



TTS-10 Wall Thermostat

Troubleshooting Guide

GENERAL

Troubleshooting is already documented in the *TTS-10 User's Operating Instructions*.

This additional Troubleshooting Guide assumes power is on to the TTS-10 Wall Thermostat and the on/off light is showing, that the control is not in a 'Timed Off' condition or in a 'Sleep' mode, and is set to 'Auto', 'Cool' or 'Heat' mode.

SYMPTOMS & SOLUTIONS

Fails to become live when power applied (or dies seconds after startup)

Check 230 volt power (Red wire) is on 'L' terminal of the Controller board (located in the Indoor Unit) and Neutral (Black wire) is connected on 'N' terminal.

Check interconnecting wiring connection at Wall Display/Sensor board. The wires are most likely transposed.

Correct wiring is:- White to TX/RC terminal, Black to GRD and Red to +5V.

Compressor stops seconds after initial startup on heating mode or fails to start

May be failing on HP switch or on high indoor coil temperature protection.

Check indoor coil sensor is correctly inserted in sensor pocket and is surrounded by heat transfer paste to ensure good temperature conductance. Poor contact would result in the indoor fan starting late and the compressor failing on HP.

Check indoor coil sensor does not have broken wire, ie open circuit. Indoor fan should default to low speed and compressor should not start at all.

Check indoor coil sensor is not bridged/short circuited. Indoor fan should default to low speed and compressor should not start at all.

Check indoor coil sensor is not sensing a high indoor coil temperature (67°C), if compressor starts and this occurs (fan motor failure or poor air flow) compressor signal is locked out and the controller must be switched off and on to reset.

Check Wall Display/Sensor is not located such that air from a supply grille is blowing directly or indirectly onto it. This may cause major swing of temperature at the sensor and change of cycle from heat to cool, indoor fan stopping and long delay before restart.

Display of 'LO' or 'HI'

Room temperature out of range, ie below 8°C or above 40°C. Controller should still operate normally and as temperature becomes closer to set point will start displaying correctly.

Loss of set points/time settings

Time, temperature, fan speed and on/off status should be retained in memory when power is lost from external source.

'OP' will appear on the display for a few seconds when switched on and defaults to: Monday 12am, Cool cycle, 25°C setpoint and low fan speed, when battery is low.

Check battery and/or battery polarity.

Check 'Timer Active' is being displayed. If not, then timer settings have not been activated by the user.

Verify your settings were entered successfully and have not been miskeyed.

Fails to restart from external time clock

Time, temperature, fan speed and on/off status should be retained in memory when power is lost from external source.

'OP' will appear on the display for a few seconds when switched on and defaults to: Monday 12am, Cool cycle, 25°C setpoint and low fan speed, when battery is low.

Check battery and/or battery polarity (Note: battery life when used with an external time clock is significantly reduced).

Disable internal time clock - turn dip switch 3 to OFF, and deactivate timer by pressing 'Hold' button until the words 'Timer Active' disappear.

Major swing in displayed temperature

Check supply air is not blowing directly or indirectly on to wall sensor/display.

Check position of Wall Display/Sensor relative to solar effect through window.

Check position of Wall Display/Sensor relative to draft from door, etc.

Check Wall Display/Sensor is not mounted on a cold/hot wall surface.

Check sensor is not pushed up inside - should be visible from underneath.

Check that a cold draft inside the wall structure is not entering the sensor area through the electrical hole. (This is more common than you may think).

Indoor fan stops during dead zone (especially in heating mode)

Room or return air temperature has reached 18°C.

Check fresh air introduction is not too great thus influencing indoor coil sensor reading. (TTS-10 is not really suitable for fresh air introduction above 15% of total air flow).

Check indoor coil temperature sensor is located properly in sensor pocket on coil return bend.

Check indoor coil sensor - should be in the range of 10 to 15 kohm if temperature is between 15 and 25°C. (Note: The sensor connection plug is glued to the pins on the Controller board. To avoid damaging the pins, remove the Controller board and return it to **temperzone** for testing.)

Check Wall Display/Sensor is not located such that air from a supply grille is blowing directly or indirectly onto it. This may cause major swing of temperature at the sensor and change of cycle from heat to cool, indoor fan stopping and long delay before restart.