

ASI Controls

Wall Sensor with Digital Display

WS-051 Features

- Digital display of room ambient temperature and user selected temperature setting on demand
- 11 Icons and 4 digit LCD display
- Adjustable Occupied heating and cooling setpoints
- Pushbutton selection of display mode
- Push-button selection of afterhours operation
- Selectable °C or °F display
- Self-diagnostic features

The WS-051 Digital Display zone temperature sensor is used in conjunction with the ASIC/1-8055 or ASIC/1-8655 controller for measuring ambient zone temperature, for displaying and modifying the Occupied Heating and Cooling Temperature Setpoints, and for initiating afterhours operation.

The wall mounted sensor utilizes a precision thermistor to measure zone temperature and deliver an analog signal to the ASIC/1 controller. The thermistor's high change of resistance creates a large signal that eliminates lead wire resistance problems. When connected to a ASIC/1 controller the WS-051 displays the Zone Temperature used by the ASIC/1 for control.

Features include telephone type 8-pin modular connector for easy connection to controller and trouble free installation using the SCP-xxx sensor cable. A communication jack at the bottom provides operator access for the portable SINC/1-1030 Mini-SINC connected to a laptop or PocketPC computer. Using ASI Expert software, the user is able to read and reset the setpoints and parameters of the local controller as well as other ASIC/1 controllers. Air balancing, setpoint adjustment and all system startup can be accomplished from the WS sensor.

Application

The sensor is shipped ready to be connected to the ASIC/1-8055 or ASIC/1-8655 controller which have appropriate firmware version. On the ASIC/1-8055 the second RS-485 chip, U1, must be in place. The pin-socketed pull-up resistor for Input 2 **must be removed and replaced** with a 1/8 A pico-fuse to provide 5 Vdc power from the ASIC/1 to the WS-051 over the standard SCP-0xx sensor cable. The Digital Display option **must be enabled** in the controller.



Normal Operation

Normally the numeric display shows the Zone Temperature. If the controller is configured for Fahrenheit or Celsius, then the °F or °C icon is displayed. If the Active Control Mode is Heating or Cooling, then the Heat or Cooling Icon is displayed. If the Active Control Mode is Deadband, then they are NOT displayed.

If the Active Control State is Occupied or Morning Ready, then the Day Icon is displayed. If the Active Control State is Unoccupied, then the Day Icon is off. If the Active Control State is Night Setback, then the Night Icon is displayed.

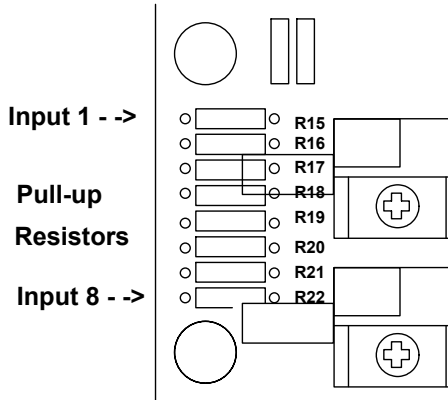
If the personality is Constant or Intermittent Fan and the Fan is ON, then the Fan Icon is displayed.

User Adjust Operation

Pressing the Mode key brings up User Adjust Operation and displays the Occupied CLG Setpoint. Pressing the Override key while in User Adjust Operation toggles to the Occupied HTG Temp SP or back to the Occupied CLG Temp SP. The Setpoint icon is displayed. When the Up or Down key is pressed, the displayed Occupied Temp Setpoint is incremented or decremented by either 1degree or 0.5 degree depending on the option selected.

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ASIC/1-8055: Replace pull-up resistor, R16, with 1/8 A pico-fuse.

Saving Setpoints

The CLG and HTG Temperature setpoints are limited by the Upper Limit Temp SP and the Lower Limit Temp SP. A 2 count separation between the Occ CLG Temp SP and the Occ HTG Temp SP is enforced. If Half degree Enable is set in the controller, then 1 count is 0.5 deg.

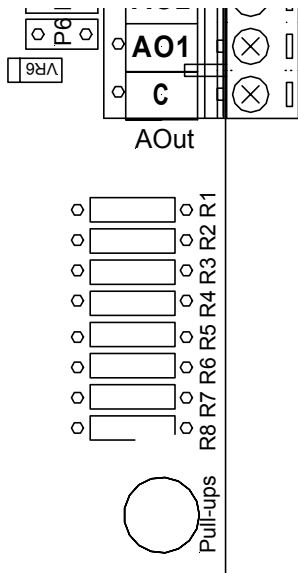
The new setpoints are saved by pressing the mode key, or by simply waiting for 30 seconds for it to return to default operation.

Override Operation

Pressing the Override key from default operation triggers afterhours operation. If the Active Control State is Unoccupied or Night Setback, it triggers afterhours operation and the "In Afterhours" clock icon is displayed. If the active control state is Occupied or Morning Ready it has the effect of toggling the lights on or off.

SPECIFICATIONS

Sensor	NTC thermistor, 3000 Ohm at 25.0 °C (77 °F)
Temperature Indication:	32 °F to 104 °F, 0 to 40 °C
Indication Accuracy:	+/- 0.5 °C (+/- 1°F)
Setpoint Adjust:	Mode Selection and Up and Down Arrows
Push-Button:	O/R Button
Power:	Less than 50 mA, 5 Vdc from ASIC/1 through 1/8 A pico-fuse on input #2
Operator Access:	6 position female modular jack, RJ-12, for use with portable SINC/1-1030
Connections	8 position female modular jack, RJ-45 in rear for use with ASI cable SCP-025, -050 or -075
Dimensions:	Standard 4.50" x 2.75" x 1.25" (115mm x70mm x32mm)
Setpoint Range	15~30°C (59~86 °F)
Display	LCD, 11 icons and 4 digit
Display Unit	0.1 °C (0.1 °F) / step
Setting Unit	0.5 °C (0.5 °F) / step
Operating Temperature	0~50 °C (32~122 °F)
Operating Humidity	5~95% RH (non-condensing)
Storage Temperature	0~80 °C (32~176 °F)
Mounting	Mounts directly onto wall or standard 2x4 inch vertical junction box (hole pitch 83.5 mm)



ASIC/1-8655: Replace pull-up resistor, R2, with 1/8 A pico-fuse.

How to Order:	Order Number
Wall Sensor with Digital Display	WS-051