

Automated water management depends on accurate reliable weather data. The Weather Reach Water Management System™ uses a wireless weather signal to automate irrigation scheduling. High-quality ET Weather Stations measure conditions that affect evaporation and transpiration; solar energy, temperature, wind and humidity. Rainfall measurements are also used to calculate the irrigation requirement.

Major weather station networks around the world rely on Campbell Scientific weather stations to assure accurate, reliable and timely information. The Weather Reach Water Management System uses Campbell Scientific weather stations.

These pre-configured stations consist of meteorological sensors, an aluminum mounting pole, and an environmental enclosure that houses the electronics and sealed rechargeable battery. The enclosure includes a datalogger for measuring sensors, processing and storing data, and communicating with a computer. The Irrisoft ET Weather Station packages are programmed and configured for the Weather Reach Water Management System. When choosing an ET Weather Station the following options must be considered:

- Weather Station
- Power Supply
- Communication



ET-107 Weather Station

ET Weather Stations



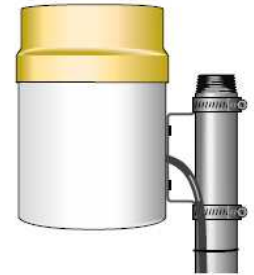
**Turf Weather
ET Weather Station**

- **ET107** – A precision Campbell Scientific weather station with electronics housed in a rugged environmental enclosure, a 3-meter aluminum mounting pole, and high quality meteorological sensors. (Detailed product specifications available upon request.)
- **Turf Weather** – A solar powered weather station with replaceable sensors. Electronics are housed in a plastic UV resistant outdoor enclosure mounted to a 3-meter pole. (Detailed product specifications available upon request.)
- **Communication Add-On Kit** – Provides an additional communication connection for existing Direct Connect Campbell Scientific weather stations. These packages provide the ability to utilize both direct connect and cellular IP access to the weather station. They include the communication components and cabling to modify an ET-106 or ET-107 weather station.

Rain Station

Rain Stations enhance a weather station network by recording localized rainfall measurements. Rain Stations are less expensive than a weather station. A community may share the benefits of a Rain Station.

A Weather Reach Receiver can be programmed to receive wireless rain measurements from a Rain Station in addition to the weather signal broadcast. While one weather station can represent a large geographic area, installing a Rain Station provides localized rain measurements to improve the accuracy of Weather Reach water management.



A Rain Station includes the Texas Electronics TE525 6" tipping bucket rain gage that measures rainfall in 0.01 inch increments. A CR200 data logger is housed in a fiberglass enclosure and includes battery backup. Power supply and communication options are the same as standard weather stations. A Weather Reach Server collects, logs, and broadcasts Rain Station Measurements via wireless paging.

Power Supply

Stations operate on battery power. An ET107 battery can be recharged with 110-volt power source or a solar power supply. The Turf Weather is solar powered only. The solar power system includes a 10-watt solar panel, charging regulator, battery, mounting hardware and enclosure.

Communications

The Weather Reach Server™ software operating on a Personal Computer supports many communication methods to access the weather data stored in a weather station.

Network - A Network Link allows communication over a local area network or a dedicated Internet connection via TCP/IP. This 10baseT Ethernet interface requires a static IP address. (Please request assignment of static IP addresses from your network administrator prior to purchase.)

Standard Phone - A modem enables communication over a standard public telephone network. The user must provide a standard analog telephone line service to the weather station location. The Weather Reach Server initiates communication by calling the weather station's dedicated phone number.

Direct Connect - A short haul modem enables communication directly between a PC and a weather station. The RAD short haul modem uses unconditioned 4-wire telephone lines (two twisted-pair cable) for transmission. This enables on-site communication between a weather station and a computer RS-232 serial port.

Wireless - Telemetry radios enable wireless data communication. The Turf Weather wireless station includes 916 MHz spread spectrum radios. The weather station radio transmits data to a radio connected to a base station computer up to 0.5 miles away.

Cellular IP - A cellular modem enables communication via the Internet. Airlink Raven digital cellular modems operate on the Verizon Wireless CDMA or AT&T GPRS networks to provide IP (Internet Protocol) addressable Internet access to the weather station. Contact Irrisoft for subscription plan options prior to purchase and before contacting Verizon Wireless or AT&T to ensure they provide the required service. Airlink provides a DNS server to manage the dynamic Verizon Wireless or AT&T assigned IP address. (Detailed product specifications available upon request.)

Spread Spectrum - Enables wireless point-to-point communications between the Weather Station and PC. A 100 mW spread spectrum radio/modem does not require a user assigned FCC license. It operates in the 910 to 918 MHz frequency range. Transmissions coverage is within one mile.

Pre-configured ET Weather Stations

Item #	Description
Campbell Scientific ET-107 Weather Stations	
WR-ET-107-AC-N	CSI* ET107 Weather Station AC w/ Network Link
WR-ET-107-AC-P	CSI* ET107 Weather Station AC w/ Telephone Modem
WR-ET-107-AC-D	CSI* ET107 Weather Station AC w/ Direct Connect Short-Haul Modem
WR-ET-107-AC-CDMA	CSI* ET107 Weather Station AC w/ Cellular IP - CDMA
WR-ET-107-AC-GPRS	CSI* ET107 Weather Station AC w/ Cellular IP - GPRS
WR-ET-107-AC-W	CSI* ET107 Weather Station AC w/ Spread Spectrum Radio
WR-ET-107-S-P	CSI* ET107 Weather Station Solar Power w/ Telephone Modem
WR-ET-107-S-CDMA	CSI* ET107 Weather Station Solar Power w/ Cellular IP - CDMA
WR-ET-107-S-GPRS	CSI* ET107 Weather Station Solar Power w/ Cellular IP - GPRS
WR-ET-107-S-W	CSI* ET107 Weather Station Solar Power w/ Spread Spectrum Radio
Turf Weather** - Weather Stations	
WR-TW-W	Turf Weather** Wireless Weather Station Solar Power w/ Spread Spectrum Radio
WR-TW-CDMA	Turf Weather** - Weather Station Solar Power w/ Cellular IP - CDMA
WR-TW-GPRS	Turf Weather** - Weather Station Solar Power w/ Cellular IP - GPRS
WR-TW-W-N	Turf Weather** - Weather Station Solar Power w/ Spread Spectrum Radio & Network Link
Rain Station	
WR-RS-AC-N	Rain Station AC w/ Network Link
WR-RS-AC-CDMA	Rain Station AC w/ Cellular IP-CDMA
WR-RS-AC-GPRS	Rain Station AC w/ Cellular IP-GPRS
WR-RS-S-CDMA	Rain Station Solar w/ Cellular IP-CDMA
WR-RS-S-GPRS	Rain Station Solar w/ Cellular IP-GPRS
Communication Add-on Kits	
WR-COM-CDMA	Cellular IP Communication Add-on to CSI* ET106 Weather Station - CDMA
WR-COM-GPRS	Cellular IP Communication Add-on to CSI* ET106 Weather Station - GPRS
WR-COM107-CDMA	Cellular IP Communication Add-on to CSI* ET107 Weather Station - CDMA
WR-COM107-GPRS	Cellular IP Communication Add-on to CSI* ET107 Weather Station - GPRS

*CSI – Campbell Scientific, Inc.

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