

FAQ's

Why is it important to know the weather conditions, and how can a Kestrel Meter help me win races?

Weather affects your performance. Period. If you are not using something to measure the weather conditions then you are missing a piece of valuable information that can help you win races. Environmental conditions such as relative humidity, density altitude, water grains, dewpoint and wind speed all influence your car. By monitoring these conditions and analyzing how weather patterns from previous races change your car's performance, you are able to make more informed dial-in and tuning decisions. Since a Kestrel Tracker is portable and accurate, it enables you to monitor the weather conditions that concern you right at the track, not at the trailer miles away.

I am hearing a lot of buzz about water grains - what exactly is it and how will affect my performance?

Water Grains is a measure of how much moisture (water) is in a pound of air. Since water grains is an absolute measurement of moisture, a racer can look at this value to determine if the engine will be more or less powerful in comparison to previous atmospheric conditions. For bracket and class racers, this helps determine the dial in or throttle stop timers. For professional drag racers, (or any type of drag racing where the first one to the finish line wins) it helps in determining adjustments to the clutch, fuel, ignition, chassis, etc., that may need to be made to compensate for the loss or gain in power. More water in the air equals less power, while less water in the air equals more power.

I've seen a lot of high dollar weather units on the market, yours is so inexpensive, can it really be accurate?

The engineers at NK have been working on the Kestrel's functionality for over ten years, and have been awarded four patents on their innovative engineering. Additionally, each and every Kestrel Meter is calibrated against NIST-traceable standards, and can be recalibrated in the field or factory. We're so sure of Kestrel Meter's functionality that we guarantee each Kestrel for five years, and each one comes with a Certificate of Conformity. Visit www.kestrelweather.com for detailed specifications.

How can I be sure the Kestrel Meter is giving me the altitude and barometric pressure readings that I'm looking for?

Kestrel Meters use the same barometric pressure sensor used in most common barometers and altimeters. These sensors are influenced by the surrounding environment (the altitude), as well as the weather (barometric pressure). These two readings are inter-dependent, and you need to know one of them in order to measure them correctly.

The easiest thing to do is to determine the altitude of the track where you are racing. Google Earth is free software that pinpoints the altitude of any address. Simply enter this value into the barometric pressure screen as the "reference altitude". Then take the barometric pressure reading that the Kestrel Tracker displays and enter that as the "reference pressure" on the altitude screen. Now you're good to go!

We don't claim to be racing experts, but here are some tips on getting the most out of your Kestrel Meter.

Any suggestions where and when is the best time to take readings? Before or after a run, or both?

We don't claim to be racing experts, but here are some tips that will help. The one thing we can say is that consistency is a must. Pick a system and stick with it. It's often easier to record the weather data immediately after returning from a run. That way it won't matter if you get delayed at the start. Also, you can set the Kestrel to automatically store data every five minutes, and then just coordinate times with the timeslip. Lastly, for the most accurate readings possible, it's best to keep the Kestrel Meter in the shade, and make sure air is circulating through the temperature sensor (the curly thing), either by holding it in the breeze or by waving it around.

I have E.T. prediction software and I want to make sure I am imputing the correct readings for my dial-in.

- If your software asks for station or raw pressure, simply set the reference altitude to 0.
- If your software asks for density altitude, you can use the value that your Kestrel Meter automatically measures.
- If your software asks for barometric pressure and altitude, make sure you know your track's altitude ahead of time and enter it in as the "reference altitude."

I don't have E.T. prediction software, any help you can offer how I can dial in with the Kestrel alone?

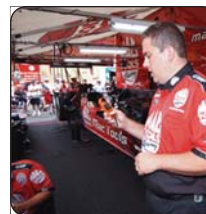
We went to the experts to get an answer for this one. Here's how they do it at Martino Motorsports: The density altitude reading is the most important to us. For every 150 ft. increase in DA, our car will lose .01 in elapsed time, and for every 150 ft. decrease our car will pick up .01 in elapsed time. But we can get the same DA and have two completely different runs. This is due to humidity factor. Although the DA might be the same, you can have a different temperature and humidity combination. For every 15% increase in humidity our car's performance will decrease .01 in elapsed time and for every 15% decrease in humidity our car's performance will increase .01 in performance.



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Kestrel[®]

Pocket Weather[®] Meters



**You Don't Race at Your Trailer...
Why Measure Weather There?**

Think the weather conditions at the track are the same as the information you are getting from back at the trailer?

Think again.

Even slight fluctuations in weather conditions such as temperature, humidity, water grains, barometric pressure and density altitude can affect your car's performance. Kestrel Weather Meters provide quick, accurate information to help you decide what changes need to be made, before even making a lap around the track or a pass down the drag strip. Portable and easy-to-use, Kestrels give racers and pit crews relevant data to gain that competitive edge at a fraction of the cost of other systems currently on the market.

Kestrel Pocket Weather Meters are the next generation of weather monitoring. They measure every environmental condition with unrivaled ease and accuracy - and all in a cell-phone sized package. Wind speed, temperature, relative humidity, dewpoint, water grains, density altitude, altitude, barometric pressure, wet bulb temp, heat stress and wind chill are all continuously measured, and data is stored both manually and automatically. A 1600-point data log lets you keep track of the conditions for each race day, and the optional computer interface lets you upload all the data to your PC for in-depth analysis.

Kestrel Meters feature the best portable sensors available, assuring that they are dead-on accurate. Each unit is individually calibrated before it leaves our manufacturing plant, and comes with a certificate of conformity. We even hold four patents on the technology our engineers have developed especially for the Kestrel line. They're so accurate that they are the choice of Meteorologists, Wildland Firefighters and Emergency HAZMAT personnel.

Did we mention that they're durable, too? Kestrels are built tough right here in the USA, and carry a five-year warranty. Each Kestrel is fully waterproof, floats and can handle being tossed into your tool box. They're the only hand-held weather instruments trusted by the US Military.

Increase your performance when it counts the most. Let a Kestrel Pocket Weather Meter help you with those last minute dial-in or tuning decisions.



A Kestrel Meter
Here

Helps You Get
Here

Gordon Cole uses his Kestrel 4000 on his way to winning the Pinevalley Raceway Track Championships in 2006.



Accurate, Portable, Affordable. Kestrel Weather Meters.

You don't have to take our word for it...

"I have been using the Kestrel 4200 Pocket Weather Tracker for tuning. It has helped me to watch weather changes. We look at altitude, temperature, and water grains for tune-ups. This unit is very easy to use and has made my tuning easier. Thanks Kestrel!"

- Tom Motry, Drastic Plastic Racing

"The Kestrel 4000 is the perfect tool for making those last minute dial-in decisions in the staging lanes. The cell phone sized meter gives me fast, reliable data just seconds before my pass."

- Bill Barr, Quaker City Raceway, Modified Class

"The unit itself is one of the most valuable tools in our trailer. It allows us to win races and rounds."

- Tom Martino, Martino Motorsports Youngstown, Ohio

"The Kestrel Tracker comes in handy when we go to the staging lanes, and are delayed for some time, we can track the weather changes."

- Dan Parker, Parkertech Racing, VIP Sports Dodge Stratus, TAFC 33

"Overall I'd say this is a trick little piece. All the readings were so close to matching up (with high priced weather station), I could have easily made the right tune-up decisions based on the Kestrel. We wondered why we were paying so much for our weather station (about \$3,000)."

- Jim Oberhofer, Crew Chief, Doug Kalitta's NHRA Top Fuel Dragster

"The auto store feature is key because once you get into later rounds, you don't have time to "log" all that data in your book. All I do is hit the auto store button before each round and fill in my log book whenever time permits."

- Bill Barr, Quaker City Raceway, Modified Class

"It's what I use. I like to take readings but don't need a computer predicting my ETs for me. It's very portable and consistent at a fraction of the cost of the \$2,000 plus trailer systems."

- John Rollins, NHRA #2241 (ET, Stock, Super Street)

"I've found my Kestrel 4000 to be very helpful in winning 4 class championships and 2 overall track championships at National Trail Raceway since 2004. It was also instrumental in helping me win the NHRA Division 3 Sportsman championship in 2004."

- Ray Block, Block Party Racing

"I finished #1 for my track in the Summit Super Series and can definitely say that my Kestrel 4000 was a big part of my consistency. The other racers saw that I was doing well using my Kestrel and asked many questions. The biggest one was what the weather was doing, especially the density altitude. Of course I had to start limiting the information and encouraged them to invest in their own meter. They started watching to see what I did with my dial-in numbers, and then change theirs! Very sneaky, but good fun!"

- George Jorgensen, Alaska Raceway Park (Super ET, Summit Super Series Champ)

Kestrel is a proud member of the 2007 IHRA & NHRA Summit Series Contingency Programs, and a NHRA Be a Winner Be a Member sponsor.

