Dynamax introduces the most efficient weather station ever produced for low cost and accurate commercial applications. Growers asked us to produce a compact, light and rugged low cost system that is maintenance free but has good quality.

This automatic ET weather station includes features offered only by the leaders in weather instrument technology. We back all components with a one-year warranty.

Simple one-pipe, and one-crossbar construction installs in under 30 minutes. The sensors require no wiring and minimal assembly tasks with simple hand tools.

Logger, battery and data retrieval software are included and ready to go. Data may be retrieved by a PC, a portable PDA or by long distance communication options. All parts and cables are supplied except for a 6 ft. base pole (a standard 2 in. water pipe) in a cement footing. The crossbar system installed 6 ft. high is light and strong. We supply all the unique parts and let you save money on a costly tripod or tower.

1 in. x 3 ft long pole and cross-arm give flexibility and is easy to mount on any 2” pipe or tower with pipe adapters and mounting hardware supplied by Dynamax.

Dynamax proprietary software records data from the innovative Gill MetPak™ and a reliable radiation sensor for plant or crop weather applications. The station internally calculates ETo evapotranspiration from the most advanced solution prepared by the Texas A&M University research staff to enhance the accuracy of prior ET computations, (Lascano, Van Bavel – A.S.A. 2006).

Companies

- Solar power, 5 watt, with regulator and mounting bracket
- High accuracy rain gage
- Pulse flow meters
- Soil moisture sensors
- Additional Temperature sensors
- Radio (10-20 mile line of sight)
- Cellular Modem communications

Normally our weather station logger will record four extra soil or temperature sensors beyond the standard 7 featured sensors in the standard kit. In addition, a high spec rain gage and a digital flow meter may be added for special precision monitoring projects. A small custom software program will be generated for these options.

Our options are designed to cover 90% of the commercial growers needs. We have produced the kit that all our customers asked for, and yet have some flexibility for special needs.
## Sensor Technical Specifications

### Wind Speed
- **Range**: 0 - 60 m/s (134 mph)
- **Accuracy**: ± 2% @ 12m/s
- **Resolution**: 0.01m/s (0.02 mph)

### Wind Direction
- **Range**: 0 to 359° - No dead band
- **Accuracy**: ± 3° @ 12m/s
- **Resolution**: 1°

### Barometric Pressure
- **Range**: 600 - 1100 hPa
- **Accuracy**: ±0.5 hPa
- **Resolution**: 0.1 hPa
- **Units of measure**: hPa, mbar, mmHg, InHg

### Air Temperature
- **Air temperature**: PT100 1/3 Class B
- **Range**: -35 °C to +70 °C
- **Accuracy**: ±0.1 °C
- **Resolution**: 0.1 °C (0.1 °F)
- **Units of measure**: °C or °F

### Relative Humidity
- **Range**: 0-100% RH
- **Accuracy**: ±0.8% @ 23 °C
- **Resolution**: 0.1% RH
- **Units of measure**: % RH
- **Compensated for temperature dependency**

### Dew Point
- **Resolution**: 0.1 °C (0.1 °F)
- **Units of measure**: °C or °F
- **Accuracy**: ± 0.15 °C (23 °C ambient temp @ 20 °C dew point)

### Rain Gage
- **Sensor Type**: Tipping bucket with magnetic reed switch
- **Housing Material**: UV-stabilized ABS plastic
- **Daily Rainfall Range**: 0.00” to 99.99”
- **Rainfall Accuracy**: ±4 %, ±1 rainfall count between 0.2 mm and 50.0 mm per hour (0.01” and 2.00” per hour)
- **Resolution**: 0.2 mm (0.01”)

### Environmental
- **Protection class**: IP65
- **EMC**: EN 61326
- **Operating temperature**: -35 °C to 70 °C
- **Storage temperature**: -40 °C to +80 °C
- **Operating humidity**: 0% to 100% humidity

### Solar Radiation
- **Absolute Accuracy**: ± 5%
- **Spectral Range**: 380 to 1120 nanometers
- **Operating Temperature**: -40 to 60 °C

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The MetPak™ is an enhanced multi-sensor weather station that measures a wide range of weather parameters, including: wind speed and direction; air temperature; relative humidity; barometric pressure and dew point.

Included rain gage bucket.

The Solar radiation sensor model PYR-P installed on the InteliMet Advantage. The pyranometer measures total radiation for the most responsive transpiration and evaporation predictions.
The CR200-series dataloggers are small measurement and control devices that measure sensors, process the results, and transmit data via their on-board spread spectrum radio (model dependent). These loggers have an operating temperature range of -40° to +50°C, a 12-bit A/D converter, a battery-backed clock, a 1 Hz scan rate, and a table-based memory structure. They communicate using the PAKBUS® protocol, which is a simplified variation of Internet protocols.

All of the loggers below can communicate with a PC via direct connect, Ethernet, MD485 multidrop modems, and digital cellular modems. Data can also be viewed on a PDA (PConnect or PConnectCE software required).

- **CR200**—base model (i.e., only supports direct connect, Ethernet, and digital cellular modems.)

**Optional upgrades for InteliMet Advantage**

- **CR206**—includes an on-board 915 MHz spread spectrum radio that transmits data to another CR206 logger or an RF401 radio. The 915 MHz frequency is used in the US/Canada.
- **CR216**—includes an on-board 2.4 GHz spread spectrum radio that transmits data to another CR216 logger or an RF416 radio. The 2.4 GHz frequency can be used in many countries worldwide.

Programs and data are stored in a non-volatile Flash memory. Approximately 32,000 data points can be stored.

**Communication and Data Collection Tools**

- **PC400** Datalogger Support Software supports programming, manual data collection, and data display. Both direct and telecommunications are supported.
- **LoggerNet 2.1 or later** Besides providing all of PC400's functions, LoggerNet Datalogger Support Software supports automatic data collection and PAKBUS® routing.

The CR206 and CR216 can be used in a wireless sensor network. Wireless sensor networks are appealing because they are often more economical than trenching, laying conduit, and pulling wire. In some applications, cabled sensors are impractical due to man-made or natural causes, including construction, lightning, moving platforms, agricultural production, or bodies of water.

**Logger Specifications**

- **Analog Input Range, Channels**: 0 ≤ V < 2.5 Vdc, 5 channels, 1 used for solar radiation, 4 open
- **Measurement Resolution**: 0.6 mV
- **Measurement Accuracy Typical**: ±(0.25% of reading + 1.2 mV offset) over -40° to +50°C
- **Switch Closure (P_SW)**: Maximum Count rate: 100 Hz
- **Pulse Count (P_SW,C1, AND C2)**: Voltage Threshold: <0.9 V to >2.7 Vdc
- **Low Level AC (P_LL)**: Voltage Threshold: <0.5 to >2 V
- **Final Storage**: 128 kbyte Flash, data format is 4 bytes per data point (table-based)
- **Battery Voltage Range**: 18 Vdc, 120-220 Vac adapter supplied