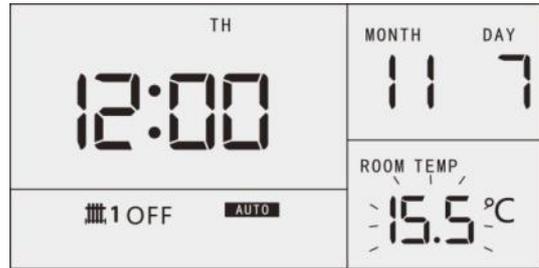
At normal mode screen, press [Frost ON/OFF] button one time to activate this function, denoted by the display frost symbol. Press [Frost ON/OFF] button again to deactivate, and the frost symbol `will disappear.

When the Frost Protection starts to work, the frost symbol will flash. All channels will be switched ON in the event of the room temperature falling to the frost protection set point.
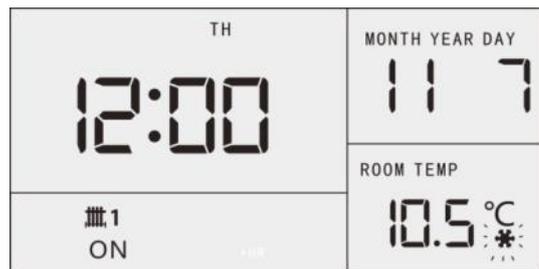
5.2 Holiday Mode

At normal mode screen, press and hold [HOLIDAY ON/OFF] for 3seconds to enter holiday mode setting mode.

Press [UP] or [DOWN] to adjust. Selectable 0~60days

Then press [SET] to confirm setting, and activate holiday mode.

All channel will be switched OFF, until the holiday mode is deactivated.

HO: 12

▥1 OFF

Press and hold [HOLIDAY ON/OFF] button for 3seconds to deactivate, when the holiday mode is activated. The programmer returns to normal mode.
The Programmer counts each pass through midnight as a day.

6. Other & Specifications

Press any key to activate Backlight.

The backlight will automatically turn off 5 seconds after all keys are released.

LCD backlight can only operate when AC supply is connected.

LCD backlight is illuminated throughout the Clock, Program, and Temporary Override Temperature settings.

If the AC supply fails, the programmer will stop working. The cell battery will keep the clock working and saves the program setting for 1 year.
Replace the cell battery, when the battery symbol is flashing on the display.

Replacement battery model: CR2032
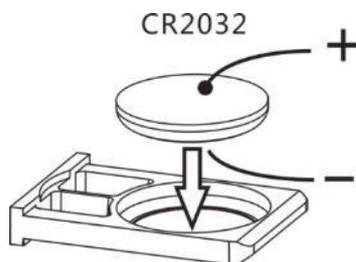
Power supply: 230VAC 50/60Hz

Switch rating: @ 230VAC 3(1)A

Operating temperature range:0~50°C