



**Available for:**

- Fan coil unit
- Two-line Motorized Valve
- Three-line Motorized Valve
- Solenoid Valve
- Heating Equipment
- Three-speed angle fan valve

**Features**

- Bright back-lit display with interactive touch screen
- Adjustable manual 3-speed or automatic fan speed control, High, Medium and Low
- Setting point range +10 to +30°C
- Accuracy +/-1 °C
- NTC thermistor sensing element
- Power supply 220 Vac
- Consumption < 1.5 W
- Timing error < 1%
- Load current 1A (0.6A)
- Output consumption < 200 W
- Setting Turn on/off within 24 hours
- Attractive modern styling and smart outlook (12 mm only for surface board)

**Ordering**

Type no.	Description
<b>Touch Screen Thermostat, Heating Cooling</b>	
<b>TST 8A</b>	2-pipe system, controls fan coil and 2-wire motorized valve with 3 Fan Speed
<b>TST 8B</b>	Controls on/off (open/close) valve
<b>TST 8C</b>	2-pipe system, controls fan coil and 3-wire motorized valve with 3 Fan Speed
<b>TST 8D</b>	Controls on/off (0 to 30°C, 0 to 60°C 0 to 90 °C) damper
<b>TST 8E</b>	Four-pipe systems, controls fan coil and 2-wire or 3-wire motorized valve with 3 Fan Speed.
<b>TST 8MV</b>	Modulating 0-10 Vdc with 3 Fan Speed.

## Description

TST 8 series Touch Screen Thermostats are used to control room temperature in commercial, industrial and residential environment via controlling fan coil units and motorized valve, motorized fan and valve of heating only, cooling only and heating/cooling central air-condition and system thereof, and uses NTC to detect the room temperature and compares it with the set-point so as to automatically keep the room temperature stable.

### Data Memory.

If the power cut off accidentally, it could be continuing to work by order when power turns

When reach set-point, the motorized valve closed, but the fan coil turn to slow.

When opening the 2-way motorized valves, you should close the auxiliary electrical heating.

When open the auxiliary electrical heating, you should close the 2-way motorized valves.

Automatically control heating and cooling.

The Touch Screen Thermostats could identify to control heating or cooling automatically according to the set temperature.

For example, when room temperature is 25°C and set temperature is lower than it,

Touch Screen Thermostats will changeover to cooling automatically.

When room temperature is 25°C and set temperature is higher than it,

Touch Screen Thermostats will changeover to heating automatically.

Press and hold Mode botton and Fan Speed botton, and enter into temperature compensation to set the temperature by ▼ and ▲ botton, then confirm after 5 minutes. The max. compensation range: -9°C -9°C.

## Symbols



Power on off.



Mode: press 0.3 seconds — Heating/Cooling/Air flow only  
Menu: Press 3 seconds — Sleeping; Non-programmable & Programmable switchover; time and Programmable setting



Fan Speed: auto, high, middle and low




Temperature setting and mode adjusting.

**Menu & Setting**

**Non-programmable (manual) 1-1 to 1-5.**

**Programmable (optional) 1-6.**

**1-1. Temperature setting**

- A. Programmable : When it is running, temperature and Power on/off can not be adjusted. Please refer to 1-6.
- B. Non-programmable (Manual): Can set it directly through ▲▼ when in standby mode.(LCD screen shows  on the top right corner)



**1-2. Fan speed setting**

Fan speed: Auto—High—Med—Low  
Under auto fan mode, thermostat could adjust fan speed automatically according to comparing diff. temp. between room and set point.




**1-3. Heating/Cooling/Air Flow Setting**

Touch mode key: Heating/Cooling/Air Flow changeover.  
When it is Air Flow, valve closes, and fan coil supplies air.




**1-4. Sleeping Setting**

Touch Function key for 3 seconds to switch to Sleeping and when the  is flickering, please press ▲ for confirm and ▼ for cancel.



**1-5. Programmable & Non-programmable switchover**

Touch Function key for 3 seconds to switch to Non-programmable (manual) When the  is flickering, please touch ▲ for confirm and ▼ for cancel.



**1-6. Programmable Setting (optional)**

Below is an example of 5+1+1 Programmable operation.  
The steps of setting for one week are 18 (from 1 to 18, please refer to following instruction and chart)  
Touch "Function" key, and then operate as following: Minute setting of Clock—Hour setting of Clock—Week setting—Minute setting of turn-on(first time zone)—Hour setting of turn-off ( second time zone)—Hour setting of turn-off (second time zone)—Temp.Setting

Week	First Time Zone			Second Time Zone		
	Turn-on	Turn-off	Temp.setting	Turn-on	Turn-off	Temp.setting
Mon.-Fri.	1	2	3	4	5	6
Sat.	7	8	9	10	11	12
Sun.	13	14	15	16	17	18

**Turn-on automatically after the power back (optional)**

While the system is in process, and the power cut off suddenly, it will memorize all the existent data and run according to previous data.

Timing and Sleeping also have this memory function.

This function is popular at Hotel, Power House etc

**Room Temperature Measurement**

As the installation position and the air convection, we need to adjust and measure the room temperature (show in thermostat), so that room temperature (show in thermostat) could be the same with the actual room temperature as much as possible.



During Turn-off,

touch the "function" for 3 sec.,

room temperature up

▲ room temperature down

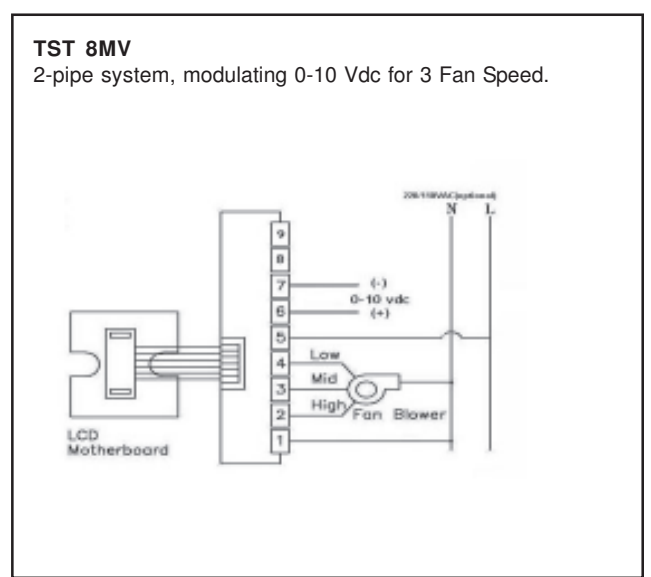
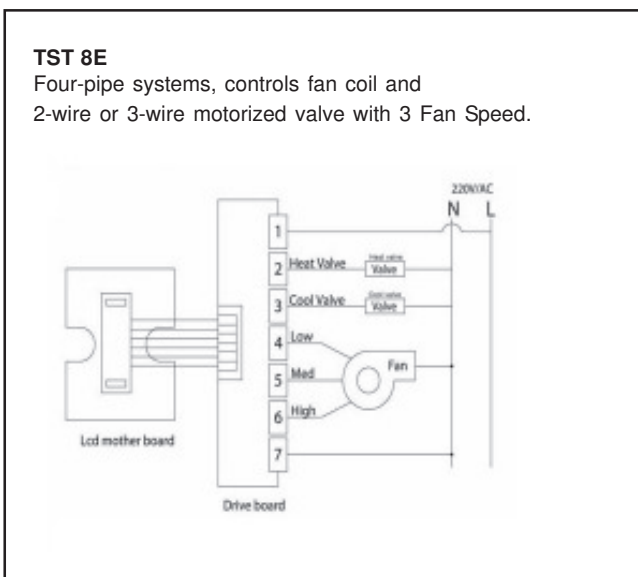
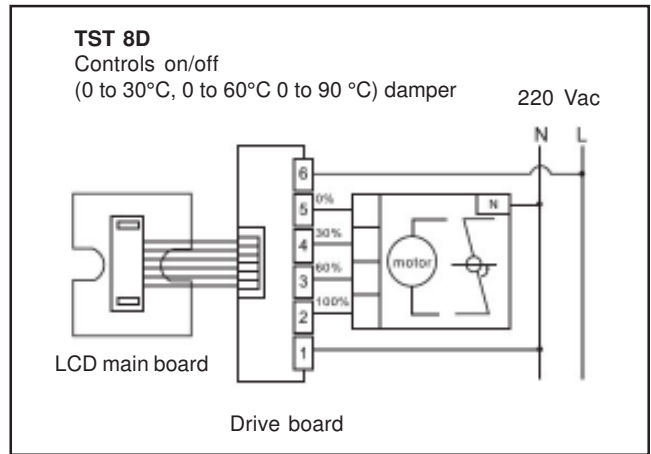
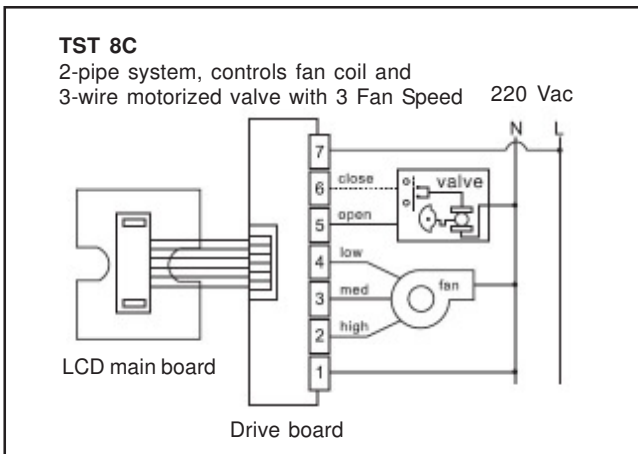
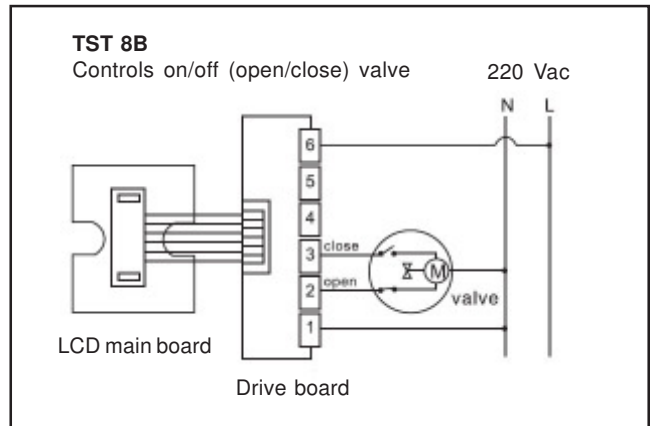
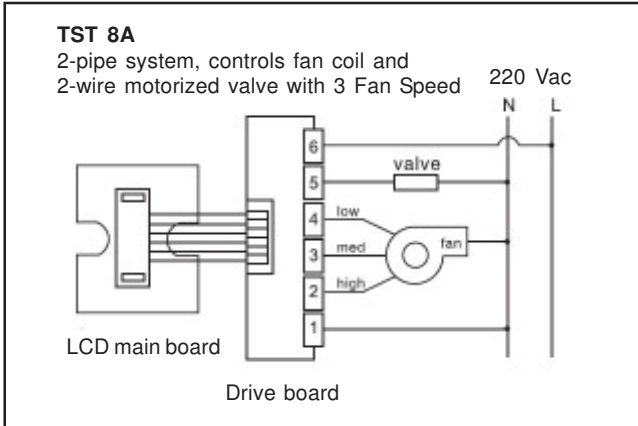
▼ set the temperature you want, and then confirm by turn-on.



**Keys and Function of Remote Controller (optional)**

- " Mode " ..... Heating/Cooling Change-over
- " UP " ..... Temp Up "+"
- " Down " ..... Temp Down "-"
- " Fan " ..... Fan Speed
- " Sleeping " ..... Sleeping Function
- " Timing " ..... Timing Setting
- " Saving " ..... Energy-Saving
- " Super " ..... High strong fan speed
- " Power " ..... Turn-on/off

Wiring



**Warning: Risk of electric shok.**

Disconnect power supply before making electrical connection.

Contact with components carrying hazardous voltage can cause electrical shock and may result in severe personal injury or death.

**Installation instructions**



Use a small size screwdriver (approx. 3.5 mm width) insert to the notch of LCD Display unit about 4 mm.



Turn up the screwdriver with a little pressure, and open the LCD unit.



Please use two screws (provided) to fasten the back cover of LCD Display unit on wall or box.



LCD Display Unit and power unit are connected (please connect them softly to avoid the lines from damaged).



The cover of LCD Display unit is connected on the wall or box at the angle of 30°.



The Power unit should be connected to the fan coil unit according to the wiring diagram (Please see wiring diagram).

## Dimensions



## Troubleshooting

Please make sure again if the wiring connection of L and N Line are installed correctly and the mode of heating and cooling match with setting requested.

### Normal Problems:

### Reason and Solution

#### No Response while power is on:

- Please check if the power and connecting of L Line and N Line is appropriate connected.
- Please check if the Turn-on/off key is working.
- During installation, have the LCD driver placed first before placing the Power Drive.
- Do the check the connection lines on LCD Driver to Power Driver.

#### LCD Error:

- The back cover is anamorphic while installing, please release one or two fasten screws

#### Normal Display but no output:

- The line connected with LCD Driver and Power Driver is broken-
- Please have the LCD Driver replace and the Power Driver

#### Remote Controller is out of control:

- Please have the batteries checked-
- Replace the remote controller unit

#### The temperature displays incorrectly:

- Please adjust the temperature through pressing the keys on board

**Important:** Please arrange the professional technician to install this product according to installation drawings and instruction

We reserve the right to make changes in our products without any notice which may effect the accuracy of the information contained in this leaflet.