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## **Snap-In<sup>tm</sup> Weather Installation – Ver 4.08**

**IMPORTANT NOTE: If Snap-In weather module is already mounted on your Eliminator 2000 Version 4.08 from the Factory, SKIP over to the section titled "INSTRUCTIONS"**

The Snap-In<sup>tm</sup> Weather Module that you have just purchased is a very powerful weather analyzing device that will allow you to monitor your vehicle's performance in relation to weather changes. You will be able to sort and scroll through your log book to determine the E.T. of your vehicle as the weather changes. The NEW Eliminator Super 2000 version 4.08 with Snap-In Weather will also predict your vehicle's E.T. for you!

Make sure that your Eliminator 2000 is compatible with weather. Turn on the Eliminator 2000 and at the Main Menu you must see "Race/Wx Logging" as the third option on the screen. If you don't have this menu item, you will have to send your Eliminator 2000 to Portatree at the above address for a free upgrade. Please call for verification.

### **Installing Weather Module**

Make sure that the Eliminator 2000 is "OFF" and not connected to power!! Use the 4 screws provided in the kit to attach the Snap-In<sup>tm</sup> Weather Module to the 4 posts on the back of your Eliminator 2000. Attach the Snap-In<sup>tm</sup> Weather Module so that the cable connector is at the top (same as the Eliminator 2000) and the blue Snap-In<sup>tm</sup> Weather decal is visible. The Snap-In<sup>tm</sup> Weather Module depends on the space between the Eliminator 2000 case and the Snap-In<sup>tm</sup> Weather Module to protect the temperature sensor and also provides the necessary air flow for accurate temperature readings. **DO NOT PLUG IN** the Snap-In<sup>tm</sup> Weather Module yet !!

### **First Time Use of Weather**

The first time that you power up the Eliminator 2000 you must clear the memory for the Weather Board to be recognized correctly. Turn on the Eliminator 2000. Use the arrow keys to select Race/Wx Logging and depress the "STAGE/Enter" Key. The Eliminator will try to find the Weather module, but will come back with the response "Can't Read Weather" which means that it did not find a weather module.

You must depress the "STAGE/Enter" key to get to the main weather menu which displays 4 options. Depress <7> and then <0> then <7> to clear the entire Memory. Depress <Stage/Enter> twice to erase. Now turn off your Eliminator.

Plug one end of the short black cable (which has a telephone style connection on each end) into the Snap-In<sup>™</sup> Weather Module and the other end into the outer jack on top of the Eliminator 2000 (NOT THE CENTER JACK). Telephone cables that you may have at home may fit in this jack but **will not work!**

Turn on the Eliminator 2000. Use the up/down arrow keys to select Race/Wx Logging and depress the "STAGE/Enter" Key. The Eliminator will indicate that it is trying to find the weather module and this time it will respond with a "Calibration Mismatch". This indicates that the weather module is there, but there are no calibration values that match the Snap-In<sup>™</sup> Weather Module.

Pressing any key will bring you to the calibration screen where you can enter the calibration values of your Snap-In<sup>™</sup> Weather Module. The calibration information is located on the side of your Snap-In<sup>™</sup> Weather Module. There are 4 values that you must enter when prompted by the Eliminator 2000. A default value will appear for each setting. Make sure that you enter each number into your Eliminator 2000 carefully. You can use the "left /right" arrow keys to edit. After you verify a correct entry, depress the "STAGE/Enter" Key to move to the next entry value. Once all four values are entered the Eliminator 2000 will prompt you to press the "STAGE/Enter" Key to save the information. If any value was entered wrong, at this time you can press the "STAGE/Escape" Key to exit the calibration screen and not save any of the calibration values. You must then press the "3" key to return to the calibration screen and reenter the calibration values. If all values were entered properly you can press the "STAGE/Enter" Key and the Eliminator 2000 will save the calibration values and restart itself for the calibration values to become effective.

## **Verify Operation**

Once the Eliminator has restarted select the "Race/Wx Logging" Menu item and depress "STAGE/Enter". This time the Snap-In<sup>™</sup> Weather Module should be detected and you will immediately be prompted to enter the date and time. This means that the weather station is operating correctly and is recognized by the Eliminator 2000.

Use the Snap-In<sup>™</sup> Weather Module Instruction manual to use and understand the features and power of this Weather Station. Use the Windows software to get all of the power out of your weather station so that you can optimize the performance of your race vehicle in just about any weather condition.

## **Troubleshooting**

If you experience any difficulty in getting your weather station to connect or be recognized by your Eliminator 2000, please call out TECH line at 508-278-2199 and we will walk you through setup and operation.

# **INSTRUCTIONS Version 1.06 / 4.08**

## **SNAP-IN<sub>tm</sub> Weather Station Adds On to the *Eliminator 2000***

This instruction guide will help you understand the features of the new Snap-In<sub>tm</sub> Weather Station and how to maximize the information that it provides. You must have a Portatree Eliminator 2000 that is Race/ Weather Logging compatible. The weather station must be attached to the back of the Eliminator 2000 using the mounting pads and screws provided. The short black telephone style cable (shipped with the Snap-In<sub>tm</sub> module) is connected to the serial port that is on the top right side (NOT center serial port) of the Eliminator 2000 and to the weather station.

The run information capacity of the Eliminator 2000 is over 150 runs. It is dependent on the weather information that has been stored (logged). We suggest that you erase old weather data as soon as it is no longer any use. The Eliminator 2000 will prompt you if there is any weather in memory and ask you if you want to delete it. The Eliminator 2000 will prompt you when weather has used too much memory, run data is too high, or when you should recover your memory. When you get over 150 stored runs, it is suggested that you delete runs that are no longer representative of the race vehicle's performance. You can use the Windows P.C. software to download the data from the Eliminator 2000 so you can edit, delete, and renumber the run information and then reload the Eliminator 2000 with all of the current run information.

Start up the Eliminator 2000 and use the "DOWN" arrow key to highlight Race/Wx Logging and then press the "STAGE/Enter" Key. If you don't see Race/Wx Logging call Tech Help at 508-278-2189 Ext 8. The Eliminator 2000 attempts to connect to the Weather Station and check the Calibration Values. If the Snap-In<sub>tm</sub> Weather Station is not connected to the Eliminator2000 you will see "Can't Read Weather" on the screen. If it is not calibrated "Calibration Mismatch" will appear and the Eliminator will send you to the calibration screen where you can enter the calibration values, which are located on the side of your Snap-In<sub>tm</sub> Weather Station. Refer to "First Time Use of Weather" on page 1 to enter your calibration values.

After connecting, you must enter the correct date and time if you intend to log and save weather. Depress key "2" and enter the month, day and year depressing the "Stage/Enter" key after each entry. Press the "Stage/Enter" key if date is correct or press "2" to re-edit the date. Enter the time by depressing the "2" key and enter the hour and minutes depressing the "Stage/Enter" key after each entry and then use the "up/down" arrow to select AM or PM then use the "Stage/Enter" key to save your settings. Time and Date screen will appear every time you enter Race/Weather Logging; however, the NEW real time clock keeps track of the time even when the Eliminator 2000 is turned off; therefore, it

shouldn't be necessary to reenter Date and Time every time the Eliminator 2000 is turned off. Press the "Stage/Enter" key if the time you entered is correct or press "2" to re-edit the time.

You will now be at the Main Weather Menu. Use the "Up/Down" Arrow keys to scroll through the menu options:

<b>1 - Return to Elim</b>	Returns to Eliminator Main Menu
<b>2 - Current Wx</b>	Allows you to review Current Weather
<b>3 - Weather Logging</b>	Log and Save Weather - Match to Race – ET Prediction
<b>4 - Race Logging</b>	Enter Information from time slip
<b>5 - Memory Status</b>	Review how much memory is left
<b>6 - PC Link-Up</b>	Connection to Personal Computer
<b>7 - Clear Memory</b>	Clear Old Weather Data
<b>8 - Redo Date/Time</b>	Reset or Correct Date and Time

If you select any Menu Item 2 through 8 above you can use the Stage/Escape Key to return to the Main Weather Menu above.

### **Select Menu Item 3 to enter Weather Logging Menu:**

**2 - Log and Save** If there are any weather samples in memory, the Eliminator 2000 will ask to clear "Erase old Weather". If there are excess erased weather samples, the Eliminator will automatically recover the memory so that it can be used over again. Depress "Enter" then use then Up or Down Arrow keys to select the time interval you would like to use and the Eliminator will automatically start logging weather data every (x -time you selected) minutes. The selection also shows how many hours of weather can be logged using the selected time interval. Depress "9" and then "2" to exit logging.

**3 - Match to Race** Use this item to review weather data and match race time to weather time. Use the Up and Down arrow keys to review the data and use the "6" key to flag the weather information so that race data can be entered. After flagging weather data, the Eliminator 2000 will immediately proceed to race entry so that you can enter the data from your time slip. See the enter race section below for entry information.

**4 - Calibration:** 2 Show Calib --This item displays the current calibration values  
3 Enter Calib--This item allows you to enter new calibration values

**5 – Predict Setup** This screen is used to setup the Elapsed Time (E.T.) Prediction feature of the Snap-In module. The E.T. Predict Setup screen will prompt you to first enter an E.T. for your vehicle, then the Corrected Altitude(CAlt) when the run was made, and finally the slope of your vehicle (an explanation of slope can be found below). When entering each value you can press the "left/right" arrow key to move through each number position and the "STAGE/Enter" Key to save the entered value and move to the next entry line. Pressing the "STAGE/Escape" Key will exit the E.T. Prediction Setup Screen

and return you to the Weather Logging Menu. It will not save the value that you were editing when the button was pressed.

**NOTE:** E.T. Prediction does not support runs made with a negative CAlt (you can not enter a negative number)

**SLOPE:** The slope of your vehicle is its E.T. change per 1000 ft of Corrected Altitude. Refer to sheet attached showing how to determine the Slope of your vehicle.

## Select Menu Item 4 to enter Race Logging Menu:

### 2 - Enter Race

Enter Race data from time slip

The Eliminator 2000 will warn you if no weather log has been flagged for race entry. If you proceed without flagging weather, the run log will not have any values of weather. **Make sure that you go to Weather Logging and “Match to Race” to flag weather data and enter your run.** You can enter the race information from your time slip. The date and time are the time that the weather was flagged and the race # is automatically indexed from the data already entered. You will then be prompted to enter the Car and Track which can be any value from 1 to 255. You can enter multiple cars and multiple tracks where you race. Make sure to keep track of the numbers. The Eliminator prompts you for all of the race data from the time slip and you can use the number pad and arrow keys to enter data. Once the data is correct, use the “STAGE/Enter” key to save the data or the “STAGE/Escape” key to go back one field (in case you make a mistake). At the end, you will be prompted to save to memory or escape to lose the information.

### 3 - Show Races

Sorted by:

- 2 Entry Order -- Displays in order entered
- 3 Track -- Displays by track number
- 4 Corr Alt -- Displays by Corrected Altitude

Use the up down arrow to review the Different Runs. Use the Left/Right Arrow to review all of the run data and weather data. This helps determine what your vehicle will run based on weather conditions as well as track conditions. You make the decisions based on total run performance.

The Eliminator 2000 will prompt you for the car number that you wish to display information and if “0” is selected, all information will appear.

## Select Menu Item 5 to Review the Memory Status

Free	Cal	Wx	Runs
510	1	0	0

**NOTE:** “Free” is memory that can be used. Cal is memory used for calibration values. Wx is memory used for weather information storage. Runs are the number of runs that are in memory storage.

## Select Menu Item 6 to Connect to Personal Computer

## PC Linkup

## Depress Stage/Escape to Return

The connection to the Personal Computer will automatically be completed when you run the P.C. software program. You must see PC Linkup on the screen before you attempt to transfer files from the PC.

## Select Menu Item 7 to Clear or Recover Memory

Depress <0> then <7> will clear all memory -- be careful – it prompts you w more times to make sure that you know what you are about to do.

Depress <4> to recover memory from erased weather data.

## Select Menu Item 9 to Re-Enter the Date and Time

The most important thing that you get out of the Snap-In<sup>™</sup> Weather Station is all of the run and weather information in one location that you can scroll through and make a decision on the E.T. that the vehicle will run at a certain weather condition. Even runs where the vehicle spun tires at the start line or where the vehicle was shut off early can be used in part to help determine the E.T. potential the vehicle has at a certain weather condition.

Optional P.C. Windows '95/'98 P.C. software will make organizing the information at home very easy. You will be able to connect to your Personal computer and take full advantage of the P.C.'s power to sort, save, edit, renumber, and reload your Eliminator 2000 with race data pertaining to your vehicle. There is no better way to save and store your valuable race information.

## Snap-In<sup>™</sup> Weather Windows Software

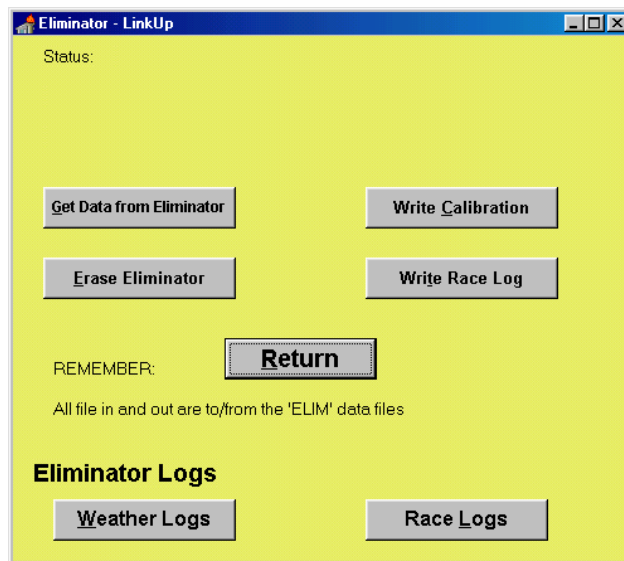
The PCE program interfaces to the Eliminator to read and write the Weather and Race Information. You can sort, edit, delete, and renumber the race vehicle information and then reload that information back into the Eliminator 2000.

The PCE program will default to communicating through COM1 on your PC. You may attach to any other valid COM port by “clicking on” “Setup” and then “Com Ports” at the main screen below.

When you click on the Shortcut to PCE.exe icon on your desktop, you will see this main screen. Click on “Eliminator” and then “Get Data from Eliminator” to down load all of the race/weather data from the Eliminator. Make sure that the cable provided with the CD-ROM is plugged into Com 1 on your P.C. and the center port on your Eliminator 2000. At the main weather screen on the Eliminator you must depress a “6” to have the Eliminator in PC Linkup !

We have provided you with a utility to handle your Eliminator weather and Race Data, as well as a demonstration of our Portatree Weather Center Deluxe software. Features that are available on the P.C. Weather Center Deluxe software will be demonstrated, but are not fully functional. The Menu Bar at the top of the screen will help you navigate through this software and graph and/or print your Weather and Race information.

**NOTE:** You can Print and Graph your Eliminator Information by saving your edited files and opening them up by Clicking on “Data Management” and then click on “Edit Race Data” or “Edit Weather Data” to bring it into the P.C. Weather Center Program. You will be able to graph and also ET Predict with this program. You will not be able to save data entered here, If you required these features you will need to purchase the P.C. Deluxe version software.



1. Depress the “Get Data from Eliminator” button to download the information from the Eliminator. You must make sure that the Eliminator 2000 is in the PC Linkup mode. Refer to the Snap-In<sup>tm</sup> Weather Manual for Linkup information.
2. Use the “Erase Eliminator” to completely erase all weather and race information in the Eliminator 2000.
3. Use “Write Calibration” to reload the weather station calibration values back into the Eliminator 2000 after an Erase.
4. Use “Write Race Log” when edited information is to be re-entered into the Eliminator 2000. This does not erase data already in the Eliminator 2000 so you must make sure that you erase data that is no longer required.

## Race and Weather Log screens

The screens for displaying the weather and race logs are similar, although the race log screen has sorting options that are not available for the weather logs. When you bring up either screen, hitting any movement key such as first or last or any key in between will load the default file if the window is blank or you can enter your own file name in the window.

The sorting option on the race screen allow you to sort the display be various methods. There are 3 keys for editing. You can add a record which creates a zeroed record as the last entry. You can delete a record. Prior to delete you must click on a column to be deleted.. The record number to be deleted is displayed between the buttons.. You can edit an individual item on the screen by clicking on a value and click on the edit button. An edit window will appear when you can edit the value.

Remember to SAVE your work before exiting. If you save a blank window, the data will be saved in the default file named ELIM. If you specify a file name (type one in) the information

will be saved in that file for future use. Remember that the link to the Eliminator only transfers information to or from the temporary ELIM file. The program continually rewrites to the ELIM file.

### Sample screen for Race log

**Display Race Logs**

1-18>	Rec 2	Rec 3	Rec 4	Rec 5	Rec 6	Rec 7	Rec 8	Rec 9	Rec 10	Rec 11
Run	2	3	4	5	6	7	8	9	10	11
CALT	2887	3101	2763	2332	3304	2815	3023	2132	2355	1893
RT	0.552	0.512	0.519	0.511	0.504	0.521	0.517	0.528	0.544	0.535
60ft	1.339	1.356	1.326	1.333	1.343	1.323	1.327	1.334	1.325	1.328
330ft	3.926	3.925	3.929	3.925	3.904	3.860	3.914	3.902	3.894	4.218
Mid MPH	112.19	113.10	112.41	112.73	113.76	114.22	113.07	113.93	114.80	64.33
660ft	6.100	6.090	6.106	6.098	6.057	6.001	6.084	6.058	6.036	7.638
1000ft	7.985	7.963	7.987	7.977	7.921	7.867	8.004	7.931	7.894	11.359
MPH	142.24	143.23	142.32	142.45	143.26	141.97	140.20	141.08	142.87	64.76
ET	9.571	9.539	9.571	9.560	9.492	9.449	9.617	9.518	9.467	14.786
Temp	87.8	91.4	86.0	79.7	94.1	81.5	85.1	66.2	73.4	71.6
HUM	52	41	50	51	35	69	60	91	63	64
BAR	29.07	29.07	29.08	29.11	29.03	28.80	28.81	28.55	28.75	29.04
Date	05/29/2002	05/29/2002	05/30/2002	05/31/2002	05/31/2002	06/12/2002	06/12/2002	06/13/2002	06/12/2002	07/25/2002
Time	2:24:00 PM	4:26:00 PM	10:36:00 AM	9:16:00 AM	2:30:00 PM	12:22:00 PM	3:25:00 PM	9:50:00 AM	1:40:00 PM	3:06:00 PM
Car	1	1	1	1	1	1	1	1	1	1
Track	1	1	1	1	1	2	2	2	2	4

Sort by Run   Sort by Track   Sort by When   Edit   Working File: ELIM.DA4   Filename:    Load   Save  
 Sort by Car   Sort by CALT   Renumber   Delete   Add New   First   <<-   Prev   Next   ->>   Last   Exit   Exit/Save

### Sample Screen for Weather

**Display Weather**

	Rec 46	Rec 47	Rec 48	Rec 49	Rec 50	Rec 51	Rec 52	Rec 53	Rec 54	Rec 55
Temp	77.9	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0	77.0
HUM	49	49	50	50	49	49	50	49	49	49
BAR	30.38	30.37	30.38	30.37	30.38	30.38	30.37	30.38	30.37	30.38
CALT	708	658	646	658	495	646	658	646	658	646
Date	08/31/2002	08/31/2002	08/31/2002	08/31/2002	08/31/2002	08/31/2002	08/31/2002	08/31/2002	08/31/2002	08/31/2002
Time	4:04:43 PM	4:05:47 PM	4:06:01 PM	4:06:16 PM	4:06:31 PM	4:06:46 PM	4:07:01 PM	4:07:55 PM	4:08:09 PM	4:08:24 PM

Edit   Working File: ELIM.da3   Filename:    Load   Save  
 First   <<-   Prev   Next   ->>   Last   Exit   Exit/Save  
 Delete   Add New