

ETN-24-P-1S-TJ

Owner's Manual - Installation and Operating Instructions



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Please read this manual carefully before installation and use.

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1. Options and Accessories

Remote sensor option:

TS01: Temperature Sensor with 80 cm 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

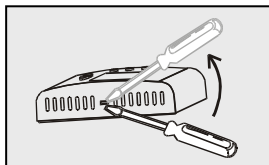
Remote Control (Purchase separately)

- RT03: Hand held remote control

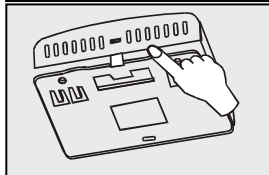


For details on where to purchase accessories, please contact Meitav-Tec for your nearest location or visit our web site at www.meitavtec.com

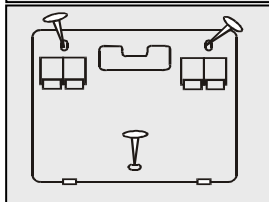
2. Installation Instructions



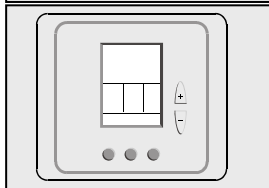
Separate the front panel from back panel by depressing the tongue located in the top of the unit.



Pull the back panel out.



Line the back panel up against the wall or flat surface. Install three screws as required.



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).

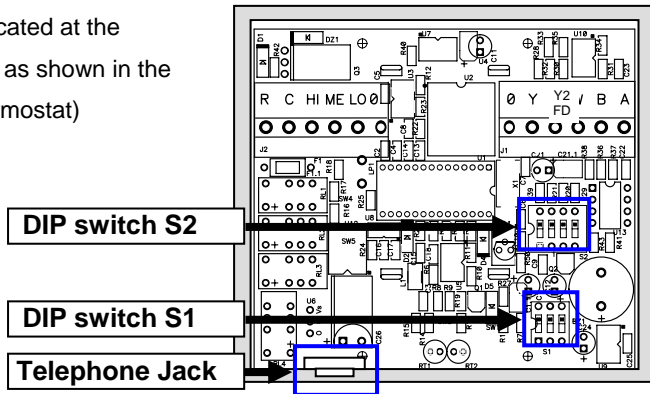
3. Wiring Connections

W	Proportional output for heat (0-10V)
T	External sensor (option)
Y	Proportional output for cool (0-10V)
T ₀	External sensor (option)

0	Common for cool and heat
X	Bridge connection to tel. Jack
G	Fan (1A)
C	Common for 24Vac
R	24Vac

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
Auto-change Over	Not in use (OFF)		ON= active OFF= inactive	Not in use (ON)



Default

5. External sensor connection

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

- Disconnect power to the thermostat 24Vac.
- Connect external sensor to terminals T - T0.
- 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 – Temperature Limits, Differential, Offset for temperature reading and Proportional Output Range.



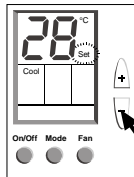
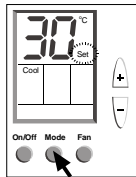
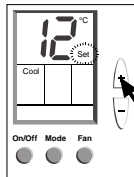
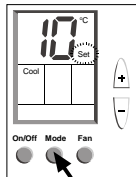
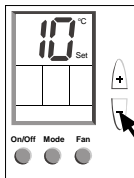
Note: If no key is pressed for 5 seconds – the thermostat will automatically return to normal display mode.

Follow the steps below to change settings:

- Set temperature to 10°C.

Set temperature limit for cool and heat.

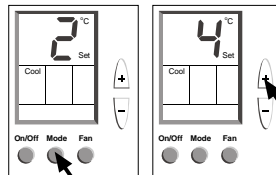
- Press and hold the **Mode** button (20 seconds) – “Cool” will appear on the display and “SET” will flash.
- Adjust the temperature limit for cool using the (+) or (-) buttons.
(Limit cool range: 10°C-30°C – default 10°C)
- Press the **Mode** button again – “Heat” will appear on the display.
- Adjust the temperature limit for heat using the (+) or (-) buttons.
(Limit heat range: 10°C-30°C – default 30°C)



Set differential for 0-10Vdc.

The temperature Differential defines the ratio between the opening level of the damper and the temperature demand. The damper will be fully opened when the demand (Demand = ambient temp – set temp) equals the differential. (Differential range: 2°C-10°C)

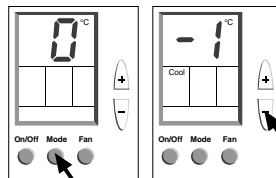
- Press the **Mode** button again – a number will appear on the display.
- Adjust the differential using the (+) or (-) buttons.



Offset

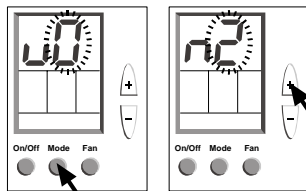
The Offset is used for calibration of the measured temperature when needed.

- Press the **Mode** button again – the offset will appear on the display.
- Adjust the Offset using the (+) or (-) buttons. (Offset range: (-5°C)-(+5°C) – default 0°C)



Proportional output range 0-10Vdc or 2-10Vdc

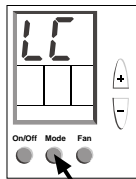
- Press the **Mode** button again – a number will appear on the display.
- Using the **(+)** button, change the scale to 2-10Vdc “2” will appear on the display.
- Using the **(-)** button, change the scale to 0-10Vdc “0” will appear on the display.



7. Technician Settings – Lock the thermostat's buttons

Follow the steps below to lock/unlock the thermostat's buttons:

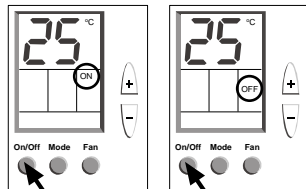
- Set temperature to anything but 10°C.
Important: This set temperature will remain while thermostat is locked.
- Press and hold the **Mode** button (10 seconds) – “LC” will appear on the display indicating that the thermostat is locked. When the thermostat is locked, the display will alternate between normal display and “LC”.
- Press and hold the **Mode** button again (10 seconds) to unlock the thermostat. The display will return to normal display mode.



8. Operating manual

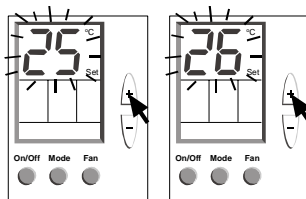
8.1 On/Off button

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



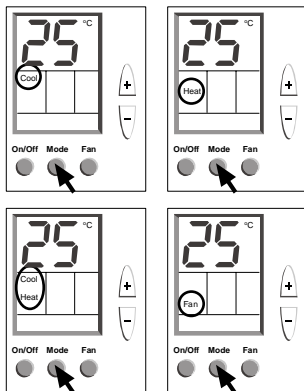
8.2 Temperature set-point adjustment

- Press the **(+)** or **(-)** buttons - the set-point temperature will flash and "SET" will appear on the display.
- Adjust the cooling set-point temperature using the **(+)** or **(-)** buttons.



8.3 Modes

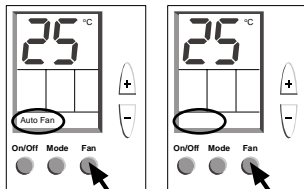
- Press the **Mode** button to switch between:
 - Cool** – “Cool” will appear on the display.
 - Heat** – “Heat” will appear on the display.
 - Auto Change-over** – “Cool” and “Heat” will appear on the display.
- In Auto change-over mode the active mode will flash.
- Fan Only** – “Fan” will appear on the display.



8.4 Auto Fan

The Auto Fan mode is available in all modes except for Fan Only mode

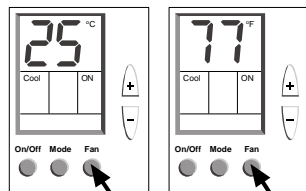
- Press the **Fan** button to select Auto Fan – “Auto Fan” will appear on display.
- In Auto Fan mode – the fan will run only during demand for cooling or heating.
- Press the fan button again to cancel the Auto Fan mode.



8.5 Temperature Scale

The thermostat can be configured to work in either Celsius or Fahrenheit scale.

- Press and hold the **Fan** button (5 seconds) to switch between the two scales.



9. RT03-HC-1S- Hand Held Remote Control - Non-Program – Purchase separately

9.1 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".

9.2 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.



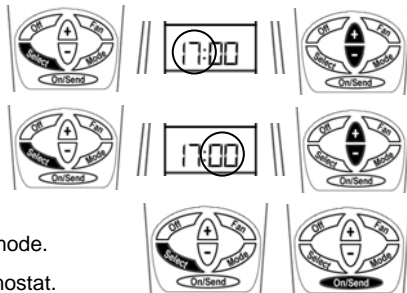
Mode

- Press the **Mode** button to change between COOL, HEAT, AUTO CHANGE-OVER and FAN ONLY.
- 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 using the **(+)** or **(-)** buttons.
- Press the **Select** button - the minutes will flash.
- Adjust the minutes using the **(+)** 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 using the **(+)** or **(-)** buttons.
- Press the **Select** button - the minutes will flash.
- Adjust the minutes using the **(+)** or **(-)** buttons.
- Press the **Select** button - the **TIMER** will blink
- Using the **(+)** or **(-)** buttons, Select **TIMER ON** or **OFF**.



- Press the **On/Send** button to send the information to the thermostat.
- If you did not change between TIMER ON or OFF, press the **Select** button to return to normal display mode.



Press the *On/Send* or *Off* button from the remote control or On/Off button from thermostat to manually override the timer settings. The manual override function will only be operative until the next automatic function of the program.

Comments



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