

# BB-WSK-SLM-2



## Introduction

When stack lights can talk, they provide a wealth of information that translates to improved productivity and profits. But, what about stack lights that can't talk? Their machines are not networked or there is no software application making use of the data. Those stack lights are nothing more than a visual indicator, eliminating most of their value and potential.

The Wizzard™ Stack Light Monitoring Starter Kit makes it fast and easy to get data from stack lights. Simply peel and stick on one or a hundred stack lights to transparently capture light activity and network-enable data. The non-intrusive overlay does not interfere with your existing network nor disrupt live operations.

- Increase productivity, output and efficiency while reducing downtime and cost with remote monitoring.
- Includes everything you need to monitor the status of a 3-color stack light.
- No downtime – simply peel and stick the sensor, connect the sensor to the wireless Wizzard node and provide an Ethernet connection to the gateway.
- Supports dashboard, data trend lines, email/SMS alerts and data logging capabilities.
- Easily expand the starter kit simply by adding additional self-configuring Wizzard nodes and sensors to your existing gateway.
- Fast deployment of proof-of-concept and pilots. Easy to scale to hundreds or thousands of inputs from one location or multiple locations.

## Easy to Deploy

- The Wizzard mesh wireless sensor node and sensor are battery-powered and are easily deployed. No need to install expensive or intrusive wiring.
- Plug-and-play sensor wiring eliminates any errors.
- Wizzard's 2.4 GHz wireless mesh technology continuously optimizes its channel selection to eliminate multipath interferences for best-in-class reliability in difficult RF environments.
- Simple, cloud-based configuration of the gateway makes it easy to deploy and manage one device or many.

## Wizzard™ Stack Light Monitoring Starter Kit

### Features

- Monitor the status of a 3-color machine stack light
- Stick-and-Go set up – no downtime, disruption or cable/wiring runs
- Built-in Node-RED™ software tool for easy deployment
- SmartMesh IP® wireless mesh for point-to-point, self-healing
- Reliability – more resilient as more nodes are added
- Easily scalable at any time to thousands of sensors
- RoHS-3

### Ordering Information

Model No.	Description
BB-WSK-SLM-2	Wizzard Stack Light Monitoring Starter Kit

### Included Hardware

- (1) BB-WCD1H3001HP100 – Wizzard Wireless Sensor Node (3 AI, Vbat Out, internal antenna)
- (1) BB-WCD-LSSCBL – Stack light sensor cable (for commercial node)
- (1) BB-SG30000525-42 – SmartSwarm 342 Ethernet Network Gateway (10-60 Vdc, 0.7A, Wizzard board, Ethernet cable, antenna, power supply, connector set, DIN mount bracket)  
*Note: one gateway supports up to 100 wireless sensor nodes.*

### Included Software

- Cloud license for WebAccess/DMP device management and configuration tool.
- Node-RED flow with Web server for:
  - Real time data display
  - Historian trending
  - Visual and email/SMS alerts
  - External data source integration (weather, Twitter feeds, and more)

### Scalable

- Grow from monitoring one machine to many by adding more sensor nodes and making simple dashboard edits.
- Or expand to a multi-site system integrated into your preferred software platform. The popular MQTT protocol and JSON data format make it easy to integrate into third party software applications.
- Use the built-in Node-RED to create and customize your own applications – no advanced programming skills needed.

### Rugged & Reliable

- Wizzard mesh wireless sensor node is -40 to +80 °C, rated for indoor and industrial use – no external enclosure required.
- Advanced SmartMesh IP wireless mesh protocol provides excellent point-to-point wireless reliability and becomes more resilient as more nodes are added.



## Specifications

Gateway / Node	
Nodes per Gateway	100, maximum
Polling Range	10 seconds, maximum
Wireless Range	Up to 50 meters, indoor. Line-of-sight: 2 meters above ground.
Operating Range	-20 to +70 °C
Stack Light Sensor	
Sensor Type	SFH 3710 silicon NPN phototransistor (3 per light)
Ambient Light, maximum	~2,000 lux (not direct sunlight)
Light Stack Type	3-light stack (green, yellow, red)
Sensor Spacing	31.75 mm (1.25 in)
On/Off	Highest input over 0.5V is considered ON; all others OFF.
Physical	
Net Weight, total	0.70 kg (1.55 lb)
Gross Weight, total	1.59 kg (3.5 lb)

## Dimensions

Wizzard Commercial Wireless Sensor Node	120.38l x 27.42h x 19.05d mm (7.25l x .25w x 0.75d in)
Stack Light Sensor Cable	184.15l x 6.35w mm (7.25l x 0.25w in)
SmartSwarm 342 Gateway	125w x 97d x 55h mm (4.92w x 3.82d x 2.17h in)
Regulatory – Approvals / Standards / Directives	
BB-WSK-SLM-2 kit	RoHS-3
<i>See datasheet for each sub-model in kit for additional information.</i>	

## Node-RED Dashboard

