Installation Guide
smart controls
Summer Temperature Sensor

For
SmartSqurbo
and
SmartBoxer
systems

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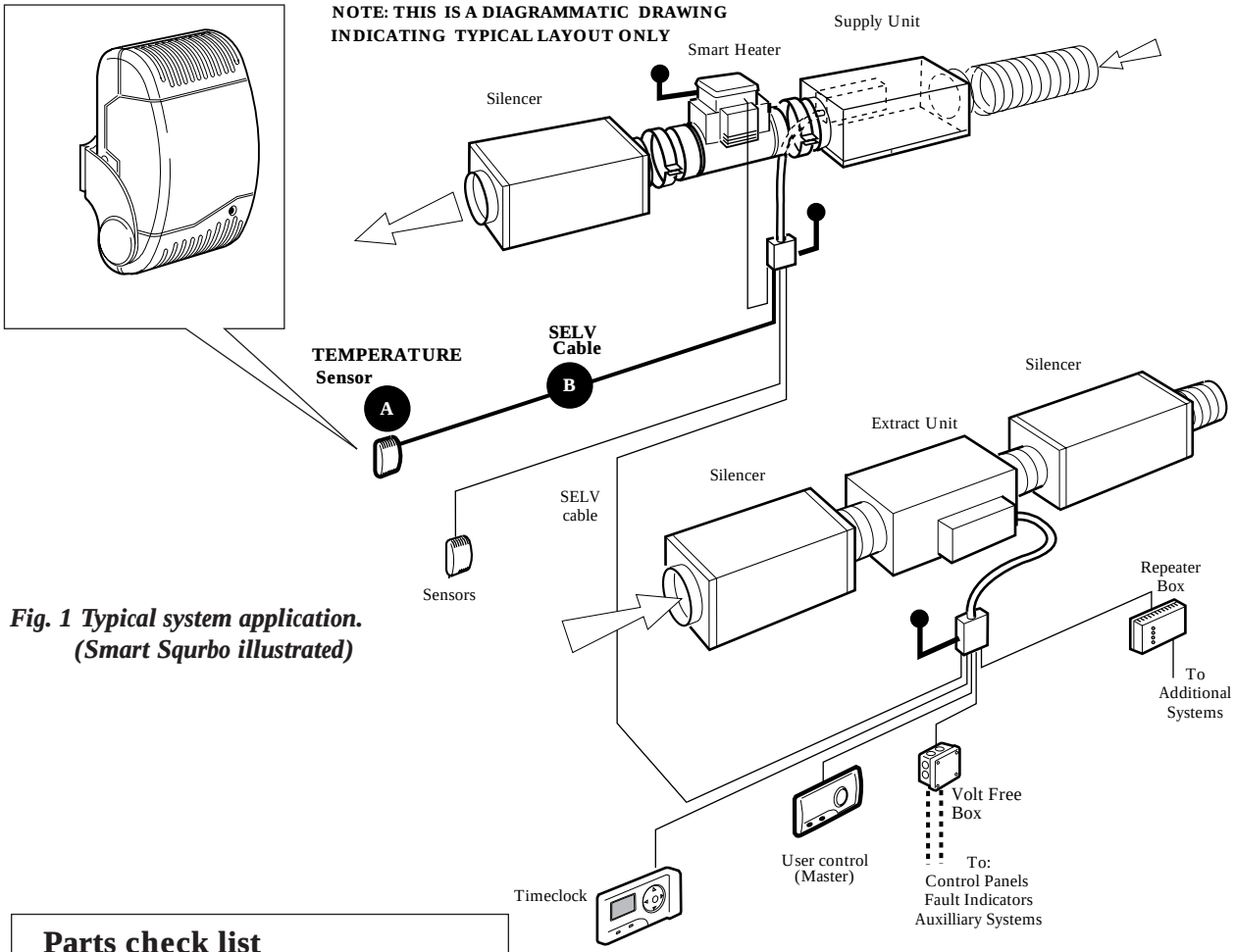

Fig. 1 Typical system application. (Smart Squrbo illustrated)

Parts check list

- **A** **SS-TEMP-LV Temperature Sensor**
- **B** **1 off 10 metre length of plugged SELV cable**

SS-TEMP-LV
Summer Temperature Sensor

Designed to be used with the Smart Squrbo and Smart boxer range of supply and extract fans the sensor is supplied with a pre-plugged 10m length of communications cable.

The sensor operates on Safe Extra Low Voltage and is powered from the fan control module
The sensor has an adjustable 1-30 °C. set point
This Sensor will vary the ventilation rate automatically according to the measured temperature when '**SUMMER MODE**' is selected at the User Control*****.

In 'winter mode' the Temperature Sensor is de-activated and the 'auto' setting on the User Control***** runs the fan at minimum speed.

*** NB: For the Summer Temperature Sensor to operate, an Automatic (- A) User Control is required.**

Communications cable

A 10m length of Safe Extra Low Voltage communications cable (SELV) with plugs attached is supplied with the sensor.
Note longer lengths are available if required from NuAire.

Sensors

Low Voltage Sensor (SS-TEMP-LV)

Installing the Sensor

The Sensor is supplied complete with 10 metres of connecting cable with plugs attached. Sensors are also supplied with all fixings and are clipped into a backplate wall mounting bracket.

a) Fix one end of the 10m cable to the fans customer connection box (connection sockets marked NET).

b) Select a suitable location for the sensor and arrange the cable in position. Leave approx. 75mm of the cable free at the mounting point to ease the connection of the plug. (fig. 2).

c) Carefully separate the sensor from the backplate using a small screwdriver (see Fig 3) Note: the sensor will remain connected by its internal cable.

d) Release this cable from the bracket by simply pulling the plug off the socket pins in the backplate.

e) Before fixing the backplate to the wall, connect the wall fixed cable end plug to the UPPER set of pins on the bracket (fig 4) NOTE: CHECK THE COLOUR CODE matching on when fitting the plug onto the pins. Arrange the cable to lay in the cable slot at the top of the backplate moulding and fix the bracket to the wall surface using the screws supplied.

f) The sensor plug can now be connected into the backplate NOTE: CHECK THE COLOUR CODE matching when fitting the plug onto the pins.
Clip the sensor body in the backplate arms and adjust the sensor body to the desired position.

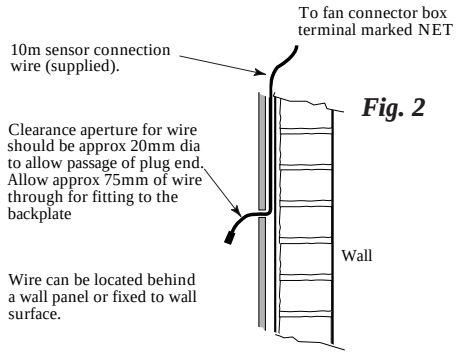

Fig. 2

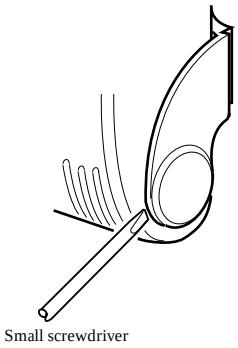

Fig. 3

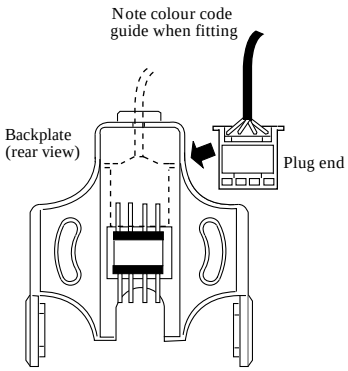

Fig. 4

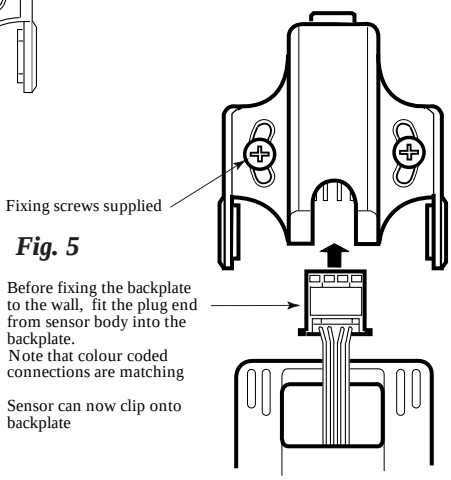

Fig. 5

Using the 'trickle setting'

At stage (d) above, take the sensor body and carefully prise the two halves apart using a small screwdriver or similar tool. Locate the four minature slide switches in the corner of the circuit board and position slider 3 to the ON position to activate the trickle setting.

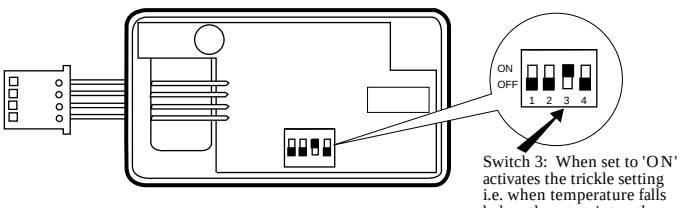

Fig. 6

Adjusting the sensor set points

SS-TEMP-LV Set Point: **Adjustable temp setting 1-30 °C**

Assuming the sensor(s) are installed, adjustment of the set point is achieved by tilting the sensor forwards which exposes the adjustment aperture (see fig 7). Using a small screwdriver, gently turn the dial either clockwise or anti-clockwise to increase or decrease the set point.

When adjustments are made to the sensor, the LED light on the sensor front will illuminate RED for approx 2 seconds. The light will then extinguish for approx 1 second and begin to blink an AMBER colour. The number of blinks indicate the setting i.e. ten blinks on a SS-TEMP-LV would inform you that the sensor has been set to 10 °C.

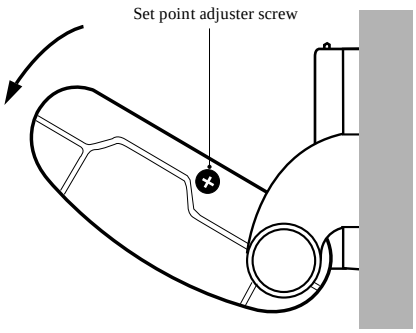

Fig. 7

SS-TEMP-LV Operational Settings

Switch settings

USE ONLY SWITCHES 2 & 4 FOR THESE ADJUSTMENTS

NORMAL OPERATION
(Proportional band over ten 10 °C steps)

When temperature RISES, the fans will increase speed. The example below shows a set point at 19 ^{0}C

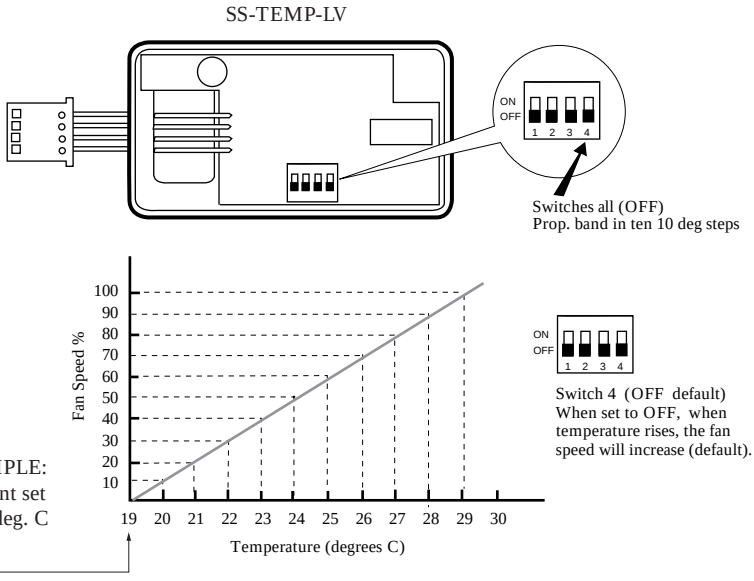

Fig. 8 Normal operation

REVERSE OPERATION
(Proportional band over ten 10 °C steps)

When temperature FALLS the fan will run faster

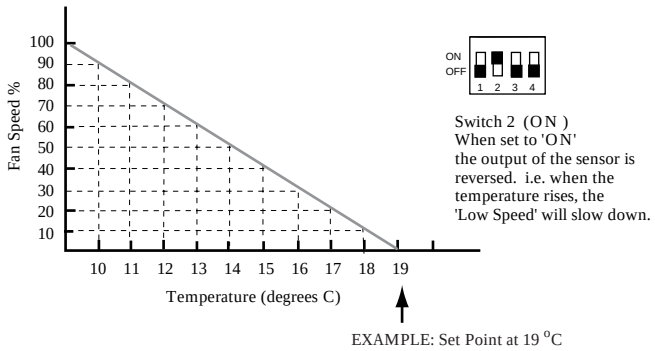

Fig. 8 Reversel operation

If a narrower band is required,setting switch 4 to (ON) will set the proportional band over five, 5 deg. steps.

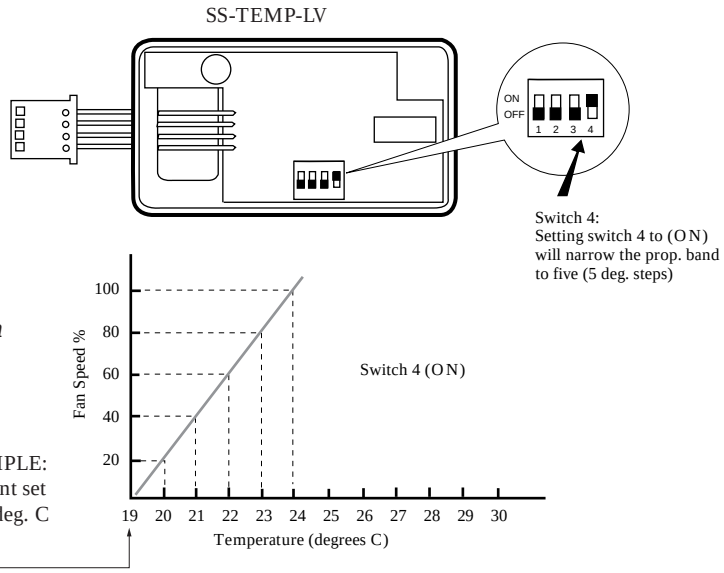

Fig. 8 Normal operation narrower prop. band

NB.
Reverse Operation and Narrow Band is available when switches 2 & 4 are 'ON'

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CE DECLARATION OF CONFORMITY

OCTOBER 1998

We declare that the equipment named below conforms to the requirements of EC Council Directive relating to Electromagnetic Compatibility

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Designation of equipment :- SMART CONTROLS (SENSOR)

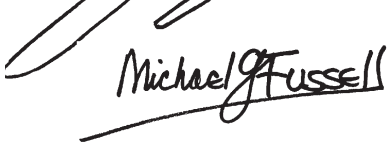
Equipment Types :- SS-TEMP-LV

Relevant EC Council Directives :- 89/336/EEC, 92/31/EEC (EMC)
73/23/EEC, 93/68/EEC (Low Voltage Directive)

Applied Harmonised Standards :- E50081-1, EN50082-1, EN60204-1

Basis of Self Attestation :- Quality Assurance to BS EN ISO 9001
BSI Registered Firm Certificate No. FM 149

Signature of manufacture representatives :-

		Name:	**Position:**	**Date:**
1)		C. Biggs	Technical Director	2. 10. 98
2)		M. Fussell	Manufacturing Director	2. 10. 98

Controls Application Service (CAS)

A team of Engineers and technicians is available to provide pre and post order support.

We are on hand to provide help and advice from the most basic use of any NuAire equipment to the more complex applications, maximising on the versatility of our SMART and NetLink control products.

Telephone: 01222 858585

Facsimile: 01222 858586

Service

As a manufacturer NuAire can provide you with factory trained Service Engineers.

Our Engineers are supported by a comprehensive range of spare parts 'off the shelf'.

If you are an industrial or commercial user, you may be interested in details of NuAire's regular maintenance Service Contracts. This is a worthwhile service that helps you get the most from our products.

Our Service Department will be happy to give you more information.

Please telephone: **01222 858271**

Technical or commercial considerations may, from time to time, make it necessary to alter the design, performance and dimensions of equipment and the right is reserved to make such changes without prior notice.

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