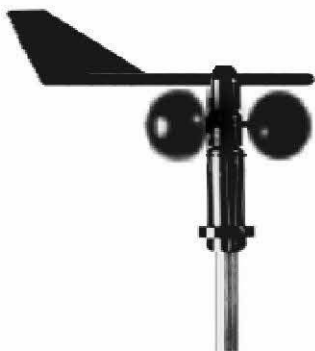


# PEET BROS. COMPANY, INC.



**ULTIMETER<sup>®</sup> Weather Instruments**

The best in *affordable* weather technology.

*"Keep a weather eye on Peet Bros."*



ULTIMETER PRO Anemometer

## “All weather is local.”

Weather information from radio or TV stations 10 or 20 miles away often differs greatly from your local conditions. As your *on-site* weather monitor, a Peet Bros. ULTIMETER Weather Station can alert you when a plunging barometer suggests an immediate, serious storm threat...when to secure vulnerable property from threatening wind conditions...when to curtail outdoor activity because of dangerously low wind chill readings—and much more.

Thank you for your interest in our exciting line of ULTIMETER Weather Stations, that so many users are finding invaluable in their homes and businesses.

We believe you'll find this catalog includes just the right amount of technical information so you can make wise, informed decisions. However, should you have any questions, please call us toll-free at **1-866-446-1216** 8am-5pm Eastern, M-F. Our knowledgeable staff will be glad to help you.

If at all possible, do plan to **visit us online at [www.peetbros.com](http://www.peetbros.com)**. You'll find a wealth of information, including complete owner's manuals, comparisons, and technical support information for your ULTIMETER Weather Station. You may also place orders online 24/7 using our secure server.

You can order with confidence—we've been outfitting people with precision weather instruments for over 30 years. We guarantee your satisfaction.

*The Team at Peet Bros.*



ULTIMETER 2100 Weather Station Keyboard/Display

## What makes the **ULTIMETER**

Every ULTIMETER system is superior to any other in its price range. Some of our systems accept more sensor options than others, *but the sensors employed in all our systems are identical*. And all key design elements are the same, so every ULTIMETER system is easier to install, easier to use, more accurate, and will provide more data than similarly priced competitors' systems.

### Our keyboards do more

Our keyboards feature individual molded keys that look better, feel better and work better than cheaper, flat “membrane” keypads. But the powerful microprocessor inside is the real “key” to solving a troubling problem and much more.

**Here's the problem:** Often you may wish to save the extreme readings from a big storm to show colleagues and friends days or weeks later.

**Here's the ULTIMETER Solution:** Our weather stations save those extremes, employing nine separate banks of high/low memory. *Without using a computer*, you can easily check: •All of today's - *and each of the previous seven day's* - highs, lows, and daily rainfall •All the long term highs, lows and the cumulative rainfall since each was last reset •The time and date each high and low occurred. And you can reset each long term high and low individually or simultaneously, using a handy master reset.

**They provide accurate wind gust readings.** It's relatively easy to measure the speed of a *steady* wind, much harder to capture high wind gusts accurately. Other systems may report errors as large as 30%, because their less capable processors only measure short-term average wind speed, missing peak gusts. But our weather stations, like the most expensive commercial systems, calculate wind speed without averaging, thus capturing high wind gusts with pinpoint accuracy.

**They warn of possible local flooding.** You can depend on our *exclusive "Flash Flood Alert"* to give you the earliest reliable warning of potential local flooding when there is sustained heavy rain. Just add Peet Bros.' remarkable “PRO” or “TB” rain gauges shown on page 6.

**Their unique 7-mode serial data output supports:** • The Weather Picture • **WeatherText™** weather report output every minute (see p. 10) • **WeatherText™ Tools** software for weather data logging, point-to-point remote collection, Internet reporting, automatic emailing of weather reports, packet radio transmission (APRS), and other special applications.

**They're easy to power – at home or away.** All ULTIMETER systems will operate from a 12-volt ac adapter (included), an automotive or other 12-volt electrical system or an internal 9-volt backup battery (not included).

### Easiest to install and easiest to use

Just place our patented wind sensor over the top of a TV or FM antenna mast, rotate it until the reference mark points north, and pull down the clamping ring. With no tools required and nothing to corrode, the wind sensor is easily detachable. It's equally easy to

# Weather Stations superior?

view its data: for current wind speed, simply tap the key showing the anemometer icon. Then just tap the UP arrow for today's highest wind, the time it occurred, and today's date. Tap it again to see yesterday's data, and repeatedly for the long-term data.

## The most reliable, accurate sensors

The quality of the data you receive can only be as high as the quality of the sensors in your system. *That's why Peet Bros. pays a premium to bring you absolutely the best sensors available.*

### The Best Wind Sensor: **ULTIMETER "PRO"**

Our new **ULTIMETER** "Pro" Anemometer features exceptional response in all wind conditions, including very low wind speeds. Unlike conventional wind sensors, our patented digital design has no potentiometer or other friction contacts to wear out. It features bearings that are virtually corrosion proof, with self-lubricating Delrin<sup>®</sup> races and surgical steel balls. The precision-molded housing of UV-resistant Lexan<sup>®</sup> will resist the harshest elements for many years. Utilizes top-quality electrical components, including two ultra-reliable, glass enclosed, hermetically sealed, magnetically operated reed switches.

### The Best Temperature Sensors

**ULTIMETER** temperature sensors are interchangeable, aged, precision thermistors. While other manufacturers encourage users to recalibrate temperature readings because their sensors aren't interchangeable or completely stable, our systems don't require adjusting—yet maintain an accuracy of 0.5° F—two to four times better than others!

### The Best Rain Sensors (optional)

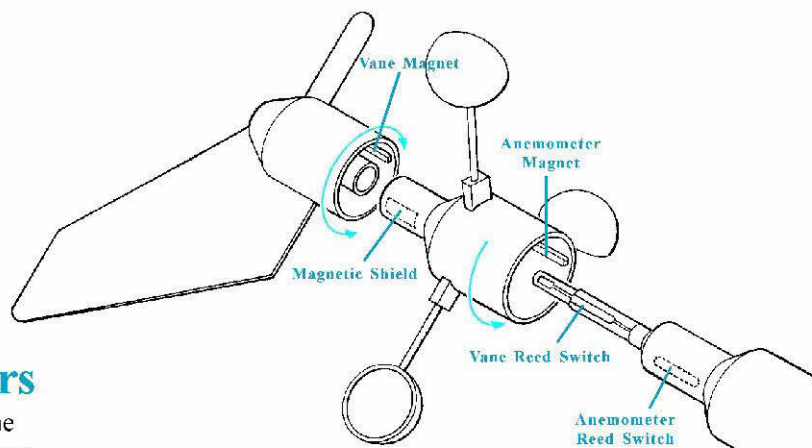
As you'll see on page 6, Peet Bros. offers a choice of superior rain gauges—from our self-emptying "PRO" with no moving parts and an optional heater, to our proven tipping bucket rain gauge.

### The Best Pressure Sensor (**ULTIMETER** 2100 only)

Unlike other systems that only indicate a 1 hr. "trend arrow," our precision laser-calibrated sensor is so stable and accurate that we can display the *numeric value of pressure change over a full 3-hour period per National Weather Service standards.*



Basic components of all **ULTIMETER** Weather Stations include: keyboard/display unit with desk stand, wind sensor, outdoor temperature sensor, plug-in cables, AC adapter, cable ties, installation and operation manual. You can add enhancements from a wide array of optional sensors and accessories, configuring a system to meet your exact needs and budget.



How our superbly reliable wind sensor works: A reed switch is a long-lived, hermetically sealed switch that actuates when a magnet is brought near it. The anemometer reed switch is normally open, whereas the centered vane reed switch is normally held closed by the strong vane magnet, regardless of wind direction. During each revolution of the cups:

- The anemometer reed switch closes briefly as the anemometer magnet approaches, then reopens when the anemometer magnet has passed. This actuation always occurs at the same angular position of the cups.
- The vane reed switch opens briefly, then closes again as the magnetic shield passes between it and the vane magnet, absorbing the magnetic field. The timing of the vane reed switch is determined by the angular position of the vane magnet, which is in turn determined by wind direction.

Wind direction is calculated (with a resolution of 1.4 degrees) by comparing the relative timing between operation of the two reed switches.

### The Best Humidity Sensor (optional on 2100 and 800)

Our optional humidity sensor is a precision humidity-sensitive, polymer *capacitor* that has a wider sensing range than the resistive sensor that others use, so you get accurate readings, even at the all-important extremes—from 0 to 100% R.H.

## Why Use Cabled Sensors?

A number of consumer-grade weather stations now use wireless sensors, promising faster installation. Why doesn't Peet Bros.?

It's because we and our customers have found that there is no substitute for the reliability and performance of cabled sensors. Although the price of our systems represents great value for everyone, we remain committed to meeting the needs of serious amateur and professional weather observers, who demand dependability and low maintenance. Professional or not, few people are likely to be really pleased with a weather station that interferes with television reception... or requires periodic replacement of back-up batteries in hard-to-reach outdoor sensors... or fails to work when the sun is blocked by prolonged periods of harsh weather or by ice and snow on the solar cells themselves. As one experienced weather observer put it, "The bitterness of intermittent data loss from wireless sensors remains long after the sweetness of faster installation is forgotten."

## Now, configure a system for your present and future needs

With Peet Bros. you can configure an **ULTIMETER** system to meet your present needs and budget without locking yourself in. Our expansion and trade-up options let you modify your system economically whenever you wish. At each step along the way, you'll enjoy knowing that your system is the very best.

# THE ULTIMETER WEATHER STATIONS



## ULTIMETER 2100 with WeatherText™

Our top-of-the-line ULTIMETER 2100 system gives you all the other advantages outlined on pages 2 and 3, plus a superb precision barometer with:

- a preset storm alert to warn you if the pressure falls more than 0.18" in 3 hours.
- the all-important numeric 3 hour pressure change, in accordance with National Weather Service standards.
- today's, and previous 7 day's, highest and lowest pressure readings plus interesting extremes from days or weeks before, all with time and date of occurrence.
- platinum-tone housing with brilliant blue display backlighting.
- illuminated keypad provides exceptional visibility in darkness or low-light conditions.
- an adjustable pressure change alarm plus adjustable alarms for both high and low pressure.
- Readings in inches or millimeters of mercury, millibars or hecto-Pascals.
- WeatherText™ serial data (RS-232) output weather report capability.

### ULTIMETER SYSTEM SPECIFICATIONS

FUNCTION	SPECIFICATIONS & NOTES
Wind Speed	Range: 0.2-160.0 mph (0.1-71.0 m/s) (Pro) Threshold: 1.5 mph (0.6 m/s) (Pro) Accuracy: ± 2 mph (0.9 m/s) or ± 5 %, whichever is greater, 40 ft. cable standard*
Wind Direction	16 point analog compass rose; Serial data output resolution: 1.4°F
Wind Chill	-150°F to +50°F (-101°C to +10°C)
Humidity - Outdoor	0 to 100% ± 5%; with 40 ft. cable standard*
Dew Point	Same Units as Temperature
Humidity - Indoor	Same as Outdoor Humidity; with 15 ft. cable*
Temperature - Outdoor	-55° to +150° F (-48° to +66° C) Accuracy: ±0.5° F Resolution: 1°F or 0.1°C on display 0.1°F in serial data with 25 ft. cable standard*
Temperature - Indoor	As above, however the keyboard itself should not be exposed to extremes. A remote "indoor" sensor option is available.
Pressure	27.5 to 31.5 inHg 931.3 to 1067.0 hPa/mbar 698.5 to 800.0 mmHg
Rain	Units: inches, millimeters
Build-in Static Protection	Protective components in junction box run incidental static electricity to ground through TVS diodes
Electrical Alarm Signal	+5 volts, on for 1 minute (2100 only)
WeatherText Serial Data	YES
Illuminated Keys	2100 and 800 only
Bright Blue LCD Backlight	2100 and 800 only

\* We'll gladly supply custom cable lengths quickly and economically.

### ULTIMETER® Weather Station Features by Model

Wind Speed	•	•	•
Wind Direction	•	•	•
Wind Chill	•	•	•
Humidity - Outdoor	n/a	Opt	Opt
Dew Point	n/a	Opt	Opt
Heat Index	n/a	Opt	Opt
Humidity - Indoor	n/a	Opt	Opt
Temperature - Outdoor	•	•	•
Temperature - Indoor	Opt	•	•
Barometric Pressure	n/a	n/a	•
Rain	Opt	Opt	Opt
Alarms	•	•	•
Alarm Output Signal	n/a	n/a	•
APRS-Ready	•	•	•
Serial Data Input/Output	•	•	•
WeatherText Serial Data	•	•	•
Illuminated Keypad	n/a	•	•
Bright Blue LCD Backlight	n/a	•	•

ULTIMETER® 100  
 ULTIMETER® 800  
 ULTIMETER® 2100

•	•	•
•	•	•
•	•	•
n/a	Opt	Opt
n/a	Opt	Opt
n/a	Opt	Opt
n/a	Opt	Opt
•	•	•
Opt	•	•
n/a	n/a	•
Opt	Opt	Opt
•	•	•
n/a	n/a	•
•	•	•
•	•	•
n/a	•	•
n/a	•	•



## ULTIMETER 800 with WeatherText™

The *ULTIMETER* 800 is an exceptional value. It includes all the outstanding features outlined on pages 2 and 3, tracks more than 90 weather values, and will provide the same data as our top-of-the-line '2100', except for barometric pressure. And if you later find you need pressure readings, you can trade up your 800 keyboard for a 2100 keyboard and continue to use all your existing sensors. We invite you to consider the Model 800 with **WeatherText™** serial data output. You'll find it combines:

- A very attractive price—it will fit your budget.
- Superb performance—you'll be proud of it.
- Bright blue display backlighting and illuminated keypad
- Unparalleled expansion capability - you won't outgrow it.

"Just want to inform you that the *ULTIMETER* weather station performed perfectly during Hurricane Debby. When daylight arrived, I raised my HAM antenna, fired up the computer and brought up the charts that the *ULTIMETER* had

compiled while I was down. It pinpointed the exact time of the wind shift, wind speed changes, and the low barometric pressure. This info I was able to forward in a timely manner by radio to the National Hurricane Center via W4EHW. I think it is great stuff!"

—B.H., St. Eustasius, Netherlands Antilles



## ULTIMETER 100 with WeatherText™

Perhaps you just need a very basic weather station – wind speed, wind direction, outdoor temperature and possibly rainfall. Even so, you have every right to expect that your system will be just as reliable and accurate as the most elaborate top-of-the-line system. Rest assured that our *ULTIMETER* 100 uses the same top quality sensors and the same great data processing as our renowned 2100 system, including **WeatherText™** serial data output. It is unsurpassed as a basic electronic weather station for the professional or serious amateur weather observer.

"I have a comprehensive *ULTIMETER* system, including the Weather Picture, which I use in the Bahamas. We were in our house on Man O' War Cay, Abaco, when Hurricane Floyd hit with winds registering 134 mph. Watching the barometer sink and rise as the eye passed over us was quite an experience! I love your whole system, and have become the local "honesty" weather reporter."

—J.P., Abaco, Bahamas