STR502, STR 504
Wall Modules

Installation Instructions

MODELS

STR502
- Temperature Setting
- Infinet connection (under front)

STR504
- Temperature Setting
- General purpose push button (Over-ride, occupancy, etc.)

REMOVING THE CORE
The core panel is attached to the base-plate using two hinges. Remove the core panel by pushing the bottom of the core panel upwards, then unhinging the core panel from the base-plate.

When the core has been turned upwards, the terminal blocks designation becomes visible:

ATTACHING/REMOVING THE FRONT
The front is attached to the base-plate using four clamps, two at the top of the front panel and two at the bottom.

When removing the front-panel use a screwdriver (or similar) and push gently to unhook the clamps at the top and bottom of the front panel.

CONNECTING

STR5xx
- I/O Module

I/O Module
- External +5 VDC
- 24 VAC or +24 VDC
- OUT x

STR5xx
- I/O Module

I/O Module
- Out x V
- GND
**Setpoint Adjustment Wheel**

A variable resistor wheel is provided to act as a manual setpoint adjustment. To read its value, configure an Analog input. Connect the wheel orange wire to one of the controller’s Analog IN terminals. The wheel shares its return signal with that of the thermistor.

The following function can be used to read the value of the wheel control on the STR5xx for setpoint adjustment. The function uses the ElecValue of the wheel (potentiometer) to return the setpoint. It works with 5, 10 or 8 volt input types. This function must be located in the controller to which the STR5xx is wired.

The *Plain English* code for the function is as shown below. In this example, the function object is named `SP`.

```plaintext
InitLine:
RoomOccupied = Off

CheckTemp:
If STR504_Room_Temp > 320 then
RoomOccupied = On
Goto CheckControl
Endif
Goto CheckTemp

CheckControl:
If RoomOccupied then
If heater_2 = Off then
heater_2 = On
Else
heater_2 = Off
Endif
Endif

WaitNormal:
If STR504_Room_Temp < 300 then
Goto ClearTrigger
Goto WaitNormal
Endif

ClearTrigger:
RoomOccupied = Off
Goto CheckTemp
```

For best accuracy, use a multimeter to measure the resistance between the terminals 12 and 13 on the STR5xx when the wheel is pushed all the way to its clockwise end value. Change the value of MaxOhms in the function to agree with your measured value.

Load the function into the controller and wire up the STR5xx. Create a voltage input for the wheel - this example calls it Wheel. Create a numeric setpoint such as STR5xxSP. Write a one line program which sets this numeric to the result of the function. In this example, the (looping) program line is: `STR5xxSP = SP(Wheel, 69, 75,10)`

Refer to the function’s *Plain English* code above for a description of the arguments.

**Occupancy button on STR504**

The over-ride push button is connected across the temperature sensor. To read the state of the button you must have configured the sensor input as a Temperature Input at the controller. Firmly pressing the button shorts the sensor which renders a temperature reading of above 150 °F (65.5 °C) at the input.

An occupancy button can be programmed as follows.

```plaintext
InitLine:
RoomOccupied = Off

CheckTemp:
If STR504_Room_Temp > 320 then
RoomOccupied = On
Goto CheckControl
Endif
Goto CheckTemp

CheckControl:
If RoomOccupied then
If heater_2 = Off then
heater_2 = On
Else
heater_2 = Off
Endif
Endif

WaitNormal:
If STR504_Room_Temp < 300 then
Goto ClearTrigger
Goto WaitNormal
Endif

ClearTrigger:
RoomOccupied = Off
Goto CheckTemp
```

For more information visit

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