RACEAIR™ REMOTE

COMPETITION WEATHER STATION

Introduction:

Computech's RaceAir Remote Competition Weather Station consists of; the RaceAir Remote Sensor Assembly, the Computer Interface, the Weather Pro software, the interconnect wiring, and a user supplied IBM compatible personal computer (PC) using Windows 95 or newer operating system. The computer must have a 9 pin serial port available to connect to the RaceAir Remote Computer Interface. The system will automatically sample the current weather conditions and record the information to the PC. Monitoring and recording trackside weather conditions has never been easier.

Features & Abilities:

- Heat and moisture resistant sensor assembly for prolonged sampling
- Log and graph weather data in real time
- Perform multiple calculations automatically
- Collected data can be saved to a file for future reference
- Weather data and calculations are displayed in graph mode
- Graph ranges, scales, and variables are customizable
- Tracks high and low values for collected and calculated data
- Logged data can be printed in log or graph form
- Graphs can be "stamped" with text to mark events

QUICK START GUIDE

Mount the Remote Sensor Assembly.

Connect the Remote Sensor Assembly to the Computer Interface.

Connect the Computer Interface to the PC serial port.

Connect the AC power supply to the Computer Interface.

Install the Weather Pro software.

Start Weather Pro.

Push Computer Interface red power button.

Click the tool bar *LOG* button.

Click *SAVE* in the data file box to automatically name the data file.

Use the mouse and left click to display previously recorded data.

INSTRUCTIONS

RaceAir Remote Sensor Assembly Installation:

The heat and moisture resistant Remote Sensor Assembly should be mounted in a location to duplicate track conditions as closely as possible. The assembly can be mounted on a vertical surface, stand, or pole. Avoid mounting the Sensor Assembly near large dark surfaces that radiate heat or in an area where vehicle or generator exhaust gases will influence it. A mounting bracket is included in the kit. A mating bracket is attached to the Remote Sensor Assembly. This mounting system is intended for quick attachment of the Sensor Assembly to the mounting surface or pole. The RaceAir Remote Sensor Assembly should be removed and safely stored for transport and during heavy rains. The kit includes an extension cable to connect the Remote Sensor wiring harness to the RaceAir Remote Computer Interface.

RaceAir Remote Computer Interface Installation:

The Computer Interface is a junction and switch unit with a serial port adapter and an AC power supply. Install the serial port adapter on the computer COM port. Connect the RJ-11 cable to the serial port adapter. Using the extension cable (4 wire cable with rectangular connectors), connect the RaceAir Remote Sensor Assembly to the Computer Interface. Insert the AC power supply plug into the round port on the back of the Computer Interface unit. Plug the power supply into a 110V source.

Weather Pro Software Installation:

The Weather Pro software is supplied on a CD-ROM. Start Windows and insert the CD into the disk drive. The install process should start automatically. Follow the on screen instructions. If the program does not autorun, click the **Start** button on the Windows desktop screen. Click **Run**. And on the command line type **D:setup** and then click **OK**. Follow the instructions on the screen to complete the software installation.

The software will automatically place a Weather Pro short-cut icon on the Windows desktop screen.   To start the software simply double click on the Weather Pro icon. The system requires the PC to be running the Weather Pro software continuously to log sensed weather conditions and calculated values. However, the PC may be used for other functions with the WeatherPro program minimized or in the background.

Software Help:
The Weather Pro program includes an on-line help library that may be accessed from the **Help** toolbar button, or by pressing the **F1** key. There is a sample file that you may open to see exactly how the system works. The best way to learn to use the software is by actually using it and reviewing the on-line help.

COM Port Selection:
The serial port (com connection) must be free of other background programs that use the same port. For example: Devices like Personal Digital Assistants or digital cameras usually have software that is running in the background that must be closed. Make sure the Weather Pro software communications port selection matches the port the RaceAir Computer Interface is on. Click on the toolbar button labeled **COM** to open the communications port selection box. Simply click on the port in use and click **OK**.

System Operation:

Start the Weather Pro software. Push the red button on the Computer Interface to power the system. Single click on the **LOG** tool bar button to start the logging process. Once communication has been established with the RaceAir Remote Sensor Assembly the system will automatically open a data file name box. Click **Save** to record this session. The On-line help can be accessed at any time by pressing the **F1** key.

Frequently Asked Questions:

Can I plot other values on the graphs?

The Calculation Graph variables may be changed by using the Graph Data Panel. WeatherPro remembers which values were being displayed on the graph each time you run the program.

Where is the most recent sample data shown?

The most recent sample data is displayed on the top row of the Data Grid and on the Graph Data Panel at the lower portion of your screen.

Can I save new sample data in an existing file?

Yes. If the name of an existing file is chosen when the File Save Prompt is displayed, the Append/OverwriteDialog is displayed providing the choice to append to the file or overwrite it. Note that if a lot of time has elapsed, a large gap will exist in the sample data that may make the graph confusing.

How can I change the Graph Ranges/Settings?

WeatherPro allows you to customize the graph ranges and settings by selecting Ranges from the Graph Menu. This displays the Graph Ranges Dialog. Ranges for all six graph bands may be adjusted as well as the time interval shown.

How do I see data for a particular point on the graph?

Hover your mouse cursor over either graph. The cursor changes to a hand. Click the left mouse button and a blue vertical line will be displayed on both graphs. The data recorded for this time slice is displayed in the Data Grid.

What is proportional scaling?

Proportional scaling is a powerful WeatherPro feature the constantly adjusts the graph ranges to display data collected in the most efficient manner. It sets the range for each band based on the +-2% of the high/low recorded for the data set. For more information see: Proportional Scaling Explained.