Room *Alert* Wireless Sensor Hub (WiSH Sensor)

Instructions For Installing The WiSH Sensor

The AVTECH Software (AVTECH) Wireless Sensor Hub (WiSH Sensor) is a wireless hub that is used exclusively to transmit sensor data from internal and connected sensors back to the Room Alert 26W IT environment monitoring hardware unit. The WiSH Sensor communicates only with the Room Alert 26W via a secure, private protocol on a ZigBee based 2.4 Ghz wireless connection. Data sent and retrieved is encrypted and will not interfere with other wireless devices in the environment.

Wireless Sensor Hub (WiSH)

The WiSH Sensor is a small surface mountable device that includes mounting screws. It consists of one (1) built-in Digital Temperature Sensor, two (2) External Environment Sensor Channels (i.e. digital sensor ports) for connecting AVTECH digital sensors and one (1) Switch Sensor Contact Set for connecting non-voltage switch sensors. The WiSH Sensor is powered by an internal Lithium battery that will last 1-2 years in normal use and even longer with minimal sensors attached.

Additional environment sensors can be connected to the WiSH Sensor using the two (2) digital sensor ports and set of switch sensor contacts on the unit. The digital sensor ports can accommodate an AVTECH Software Digital Temperature, Digital Temperature/Humidity or Digital Power Sensor. The set of switch sensor contacts can be used to monitor any connected non-voltage switch sensor or dry contact device. See the respective sensor application note for more information. The WiSH Sensor also transmits battery power information so that the Room Alert 26W unit can send an alert notification automatically when battery life is low and a replacement is needed.

Initial configuration of the WiSH Sensor is performed after the initial setup of the Room Alert 26W unit and as directed in the *Room Alert 26W User's Guide & Reference Manual*. Once this is completed, activate the WiSH Sensor by depressing the red button on the left side of the WiSH Sensor until it clicks and locks. If the red button is recessed, the WiSH Sensor is 'On'. If the red button is flush with the WiSH Sensor casing, the WiSH Sensor is 'Off'. Remember to turn the WiSH Sensor 'Off' when not in use to extend the battery life.

If multiple WiSH Sensors are being configured during setup, it is recommended that you do so one at a time. This will allow you to record the serial number (internal chip serial number) of each WiSH Sensor to the label on the back of each WiSH Sensor. These internal serial numbers are displayed in the Room Alert 26W 'Status' screen as each WiSH Sensor device is discovered. After recording the serial number on to the WiSH Sensor label, the WiSH Sensor can be moved to the desired location at a distance of up to approximately 250' away from the Room Alert 26W unit. If the Room Alert 26W unit stops receiving

updates from the WiSH Sensor, move the WiSH Sensor closer to the Room Alert 26W or away from any device or structure that may be impeding signal transmission.

The WiSH Sensor communicates with a Room Alert 26W unit by sending an update transmission every 60 seconds that contains current sensor status information for all internal and attached sensors, as well as the battery. The Room Alert 26W unit will list the date and time of the last update received from a detected WiSH Sensor on the 'Status' screen. If an extended period of time has occurred since the last update transmission, the WiSH Sensor display will be removed from the 'Status' screen and an email alert will be sent if the WiSH Sensor is no longer being detected by the Room Alert 26W unit for more than 30 minutes. This typically indicates that the WiSH Sensor is too far away from the Room Alert 26W unit, turned off or low on battery power. If the environment around the WiSH Sensor changes due to construction or new equipment have occurred and signal transmission is impeded, be sure to investigate those changes before relocating the sensor.

NOTE: Effective wireless distances will vary dramatically based on the physical environment and directional positioning of the Room Alert 26W antenna and WiSH Sensor. If necessary, experiment for the best results and locate WiSH Sensors where signal strength is the strongest, then attach a wired sensor to the WiSH Sensor and run it to another location where wireless signal strength may be less reliable.

IMPORTANT SAFETY NOTICE

The Screw Connectors On The Sensor ID Boxes Are Volt-Free Contacts Only. Do Not Connect These Terminals To Any Live Circuit. A Qualified Electrician Should Be Consulted To Test Any Wires You Connect To The Room Alert ID Box For The Presence Of Electrical Voltages And If Any Are Detected, They Must Not Be Wired To The ID Box. The ID Box May Become Dangerous If You Connect It To A Live Circuit. Never Connect Main Power To Any Of The Room Alert Sensors Unless Specifically Instructed To Do So Using The AVTECH Software 5V Power Adapter. If Required, An AVTECH Software 5V Power Adapter Will Be Included With That Sensor. DO NOT Use Switch Sensors In 'Explosive' Environments Unless Approved For Those Environments.