



## Room Alert Powered Wireless Sensor Hub

### Instructions For Installing The Powered WiSH Sensor

The AVTECH Software (AVTECH) Powered Wireless Sensor Hub (Powered WiSH) is a wireless hub that is used exclusively to transmit sensor data from internal and connected sensors back to a Room Alert 32W and/or 26W IT environment monitoring hardware unit. The Powered WiSH Sensor communicates ONLY with the Room Alert 32W and 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.

The Powered 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 Powered WiSH Sensor is powered by the included AVTECH 5v Power Adapter.

Additional environment sensors can be connected to the Powered 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.

Initial configuration of the Powered WiSH Sensor is performed after the initial setup of the Room Alert unit and as directed in the *User's Guide & Reference Manual*. Once this is completed, activate the Powered WiSH Sensor by connecting the AVTECH 5v Power Adapter to the left side of the Powered WiSH Sensor. If the 5v Power Adapter is connected then the Powered WiSH Sensor is 'On' and the green LED will be lit.

If multiple Powered 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 Powered WiSH Sensor to the label on the back of each Powered WiSH Sensor. These internal serial numbers are displayed in the Room Alert 32W and/or 26W 'Status' screens as each Powered WiSH Sensor device is discovered. After recording the serial number on to the Powered WiSH Sensor label, the Powered WiSH Sensor can be moved to the desired location at a distance of up to approximately 250' away from the main unit. If the Room Alert 32W and/or 26W unit stops receiving updates from the Powered WiSH Sensor, move the Powered WiSH Sensor closer to the main unit or away from any device or structure that may be impeding signal transmission.

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The Powered WiSH Sensor communicates with a Room Alert 32W and/or 26W unit by sending an update transmission every 60 seconds that contains current sensor status information for all internal and attached sensors. The Room Alert 32W and/or 26W unit will list the date and time of the last update received from a detected Powered WiSH Sensor on the 'Status' screen. If an extended period of time has occurred since the last update transmission, the Powered WiSH Sensor display will be removed from the 'Status' screen. An email alert will be sent if the Powered WiSH Sensor is no longer being detected by the Room Alert 32W and/or 26W unit for more than 10 minutes. This typically indicates that the Powered WiSH Sensor is too far away from the main unit or the unit is turned off. If the environment around the Powered 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 32W and/or 26W antenna and Powered WiSH Sensor. If necessary, experiment for the best results and locate Powered WiSH Sensors where signal strength is the strongest, then attach a wired sensor to the Powered 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.