

TTS-10

for Ducted Split System Air Conditioners

Thermostat Kit

Installation Instructions

GENERAL

The **temperzone** Wall Thermostat (TTS-10) is a wall mounted wired thermostat controller. It has a Liquid Crystal Display (LCD) and a 7-day programmable [On/Off] timer. The Wall Thermostat sends instructions to the TTS-10 Controller board which resides in the **temperzone** Indoor Unit. In the event of a power failure a battery backup will maintain the real time clock and the integrity of the control's data.

There are three kits, each designed for use with different **temperzone** Indoor Units:

Model	Thermostat Kit
ISD 75Q, 85Q, 101Q	Item No. 325-121-011
ISD 127Q, 150Q, 181Q	Item No. 325-271-011
ISD 220Q, 265Q	Item No. 325-391-011

The TTS-10 is a single stage thermostat and therefore not suitable for use with the ISD 146QB.

Note: This thermostat is **not** compatible with older ISD 75Q–220Q units fitted with electric heat kits that do not include an air pressure safety switch.

ISD INDOOR UNITS WALL THERMOSTAT KIT

Components:

1. TTS-10 Controller board.
2. TTS-10 Wall Thermostat plaque, including wall mounting plate
3. 10 m interconnecting lead
4. 1 x Lithium 3V CR2032 battery
5. Wall thermostat screws
6. Wiring loom
7. Heat transfer paste

8. Cable tie
9. User's Operating Instructions booklet.
10. Wiring schematic self-adhesive label
11. Three 2 pole relays c/w screws (ISD 127-181 Q thermostat kit only)
12. TTS-10 Installation Instructions

Check that all items of the kitset are supplied and no damage has occurred to the items.

TTS-10 CONTROLLER BOARD Installation

1. Isolate the ISD unit from power supply, then remove electrical box cover.
2. **IMPORTANT: Discard grey jumper wire between terminal 4 and terminal 11 (terminal MED on ISD 220Q, 265Q).**
3. Mount TTS-10 Controller board inside electrical box by firmly pushing its six self locking mounting feet into the pre-drilled mounting holes.
4. *ISD 75Q, 85Q, 101Q only:* Unplug fan motor's speed and neutral wires from unit's terminal block, and reconnect to TTS-10 Controller board as per wiring diagram on page 4.
5. *ISD 127Q, 150Q, 181Q only:* Secure the three 2 pole relays supplied with PK screws supplied (see Fig.2).
6. Use wiring loom (supplied) and reference table appropriate to your unit (see page 3) to complete wiring connections. **Note:** The TTS-10 Wall Thermostat automatically switches the indoor fan off during de-ice, therefore no additional wiring is required to achieve this result.

7. Stick the supplied self-adhesive wiring label over the indoor unit's current label.
8. Find the brazed sensor pocket on one of the coil's copper return bends nearest the electrical box.
9. Apply heat transfer paste (supplied) to the TTS-10 Controller Board's indoor coil sensor and the pocket entrance.
10. Insert the sensor into the pocket and use the cable tie supplied to secure the sensor wire to the return bend so the sensor can not slip out.
11. Remove the Wall Thermostat's interconnecting lead from its box and connect the plugged end of the interconnecting lead to plug CN4 on the TTS-10 Controller board. Trace the remaining length of the lead to the wall thermostat's intended location.
12. Replace the electrical box cover.

TTS-10 WALL THERMOSTAT

Separation from Wall Mounting Plate

Remove the thermostat body from the wall mounting plate by inserting the tip of a small flat screwdriver in the slot at the bottom centre of the thermostat body, and press vertically up (gently) against the holding catch. This will disengage the bottom of the thermostat body from the wall mounting plate and allow it to be lifted free.

Wall Mounting

The t/stat body must be located away from:

- cold drafts (including supply air)
- cold surfaces
- radiant heat sources (e.g. direct sunlight).

It must be mounted on a flat surface. Fixing it onto a distorted surface may damage it. This is particularly important on a brick wall. If the surface is uneven, place packing behind the wall mounting plate.

Use the wall mounting plate as a template for locating screw holes and cable entry point. If the interconnecting cable is to be located behind a wall, drill a hole through the wall, directly behind the rectangular slot provided on the wall mounting plate. Seal the hole surrounding the cable to prevent any cold drafts coming out of the wall cavity.

Use the screws supplied to secure the wall mounting plate to the wall.

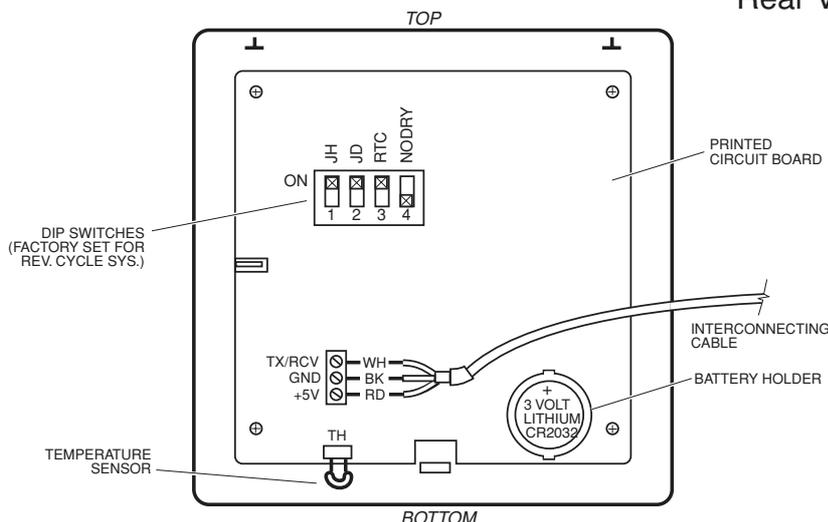
Setting the DIP switches

On the back of the thermostat's front panel, there are four DIP switches labelled 1 to 4 (refer figure 1). The ON position is the switch up position.

continued...

Fig. 1

TTS-10 Wall Thermostat Rear View



Setting the DIP switches (cont'd)

The DIP switches are factory set for Reverse Cycle systems – as highlighted in bold lettering (refer Table 1). Check the settings.

Note: Cooling Only systems require DIP switch 1 to 'OFF' and DIP switch 2 to 'ON'. Before changing any DIP switch settings make sure that the battery is removed from the thermostat and supply power to Controller Board is turned off - if connected. Ensure the DIP switches are set to meet your system's requirements.

Interconnecting Cable

Assuming the cable has already been connected at one end to the indoor unit (Step 11 above), first check the cable is not live before proceeding.

Connect the free end of the interconnecting cable to the thermostat's terminal block as per figure 1.

Fitting the Battery

Insert the supplied battery into the holder of the thermostat with the positive side (+) facing up (refer to fig. 1).

Carefully clip the thermostat front panel back onto the wall mounting plate.

COMMISSIONING

Refer to Outdoor Unit and Indoor Unit Installation Instructions in order to complete the start-up and commissioning procedure for the complete air conditioning system.

Check that the wall thermostat is correctly wired and set at the desired temperature.

Demonstrate the Wall Thermostat to the owner/user, after having first thoroughly familiarised yourself with the *User's Operating Instructions*. This booklet to remain with the owner/user.

Note

The manufacturer reserves the right to change specifications at any time without notice or obligation. Certified dimension available on request.

This pamphlet replaces the previous issue no. 2261 dated 06/03. Wiring rev.B - grey jumper wire removal.

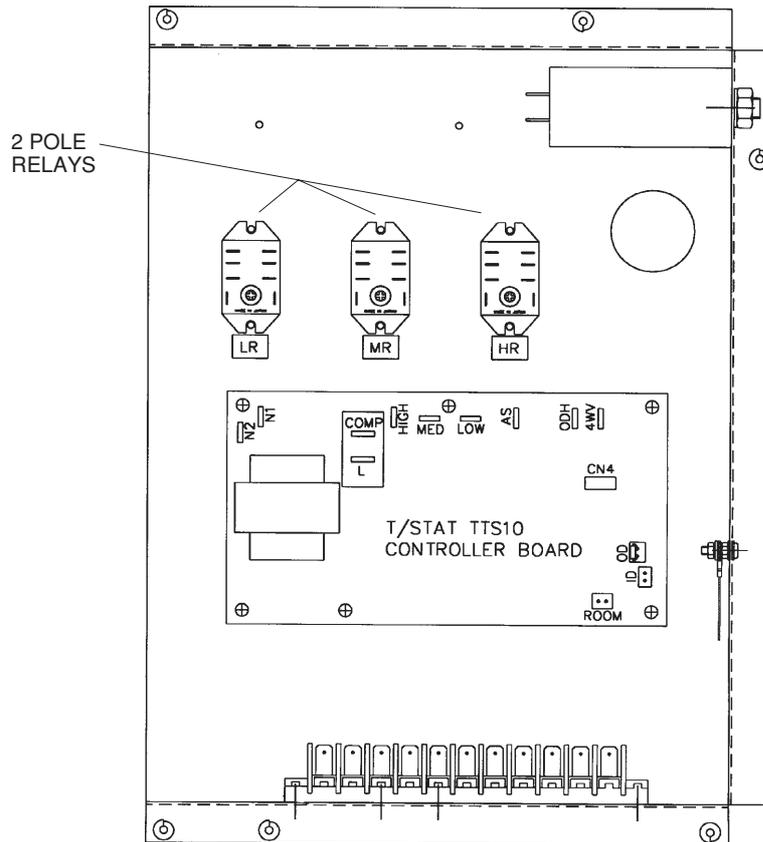
Table 1 DIP Switch Settings

FUNCTION/S	DIP SWITCH			
	1	2	3	4
	JH	JD	RTC	NODRY
Cool, Dry and Fan mode selection only	OFF	ON		
Cool, Dry, Fan and Heat mode selection only	ON	OFF		
Cool, Dry, Fan, Heat and Auto mode	ON	ON		
Real Time Clock not required			OFF	
Real Time Clock required			ON	
Dry function is not required				ON
Dry function is required				OFF

Note: Factory settings for Reverse Cycle systems are highlighted in bold.

Fig. 2

**ISD 127Q, 150Q, 181Q
Relay Locations**



Wiring Looms

ISD 75Q, 85Q, 101Q

Item	Length (mm)	Colour	From	To
1	300	Black	terminal N	TTS-10 Controller term'l N1
2	330	Red	terminal 4	TTS-10 Controller term'l L
3	310	Blue	terminal 5/6	TTS-10 Controller term'l COMP.
4	120	Black	terminal N	terminal 1
5	400	Green	electrical box cover	main Earth stud
6	230	Orange	terminal 7	TTS-10 Controller term'l 4WV

ISD 127Q, 150Q, 181Q

Item	Length (mm)	Colour	From	To
1	300	Black	terminal N	TTS-10 Controller term'l N1
2	330	Red	terminal 4	TTS-10 Controller term'l L
3	360	Red	terminal 4	HR terminal 5
4	140	Red	HR terminal 5	MR terminal 5
5	140	Red	MR terminal 5	LR terminal 5
6	310	Brown	HR terminal 3	terminal 12
7	310	Red	MR terminal 3	terminal 11
8	310	White	LR terminal 3	terminal 9
9	310	Blue	terminal 5/6	TTS-10 Controller term'l COMP
10	230	Orange	terminal 7	TTS-10 Controller term'l 4WV
11	180	Brown	TTS-10 Controller term'l HIGH	HR terminal 7
12	180	Red	TTS-10 Controller term'l MED	MR terminal 7
13	180	White	TTS-10 Controller term'l LOW	LR terminal 7
14	160	Black	TTS-10 Controller term'l N2	HR terminal 8
15	140	Black	HR terminal 8	MR terminal 8
16	140	Black	MR terminal 8	LR terminal 8

ISD 220Q, 265Q

Make following changes to existing wires in unit:

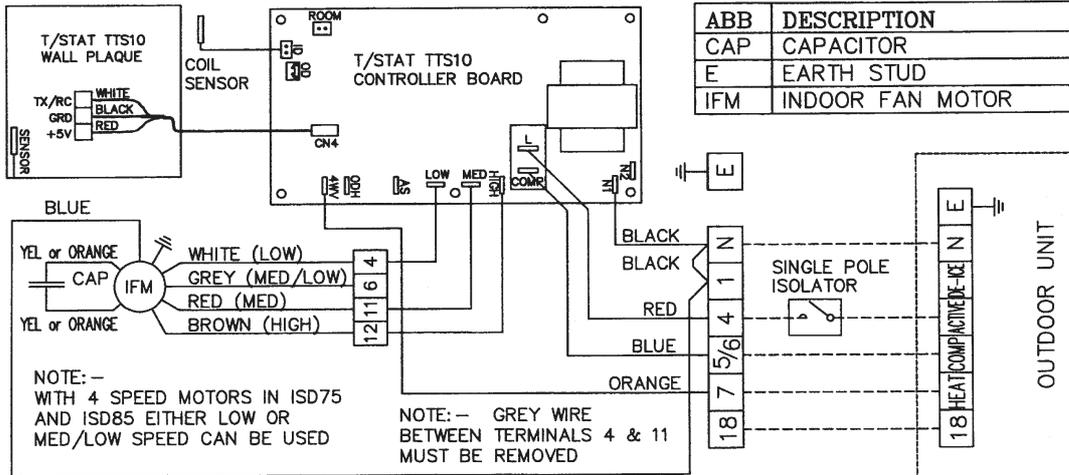
Step	Colour	Disconnect from	Reconnect to
1	White	terminal LOW	TTS-10 Controller term'l LOW
2	Red	terminal MED	TTS-10 Controller term'l MED
3	Brown	terminal HIGH	TTS-10 Controller term'l HIGH
4	Black	terminal 1	TTS-10 Controller term'l N2

New wiring loom:

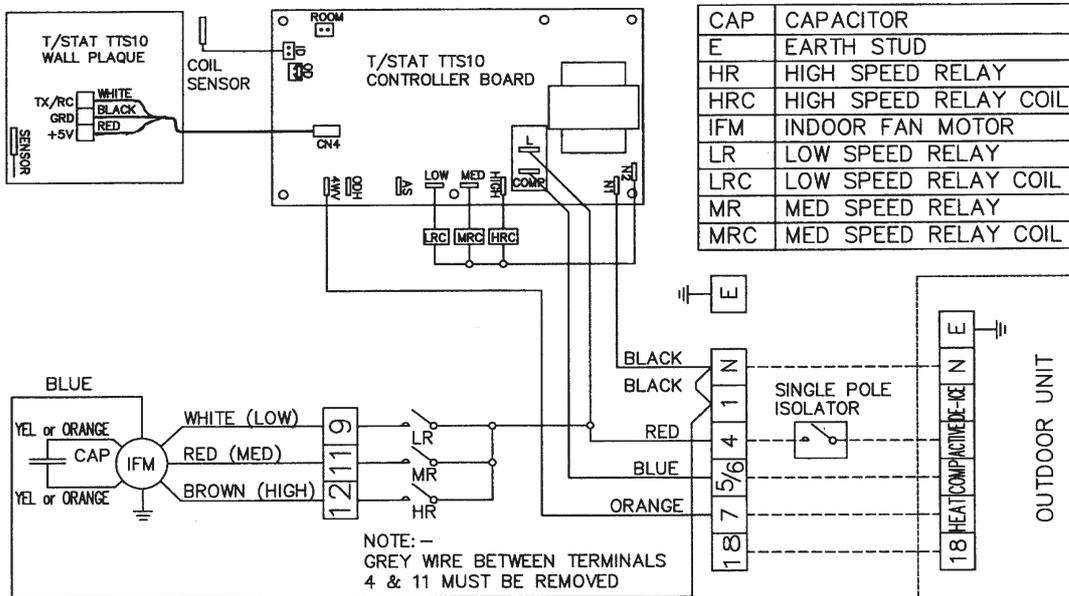
Item	Length (mm)	Colour	From	To
1	300	Black	terminal N	TTS-10 Controller term'l N1
2	330	Red	terminal 4	TTS-10 Controller term'l L
3	310	Blue	terminal 5/6	TTS-10 Controller term'l COMP.
4	80	Black	terminal N	terminal 1
5	310	Orange	terminal 7	TTS-10 Controller term'l 4WV

Wiring Diagrams

ISD 75Q, 85Q, 101Q



ISD 127Q, 150Q, 181Q



ISD 220Q, 265Q

