Table of Contents-Main

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

Table of Contents V.2

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

V.2 Wireless Universal Transmitter

Description

Utilizing Spread Spectrum technology at the transmitter level, Rees Scientific's New V.2 Wireless Monitoring System offers collision avoidance, receiver energy detection, link quality indication, clear channel assessment, acknowledgement and security.

Our new modules can monitor up to 4 inputs each (depending on model). When powered by the building's AC power, they serve as both transmitters and routers making this system less hardware intensive. Each module can buffer up to 7 days' worth of data at a logging rate of every 15 minutes. Modules can support the entire range of Rees Scientific sensors. All communications are Spread Spectrum for vastly enhanced communication reliability over older single channel 418 MHz transmission.

Main Features

- Transmitters buffer 7 days of readings history recorded at 15 minute intervals.
- Most sensors in a typical install will be battery powered. Batteries last approximately 1 year.
- Transmitters accept any type of Rees Scientific or industry standard input and provide 12 bit analog to digital conversion accuracy.
- 1 input, 2 input and 4 input transmitters available.
- Batteries are monitored in battery-powered units. Low batteries cause low battery alarms, which can dial out.
- Can be added to existing systems. A single system can contain wired sensors, Wireless Version 1 sensors, and V.2 wireless sensors.
- Dimensions (enclosure) 3.295 W X 3.295 H X 1.25 D (inches)
- FCC Certified- FCC ID: OUR-XBEE2*
- Transmit Power: +1dBm non-router mode
  +3dBm router mode
- Capable of connecting to an output, output board, and local alarms.

Connection

- Connects to monitoring probe
- May Require 120 VAC or 230 VAC power
- Maximum wireless transmission receiver range indoors 300ft- upgrade

Type	Order #
1 input	**V2-U1**
2 inputs	**V2-U2**
4 inputs	**V2-U4**
Optional AC Power Supply 6-9V DC 300mA	**V2-TRANS**
Replacement 3.6 Volt Battery	**V2-BATT**

Note: Requires Centron SQL Software Build 1012 or higher.

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

V.2 Wireless Output Relay

Description

Our new modules can monitor up to 4 inputs each (depending on model). When powered by the building's AC power, they serve as both transmitters and routers making this system less hardware intensive. Each module can buffer up to 7 days' worth of data at a logging rate of every 15 minutes. Modules can support the entire range of Rees Scientific sensors. All communications are Spread Spectrum for vastly enhanced communication reliability over older single channel 418 MHz transmission..

For use in accordance with RELAY-PWR to control functions such as HVAC, lighting control, pumps/ blowers, electrical doors/gates, sprinklers/watering control, etc. Control functions require the addition

Main Features

Output Switching Capabilities

- Max. switching current: 1A
- Max. switching voltage: 125 VAC, 60 VDC
- Rated load: 0.5 A at 125 VAC; 1A at 24 VDC
- For switching larger loads, use with RELAY-PWR

V.2 Capabilities

- Transmitters buffer 7 days of readings history recorded at 15 minute intervals.
- Most sensors in a typical install will be battery powered. Batteries last approximately 1 year in a 2.4 GHz system.
- Transmitters accept any type of Rees Scientific or industry standard input and provide 12 bit analog to digital conversion accuracy.
- 1 input, 2 input and 4 input transmitters available.
- Batteries are monitored in battery-powered units. Low batteries cause low battery alarms, which can dial out.
- Can be added to existing systems. A single system can contain wired sensors, Wireless Version 1 sensors, and V.2 wireless sensors.
- Dimensions (enclosure) 3.295 W X 3.295 H X 1.25 D (inches)
- FCC Certified- FCC ID: OUR-XBEE2*
- Transmit Power: +1dBm non-router mode
  +3dBm router mode

Type	Order #
V.2 module with output relay functionality	**V2-OUTPUT-RLY**

Note: Requires Centron SQL Software Build 1012 or higher.

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

V.2 Wireless Ambient Temp. & Relative Humidity Sensor Module

Description

Utilizing Spread Spectrum technology at the transmitter level, Rees Scientific's New V.2 Wireless Monitoring System offers collision avoidance, receiver energy detection, link quality indication, clear channel assessment, acknowledgement and security.

Each module can buffer up to 7 days' worth of data at a logging rate of every 15 minutes. Modules can support the entire range of Rees Scientific sensors. Also available with integrated light sensor.

Main Features

- Measures Ambient Temperature and Relative Humidity
- Also available with Integrated Light Sensor
- All communications are Spread Spectrum for vastly enhanced communication reliability over older single channel 418 MHz transmission.
- Buffers 7 days of readings history recorded at 15 minute intervals.
- Most sensors in a typical install will be battery powered. Batteries last approximately 1 year in a 2.4 GHz system.
- Batteries are monitored in battery-powered units. Low batteries cause low battery alarms, which can dial out.
- Can be added to existing systems. A single system can contain wired sensors, Wireless Version 1 sensors, and V.2 wireless sensors.
- Dimensions (enclosure) 3.295 W X 3.295 H X 1.25 D (inches)
- FCC Certified- FCC ID: OUR-XBEE2*
- Operating Temperature: -20° to 60° C
- Humidity: 0% to 100% RH non-condensing
- Transmit Power: +1dBm
  +3dBm router mode
- Capable of connecting to an output, output board, and local alarms.

Type	Order #
Wireless Ambient Temperature Transmitter	**V2-T**
Wireless Ambient Temperature and Humidity Transmitter	**V2-T/H**
Wireless Ambient Temperature, Humidity, Light Transmitter	**V2-T/H/L**
Optional AC Power Supply 6-9V DC 300mA	**V2-TRANS**
Replacement 3.6 Volt Battery	**V2-BATT**

Note: Requires Centron SQL Software Build 1012 or higher.

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

V.2 Wireless Ambient Sensor for use inside Refrigerator and Freezer

Description

For use inside standard refrigerators and freezers for monitoring temperature range of -30 to 60° C.

Each module can buffer up to 7 days' worth of data at a logging rate of every 15 minutes. Modules can support the entire range of Rees Scientific sensors.

Main Features

- Measures Ambient Temperature inside refrigerators and freezers.
- Buffers 7 days of readings history recorded at 15 minute intervals.
- Most sensors in a typical install will be battery powered. Batteries last approximately 1 year in a 2.4 GHz system.
- Batteries are monitored in battery-powered units. Low batteries cause low battery alarms, which can dial out.
- Can be added to existing systems. A single system can contain wired sensors, Wireless Version 1 sensors, and V.2 wireless sensors.
- Dimensions (enclosure) 3.295 W X 3.295 H X 1.25 D (inches)
- FCC Certified- FCC ID: OUR-XBEE2*
- Operating Temperature: -30° to 60° C
- Capable of connecting to an output, output board, and local alarms.

Type	Order #
Wireless Ambient TempTransmitter inside Refrigerators and Freezers	V2-T-REF/FRZ
Optional AC Power Supply 6-9V DC 300mA	V2-TRANS
Replacement 3.6 Volt Battery	V2-BATT

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

V.2 Wireless USB Coordinator

Description

The V.2 Wireless USB Coordinator serves as an end-point for the V.2 wireless network. It is connected to the Rees Scientific Centron, Satellite, or Virtual Node via USB and relays the transmissions from all V.2 wireless sensors to the node.

Main Features

- Connects Directly to Rees Scientific Centron, Satellite or Virtual Node via USB port.
- Picks up signal from V.2 transmitters.
- Receives power from Node. Reduces Node battery backup time to approximately 3.5 hours.
- Transmit Power: +3dBm
- Capable of connecting to an output, output board, and local alarms.

Type	Order #
V.2 Wireless USB Coordinator	**V2-CRD**

Note: Requires Centron SQL Software Build 1012 or higher.

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

V.2 Net Wireless Coordinator

Description

A 4 hour battery backed up network device that will connect V.2 transmitters at remote sites back to a central node over the organization's existing TCP/IP Network. Requires IP address.

Easily monitor sensors on the other side of your facility, across campus, or across country.

Main Features

- 4 hour battery backup
- LED indicator light
- Connects directly to TCP/IP network
- Dimensions (enclosure) 4.625 W X 4.625 H X 2 3/8 D (inches)
- FCC Certified-FCC ID: OUR-XBEE2*
- Transmit Power: +3dBm
- Capable of connecting to an output, output board, and local alarms.

Connection

- Requires 120 VAC or 230 VAC power
- Maximum wireless transmission receiver range indoors 300ft
- Ethernet connection required
- Connects via 1 USB connection

Type	Order #
V.2 Net Wireless Coordinator	V2-NET

Note: Requires Centron SQL Software Build 1012 or higher

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

Networked V.2 Module

Description

Easily monitor sensors on the other side of your facility, across town or across the globe. This module plugs right into your network and will monitor 1, 2 or up to 4 inputs. Ideal for equipment rooms, operating rooms, nurse's station, etc.

Main Features

- Buffers 7 days of readings history recorded at 15 minute intervals.
- Accepts any type of Rees Scientific or industry standard input and provide 12 bit analog to digital conversion accuracy.
- 1 input, 2 input and 4 input transmitters available.
- Can be added to existing systems. A single system can contain wired sensors, Wireless Version 1 sensors, and V.2 wireless sensors.
- Dimensions (enclosure) 3.295 W X 3.295 H X 1.25 D (inches)
- Battery backed up
- Capable of connecting to an output, output board, and local alarms.

Type	Order #
1 input	**V2-Direct-U1**
2 inputs	**V2-Direct-U2**
4 inputs	**V2-Direct-U4**

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

V.2 Differential Pressure Transmitter

Description

The V2-DP differential pressure sensor is used to measure the difference in pressure between two points. Able to be tucked away in the smallest of spaces, integrating a battery backup, and requiring no wires to be pulled for communicating back to a panel, the V2-DP can be used in situations that were previously impossible. Specific applications are: measuring the pressure difference across an air handler for efficiency, ensuring positive air pressure between a room and hallway, or guaranteeing that a laboratory hood system is working correctly.

Main Features

- Pressure Range: -2.0 to 2.0 inches Water Column
- Media Compatibility: Air and non-conductive, non-corrosive gases.
- Power Supply: AC adapter. Integrated Battery backup.
- Materials: PBT, glass, silicon, gold, FR4, silicone, epoxy, copper alloy, lead-free solder.
- Pressure Connection: Barbed fitting for 3/16" ID tubing
- Accuracy: 3% of Reading
- Repeatability: 0.5% of Reading
- Operating Temperature: -20°C to 60°C (-4°F to 140°F)
- Weight: 0.40 lb (180 g)
- Capable of connecting to an output, output board, and local alarms.

Type	Order #
V.2 Differential Pressure Transmitter	**V2-DP**

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

Table of Contents-WiFi

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

V.2 WiFi

Description

Rees Scientific's new V.2. WIFI transmitters offer the same great reliability, security, & flexibility you've come to expect from the company you trust. Designed to reduce the overall installation footprint ,the new line of WIFI transmitters utilize your existing infrastructure to minimize site impact and get you up and running fast.

Able to accept up to 4 industry standard inputs, each module can buffer up to 7 days worth of data. Modules can support the entire range of Rees Scientific sensors.

Main Features

- Standard: IEEE 802.11b/g/n
- Security: WPA-PSK and WPA2-PSK
- Transmitters buffer 7 days of readings history recorded at 15 minute intervals.
- Transmitters accept any type of Rees Scientific or industry standard input and provide 12 bit analog to digital conversion accuracy.
- 1 input, 2 input and 4 input transmitters available.
- Can be added to existing systems. A single system can contain wired sensors, Wireless Version 1 sensors, V.2 wireless sensors & WiFi sensors.
- Dimensions (enclosure) 3.295 W X 3.295 H X 1.25 D (inches)
- FCC Certified
- Transmit Power: ≥ 14dBm
- Battery backed up. Replaceable battery lasts for about 200 hours of total power outage. Power outage causes a Battery Watch alarm which can dial out.
- Capable of connecting to an output, output board, and local alarms.

Connection

- Connects to monitoring probe
- May Require 120 VAC or 230 VAC power
- Connects to existing WiFi

Type	Order #
1 input	**V2-U1-WF**
2 inputs	**V2-U2-WF**
4 inputs	**V2-U4-WF**
AC Power Supply 6-9V DC 300mA	**V2-TRANS**
Replacement 3.6 Volt Battery	**V2-BATT**

*Ranges may vary based on existing equipment and building infrastructure.

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

V.2 WiFi Ambient Temp. & Relative Humidity Sensor

Description

Rees Scientific's new V.2. WIFI transmitters offer the same great reliability, security, & flexibility you've come to expect from the company you trust. Designed to reduce the overall installation footprint ,the new line of WIFI transmitters utilize your existing infrastructure to minimize site impact and get you up and running fast.

Able to accept up to 4 industry standard inputs, each module can buffer up to 7 days worth of data. Modules can support the entire range of Rees Scientific sensors.

Main Features

- Measures Ambient Temperature and Relative Humidity
- Also available with Integrated Light Sensor
- Buffers 7 days of readings history recorded at 15 minute intervals.
- Can be added to existing systems. A single system can contain wired sensors, Wireless Version 1 sensors, V.2 wireless sensors & WiFi sensors.
- Dimensions (enclosure) 3.295 W X 3.295 H X 1.25 D (inches)
- FCC Certified
- Operating Temperature: -20° to 60° C
- Humidity: 0% to 100% RH non-condensing
- Transmit Power: ≥ 14dBm
- Battery backed up. Replaceable battery lasts for about 200 hours of total power outage. Power outage causes a Battery Watch alarm which can dial out.
- Capable of connecting to an output, output board, and local alarms.

Type	Order #
WiFi Ambient Temperature Transmitter	**V2-T-WF**
WiFi Ambient Temperature and Humidity Transmitter	**V2-T/H-WF**
WiFi Ambient Temperature, Humidity, Light Transmitter	**V2-T/H/L-WF**
AC Power Supply 6-9V DC 300mA	**V2-TRANS**
Replacement 3.6 Volt Battery	**V2-BATT**

Note: Requires Centron SQL Software Build 1012 or higher.

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

Table of Contents Chirper

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

Chirper Bases

Order#	Application:
V2-CH-BASE-NET	The V2 Net “Chirper” base receiver is a network device that is capable of receiving up to 16, 418 MHz “Chirper” modules. It communicates with the Centron SQL Software via your facilities existing TCP-IP LAN (local area network) and WAN (wide area network). The base is battery backed up and capable of buffering data for all 16 modules. Centron SQL Software can support up to 20 of the V2-CH-BASE-NET per system. Centron node cannot exceed 128 total inputs.
V2-CH-BASE-USB	The V2 USB “Chirper” base receiver connects to your PC via USB and is capable of receiving up to 16, 418 MHz “Chirper” modules. The base is battery backed up and capable of buffering data for all 16 modules.
V2-CH-BASE-WF	The V2 Net “Chirper” base receiver is a device that is capable of receiving up to 16, 418 MHz “Chirper” modules. It communicates with the Centron SQL Software via your facilities existing WiFi. The base is battery backed up and capable of buffering data for all 16 modules. The Centron SQL Software can support up to 20 of the V2-CH-BASE-WF per system. Centron node cannot exceed 128 total inputs.
V2-CH-BASE-ZIG	The V2 Net Zigbee “Chirper” base receiver is a device that is capable of receiving up to 16, 418 MHz “Chirper” modules. It communicates with the Centron SQL Software via a Zigbee PAN (personal area network). The base is battery backed up and capable of buffering data for all 16 modules. Note - The V2-CHBASE-ZIG will require the purchase of a V2-CRD or V2-NET. Centron node cannot exceed 128 inputs.

Connection

- Powered by 7.5 volt DC power supply
- Requires 120 VAC or 230 VAC power
- Maximum wireless transmission receiver range indoors 300ft
- Ethernet connection required
- 2 way communication

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913

Chirper Probes

Order#	Application:
V2-CH-CRYO6	V2 “Chirper” wireless temperature module and probe - for liquid Nitrogen -200 to -125 degrees C with AA size Lithium battery.
V2-CH-T	V2 “Chirper” wireless temperature module -15 to +60 degrees C
V2-CH-T-CRT	V2 “Chirper” wireless temperature module -15 to +60 degrees C. Includes 3 Pt NIST Certificate.
V2-CH-TH	V2 “Chirper” wireless temperature and humidity module. Temperature -15 to +60 degrees C; RH accuracy +/- 3%.
V2-CH-TPT3	V2 “Chirper” wireless temperature module and probe - Type 3 -50 to +30 degrees C with AA size Lithium battery. For use in refrigerators and standard -30 freezers.
V2-CH-TPT3A	V2 “Chirper” wireless ambient temperature module and probe - Type 3 -50 to +30 degrees C with AA size Lithium battery. For use in refrigerators and standard (-30) freezers.
V2-CH-TPT3A-CRT	V2 “Chirper” wireless ambient temperature module and probe - Type 3 -50 to +30 degrees C with AA size Lithium battery. For use in refrigerators and standard (-30) freezers. Includes 3 Pt NIST certificate.
V2-CH-TPT3-CRT	V2 “Chirper” wireless temperature module and probe - Type 3 -50 to +30 degrees C with AA size Lithium battery. For use in refrigerators and standard -30 freezers. Includes 3 Pt NIST certificate.
V2-CH-TPT4	V2 “Chirper” wireless temperature module and probe - Type 4 -90 to +10 degrees C with AA size Lithium battery. For use in -80 ultra low freezers.
V2-CH-TPT4-CRT	V2 “Chirper” wireless temperature module and probe - Type 4 -90 to +10 degrees C with AA size Lithium battery. For use in -80 ultra low freezers. Includes 3 Pt NIST certificate.

REES SCIENTIFIC
1007 Whitehead Road Ext. Trenton, NJ 08638 P (800)327-3141 F (609) 671-2751
sales@reesscientific.com www.reesscientific.com

PRNT2015-0913