Viking Smart Sensor RS-SSD Manual

Version 4.0

Manual version 1.5

Thank you for the purchase of the Viking Smart Sensor RS-SSD V4.0. This advanced sensor will provide the user with access to the Viking's many functions that will permit them to adjust their comfort settings. (If enabled)

The new Smart Sensor is compatible with all Viking firmware versions, however many of the new functions detailed below will only be compatible on Vikings with firmware version 4.0 or above. (Version 4.5 for CO2 related function). This sensor is fully backwards compatible with older SMT-920 Viking firmware and can be used as a replacement sensor.

Sensor Functions

The RS-SSD temperature and humidity sensor has been designed to permit the user to see and control room temperature. Further, if enabled by the installer, the RD-SSD version 4.0 will permit the control of several other functions such as setpoint adjustments or the ability to turn the air conditioning on or off.

Turning the Air Conditioning On or Off and Changing Mode

If enabled by the installer, this function will permit you to turn the air conditioning off, (overriding any SMT-920 Viking time clock functions) or to change modes. Tap the button to toggle between all available functions.

Using the After Hours Run Function

If enabled by the installer, this function will permit you to start the afterhours run timer so your air conditioning can be operated outside of normal operating hours. This function operates for a pre-set time before turning off. The After-Hours function is only available outside of normal operating hours. To use the afterhours run function, tap the AH Timmer button when the text "After Hours" is shown.

Adjusting Set Temperature

If enabled by the installer, you will be permitted to adjust the set temperature by tapping the temperature Up/Down buttons for the available heating or cooling modes. These setpoints shown on the RS-SSD version 4.0 sensor adjust the setpoints stored in the SMT-920 Viking controller. If Single Setpoint adjustment mode is enabled, then the setpoint adjustment will apply equally to both the heating and cooling setpoints that have been set in the SMT-920 Viking.

Fan Mode Adjustment

If enabled by the installer, you will be permitted to adjust the mode of the air conditioning Fan. Available modes will be shown and adjustable by tapping the Fan button.
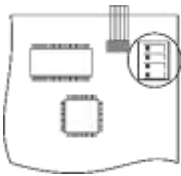
Installing the Sensor

The wiring overview shown (below) indicates how each sensor in the network of sensors is wired. S1, S2, S3 & S4 on the sensor is wired to S1, S2, S3 & S4 on the SMT-920 Viking. Each sensor is fitted with a set of switches

Each sensor must have unique network address
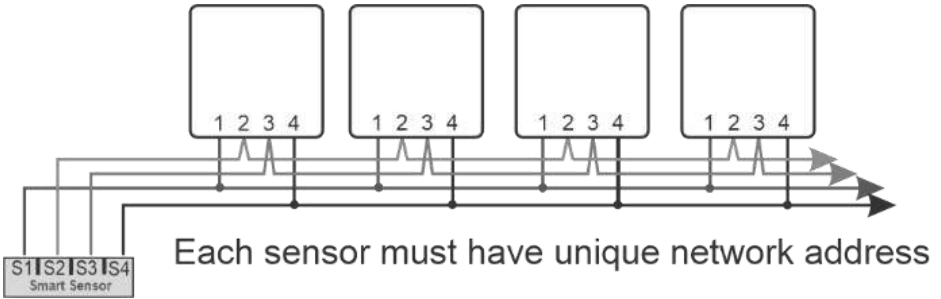
on the printed circuit board as shown in the diagram below. These switches set the address of the sensor. It doesn't matter what address you select but no two sensors connected to any one SMT-920 Viking should share the same network address.


Do not set all DIP switches ON

Up to 15 Smart Sensors can be installed on to any single SMT-920 Viking. The individual Smart Sensor will show its local temperature and humidity however the SMT-920 Viking will control to the average temperature of all 16 sensors. Further, Hi or Low select can be used if set by the installer within the Viking installer menu.
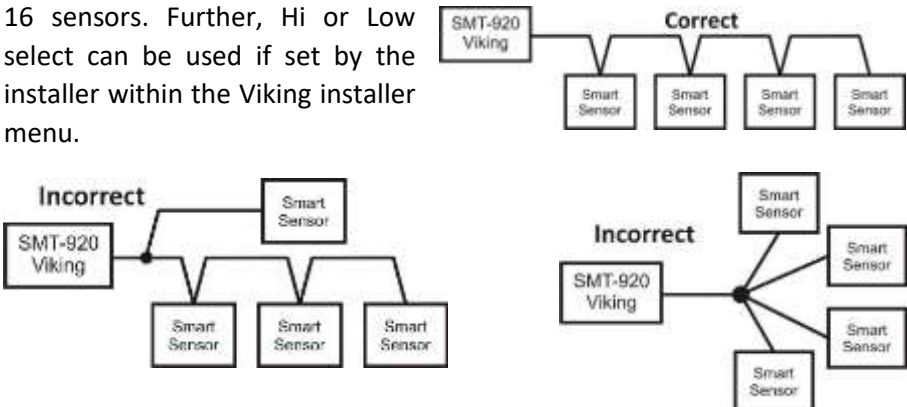
Remote 2 wire Temperature Sensor

The RS-SSD room temperature sensor can be disabled and a standard Smart Temp 2 wire remote sensor (RS-01/02) can be used should you wish to measure room temperature at a different location than the RS-SSD location. Wire the RS-01/02 into the RS-SSD "TT" terminals.

Single Sensor

Averaging in 4 Locations

Averaging in 2 Locations
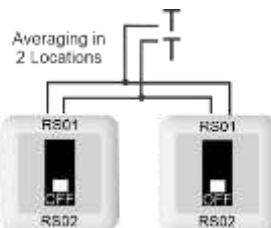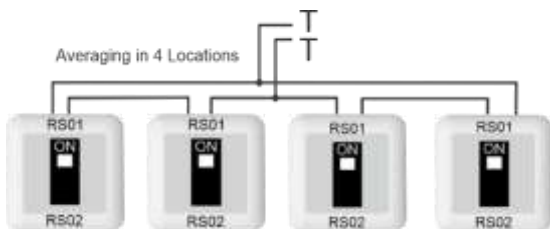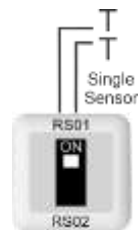
Do not enable Display Only mode if you intend to use 2 wire remote sensors connected to the RS-SSD.


Averaging in 3 Locations
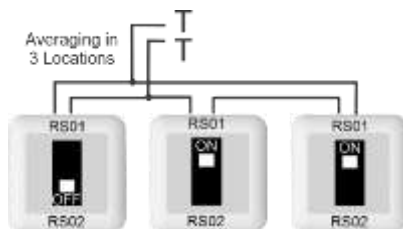
Installer Options Menu

The RS-SSD has an Installer Options menu that permits you to control or adjust various sensor functions.

<u>To Enter the Installer Menu</u>

Press and hold the lower right corner of the LCD until the display changes and shows you the number "15". Use the Up/Down button to adjust the display to show "21", the factory default PIN or your previously set PIN if changed from the factory default.
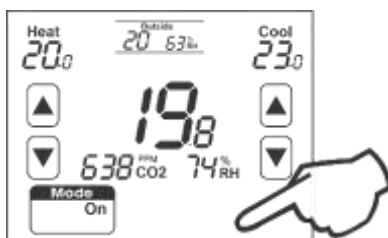
Tap the lower right corner to enter the Installer menu. If the PIN is correct you will enter the menu. If you enter an incorrect PIN you will be exited from this menu.

Tap the lower right corner to advance forward through the menu options, tap the lower left corner to step backwards through the menu. Tap the arrow pointing up on the left of the display to exit the Installer menu and use the Up/Down buttons on the right of the display to adjust the menu options.

Installer Options Menu

AH	**After Hours Run Period -** This function is used as a countdown timer when the SMT-920 Viking is in Manual mode, or an afterhours run timer when the SMT-920 Viking time clock function is used. Adjustable from 0 to 12.0 hours in 0.5 hour increments. Default 2 hours. Setting this value to OFF disables the afterhours run timer function.
OO	**On – Off Function -** Permits the user to turn the SMT-920 Viking on or off. In Programmable mode – This function underlines overrides the program to OFF. In Manual mode - This function acts as a manual ON / OFF. Default is ON This function if enabled, adds the On/Off function to the mode function below.
nn	**User Modes Available -** Sets the mode(s) available to the user by pressing the Mode Select button. 0 = Off or Auto mode (Default) 1 = Off or Heat only 2 = Off or Cool only 3 = (Off), Heat or Cool 4 = (Off), Heat, Cool, Auto NOTE - to enable the OFF function from the above settings, you need to ensure the OO (on Off function above is set to on)

St	**Set Temp Mode Enable -** This function permits the user to adjust the set temperature for the selected modes. Off = Set temperature adjustments are not permitted (Default) 1 = Single Setpoint mode - The sensor will show the average of the active heating and cooling setpoints and adjust both setpoints equally. (If heat set is 20 and cool set is 22, the RS-SSD sensor will show a setpoint of 21. Adjusting the setpoint on the RS-SSD will adjust both heating and cooling setpoints by the same amount. 2 = 2 Setpoint mode - The heating and cooling setpoints can be independently adjusted.
HL	**Heating Setpoint Limit -** Sets the maximum possible Heat Setpoint
CL	**Cooling Setpoint Limit -** Sets the minimum possible Cool Setpoint
RS	**Sensor Speed of Response -** This option adjusts the temperature sensor response time changes in room temperature. VS = Very slow S = Slow Nor = Normal Fst = Fast VF= Very Fast
SC	**Temperature Sensor Calibration -** Permits a +/- 5.0^{o}C adjustment of room temperature sensor value.
rH	**RH Sensor Calibration -** Permits a +/- 20 % adjustment of RH sensor.
BL	**Backlight Brightness** 0 =Off 1 = Low 2= Medium 3 = High 4 = Always ON
DI	**Display Only Mode -** If enabled, this function disables the RS-SSD sensor for temperature and humidity. This sensor will now only display the values (or average value if multiple sensors are used) reported by other Smart Sensors connected to the same SMT-920 Viking.
Pn	**PIN -** This is the number required to enter the Installer menu. Adjust with caution as a forgotten PIN will require factory reset. (Default is 21)
Bp	**Beeper -** Enables or disables the audible beep when buttons are pressed.
FA	**Fan control –** When connected to a temperzone™ air conditioner by the ModBus port (A & B) you can enable fan control on the RS-SSD display. This will permit the user to select fan speeds.

Smart Temp Australia P/L
Unit 20 /1488 Ferntree Gully Rd
Knoxfield Victoria
Australia   3180
+61 397630094
www.smarttemp.com.au
support@smarttemp.com.au