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HOBO Cellular Weather Station Kit - Intermediate

Product Images

Short Description

The HOBO RX3000 Weather Station Intermediate Kit provides instant access to site-specific air temperature,

relative humidity, rainfall and wind speed/direction data anywhere, anytime on your desktop or mobile device.

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Description

Key Features

- Cloud-based 24/7 data access via HOBOlink web-enabled software platform
- 4G cellular communication (also works with 3G/2G)
- Solar powered
- Plug-and-play operation
- Alert notifications via text/email
- Rugged double-weatherproof enclosure.

Kit Components

- HOBO RX3000 Cellular Remote Monitoring Station Data Logger - RX3004-00-01
- 15W Solar Panel - SOLAR-15W
- Temperature/RH Smart Sensor with 2 metre cable - S-THC-M002
- Wind Speed and Direction Smart Sensor Set - S-WSET-B
- 0.2 mm Resolution Rain Gauge Smart Sensor with 2 metre cable - S-RGB-M002
- Full Cross-Arm for wind speed/direction sensors - M-CAA
- Solar Radiation Shield for temperature & RH sensor - RS3-B

The RX3000 accepts up to 10 plug-and-play Smart Sensors, or up to 50 HOBOnet wireless sensors. Just plug in your sensor and it's automatically recognised – no programming, wiring, or calibration necessary.

Note: If your needs are different, you can create your own customised RX3000 weather station with the wide range of sensors available.

Additional Information

Brand	Onset HOBO
Country of Manufacture	United States
Explanation	**RX3000 Range Specifications** **Operating Range**: -40° to 60°C (-40° to 140°F); no remote communications for battery voltage less than 3.9 V DC **Smart Sensor Connectors**: 10 **Smart Sensor Network Cable Length**: 100 m (328 ft) maximum **Smart Sensor Data Channels**: Maximum of 15 (some smart sensors use more than one data channel; see sensor manual for details) **Module Slots**: 2 **Logging Rate**: 1 second (RX3001 and RX3002) or 1 minute (RX3003 and RX3004) to 18 hours **Time Accuracy**: ±8 seconds per month in 0° to 40°C (32°F to 104°F) range; ±30 seconds per month in -40° to 60°C (-40° to 140°F) range **Battery Type/Power Source**: 4 Volt, 10 AHr, rechargeable sealed lead-acid; external power required using one of these options: AC power adapter (AC-U30), solar panel (SOLAR-xW), or external power source 5 V DC to 17 V DC with external DC power cable (CABLE-RX-PWR) **Rechargeable Battery Service Life**: Typical 3–5 years when operated in the temperature range -20° to 40°C (-4°F to 104°F); operation outside this range will reduce the battery service life **Memory**: 32 MB, 2 million measurements, continuous logging **Alarm Notification Latency**: Logging interval plus 2–4 minutes, typical **Enclosure Access**: Hinged door secured by two latches with eyelets for use with user-supplied padlocks **LCD**: LCD is visible from 0° to 50°C (32° to 122°F); the LCD may react slowly or go blank in temperatures outside this range **Materials**: Outer enclosure: Polycarbonate/PBT blend with stainless steel hinge pins and brass inserts; Inner enclosure: Polycarbonate; Gaskets: Silicone rubber; Cable channel: EPDM rubber; Cable opening cover: Aluminum with ABS plastic thumb screws; U-Bolts: Steel with zinc dichromate finish **Size**: 18.6 x 18.1 x 11.8 cm (7.3 x 7.1 x 4.7 in.); see diagrams on next page **Weight**: 2.2 kg (4.85 lb) **Mounting**: 3.8 cm (1.5 inch) mast or wall mount **Environmental Rating**: Weatherproof enclosure, NEMA 4X (requires proper installation of cable channel system) The CE Marking identifies this product as complying with all relevant directives in the European Union (EU) **RX3002:** FCC ID R68XPICOW, IC ID 3867A-XPICOW **RX3003:** FCC ID QIPEHS6, IC ID 7830A-EHS6; approved for use in Taiwan and Japan **RX3004:** FCC ID QIPPLS62-W, IC ID:7830A-PLS62W **Wireless Radio**: **RX3003:** GSM/GPRS/EDGE: Quad band 850/900/1800/1900 MHz, UMTS/HSPA+: Five band 800/850/900/1900/2100 MHz **RX3004:** GSM/GPRS/EDGE: Quad band 850/900/1800/1900 MHz UMTS/HSPA+: Seven band 800/850/900/1800/1900/2100 MHz LTE: Twelve Band 700/800/850/900/1800/1900/2100/2600 MHz **Antenna**: **RX3003:** Penta band **RX3004:** 4G LTE ***Ethernet (RX3001)*** **Connector**: One RJ45/100BaseT ***Wi-Fi (RX3002)*** **Network Standards**: IEEE 802.11b/g/n **Frequency Range**: 2.412–2.484 GHz **Antenna Connector**: 1, no diversity supported **Data Rates**: 1, 2, 5.5, 11 Mbps (802.11b); 6, 9, 12, 18, 24, 36, 48, 54 Mbps (802.11g); 802.11n, HT20 MCS0 (6.5 Mbps) to HT20 MC87 (65 Mbps) **Number of Selectable Radio Subchannels**: Up to 14 channels; profiles available will include USA, France, Japan, Spain, Canada, and "Other" (multiple countries) **Radio Modulations**: OFDM, DSSS, DBPSK, DQPSK, CCK, 16QAM, 64QAM **Security**: WEP 64/128, WPA-PSK, AES end-to-end encryption, WPA2, protocols not listed are not supported **Maximum Receive Level**: -10 dBm (with PER <8%) **Receiver Sensitivity**: -72 dBM for 54 Mbps, -87 dBm for 11 Mbps, -89 dBm for 5.5 Mbps, -90 dBm for 2.0 Mbps, -92 dBm for 1.0 Mbps ***Cellular (RX3003 and RX3004)*** **Wireless Radio**: **RX3003:** GSM/GPRS/EDGE: Quad band 850/900/1800/1900 MHz, UMTS/HSPA+: Five band 800/850/900/1900/2100 MHz **RX3004:** GSM/GPRS/EDGE: Quad band 850/900/1800/1900 MHz UMTS/HSPA+: Seven band 800/850/900/1800/1900/2100 MHz LTE: Twelve Band 700/800/850/900/1800/1900/2100/2600 MHz **Antenna**: **RX3003:** Penta band **RX3004:** 4G LTE
Ideal For	Professional
Onset Product Series	RX
Measurements	Dew Point, Humidity, Rainfall, Temperature, Wind Direction, Wind Speed
Typical applications	Environmental (Outdoor), Field Research, Weather Monitoring
Power	Solar power with battery back-up

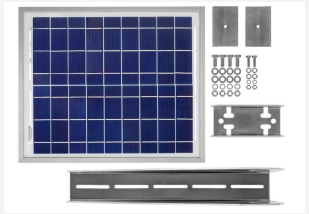
Product Options

Station Model

HOBO RX3000 Remote Monitoring Weather Data Logger (add sensors as required)

The HOBO RX3000 is Onset's next-generation remote data logging station that provides instant access to site-specific environmental data anywhere, anytime via the internet.

Solar Panel



HOBO SOLAR-15W - 15 Watt Solar Panel

This solar panel is ideal for very cloudy locations, higher latitudes, and/or when connecting analog sensors with high excitation power requirements.

Temperature & Humidity Smart Sensor

HOBO S-THC-M002 12-bit Temperature/Relative Humidity Smart Sensor (2m cable)

The HOBO 12-bit Temperature/Relative Humidity Smart Sensor is designed to work with all HOBO data loggers that accept Smart Sensors. All sensor parameters are stored inside the Smart Sensor, which automatically communicates configuration data information to the logger without any programming, calibration, or extensive user setup.

Wind Speed and Direction Smart Sensor Set

HOBO S-WSET-B Wind Smart Sensor Set

The Wind Sensor Set includes Onset's research-grade plug-and-play Wind Speed Smart Sensor and the Wind Direction Smart Sensor. This combination provides average wind speed, highest three-second wind gust and average wind direction for the measurement interval. These durable sensors will provide many years of accurate and reliable performance.

Rain Gauge Smart Sensor with 2 metre cable

HOBO S-RGB-M002 Rain Gauge Smart Sensor

The S-RGB-M002 Rain Gauge is scaled for metric measurements and is suitable for use with HOBO Weather Stations and compatible loggers.

The S-RGB-M002 measures up to 10 cm of rain per hour with a resolution of 0.2 mm and a maximum of 4000 tips per interval.

Full Cross-Arm for wind speed/direction sensors

M-CAA -Weather Station Full Cross Arm

For use with Onset tripods or masts, the full cross arm assures unobstructed wind measurement. Full cross arm (91.2cm/36in) provides mounting for two wind sensors.

Solar Radiation Shield

HOBO RS3-B Solar Radiation Shield

The RS3-B Solar Radiation Shield protects external sensors from the effects of sunlight and rain to ensure high accuracy measurements and is designed to allow maximum air flow around the sensor.

Part No:
RS3-B

Additional Options

Mounting Options	HOBO 2-Metre Tripod Kit (M-TPB-KIT)
	HOBO 3-Metre Tripod Kit (M-TPA-KIT)
Data Plan	Basic 4G Plan - 60 minutes interval - up to 22 sensors (SP-811)
	Standard 4G Plan - 10 minutes interval - up to 25 sensors (SP-813)
	Premium 4G Plan - 10 minutes interval - up to 65 sensors (SP-815)
Handheld Anemometer (to help you position weather station wind sensor in optimum location for maximum wind)	Kestrel 1000 (Pro-quality, made in USA)