Owner's Manual

for your

RaceDay™

Race Bib Logger

This Owner's Manual covers important information and details on the operation of the **RaceDay** Race Bib Logger.

Please read it carefully. Although the app is easy to use, it still requires the user to be somewhat familiar with the data logging system and Microsoft® Excel spreadsheets.

Depending on the equipment ordered, the **RaceDay** Race Bib Logger can be used with a laptop computer for the final scoring and for generating the finish line reports.

This Owner's manual will help answer some of these commonly asked questions about how to setup the **RaceDay** Race Bib Logger equipment.

RaceDay™
Race Bib Logger

Instructions.
1. Turn on machine and set date & time if necessary.
2. Enter a new Event Number (1 to 999) at prompt. Message "Event Used... " adds to an existing file, and "New Event " starts a new RaceEvent file.
3. Press [START] to start the Race Clock [00:00:00]
4. Enter Race Bib number and press [Enter] to record the sequence Count, TimeStamp and Bib number.
5. Press [Menu] at any time to change Event #, Race Clock, 24Hr.Time, or copy Event file to Pen drive.

Menu Options.
Press [MENU] for Race Setup
Enter Menu Number
    1 - Setup Event   (enter a new Event number)
    2 - Set RaceClock (enter a new Start time)
    3 - START Race   (reset Clock & START race)
    4 - Race Scoring   (copy Event file to Pen Drive)
    5 - View Date and Time (view Date & Time only)
    6 - Set Date and Time   (set new Date & Time)

RaceDay Scoring.com
Copyright © 2013 EncypherGroup, LLC All rights reserved.

ENTER RACE BIB#
24HR Time   20:58:11
Event0999   08:46:21

***   ***   ***

***   ***   ***

- Thank you for purchasing the **RaceDay** Race Bib Logger

With so many sports and event equipment on the market today, we appreciate your decision to purchase **RaceDay** products. Rest assured that we support our products and equipment long after the sale. We are committed to designing the very best sports timing equipment, and are always looking for new and innovative ideas to bring to market. Should you ever need help or further assistance with any **RaceDay** products, please do not hesitate to contact us.

- Definition of words and phrases used in this manual

One of the most exciting things when taking delivery of new equipment is to turn it on and start playing with it.   Hopefully you will read the manual first to get to know how the equipment works and how to set it up.

Many times the screen prompts will be enough to step you through the process.   However, with any type of equipment, you may need more detailed instructions on how to get a feature working.

As with anything there are always new words and lingo that go with the sport. Below are some definitions of the words and phrases used in this manual related to running and related sports events.

*** *** ***

24 hour Time - Instead of the usual AM and PM symbols the Logger uses 24 hour local time: so that morning AM time is from 12 midnight to Noon (zero "00" hours to 12 hours), and afternoon PM time is from Noon to midnight (13 hours to 23 hours)

" #" sign - The pound " #" sign is the Violet key on the keypad. It is a Special Function key, and at times a Delete key.

Battery - The battery is an internal high tech & high energy Lithium-Ion battery that powers the Logger.

Battery Hours - Battery Hours are the best estimated time left on the battery pack.

Battery Status - Battery status is a bar graph from about 10 to 100 percent, that indicates the best estimated time left on a battery pack.

Charging the battery - Charging the battery needs to be done well before a race event. It is best done the day before a race event and could take up to eight (8) hours, depending on the discharge.

Checking... - The "Checking" screen message appears when the Logger is booting up and displays the Date, Time & Temperature, followed by Battery Status. It is for information purposes only.

Display Screen - The display screen is called a LCD (Liquid Crystal Display) screen. It is backlight all the time so you can use it both in bright sunlight and at night.

"D/L" meaning - The "D/L" means Down Load, as opposed to Up Load. Down Load usually means to copy a data file from a computer to a "lesser" device like a Pen Drive, for instance.

GMT Time - Sometimes 24 hour time is also called UTC (Universal Coordinated Time) or GMT (Greenwich Mean Time) - the only difference is that the hours change according to the time zone you are in - BUT the minutes and seconds are always the same.

Gun Time - Sometimes called Start time. The Start is the exact moment when the race event starts, the exact time when the starting gun (or horn sounded) is fired. Used in smaller races where timing is not critical - everybody just jogs to the start line after the gun fires.

Initializing... - The "Initializing" screen message appears when the Logger is booting up and doing a self check. If the Logger does not pass the self check test an Error message will be displayed.

Keypad - The keypad allows you to enter alpha-numeric data in the Logger. It is a touch keypad and is water-proof.   Only a light touch is needed on the keys - pressing it harder will not make them work any better.

LED - A LED is a Light Emitting Diode, usually red, used to indicate power is On.

Lithium-Ion - A battery that uses Lithium-Ion chemistry, as compared to, say, alkaline or regular lead acid batteries

Local Time - The local time is also called Time of Day, or 24 hour Time. It is the local time in Hours, Minutes and Seconds (00:00:00) The Logger uses 24 hour local time: so that morning AM time is from 12 midnight to Noon (zero "00" hours to 12 hours), and afternoon PM time is from Noon to midnight (13 hours to 23 hours)

Menu - The Menu is the list of features the Logger can perform. To see a list of the Menu selections, press the Menu key on the Keypad. The Menu items are also listed in the front label of the Logger.

MenuNumber - The MenuNumber is the selection number pressed after pressing the Menu key from the Logger keypad.

Net Time - Net time is measured from the time the runner crosses the start line until he crosses the finish line. The time from the Start (Gun time) until the runner crosses the start line, could be seconds or even minutes later.

Pen Drive - The pen drive (also called a thumb drive, USB drive, etc) is used when you want to store (Down Load) your race results

Power Supply - The power supply is the wall-type power supply that you plug into the Logger to re-charge the batteries

Race Clock Time - Race Clock time is also called the event Start time or Gun time. It is the exact moment when the race event starts, the exact time when the starting gun (or horn sounded) is fired. It is the most common type of race event start: it does NOT take into account the time when the runner athlete crosses the start line

Time of Day - Time of day is the local time in Hours, Minutes and Seconds (00:00:00) The Logger uses 24 hour local time: so that morning AM time is from 12 midnight to Noon (zero "00" hours to 12 hours), and afternoon PM time is from Noon to midnight (13 hours to 23 hours)

Time Stamp - A Time Stamp is the date and time notation that is added to a data field (overall finish & bib number) of a race results listing.

Polarity Protected - Polarity protected means that either DC polarity can be used in the Logger power jack. That means you can not harm the Logger if get the power plug polarity reversed.

Power Switch - The toggle slide switch located on the left hand side of the Logger. Push the switch up to turn the unit "On" and push it down to turn the unit "Off"

Power Jack - The round coaxial jack is on the bottom of the Logger. The jack is used to recharge the Logger with the wall-type power supply: it has a matching plug that is inserted in the power jack.

START - The Start is the exact moment when the race event starts, the exact time when the starting gun (or horn sounded) is fired. It is the most common type of race event start: it does NOT take into account the time when the runner athlete crosses the start line

Starting... - The "Starting" screen message appears when the Logger is auto selecting a new memory slot for race event data.

Race Event Menu - The Race Menu is a scrolling list of items (features) built into the Logger. Also, the selection chart on the front label.

USB Port - The USB port is used with your Pen Drive (sometimes called a thumb drive, USB drive) when you down-load your race data. It is not the same as a USB printer port: your printer will NOT work on this port.

Water proof - The Logger is water proof; it can be used in the rain. You can wash it off with water, but not submerge it.

- Taking delivery of your equipment

Your **RaceDay** Timing and Scoring equipment package has been carefully configured and inspected before it was shipped.

Please check for any freight damage and immediately report any damage to the Carrier and to: **RaceDayScoring .com**

There are specific patents, copyright notices and labels on the equipment that you should be aware of.

- Unpacking the **RaceDay** Race Bib Logger

The **RaceDay** Race Bib Logger is a full featured micro computer. It comes with a ten (10) hour built-in Lithium-Ion battery pack, battery charger, and all necessary cables needed to accurately log the Finish Count, Bib Number and Timestamp.

After unpacking the **RaceDay** Race Bib Logger be sure to plug in the external battery charger and boot up the Logger to ensure it is operational. Contact **RaceDay** Scoring.com if you have any questions or need additional assistance.

<u>   Runner Database Basics   </u>   Section 2

- What is a Database

A database is simply a structured list of items which are called "records".   It is similar to a file cabinet of data (bills, receipts, letters, etc) that you might have in your office.   The database has a master list of what is in the whole file (cabinet), and in each file folder (the "record") it has a detailed list of all the items, which are called "fields".

In the **RaceDay** Scoring App, the database uses a Microsoft Excel spreadsheet to score, by Age Groups, each runner's Finish Count, Bib Number and Finish Times.

<u>Note</u> – The **RaceDay** Scoring App is an add-on product to the **RaceDay** Race Bib Logger and is sold separately.

- How to use MS Excel

If the race director or person in charge of race scoring is not already familiar with the basics of Microsoft(R) Excel, it is suggested that a quick study of available Microsoft tutorials is in order. There are numerous study guides on-line.

The person who will be in charge of scoring should know:

1 - How the Excel spreadsheet columns and rows are configured,

2 - How text and numeric values are placed in the cells of the spreadsheet,

3 - How to Copy and Paste groups of cells in a spreadsheet
 - and -
4 - How to edit rows, columns and cells of a spreadsheet

It is highly recommended that the person in charge of race scoring becomes familiar with, and does a trial run of a race, using this **RaceDay** Race Bib Logger

How the **RaceDay** Race Bib Logger works   Section 3

- Introduction to the technology

The **RaceDay** Race Bib Logger is a small handheld mini-computer that stores the finish line Sequence Number, the runner's Bib Number, along with a Timestamp, into a Microsoft(R) Excel spreadsheet. This data is stored on an internal SD card in the Bib Logger. The self contained, waterproof **RaceDay** Race Bib Logger has a Touch keypad and a high contrast LCD screen, readable in bright sunlight.

The bottom line is that just about any size of race can be timed and scored easily and economically. Typically, it would be used for races of under 150 runners that use one gun time to start, and a single chute to finish.

While the **RaceDay** Timing and Scoring system is not meant to score the larger races and marathons, it can do races of a couple of hundred runners very well. For many local running and track clubs, schools and charities, the system is ideal.

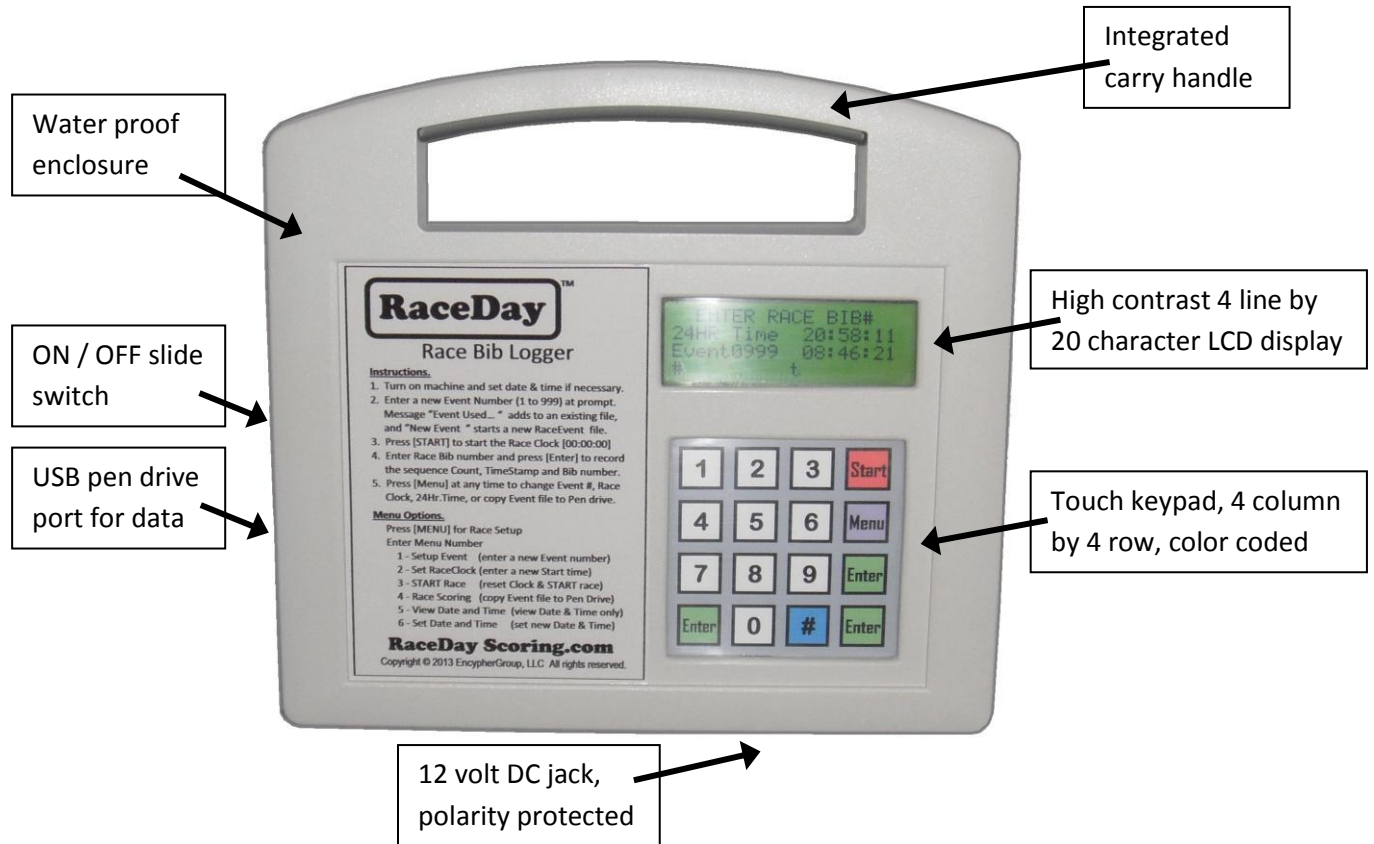## Using the **RaceDay** Race Bib Logger   Section 4

- Details on Using the **RaceDay** Race Bib Logger

This section describes the power on and the order of the startup screens for the **RaceDay** Race Bib Logger. The following pages illustrate the "Quick Start" features of the **RaceDay** Race Bib Logger.

- Keypad and LCD display

The high contrast LCD display is a 4 line by 20 character screen.   It is used to prompt the user to either enter race setup data, or enter bib numbers. It is impact resistant and can be used in bright sunlight.

Integrated carry handle

Water proof enclosure

ON / OFF slide switch

USB pen drive port for data

High contrast 4 line by 20 character LCD display

Touch keypad, 4 column by 4 row, color coded

12 volt DC jack, polarity protected

RaceDay™
Race Bib Logger

Instructions.
1. Turn on machine and set date & time if necessary.
2. Enter a new Event Number (1 to 999) at prompt. Message "Event Used…" adds to an existing file, and "New Event " starts a new RaceEvent file.
3. Press [START] to start the Race Clock [00:00:00]
4. Enter Race Bib number and press [Enter] to record the sequence Count, TimeStamp and Bib number.
5. Press [Menu] at any time to change Event #, Race Clock, 24Hr.Time, or copy Event file to Pen drive.

Menu Options.
Press [MENU] for Race Setup
Enter Menu Number
  1 - Setup Event   (enter a new Event number)
  2 - Set RaceClock (enter a new Start time)
  3 - START Race   (reset Clock & START race)
  4 - Race Scoring (copy Event file to Pen Drive)
  5 - View Date and Time (view Date & Time only)
  6 - Set Date and Time   (set new Date & Time)

RaceDay Scoring.com
Copyright © 2013 EncypherGroup, LLC All rights reserved.

ENTER RACE BIB#
24HR Time   20:58:11
Event0999   08:46:21
#

The touch keypad is a 4 by 4 keypad is divided into two sections:
- The white keys are a zero [0] to [9] numeric keypad and
- The colored keys as special function input keys.

There are three (3) green [ENTER] keys for ease of operation, a violet [MENU] key to access the features of the logger, a red [START] key, and a blue [#] key, used for Special functions, and as a DELETE key.

The touch keypad is impact and water resistant. A light to moderate touch of the finger is all that is needed to enter number data. Pushing on it harder will not make it work any better. The touch sensor is located directly under the number / symbol on the keypad. A red LED light and beep signal can be observed when a key is pressed.

The instruction label is on the front of the Bib Logger.

It lists the basic instructions for turning the Bib Logger ON and setting up a Race Event.

RaceDay™

Race Bib Logger

Instructions.
1. Turn on machine and set date & time if necessary.
2. Enter a new Event Number (1 to 999) at prompt. Message "Event Used… " adds to an existing file, and "New Event " starts a new RaceEvent file.
3. Press [START] to start the Race Clock [00:00:00]
4. Enter Race Bib number and press [Enter] to record the sequence Count, Bib number and TimeStamp.
5. Press [Menu] at any time to change Event #, Race Clock, 24Hr.Time, or copy Event file to Pen drive.

Menu Options.
   Press [MENU] for Race Setup
   Enter Menu Number
      1 - Setup Event   (enter a new Event number)
      2 - Set RaceClock (enter a new Start time)
      3 - START Race   (reset Clock & START race)
      4 - Race Scoring   (copy Event file to Pen Drive)
      5 - View Date and Time (view Date & Time only)
      6 - Set Date and Time   (set new Date & Time)

RaceDay Scoring.com

- Startup and Initialization Screens

The handheld **RaceDay** Race Bib Logger units have internal Lithium-Ion long life batteries. The battery pack is rated for approximately ten (10) hours.

In addition, a polarity protected (Plus/Minus or Minus/Plus) power jack is provided for an external 7 to 14 volt DC wall type power supply. A 12 Volt DC, 1 Amp power supply is recommended.

- **Do NOT use a power supply over 15 volts DC,**

- **Do NOT use a power supply with an AC output.**

An On-Off slide switch is used to power the **RaceDay** Race Bib Logger. To turn the unit "On", push the slide switch to the "Up" or "1" position - likewise to turn the unit "Off", toggle switch to the "Down" or "O" position.   There is a red LED located near the On-Off switch which indicates power ON.

When the power switch is turned "On" the LCD screen display should come on with a "RACE BIB SCORING" welcome message, and the keypad should sequence (beep tone and key pad LEDs) through all of the keys.
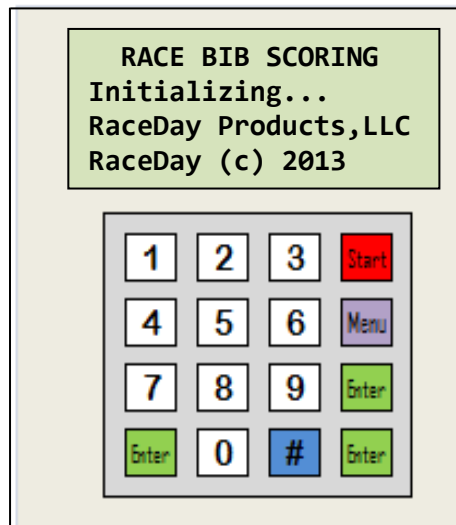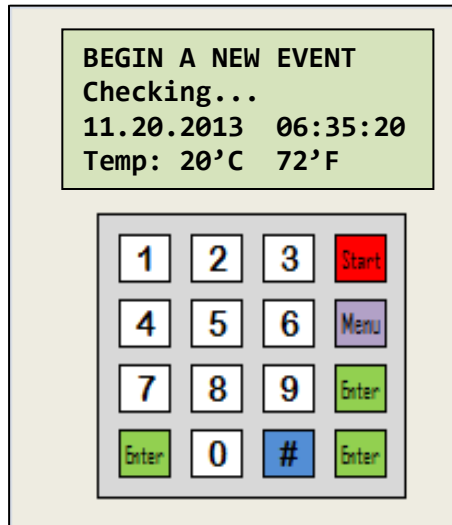

Note - **Be sure to turn the unit "Off" when you are not using the RaceDay Race Bib Logger to conserve the batteries, and prevent them from being degraded over time.**   The Lithium-Ion batteries are rated for thousands of re-charges and should be good for over ten years if they are properly maintained.

- 24 Hour Clock - Setup function

The second screen is the "BEGIN A NEW EVENT" Checking Time screen. The Date, Time and Temperature are shown on this view. The internal 24 hour (RTC) Real Time Clock and calendar operation is checked on power up.   The 24 hour clock is crystal controlled for accuracy and has battery backup circuit to maintain the time when the unit is "Off" - just like your wrist watch or alarm clock.

Once in a great while the clock will lose its settings and it will have to be reset. The "SET 24 HOUR TIME" screen will appear if the 24 hour clock needs to be reset. The clock setup screens will first ask you for the 24 hour local time, followed by the calendar date. Press [Enter] after each clock digit entry to go to the next digit.

```
BEGIN A NEW EVENT
Checking...
11.20.2013  06:35:20
Temp: 20'C  72'F
```

```
1  2  3  Start
4  5  6  Menu
7  8  9  Enter
Enter  0  #  Enter
```

If you make a mistake in entering a digit, press the [**#**] key which will allow you to re-enter the digit. Follow the on-screen prompts to set the clock time and date.

.
- Battery Status

The third screen is the "BEGIN A NEW EVENT" Checking Battery screen. The Battery Status values are shown on this view. A battery status value of between 60 and 100 percent will allow you to use the Logger for over six to ten hours.

If the battery is nearing low discharge, a "LOW BATTERY WARNING" screen will be seen, and a Shut Down sequence will start. The battery at this point is so low only a few minutes of operation is available.
To save the battery from damage the Logger is put in a sleep mode, and you should turn the Logger "Off" and recharge the battery as soon as possible.   However if need be, the **RaceDay** Race Bib Logger can be used with a power supply plugged into the 12 VDC input power jack

```
BEGIN A NEW EVENT
Checking...
Battery Status
LLLLLLLLL__      90%
```

```
1  2  3  Start
4  5  6  Menu
7  8  9  Enter
Enter  0  #  Enter
```
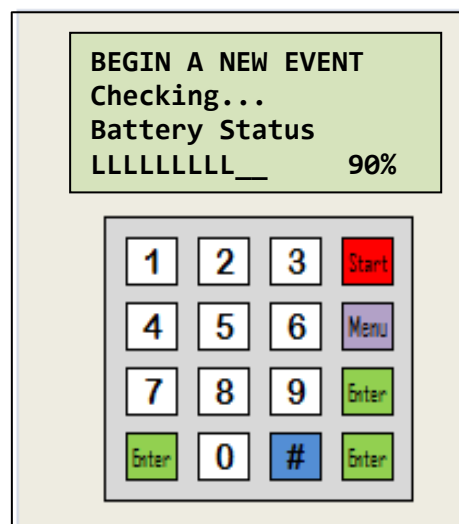
- Event Start

The fourth screen is the "BEGIN A NEW EVENT" Start new Event screen. If you want to score a new event, do nothing, and the **RaceDay** Race Bib Logger will automatically select a new race event for you. You will be prompted to press the [START] key to start the race – the Race Clock will start running at 00:00:00 (zero Hours, Minutes & Seconds).

IF for some reason you would like to resume the previous (most recently used) race event, press the [Return] key, and the Logger will pick up from where the last race event left off. This feature is useful if the Logger was accidentally turn Off, and you want to resume this race event - without trying to reconfigure, or remember, the start time.

As an added feature, you can also press the [MENU] key at any time.   The most useful menu items are [2] Set the Race Clock, and [6] set the 24 Hour clock.   You will always be returned to the race event [START] screen, if you have not already started the race.

- Using the - Race Event Menu selections

The "RACE EVENT MENU" selection screen is displayed at startup. It will scroll through the following nine (9) selections:

1 - Setup or select the Event Number
2 - Set Race Clock
3 - START the Race
4 - Down load the Race Data
5 - View Date, Time and Temperature
6 - Set the 24 hour Event Time
7 - View the Battery Status
8 - View the Event Start Time
**9 -** Down load this Owner's Manual
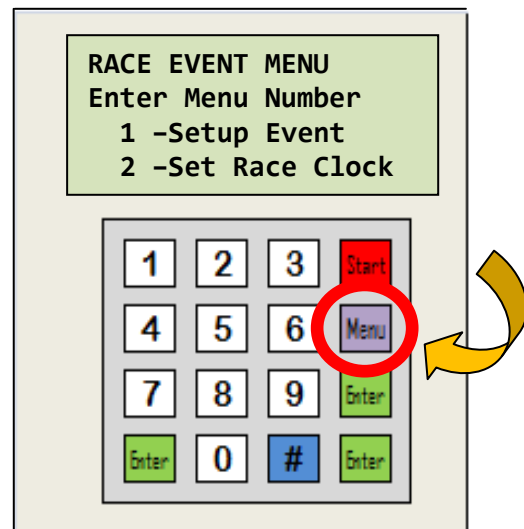
The Race Event Options are listed on the lower left portion of the front label of the Bib Logger for easy reference. Likewise the [Menu] key can be pressed at any time to view the "RACE EVENT MENU" selections.   At any time during the menu scroll, any keypad number [**1**] through [**9**] can be pressed to access a Menu selection.

Press [Enter] to skip the Menu selections. Alternately the Menu selection scroll will timeout after approximately ten (10) seconds and the "RACE EVENT SETUP" screen will appear

- Menu #1 - "RACE EVENT SETUP" screen

The "RACE EVENT SETUP" is a required user input item. There are over nine thousand (9000) possible selections for a race event. Any number from (0001) to (9999) can be entered for a new event number. The event number selection creates a filename in SD-card memory which stores all the finish counts, race bib numbers and timestamps.
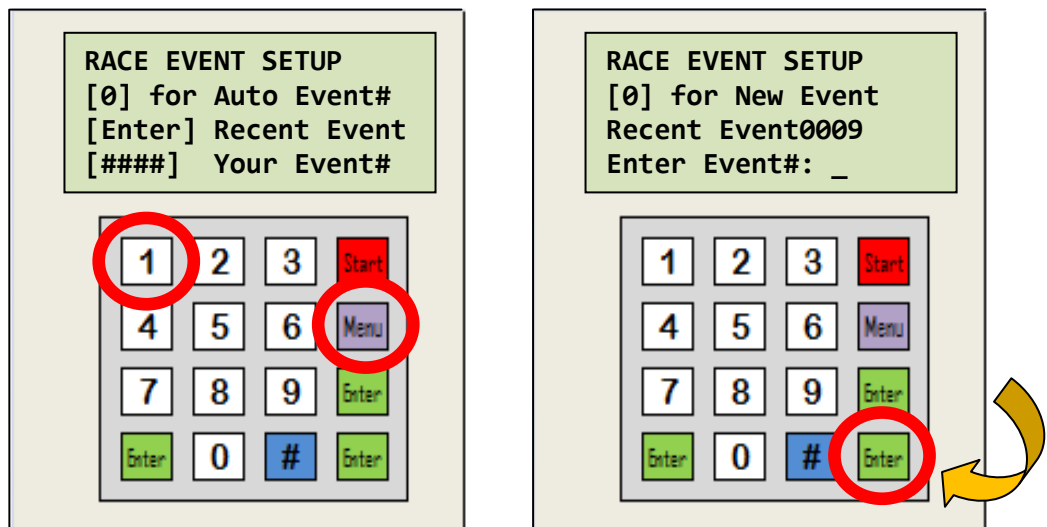
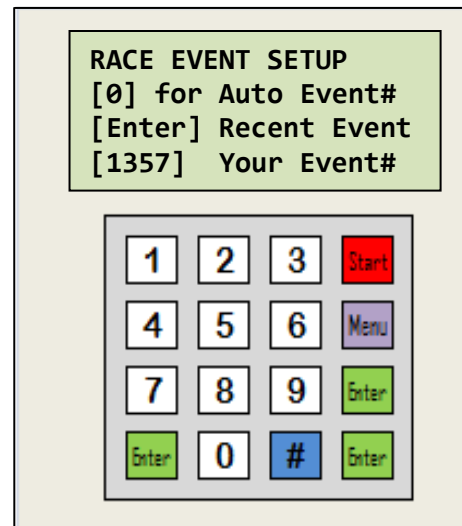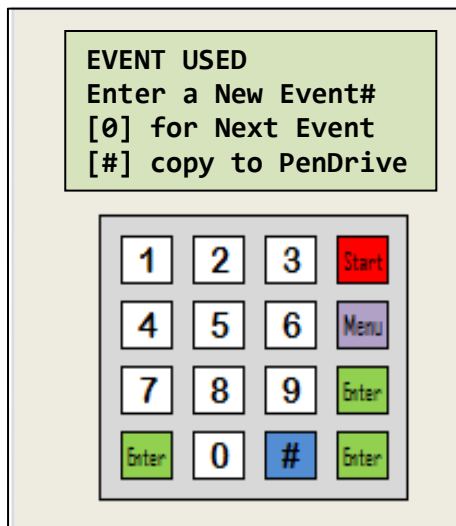**IMPORTANT** - There are three (3) possible options for creating an Event:

1 - Do nothing. The screen will time out after approximately ten (10) seconds and the "previous" Event number (the last used Bib Logger event number) will become the "current" Event number. The "previous" filename, the original starting time and all the previous bib data will default to the "current" Event.   This option is especially useful if the **RaceDay** Race Bib Logger has been (accidentally) turn off or temporally taken out of service during a race.
It is NOT recommended for use for a race event that was held days or weeks previously **-** You will want to use an entirely new event number.

2 - Enter a unique and new Event number. The memory is checked to see if the number has been previously used - or if it is a new event number.

IF is a previously used Event number, a "Used" message will be displayed AND you will not be able to add bib data to / or use this Event number. Note - Pressing the [#] key will allow you to copy the filename to a PenDrive. Otherwise, you will be returned to the previous screen and prompted to enter another Event number.

IF the number is "New" and new filename will be created in the internal SD-card memory and you will be prompted by the "START RACE CLOCK" screen to start the race.
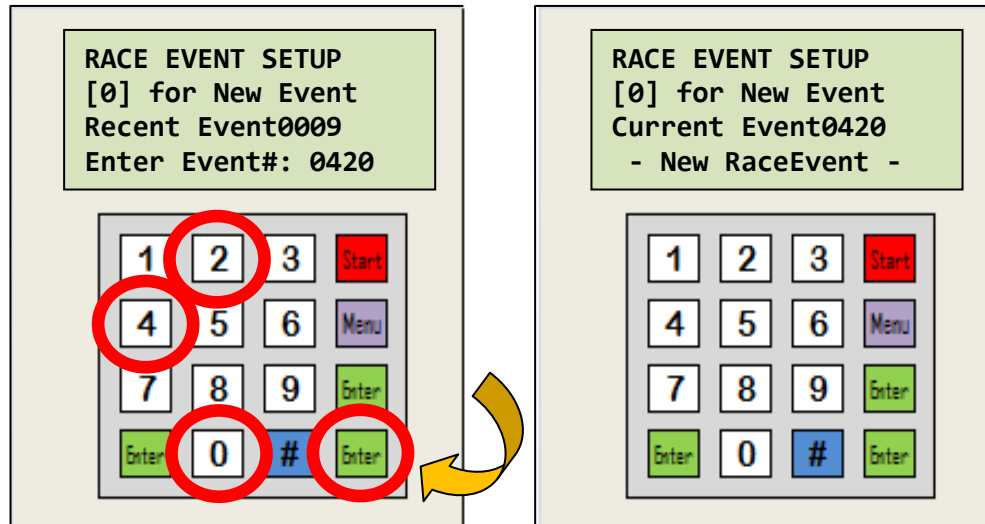
```
EVENT USED
Enter a New Event#
[0] for Next Event
[#] copy to PenDrive
```

```
RACE EVENT SETUP
[0] for Auto Event#
[Enter] Recent Event
[1357]  Your Event#
```

Note - Pressing the [**#**] key will allow you to copy the selected and "previously used" filename to a Pen Drive.

Otherwise, you will be returned to the previous screen and prompted to enter another Event number.

```
RACE DATA INFO
Download RaceData
Insert PenDrive
> Copying RaceData +
```
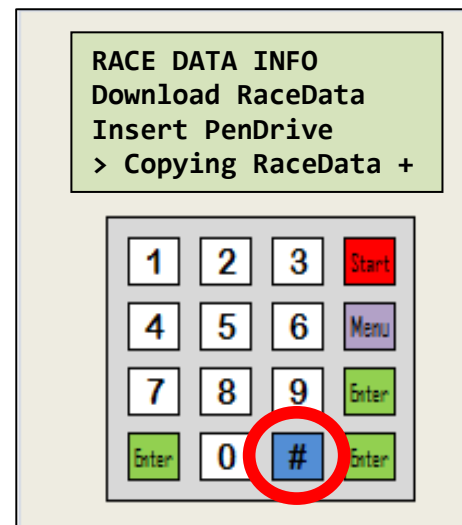
HINT - You can use up to four (4) digits for your Event number. Using the month and day of the race is a good way to organize (and remember) your event numbers. So for a race on April 20th you would enter "**0420**" as your new Event number to create a filename of "**EVNT0420**" in the internal SD card. It is unlikely that you will repeat the same weekend race event number for years to come.

```
RACE EVENT SETUP
[0] for New Event
Recent Event0009
Enter Event#: 0420
```

```
RACE EVENT SETUP
[0] for New Event
Current Event0420
 - New RaceEvent -
```

3 - Enter the number [**0**] for the event number. The **RaceDay** Race Bib Logger will sequentially search the internal memory for the next available Event number, starting at "0010" forward until a new, and unused, Event number is found.
A new filename will be created in the internal SD-card memory and you will be prompted by the "START RACE CLOCK" screen to start the race.

```
RACE EVENT SETUP
[0] for New Event
Recent Event0009
Enter Event#: 0
```

```
RACE EVENT SETUP
[0] for New Event
Search for NextEvent
Event0010       New
```
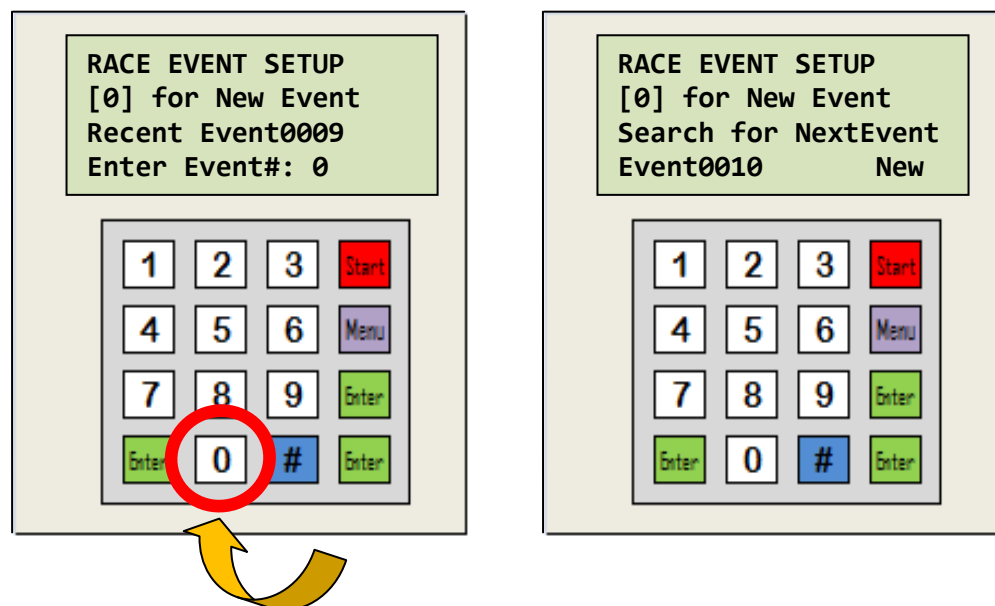
- Menu #2 - "RACE CLOCK SETUP" screen

The Race Clock is not to be confused with the 24 hour Time Clock. The Race Clock is the ongoing time interval from race Start to the current time in the race. It usually starts at "00:00:00" as "zero" hours minutes and seconds.

 Note - **The Race Clock is independent of the 24 hour Clock which is running on local time**.
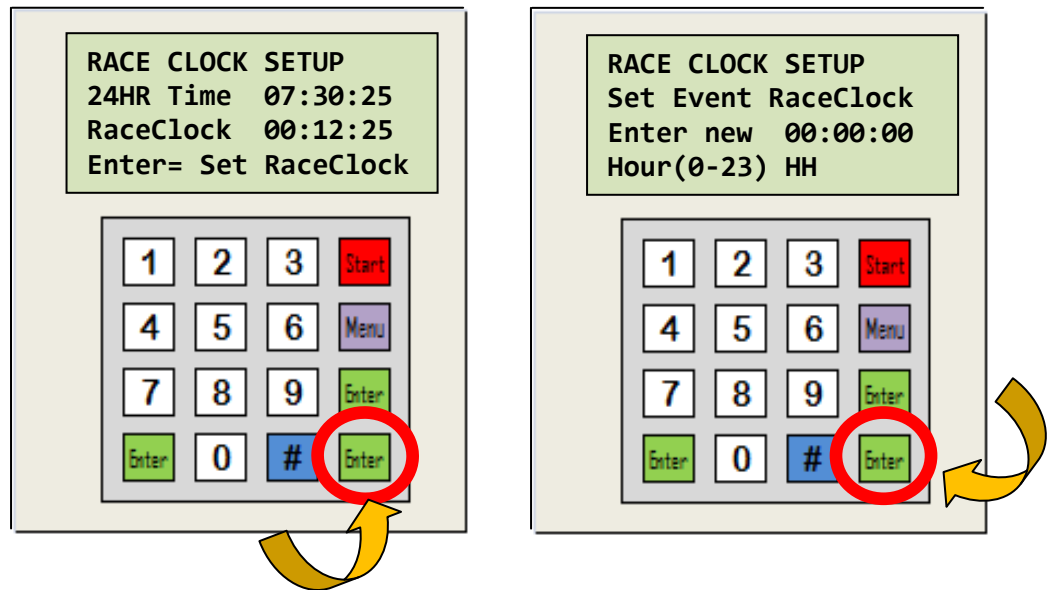
It is recommended that three (3) stop watches be used at the start of a race to get the "best" starting time: (1)the Race Bib Logger, and two other people with Timex "Ironman"(c) style wrist watches for stop watches number (2) and (3). The "best" time is the one that everyone can agree on, and one that most accurately recorded the start of the race.

IF there is a start time error that needs to be changed in the **RaceDay** Race Bib Logger, There are two (2) possible options available in the Race Clock setup:

Option 1 **-** At the screen prompt "[Enter] Set Race Clock" - press the [Enter] key. You will be prompted to enter a new Hour(HH), minute(MM) and second(SS). Be sure to enter the new Race Clock set time at an even minute AND at least 30 seconds "ahead" of the time you want to set.

> Note – **If you entered the wrong Hour (Minute or Second) you can press the [#] key to DELETE the previous entry. Type in the correct digits, and press the [Enter] key to go to the next digit.**

After you enter the Seconds, the next screen will be the "RACE CLOCK SETUP" screen.

At the point you will want to synchronize the known "good" start time with the **RaceDay** Race Bib Logger. When both Start times are "equal", press the [START] key, and the **RaceDay** Race Bib Logger will take up the new "good" start time for all the finish line bib timestamps.

> **FYI** - The Start time is usually "behind" (read "less than") the 24 hour Time Clock. For example, say the race was started at "07:05:15" (24 hour Time Clock), and the Race Clock was started at "00:00:00" but was off by (3) seconds late at "07:05:18".

To correct the Race Clock, set the "RACE CLOCK SETUP" ahead to "00:01:00". That is, one (01) minute into the race.

When the known "good" time is at exactly one (1) minutes, press the [START] key on the **RaceDay** Race Bib Logger to synchronize the times. The Race Clock duration would now be "00:01:00" at that point into the race. See example at MENU 3 below.

If for some reason you need to have the Race Clock time "ahead" (read "greater than") the 24 hour Time Clock, the **RaceDay** Race Bib Logger will accept this Start Time also. For example, say the Bib Logger race was later set at "07:05:15" (24 hour Time Clock), and the Race Clock was set at "08:00:00" the original Race Start Time would be "23:05:15" at that point, instead of the "07:05:15" race Start Time noted in the previous example.

Option 2 - At the screen prompt "[ESC] Any Number Key" - press any number key from [1] to [9]. The value will default to its previous value (no change) and then revert back to "ENTER RACE BIB#" screen.


NOTE - The Race Clock will always wrap around to zero "00:00:00" after 24 hours "23:59:59" regardless of the 24 hour Time Clock's time. That means if the duration of a race event is over 24 hours long, an extra 24 hours must be added to the total duration of the race for each runner that went over the 24 hour time constraint.

The Bib Logger does NOT automatically register any time over 24 hours: ie. 25, 26 hours.

- Menu #3 - "START RACE CLOCK" screen

The "START RACE CLOCK" screen is only used to start a race after the Race Clock has been reset or a new race is started. The ONLY key that is active is the [START] key. All the other keypad keys are locked out and do not work.

When the start gun or other signal is given at the start line of the race, press the [START] key from the numeric keypad.

```
START RACE CLOCK
24HR Time  07:06:14
RaceClock  00:01:00
Press  ->  [START]
```
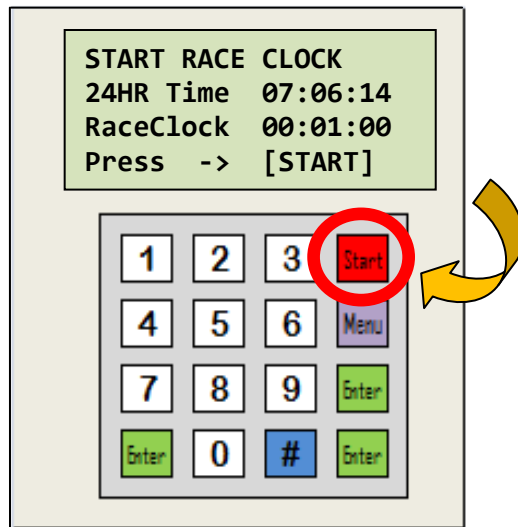
The [START] key would be pressed in the next second "07:06:15" which would be one minute "00:01:00" into the race.

This will correct the three (3) second "missed" Start time as explained in Option 1 / /Note 1 above.

IF the existing Race Event is the "previous" and "current" event the [START] key has no effect on the Race Clock start time (no changes).

<u>NOTE</u> - The Race Event filename is NOT created until after the [START] key is pressed.

- Menu #4 - "RACE DATA INFO" screen

The "RACE DATA INFO" copies / downloads the current race bib data stored on the internal SD card memory to a Pen Drive. The Pen Drive must be already inserted or ready to be inserted in the USB port within ten (10) seconds of the command or the screen reverts back to the "ENTER RACE BIB#" screen.

```
RACE DATA INFO
Download RaceData
Insert PenDrive
> Copying RaceData +
```
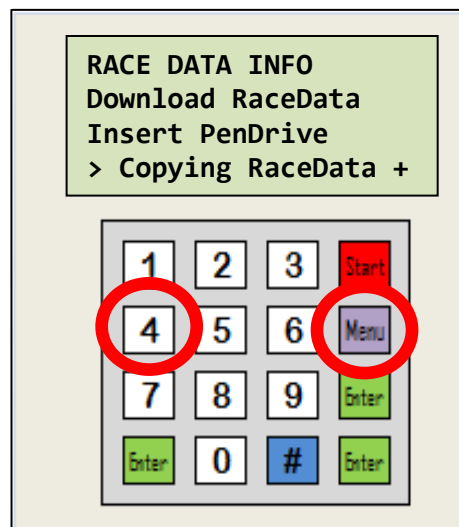
You can check the Race Event Data on the Excel spreadsheet and printout the results - or copy and paste the Race Event Data to another application for scoring.

In other cases, especially for larger races, the Race Event Data files are used as back up data.

The Pen Drive is checked for compatibility with the USB port, and will print an Error Message to the screen if there is a problem.

If there is a problem with the Pen Drive try one of the following.

   1 **-** Remove the Pen Drive and re-insert is again and make sure it is seated before trying the command again.

   2 **-** Try another known good Pen Drive to see if it will copy the data correctly.

   3 **-** Make sure the Pen Drive does not have any Directory Errors on it - AND - that is formatted in FAT16 or FAT32. You can do this by inserting the Pen Drive in your laptop computer's USB port and checking the Pen Drive's "Properties".

- Menu #5 - "VIEW DATE TIME & TEMP" screen

This screen only allows you to View the Date, Time and Temperature available on the Bib Logger. The screen is shown upon boot up of the Bib Logger.   If the Date or Time is not correct, they can be changed on the following "RACE EVEVT MENU" screen, option [6]
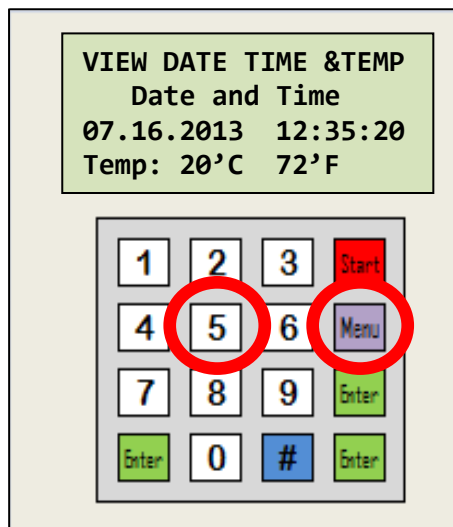
- Menu #6 - "SET 24-HR TIME" screen

The "SET 24-HR TIME" allows the user to accurately set the Hour(HH), Minute(MM), and Second(SS) of the Real Time Clock (RTC) of the Bib Logger. Follow the screen prompts and key [ENTER] to go to the next digit.
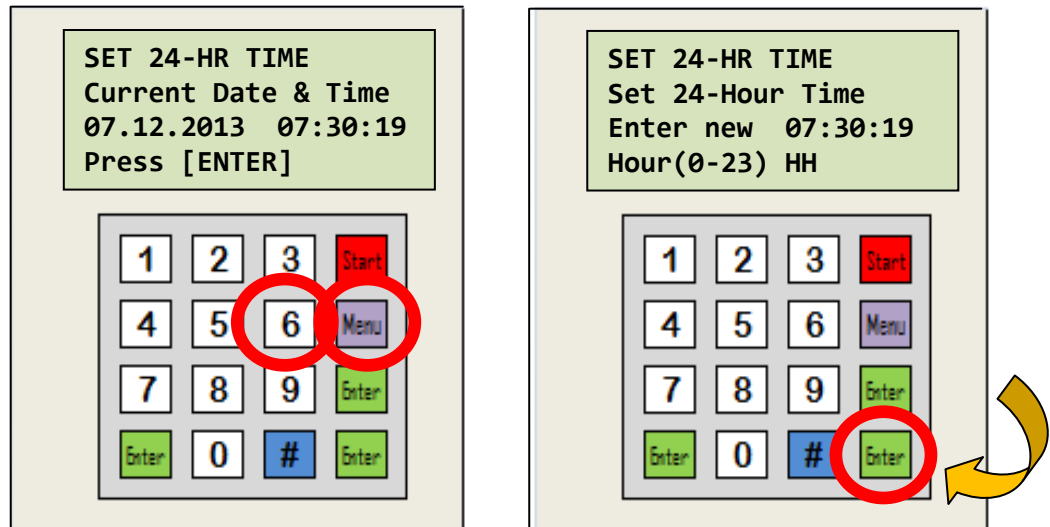
Note – **If you entered the wrong Hour (Minute or Second) you can press the [#] key to DELETE the previous entry. Type in the correct digits, and press the [Enter] key to go to the next digit.**

Normally the RTC is accurate to within a couple of seconds per year, but as a practical matter the 24 hour clock should be checked every couple of weeks or so.   There is an "App" from the National Bureau of Standards that lets you view very accurate times. Alternately, most Windows operating system time stamps are more than accurate enough for local races.
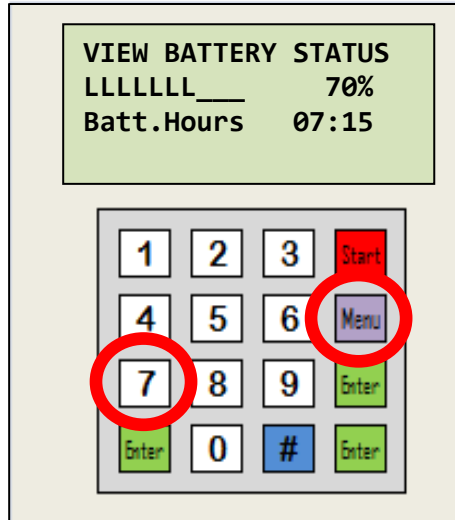
It is recommended that the time check be done at boot up of the **RaceDay** Race Bib Logger. See Menu #5 above. It is hard to verify the finish bib timestamp if the RTC is reset after the Race Event is already started.

Note - IF the **date** must be changed, press the [#] key from the "SET 24-HR TIME" screen to access the Date Setup screen. Follow the screen prompts and key [ENTER] to go to the next digit.
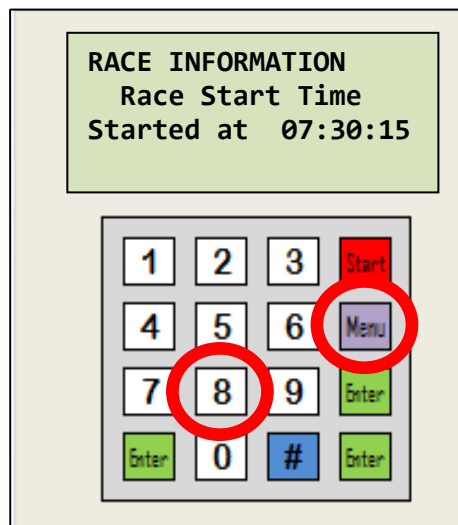
*** *** ***

- Menu #7 - "VIEW BATTERY STATUS" screen

This screen only allows you to View Lithium-Ion Battery Status available on the **RaceDay** Race Bib Logger . The screen will show the approximate Percent of battery charge available and the approximate time left on the battery charge. The screen will also show if the battery is being charged through the 12 VDC power jack - or alternately, if the battery is critically low and needs a recharge.

```
VIEW BATTERY STATUS
LLLLLLL___      70%
Batt.Hours   07:15
```

```
1  2  3  Start
4  5  6  Menu
7  8  9  Enter
Enter 0  #  Enter
```

- Menu #8 - "RACE INFORMATION" screen

This screen only allows you to quickly and easily view the "current" 24 hour Race Start Time on the **RaceDay** Race Bib Logger. This is valuable in verifying accuracy of the intermediate timestamps, and setting the start time on other scoring applications.

```
RACE INFORMATION
  Race Start Time
Started at   07:30:15
```

```
1  2  3  Start
4  5  6  Menu
7  8  9  Enter
Enter 0  #  Enter
```
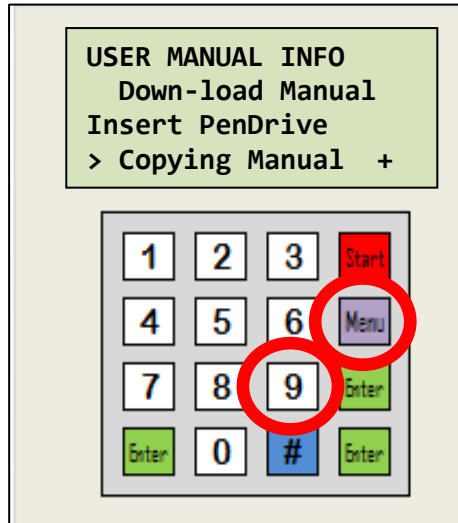
Note that the "current" Race Start Time is stored in the Bib Loggers internal memory - AND as the first "Title Block" line item of the Event filename.

Subsequent corrections in the Start Time (see also Menu #2) are also an appended line item of the Event filename.

The timestamps will reflect the new Start Time also, not the original Start Time line item.

- Menu #9 - "USER MANUAL INFO" screen

The "USER MANUAL INFO" copies / downloads the current " **RaceDay** Race Bib Logger User Manual" (this document) stored on the internal SD card memory to a Pen Drive. The Pen Drive must be already inserted or ready to be inserted in the USB port within ten (10) seconds of the command or the screen reverts back to the "ENTER RACE BIB#" screen. The Pen Drive is checked for compatibility with the USB port, and will print an Error Message to the screen if there is a problem.

If there is a problem with the Pen Drive try one of the following:

1 **-** Remove the Pen Drive and re-insert is again and make sure it is seated before trying the command again.

2 **-** Try another known good Pen Drive to see if it will copy the data correctly.

3 **-** Make sure the Pen Drive does not have any Directory Errors on it - AND - that is formatted in FAT16 or FAT32. You can do this by inserting the Pen Drive in your laptop computer's USB port and checking the Pen Drive's "Properties".

***   ***   ***

- Using the - "ENTER RACE BIB#" screen

The "ENTER RACE BIB#" is the default race bib number data entry screen.
It has two views. The first is the default "Event Number" view, and the second is the "Bib Number" view.

The Event Number screen view includes the following:
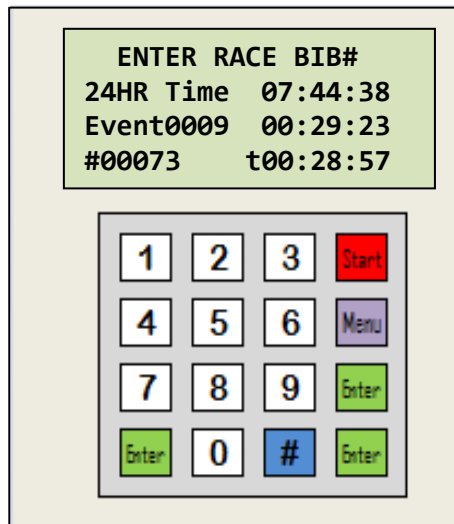
```
ENTER RACE BIB#
24HR Time   07:44:38
Event0009   00:29:23
#00073      t00:28:57
```

- Screen title
- Ongoing 24-hour local time
- Current event#, race clock time
- Finish counter, finish timestamp

The Finish count " **#00073** " is the number of runners that have come across the finish line, followed by their finish time " **t00:28:57** "

The next screen is the "Bib Number" screen. It is displayed immediately after the first number of a new bib number is entered. From one (1) to five (5) digits of a bib number can be entered.

Press either of the green [ENTER] keys located on the lower corner of the keypad to store the count, bib number and time stamp in memory.
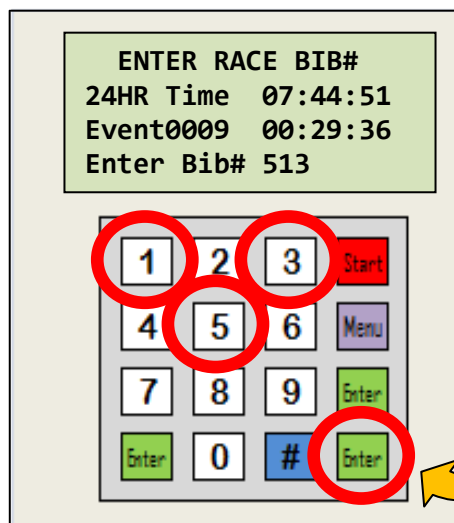
```
ENTER RACE BIB#
24HR Time   07:44:51
Event0009   00:29:36
Enter Bib# 513
```

- Screen title
- Ongoing 24-hour local time
- Current event#, race clock time
- Finish counter, finish timestamp

Enter the next runner with Bib # " **513** "   with at finish time of " **00:29:36** "

The Finish count will increment to " **00074** "

<u>Note</u> – If there are too many runners crossing the finish line at once, just press [Enter] for each runner that you see and the timestamps will be stored without a bib number.   The finish counter is still incremented for each [Enter] key press.

*** *** ***

- Technical Specifications

The standard **RaceDay** Race Bib Logger includes all of the following features:

1 - Compatible all scoring systems.
2 - Uses Excel CSV format for race data storage.
3 - Permanent storage of 1000'S of race events.
4 - Durable case is water proof.
5 - Ten (10) hour battery life.
6 - USB pen drive data backup.
7 - Race Clock start time is programmable.
8 - Accurate 24 Hour local time clock.
9 - Includes Owner's Manual, pen drive, carry case.

The **RaceDay** Race Bib Logger electrical specifications:

1 - Standard 12 volt DC operation.
2 - Power input is polarity protected.
3 - Uses long life Lithium-Ion batteries.
4 - Touch keypad for data entry.
5 - High contrast LCD display, even in sunlight.
6 - Multi-core low-power microprocessor for exceptional reliability.

*** *** ***

- Battery maintenance and charging instructions

The included Lithium-Ion battery pack has a built-in monitoring circuitry that automatically protects the battery during charging and discharging modes. Dedicated circuitry continuously monitors the charging process to ensure safety, efficiency, and to maximize the number of charge / discharge cycles of the battery pack.

The DC power jack, located on the bottom of the **RaceDay** Race Bib Logger, is polarity protected. Either DC polarity can be used to charge the Bib Logger: Positive or Negative DC power on the center pin, or outer sleeve (ring).

Use the supplied 12 volt DC wall type charger. If you must use another charger it should be between 7 and 14 volts DC output - and at least one (1) Amp (minimum), preferably two (2) Amps. Use with a 2.1mm barrel jack.

You can use the battery charger with the **RaceDay** Race Bib Logger turned either "On" or "Off".   The batteries will charge a little faster if the **RaceDay** Race Bib Logger is turn "Off"

However, if you are scoring a race and the LCD display indicates a "Low Battery" you have less than one (1) hour of battery life left - plug the unit into a 12 volt DC wall type charger as soon as possible.

IF the batteries get too low, the **RaceDay** Race Bib Logger will display the "Recharge Battery" message and stop all operation – to protect the stored data from being corrupted by the low battery voltage.

- **Do NOT use an AC output type wall charger.**

- **Do NOT use a DC charger with an output voltage greater than 14 volts DC**

Typical charging time is 1 to 7 hours - depending on the discharge level and the age of the cells. It is recommended that the power jack be temporally disconnected, and the unit booted up to check the Battery Status: Press [MENU] and then number [7]

If the percent usage is less than eighty (80) percent, plug the charger in again for a few more hours.   Turn "Off" the **RaceDay** Race Bib Logger for a more efficient charge time.

*** *** ***

- How to Delete race event filenames on internal SD card memory

IF you always used the power-on newEvent number option, you will probably never have to use this Delete race filename function. In this case, the first (9) nine filenames are reused over and over when you boot up the RaceDay Race Bib Logger. The filenames are automatically created in sequence from 0001, 0002, 0003, to… 0009, at which time they are cleared, and reused again.

IF you selected you own Event numbers, the race data stored in the internal SD card memory can be erased, and should be erased periodically every year or sooner, depending on your preferences.

Although you can store filenames from 0010 up to 9,999 unique event filenames, the practical limit is about 500 event filenames.

For example, if you were to score four (4) races every week / weekend, that would be 125 weeks or 2.5 years of data. If you were to score one (1) race per week, that would be 500 weeks or 9.5 years of data, assuming you were to have 500 event filenames.

There is no direct way to check the number of filenames on the SD card, except to use the [MENU], and [0]   "Next Event" option.

*** *** ***

The procedure for deleting event filenames in the internal SD card memory is as follows:

>>> **NOTE - Be sure you want to do this. There is no recovery! ! !**

1 **-** Turn "On" the Bib Logger and wait for the unit to boot up to the
"ENTER RACE BIB#" screen.

2 **-** Press the violet [MENU] key followed by the number [**1**] key
"RACE EVENT SETUP" screen.

3 **-** At the "Enter Event#:   " prompt, press the blue [**#**] key
"DELETE all EventFile" screen.

4 **-** Immediately press the red [START] key, to "Delete" filenames

IF you are unsure if you want to Delete, press the green [ENTER] key to:

     >> Cancel / Exit <<

OR   You can wait five (5) seconds for the option to time out.
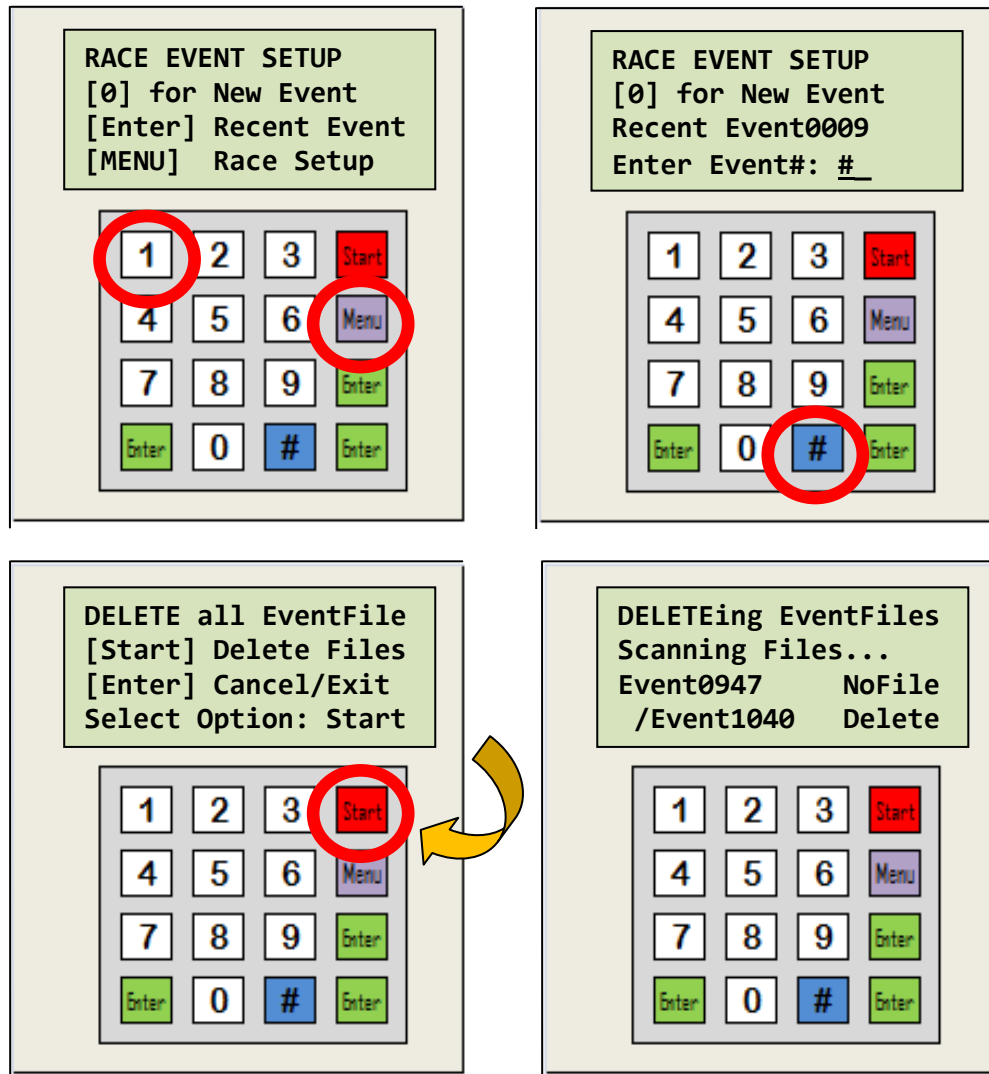
The Filename DELETE sequence takes about 1 to 2 minutes complete, as the **RaceDay** Race Bib Logger checks for each "used" Event filename and deletes it. The first new event after all the filenames are deleted, defaults to: Event0001

DO NOT turn "Off" the **RaceDay** Race Bib Logger while the files are being deleted. You have a good chance of corrupting the file directory if you do this.

- Scoring the Race

There is an add-on program application that requires a laptop computer and **RaceDay** Scoring software. (Sold separately) Features, specifications and pricing of this app are listed on the:
RaceDay Scoring.com   website.

Alternately, the end user can create an awards report by manually sorting the RaceData to an Excel spreadsheet – or by using a word processor and typing in the data.

In other cases, especially for larger races the Event RaceData files are used as backup data.

> NOTE - The following section describes optional features of the RaceDay Timing and Scoring system.
>
> This program application requires a laptop computer and the RaceDay Scoring software. (Sold separately)
>
> Features, specifications and pricing of this app are listed on the: RaceDay Scoring.com   website.

- Know your Race Reports

The following description of Excel spreadsheets illustrate the various Event listings and reports that are available on the **RaceDay** Timing and Scoring app - an add-on **RaceDay** product sold separately.

Registration List sorted by Last name. This list is used as a tool to easily verify all the entrants in a race. It is most helpful at the Registration table. In all cases the data is grouped by function.

```
Filename:  Event001ABC            Race Day Results              Page 1 of 3    .
Race Date: 8/15/2012          ************************
Scored by: GoRunning Timing & Scoring
Questions: info@GoRunning.US

************************ **  Alphabetical List sorted by Last Name  ************************
  GRETEL    AABAN      ORMOND BEACH    FL    41    M 17    00:20:08    00:00    14
  SUSAN     AABENON    WINTER PARK     FL    88    F 37    00:22:23    00:00    83
  BILL      AADEFIO    OCALA           FL     8    M 57    00:20:31    00:00    36
  BRAD      AAKROW     TALLAHASSEE     FL    10    M 21    00:20:14    00:00    18
  MARC      ABACI      GAINESVILLE     FL    66    M 32    00:20:29    00:00    33
  ARNOLD    ABAD       NEW SMYRNA BEAC FL     5    M 53    00:20:24    00:00    28
  MARIE     ABBE       NEW SMYRNA BEAC FL    67    F 52    00:21:59    00:00    62
  CHERYL    ABBEY      ST AUGUSTINE    FL    14    F 25    00:22:17    00:00    79
  ERIC      ABBEY      HERNANDO        FL    33    M 42    00:20:49    00:00    54
  RONALD    ABBEY      SATELLITE BEACH FL    84    M 22    00:20:12    00:00    17
  BARBARA   ABBOTT     ORLANDO         FL     6    F 46    00:22:43    00:00    93
  JEREMY    ABBOTT     PALM COAST      FL    49    M 29    00:20:18    00:00    21
  DENNIS    ABEL       ORLANDO         FL    26    M 52    00:20:21    00:00    25
  RICHARD   ABEL       LONGWOOD        FL    80    M 47    00:20:02    00:00     7
  WENDY     ABEL       OCOEE           FL    96    F 47    12:22:48    00:00    96
  CHRISTOPHI ABLES     ORMOND BEACH    FL    17    M 36    00:20:40    00:00    44
  HEIDI     ABNEY      AMELIA          OH    44    F 27    00:22:15    00:00    78
  KELLY     ABNEY      ORMOND BEACH    FL    62    F 36    00:22:25    00:00    84
  MARK      ABRAHAM    PORT ORANGE     FL    68    M 51    00:20:18    00:00    22
  SUSAN     ABRAMS     PORT ORANGE     FL    89    F 59    00:22:14    00:00    76
```

Age Groups sorted Alphabetically. It gives the race director a heads-up on how many Awards are going to be needed at the finish.

```
Filename:  GoEventAGA             Race Day Results              Page 1 of 4    .
Race Date: 8/15/2012          ************************
Scored by: GoRunning Timing & Scoring
Questions: info@GoRunning.US      .

************************ *******  Age Group sorted by Last Name  ****************************

Male   2 to 9   Alpha List
  Name                City                 Bib No.  Age     Time        Pace     O'all
  CODY      ALBRIGHT   JACKSONVILLE    FL    18    M 9     00:19:58    00:00     2
  CONNOR    ALBURY     JACKSONVILLE    FL    19    M 4     00:20:00    00:00     4


Male   10 to 14   Alpha List
  Name                City                 Bib No.  Age     Time        Pace     O'all
  THAD      ACTON      DAYTONA BEACH   FL    90    M 11    00:20:04    00:00     8
  JAMES     ALVAREZ    ORLANDO         FL    45    M 14    00:20:02    00:00     6


Male   15 to 19   Alpha List
  Name                City                 Bib No.  Age     Time        Pace     O'all
  GRETEL    AABAN      ORMOND BEACH    FL    41    M 17    00:20:08    00:00    14
  ANDREW    ALBRIGHT   WINTER GARDEN   FL     2    M 19    00:20:11    00:00    16
  JOHN C    ALLEN      ORMOND BEACH    FL    54    M 17    00:20:06    00:00    11


Male   20 to 24   Alpha List
  Name                City                 Bib No.  Age     Time        Pace     O'all
  BRAD      AAKROW     TALLAHASSEE     FL    10    M 21    00:20:14    00:00    18
  RONALD    ABBEY      SATELLITE BEACH FL    84    M 22    00:20:12    00:00    17
  JEFF      ALTEMUS    ORMOND BEACH    FL    47    M 22    00:20:17    00:00    20
```

Finish Line Awards report by Finish Time. The Finish Line Awards report is in the traditional format that is used for the Awards ceremony.   The standard USA Track and Field format of three (3) Overall Male and Female winners, one (1) Male and Female Masters runner (40 years or older). Followed by the (somewhat) standard of five (5) year Age Groups starting at years 2 to 9, 10 to 14, 15 to 19, 20 to 24 – and up to 80 years.

```
Filename:  Event001AGW              Race Day Results              Page 1 of 4    .
Race Date: 8/15/2012            *************************
Scored by: GoRunning Timing & Scoring
Questions: info@GoRunning.US
***********************·**  Age Group Awards sorted by Finish Time  *************************

Male Open Winners
 Name                    City              Bib No.  Age       Time       Pace     O'all
 LEE      ALTIERS        GAINESVILLE   FL   64       M 45      00:19:56   00:00    1
 CODY     ALBRIGHT       JACKSONVILLE  FL   18       M 9       00:19:58   00:00    2
 GREG     AGUZZI         TITUSVILLE    FL   38       M 46      00:19:59   00:00    3

Male Masters
 Name                    City              Bib No.  Age       Time       Pace     O'all
 STEPHEN   ADAMEC        DAYTONA BEACH FL   87       M 46      00:20:01   00:00    5

Female Open Winners
 Name                    City              Bib No.  Age       Time       Pace     O'all
 EMMA     AKER           ORMOND BEACH  FL   31       F 8       00:21:59   00:00    61
 MARIE    ABBE           NEW SMYRNA BEAC FL 67       F 52      00:21:59   00:00    62
 LAUREN   ALLEN          NEW SMYRNA BEAC FL 63       F 3       00:22:01   00:00    63

Female Masters
 Name                    City              Bib No.  Age       Time       Pace     O'all
 CATHARINE ALFONSO       HEATHROW      FL   13       F 51      00:22:01   00:00    64

Male   2 to 9
 Name                    City              Bib No.  Age       Time       Pace     O'all
 CONNOR    ALBURY        JACKSONVILLE  FL   19       M 4       00:20:00   00:00    4

Male   10 to 14
 Name                    City              Bib No.  Age       Time       Pace     O'all
 JAMES     ALVAREZ       ORLANDO       FL   45       M 14      00:20:02   00:00    6
 THAD      ACTON         DAYTONA BEACH FL   90       M 11      00:20:04   00:00    8
```

There are instances where the junior runners are grouped differently - either because of too few runners or to give out more awards in these age groups.

Likewise for the balance of the USA Track & Field standard age groups listed above. However, using ten (10) year age groups or non-standard age groups will raise the ire of the runners.

- Computers and Clocks

It is best to have at least a couple of volunteers that are trained in how to operate the finish line computers and clocks.   The **RaceDay** Timing and Scoring system is easy to use, but even the professional event scoring companies have backups upon backups for timing and scoring.   However for smaller races of 200 or less runners, this is usually not necessary.

At a minimum there should be three (3) start (and finish) line clocks or digital watches in use.   The regular runners watch is just fine, as long as there are two or three of them to cross check the start times with. For larger races, finish line, high end computer RFID chip scoring equipment, can pick up the runner's bibs as they cross the finish line. Having someone enter all of the bib numbers on the **RaceDay** Race Bib Logger at the finish line is always a good practice.

It takes a lot of time and effort to organize a successful race.   There are many decisions to be made and detailed planning steps required to put on a successful event.

For a full step-by-step **RaceDay** "Event Planning Guide", outlining race course layout, event planning, and legal requirements, we encourage you to purchase this Race Director's "Event Planning Guide", available on line at:

RaceDay Scoring.com

- Contact Information

If you have any questions or need further assistance, please contact the following at any time 24/7.

Website info: **www .RaceDayScoring .com**
Cell phone: **386-846-0956** - leave a message

*** *** ***

RaceDay Race Bib Logger © 2013. All rights reserved.

RaceDay ™

RaceDay Scoring.com

RaceDay ™

Specifications

Basic Options.
1. Compatible with all scoring systems.
2. Uses Excel CSV format for race data storage.
3. Permanent storage of 1000'S of race events.
4. Durable case is water proof.
5. Ten (10) hour battery life.
6. USB pen drive for data backup.
7. Race Clock start time is programmable.
8. Accurate 24 Hour local time clock.
9. Includes Owner's Manual, pen drive, carry case.

Electrical.
1. Standard 12 volt DC operation.
2. Power input is polarity protected.
3. Uses long life Lithium-Ion batteries.
4. Touch keypad for data entry.
5. High contrast LCD display, even in sunlight.
6. Multicore low-power microprocessor for exceptional reliability.

.

RaceDay ™

Quick Start

Instructions.
1. Turn on machine and set date & time if necessary.
2. Enter a new Event Number (1 to 999) at prompt. Message "Event Used… " adds to an existing file, and "New Event " starts a new RaceEvent file.
3. Press [START] to start the Race Clock [00:00:00]
4. Enter Race Bib number and press [Enter] to record the sequence Count, Bib number and TimeStamp.
5. Press [Menu] at any time to change Event #, Race Clock, 24Hr.Time, or copy Event file to Pen drive.

Menu Options.
   Press [MENU] for Race Setup
   Enter Menu Number
      1 - Setup Event   (enter a new Event number)
      2 - Set RaceClock (enter a new Start time)
      3 - START Race   (reset Clock & START race)
      4 - Race Scoring   (copy Event file to Pen Drive)
      5 - View Date and Time (view Date & Time only)
      6 - Set Date and Time   (set new Date & Time)