SmartOne Thermostat Fan Coil Set Up Guide

The following instructions can be used for setting up the SmartOne thermostat for the control of a fan coil.

Fan Coil Mode

To set the thermostat into fan coil mode follow the steps below:

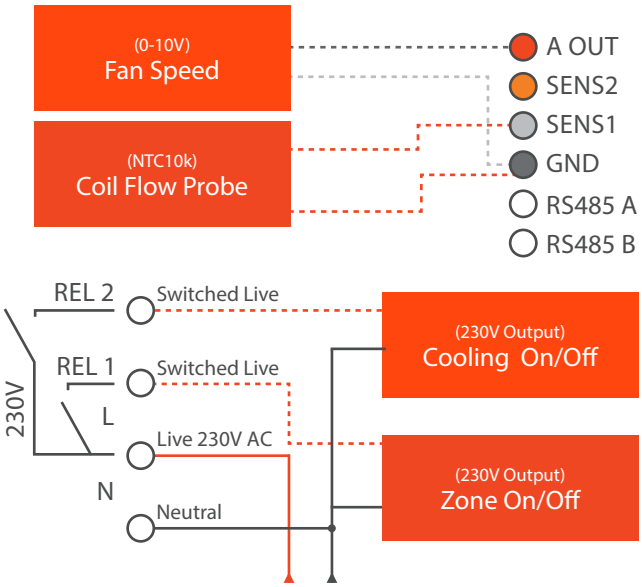
1. Power up the SmartOne thermostat and follow the prompts through to the menu. Press the symbol in the upper right hand corner of the screen for **Network > WiFi > Scan Network >** Select network (2.4GHz only) **> Enter correct password > Confirm**. Now the thermostat is connected to the WiFi it will update to the latest software version.

2. Press the ☰ in the upper right hand corner of the screen and navigate to **Settings**. Using the passcode **264408** you can enter the **Advance Settings** menu. Once in the advance setting menu change the following settings:

   a. Under Setup > Type - set the thermostat to Fan-coil. This will reboot the thermostat.

   b. Navigate back to the Advanced setting menu then under Parameters > Fan-coil the fan coil specific parameters can be set.

Wiring diagram (backplate)



- The Zone on/off output is a 230V output, this may require a relay to switch the heat source/zone on/off.
- The cooling on/off output is a 230V output, this may require a relay to switch the cooling on/off.

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Fan Coil Settings

Once the SmartOne thermostat is in fan coil mode the following parameter can be adjusted. Only some of these may be required to suit a given application and the description below may assist you in determining these:

1. **Parameters:** in the parameters menu the following settings can be made:

   a. Automatic parameters: these settings allow the automatic fan speed control settings to be adjusted;
      i. Min fan speed: in automatic mode this is the minimum output voltage that will be provided to the fan coil – for most fan coils this should be set to 3.0V
      ii. Max fan speed: in automatic mode this is the maximum output voltage that will be provided to the fan coil – for most fan coils this should be set to 10.0V
      iii. Min fan speed hysteresis: this is the difference from set point at which the minimum fan speed will apply – for most fan coils this should be set to 1.0°C
      iv. Max fan speed hysteresis: this is the difference from set point at which the maximum fan speed will apply – for most fan coils this should be set to 3.0°C

   b. Manual parameters: these settings are used to set the fan speed output voltages for the 3 manual fan speed options:
      i. Volt Low: this is the voltage output that the controller will provide to the fan coil in the Low fan speed mode and the Const Fan speed – for most fan coils this should be set to 3.0V
      ii. Volt Mid: this is the voltage output that the controller will provide to the fan coil in the Mid fan speed mode– for most fan coils this should be set to 6.5V
      iii. Volt High: this is the voltage output that the controller will provide to the fan coil in the High fan speed mode– for most fan coils this should be set to 10.0V

   c. Temp. Driven parameters: these are the set points for preventing the fan operation before the heated or cooled water has reached the coil inlet;
      i. Heating Threshold: this is the minimum water temperature that will be required for the fan to be started in heating most – for most fan coils this should be set to 30°C.
      ii. Cooling Threshold: this is the maximum water temperature that will be required for the fan to be started in cooling most – for most fan coils this should be set to 20°C.

   d. Minimum off delay: this is the minimum off time for the fan coil to stop the fan cycling on and off as settings are changed or due to sudden changes in the room temperature – for most fan coils this should be set to 1 minute.

2. **Constant fan:** turn this on if it is desired for the fan to never switch off but to drop back to the minimum fan speed when there is not active heating or cooling demand. This function is useful for fan coils located in sleeping areas where the fan coil switching off and on would be more disturbing than the fan remaining on permanently.

3. **Temp-Driven:** turn this on when a probe located on the fan coil flow pipe has been wired into the SENS1 and GND contacts. This will prevent fan operation until the coil flow temperature has reached the Temp. Driven set points. This function is useful to stop the fan operating until the heated or chilled water has reached the fan coil. Note: if Constant Fan is enabled the fan will continue to run at the min fan speed until the Temp. Driven set points are reached.

All other settings for Temperature and Humidity are the same as the standard product and can be set up as per the standard Advanced Start Up Guide.

Using the Thermostat

In Fan Coil mode the SmartOne thermostat retains very similar functionality to the standard product, the main difference is the inclusion of a Fan Speed screen below the main screen for the user to select the fan speed:

- **Low:** When heating or cooling is required the fan will run at the low fan speed irrespective of the distance to set point.
- **Medium:** When heating or cooling is required the fan will run at the medium fan speed irrespective of the distance to set point.
- **High:** When heating or cooling is required the fan will run at the high fan speed irrespective of the distance to set point.
- **Auto:** When heating or cooling is required the fan speed will be varied up and down depending on the distance to set point.

Note: If const fan is enabled the fan will run at the low fan speed when there is no heating or cooling required and irrespective of the fan speed selected.