

# ETN24-PM-1S

Owner's Manual - Installation  
and Operating Instructions



Meitav-tec Ltd (Contel group)

Tel: +972-3-9626462 Fax: +972-3-9626620

[www.meitavtec.com](http://www.meitavtec.com) - [support@meitavtec.com](mailto:support@meitavtec.com)



**Please read this manual carefully before installation and use.**

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## 1. Options and Accessories

Remote sensor option:

- TS01: Temperature Sensor with 80cm cable.
- RS01: for remote temperature sensing (1 required); for averaging temperature at 4 locations (4 required) – the thermostat will control on the average temperature of all 4 locations
- RS02: for averaging temperature at 2 locations (2 required) – the thermostat will control on the average temperature of both locations

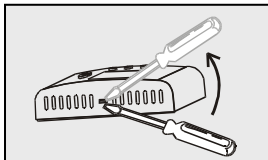
Remote Control (Purchase separately)

- RT03: Hand held remote control

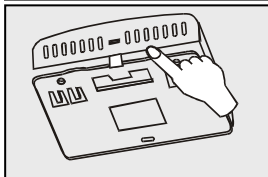


For details on where to purchase accessories, please contact Meitav-tec for you're nearest location or visit our web site

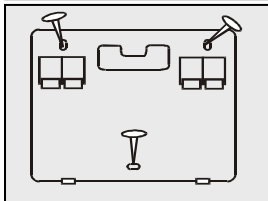
## 2. Installation Instructions



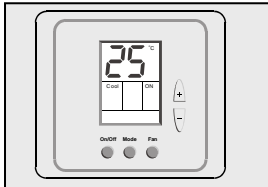
Separate the front panel from back panel by depressing the tongue located in the top of the unit.



Pull the back panel out.



Make electrical connections as shown on enclosed electrical wiring diagram. (Next page) Verify that you have 24Vac between terminals C and R.



Install the cover to the back panel; first the two tabs on the bottom and then the top tongue. Push until tight against the wall. Wait for 15 seconds for the LCD display to appear (completion of power circuit charging and for self-diagnostics).

### 3. Wiring Connections

| Switch | Function |
|--------|----------|
| OP     | Open     |
| CL     | Close    |
| G      | Fan      |
| C      | 24Vac    |
| R      | 24Vac    |

| Switch | Function                         |
|--------|----------------------------------|
| T      | External temperature sensor      |
| 0      | Ground for external temp. sensor |



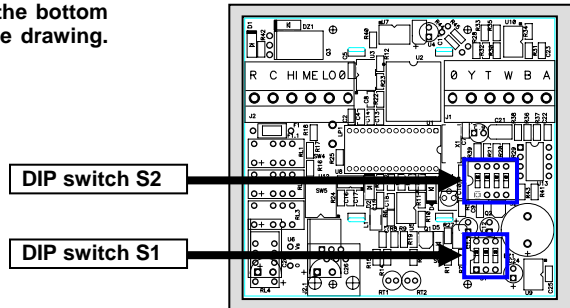
Please reference the stickers placed on the wall plate when wiring the unit (the designated terminals on the printed circuit board are for internal - factory use only).



“T”-“0” Terminals can be used in any system configuration when Meitav-tec external sensor is connected and the DIP switch is correctly configured.

## 4. DIP Switch Configuration

4.1 The DIP switches are located at the bottom right of the board as shown in the drawing. (Inside the thermostat)



DIP switch S1 configuration

| FUNCTION                        | DIP Switch settings |     |     |
|---------------------------------|---------------------|-----|-----|
|                                 | 1                   | 2   | 3   |
| Internal temp. sensor (Default) | ON                  | OFF | ON  |
| External temp. sensor           | OFF                 | ON  | OFF |



\* default

DIP switch S2 configuration

| FUNCTION                      | DIP Switch settings |     |     |     |
|-------------------------------|---------------------|-----|-----|-----|
|                               | 1                   | 2   | 3   | 4   |
| Set Open/Close motor time     | OFF                 | OFF | ON  | OFF |
| Normal working mode (Default) | OFF                 | OFF | OFF | OFF |



\* default

## 5. External sensor connection



The sensor can be purchased separately from Meitav-tec.

### N.TC. Sensor; Temperature ~ Resistance Characteristics

|         |       |       |      |      |      |      |      |      |      |      |
|---------|-------|-------|------|------|------|------|------|------|------|------|
| Temp °C | 7.2   | 10.0  | 12.8 | 15.6 | 18.3 | 21.1 | 23.9 | 26.7 | 29.4 | 32.2 |
| Temp °F | 45    | 50    | 55   | 60   | 65   | 70   | 75   | 80   | 85   | 90   |
| Res. k  | 115.8 | 100.9 | 88.1 | 77.1 | 67.7 | 59.6 | 52.5 | 46.4 | 41.2 | 36.6 |

The default from factory is **INTERNAL SENSOR**.

- Disconnect power to the thermostat 24Vac.
- Move DIP switch S1 to external sensor position (1-off, 2-on, 3-off)
- Connect external sensor to terminals T - 0.
- Reconnect power to the thermostat.

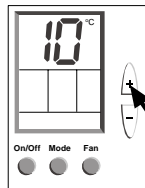
The length of the cable for the external sensor is 30 meters with standard cable.  
If longer distance is needed then the cable **MUST** be shielded.

## 6. Technician Settings

### 6.1 Set temperature limit for cool and heat, and offset for temperature reading.

#### Enter settings.

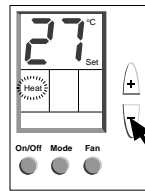
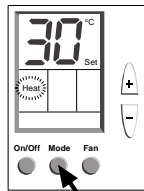
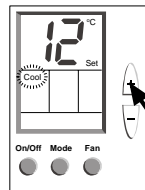
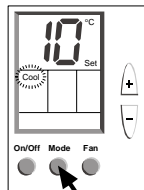
- Set temperature to 10°C.



#### Set Point Limits

The allowable range for Cool and Heat set point limits is 10°C...30°C.

- Press and hold the **Mode** button for 6 seconds – “COOL” and temperature appear on display.
- Using the (+) or (-) buttons adjust the Limit Cool temperature.
- Press the **Mode** button again – “HEAT” and temperature appear on display.
- Using the (+) or (-) buttons adjust the Limit Heat temperature.

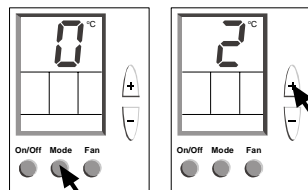


### Set Offset for temperature reading.

The Offset is used for field calibration of the measured temperature if necessary.

(Offset range -6°C...+6°C)

- Press the **Mode** button again – a number will appear on the display.
- Change the Offset for ambient temperature using the **(+)** or **(-)** buttons.

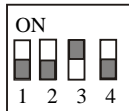


## 6.2 Adjust the Open/Close time for the motor.

The Open/Close time of the motor can be adjusted by the technician, according to the motor specifications.

Adjustable range: 10-400 seconds

- Disconnect power.
- Move DIP switch 2 to the following position:  
(1-OFF, 2-OFF, **3-ON**, 4-OFF)
- Reconnect power to the thermostat
- Adjust the Open/Close time using the (+) or (-) buttons according to the following equation: **Time(seconds) = ( 1 ÷ 40 ) X 10**  
example: 30 → 30 X 10 = 300 seconds.



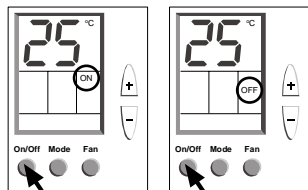
- Disconnect power.
- Return DIP switch 2 to the original position:  
(1-OFF, 2-OFF, **3-OFF**, 4-OFF)
- Reconnect power to the thermostat



## 7. Operating manual

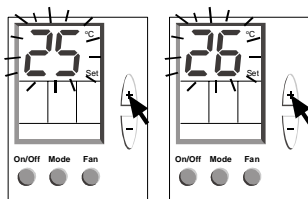
### 7.1 On/Off button

- Press the **On/Off** button to activate or deactivate the thermostat - The word "ON" or "OFF" will appear on the display.



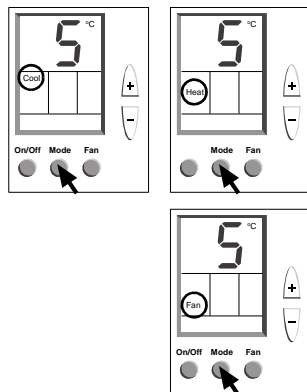
### 7.2 Temperature set-point adjustment

- Press the **(+)** or **(-)** buttons - the set-point temperature will flash on display.
- Adjust the set-point temperature using the **(+)** or **(-)** buttons.



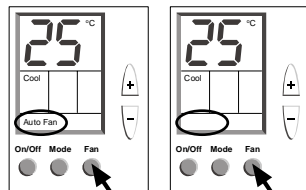
### 7.3 Modes

- Press the **Mode** button to switch between the four modes:
  - Cool – “Cool” appears on display.
  - Heat – “Heat” appears on display.
  - Fan only – “Fan” appears on display.



### 7.4 Auto Fan

- Press the **Fan** button to select Auto Fan – “Auto Fan” will appear on display.  
In Auto Fan mode – the fan will run only during demand for cooling or heating.
- Press the fan button again to cancel the Auto Fan mode.



## 8. RT03-HC-1S- Hand Held Remote Control - Non-Prog - Purchase separately

### 8.1 General

This is an Infrared Remote Control Unit, which means it must be pointed at the thermostat (or extra receiver) to operate.

Every time you change a parameter in the Remote Control, you must send it to the thermostat by pressing the "ON/SEND".

### 8.2 RT03-HC-1S - Operating Manual

#### On/Send, OFF

- Press the **On/Send** button to activate the air conditioner and/or updating information.
- Press the **Off** button to turn the air conditioner off.

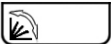



#### Temperature Set Point

- Select the desired temperature using the (+) or (-) buttons.
- Press the **On/Send** button to send information to thermostat.



## Auto Fan

- Press the **Select** button 5 times – swing will flash.
- Switch between Fan On  and Auto Fan   
Using the (+) or (-) buttons.
- Press the **On/Send** button to send information to thermostat.



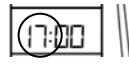
## Mode

- Press the **Mode** button to change between COOL, HEAT, and FAN ONLY Mode.
- Press the **On/Send** button to send information to thermostat.



## Real Time Clock and Day:

- Press the **Select** button – “CLOCK” and “SET” will flash.
- Press the (+) or (-) buttons - the hours will flash.
- Adjust the hours using the (+) or (-) buttons.
- Press the **Select** again - minutes will flash.
- Adjust the minutes using the (+) or (-) buttons.
- Press the **Select** button again to return to normal display mode.
- Press the **On/Send** button to send information to the thermostat.



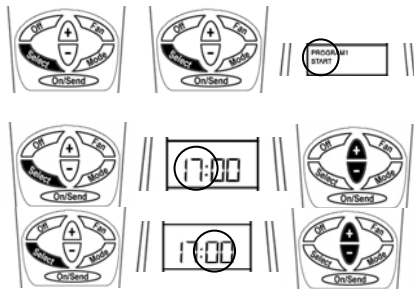
## Timer:



**IMPORTANT:** If no button is pressed for 10 seconds the display will return to normal mode.  
When the **TIMER** is active – “**AUX**” will appear on the thermostats display.

### Start Time:

- Press the **Select** button twice.  
“PROGRAM” & “START” (flashing) will appear on display.
- Press the **(+)** or **(-)** buttons - the hours will flash.
- Adjust the hours with **(+)** or **(-)** buttons.
- Press the **Select** button - the minutes will flash.
- Adjust the minutes with **(+)** or **(-)** buttons.



### Stop Time:

- Press the **Select** button.  
“PROGRAM” & “STOP” (flashing) will appear on display.
- Press the **Select** button - the hours will flash.
- Adjust the hours with **(+)** or **(-)** buttons.
- Press the **Select** button - the minutes will flash.
- Adjust the minutes with **(+)** or **(-)** buttons.
- Press the **Select** button - the **TIMER** will blink
- Using the **(+)** or **(-)** buttons, Select **TIMER ON** or **OFF**.

