TE112 LCD Electronic Thermostat(24V)

Mounting Location:

The thermostat should be used for indoor applications only. It should be mounted on an inner wall about 1.5m(5 Feet) above the floor at a position where it is readily affected by changes of the room temperature with freely circulating air. It should not be installed in enclosed spaces or near surfaces that generate heat like a TV, heater or refrigerator and it should not be exposed to direct sunshine. Do not expose the unit to moisture. Do not expose this unit to dripping or splashing.

Mounting Instruction:

1/. Remove Cover:
- Place the screwdriver at the bottom of the locks and loosen the screws (@ '1' & @ '2')
- Remove the top cover carefully forward (@ '3') and then upward (@ '4') to loosen the top locks

2/. Mounting without bottom plate(Diagram 1):
- Ensure the surface is level
- Place the cables through the hole near the terminal block
- Insert the 2 wall anchors into the wall and fasten the thermostat with screws provided through the 2 mounting holes in the back wall of the thermostat.

3/. Mounting with bottom plate(Diagram 2):
- Install the bottom plate to the wall or on the junction box and ensure the plate is flush and cover the junction box completely
- If necessary, pull the cables out of the middle hole of the bottom plate
- Place the 2pcs of wall anchors at the wall if necessary
- Fasten the plate with the screws provided

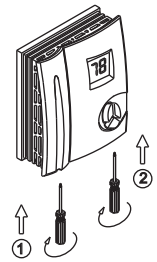
4/. Electrical Connection:
- Connect the cables to the terminal block according to the circuit diagram attached inside the top cover
- Afterward, tuck all cables back into the wall
- It is recommended to use a fuse or a circuit protective device
- Do not use metal conduit or cable provided with a metal shield

5/. Install the cover:
- Ensure the rubber keys are firmly on the PCB (@ '5')
- Ensure rubber keys fit through the openings of the cover (@ '6')
- Place the cover in the direction (@ '7') and ensure the top locks are fastened
- Press the cover in the direction (@ '8') and fasten the cover with 2 screws (@ '9' & @ '10')
- Check if the rubber key can be pressed easily, otherwise reinstall the cover and realign properly

6/. Temperature setting:
- Select the temperature by pressing ▲ or ▼ to the desirable temperature set point
- The room temperature display will return after 10 seconds when the icon disappears

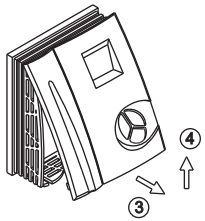
7/. Backlight:
- Press the backlight will light up the LCD display for 10 seconds.

8/. Jumper selection
S1 – Select C for degree Celsius (^{0}C) ; Select F for degrees Fahrenheit (^{0}F)
S2 – Select Int. for using internal sensor ; Select Ext. for using external senor (you need to connect external sensor to T1, T2 terminal)
S3 – Select Y for using deadband, N for no deadband
S4 – Select 1C for 1^{0}C(2 ^{0}F) deadband, 2C for 2^{0}C(4 ^{0}F) deadband (not applicable if S3 is N)
S5 – Select 1C for 1^{0}C(2 ^{0}F) span, 2C for 2^{0}C(4 ^{0}F) span
(Once jumper selection is changed, you must restart the program to take effect)



Troubleshooting:

Caution: Switch the electrical source off before servicing the thermostat, we recommend that it should be performed by trained personnel.



1/. No heating/cooling control
- Check relay on/off performance by applying DC voltage to the relay coil, if the relay doesn't work then replace the PCB
- Check rubber key performance by pressing ▲ or ▼, the icon should appear with the temperature setting changes. Otherwise align the rubber key or the LCD connector properly. If the problem persists then replace the PCB
- Check the thermistor sensor performance by measuring the corresponding variable resistance under different temperature, if the sensor is working the LCD value will change accordingly. If problem persists change the PCB.
- If the control circuit has a problem, replace the PCB if necessary

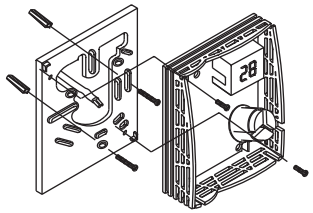


Diagram 2

Technical Data:

Temperature control Range:	40 ~ 95°F, 5 ~ 35 °C adjustable
Temperature measurement:	32 ~ 99 °F, 0 ~ 40 °C
Accuracy:	± 1°F, ±0.5°C
Resolution:	1°F, 0.5°C
Operating Voltage:	24Vac
Frequency:	50/60Hz
Relay Rating:	24Vac 5 A
Sensing Element:	NTC thermistor
Time Constant:	Approx. 2 min.
Terminals:	2mm^{2} Cable
Operating Temperature:	32 ~ 104°F, 0 ~ 40°C
Storage Temperature:	0 ~ 122°F, -10 ~ 50°C

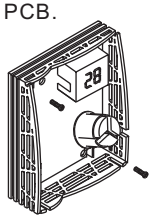
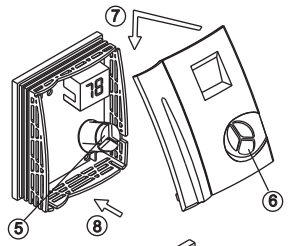
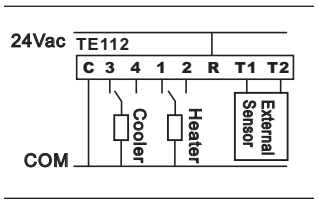
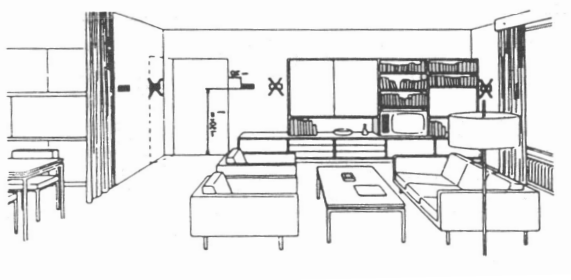
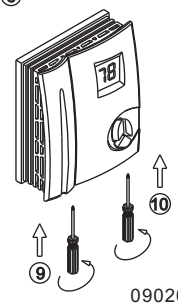


Diagram 1









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