

# WZZARD™ MACHINE CONDITION MONITORING APPLICATION BUNDLE

*WSKIT3BE-CBM, WSKIT3BE-CBM-V,  
WSKIT3BC-CBM, WSKIT3BC-CBM-V*



## Is Your Condition Based Monitoring System Up to the Task?

The benefits of Condition Based Monitoring are well known. Tracking simple, measurable parameters like temperature, vibration, and current use lets an operator monitor the health of individual machines and systems, identify potential problems, and apply preventative maintenance before small problems turn into catastrophic failures. But what about the Condition Based Monitoring system itself? It can't do its job unless it is highly scalable, long range, easy to deploy, and rugged enough for industrial environments. The Wzzard™ Condition Based Monitoring Application Bundle addresses all of these issues.

## Ease of Use

Wzzard is ready to go right out of the box. Connect your sensors to your wireless Wzzard Intelligent Edge Nodes, mount your nodes wherever it's convenient, configure your nodes via Bluetooth LE, and turn on your Spectre Network Gateway. There is no need for a site study, no need for any complicated integration, and no need for expensive installations or cabling. You can install a Wzzard sensor network virtually anywhere, and at a moment's notice.

- Embedded magnets make mounting fast and easy.
- You can connect your sensors to the nodes via conduit or prewired m12 cable.
- Low maintenance, multiyear operation on battery power. (2) AA lithium batteries are included.
- Wzzard eliminates the need for long cable runs. You can place the wireless nodes right where the action is.
- The bundle provides everything you need: the sensors, the wireless nodes, and the network gateway.

## Reliability

Wzzard nodes and network gateways are built for rugged industrial environments. You can deploy them anywhere your network needs to go.

- Wide temperature specifications and a rugged, outdoor-rated, industrial design.
- Robust network security and VPN tunneling capable.
- Remote diagnostics, automatic restart, hardware watchdog.
- Wireless mesh networks provide "five nines" (99.999 percent) uptime.

## Scalability and Range

The flexible Wzzard platform lets you add new sensors to your network any time, even if those sensors would be out of range of other solutions.

- Wzzard Intelligent Edge Nodes form self-healing wireless mesh networks.
- Every node has routing capabilities, providing multiple data paths to the gateway.
- Wzzard nodes automatically create an alternate path to the network gateway if a node is disconnected. Individual nodes don't need to be within direct range of the network gateway. They can route their data across fellow nodes.
- Nodes can be deployed up to eight hops away from the network gateway.
- New nodes and sensors can be added or subtracted at any time. They will automatically join the network.
- Up to 32 Wzzard Nodes and 96 individual sensors can be deployed in a single mesh network.
- Range is up to 100 meters indoors and up to 500 meters outdoors.



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## What is Wzzard?

The Wzzard platform uses wireless Wzzard Intelligent Edge Nodes and the Spectre Network Gateway work together to create a wireless sensor network.

- The wireless Wzzard Intelligent Edge Nodes connect to your sensors and send the data to the gateway via wireless mesh networks.
- The edge nodes convert your sensor data to the publish/subscribe MQTT format, making it available to multiple applications on your network or in the cloud.
- The nodes can be configured to report only the data that has exceeded preconfigured thresholds, greatly reducing network traffic and further extending battery life.
- The Spectre Network Gateway aggregates the data from the Wzzard mesh networks and securely sends it to the included dashboard application featuring sensor data visualization, history and alarm capability through email or SMS.



## Included Hardware

### WSKIT3BE-CBM, WSKIT3BC-CBM

- (3) Wzzard™ WSD2CA3 Industrial (-40c to +85c). WSD2CJA (2 Thermocouple in, 2 AI). Each node supports up to 3 attached sensors.
- (1) ERT-351 Ethernet or (1) RT3G-350 Cellular network gateway with Dust board  
(One gateway supports up to 32 wireless sensor nodes and up to 96 attached sensors).
- (6) J Type Thermocouples.
- (3) 250A Clamp On Current Sensors.

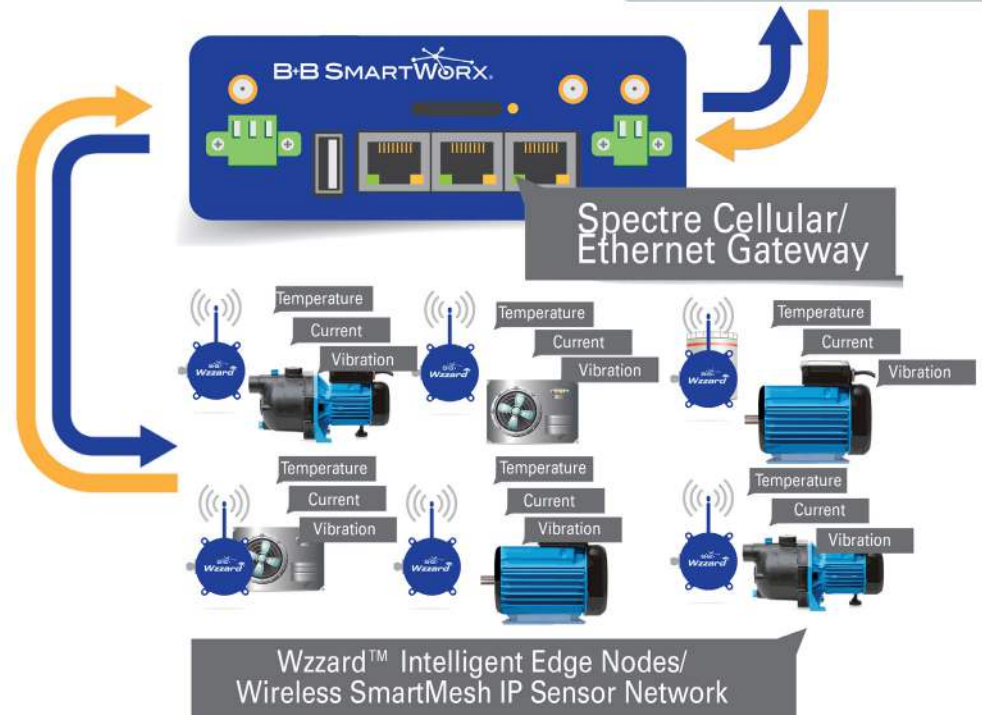
### WSKIT3BE-CBM-V, WSKIT3BC-CBM-V

(In addition to the WSKIT3BE-CBM parts listed above)

- (3) Vibration 4-20 ma sensors
- (3) Vibration cables
- (3) DIN rail mount power supply 24VDC
- (3) RES 250 OHM 1/2W .1% AXIAL  
\* Vibration sensors require external power.

## Included Software

- One copy Window PC-based SmartWorx Energy Monitoring Platform software.
- Real time data display
- Historian Trending.
- User programmable thresholds limits.
- Visual and email/SMS alerts.
- 3rd party SaaS platform support.



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