# Time Machine Operation

- **Introduction:**
  - CVR has three TimeMachine (TM) timers that are used to record finishing times.
- **Charging the battery:**
  - Each TM should be charged for 8-10 hours shortly after being used to time a race.
  - **Warning:** Do not overcharge the TM. It should be charged for **8 to 10 hours** and then not charged again until after its next use.
  - Charge the battery soon after each use. The best plan is to charge the TM overnight on the day of the race.
  - **Warning**: The unit should not be left in a discharged state for a long period of time.
- **Time Machine Operation:**
  - There are general instructions printed on the bottom of each TM.
  - There is a User Manual in each of the TimeMachine carry bags.
  - The User Manual is available for download from the CVR website.
    - On the top of page menu click on 'Race Timing'
    - https://cvrunners.org/race-timing/
  - Basic operations:
    - On/Off
      - The on/off switch is a black slider switch on the right side of the unit.
      - Slide the switch towards the front for ON, towards the back for Off.
      - If the following message is dispalyed:
        - Warning! Event must be changed.
        - This means that there are times stored in memory for event 1. You must clear memory before starting your new event.
        - If you do not clear memory, the times for your new event will be added to whatever times are in memory from a prior event.
        - See 'Clear Memory' below to clear the old times.
    - Memory
      - The unit can store times in memory for multiple events.
      - For example, if you are timing two cross country races consecutively, you can use event 1 for the first race and event 2 for the second race. The times for each race will be preservered until cleared so that you can review and/or reprint the times.
    - Set the event number:
      - Press the Setup key.
      - Setup Parameter: [EVENT NUMBER] will be displayed.
      - Press Enter.
      - You will be prompted to enter and Event #.
      - Press Enter to accept 1 as the Event # or enter a different number.
    - Clear memory:
      - Memory should be cleared before you start a new race. If memory is not cleared, new times will be added to the times already stored in memory for the event chosen.
      - To clear memory:
        - press the Mem and Clear keys together.
        - You will be prompted: Clear All Of The Memory? [YES]
        - Press Enter to answer Yes and clear memory.
    - Set time:
      - Press the Set Time key.
      - You will see the 'Set Time Clock' prompt:
        - To start from zero, press Enter.

- To start from a specific time enter H:M:S for the time you at which you want to start.
- The 'Select Count Direction: [UP] prompt will be displayed.
- Press Enter to count up.
- Press Enter for 'Multiple Starts' prompt.
- You event is ready to start.
- Start the TM
  - Press the 'Start Time' key or click the button on the grip switch.
- Record a finish time:
  - Press Enter or click the button on the grip switch.
- Stop the timer.
  - Press Start Time and Clear together.
- Select Time Recording.
  - Select times capture the bib number AND the time at the moment the runner crosses the finish line.
  - To capture the bib number AND time (Select time)
    - Enter the bib number as the runner approaches the finish line.
    - Press Enter when the runner crosses the line.
    - Press Clear to reenter a bib number before recording the time.
- Printer
  - It is generally good to have the printer turned on as times are being recorded at the finish line.
- Connecting the TimeMachine to RunScore:
  - The TimeMachine timers can be connected to the laptop running RunScore via Bluetooth.
  - The unit can be connected to RunScore after it is running. This might happen if the start and finish lines are some distance apart. The unit can be taken to the start line for the start of the race and then taken back to the finish line where the laptop is located.
  - To connect to RunScore:
    - The TimeMachine has to be *near* the laptop.
      - The specs say within +-300 ft.
    - Bluetooth COMM Ports:
      - The Windows operating system has assigned Bluetooth port numbers to the three TimeMachines.
      - Ports 3, 6, and 7 have been assigned, and the port number is written on the top of each TimeMachine.
    - In RunScore on the laptop:
      - Click Init/Initialize External Timers.
      - Enter the port number of the TimeMachine in the first row displaying the 'Time' event.
      - Click OK.
      - The flashing red light on the Wireless Interface attached to the TM will change to solid green when the unit is connected.
      - It may take 2 or 3 tries to make the connection.
      - You may have to click 'Stop' and 'OK' and then 'Start' and 'OK' again to make the connection.
    - Times will now be sent to RunScore from the TimeMachine as they are recorded at the finish line.
    - Click in the **Results** page in RunScore to display the new results as they are entered.
- Upload times to RunScore.

- All of the times stored in the TM memory for an event can be uploaded into RunScore at the end of the race.
- This function if very useful if the laptop running RunScore is not near enough to the finish line to connect to the TM during the race.
- Times can be recorded for the race while the TM is not connected to RunScore. Then the TM can be taken to the laptop, connected by Bluetooth, and the times can be uploaded. This, of course, is much faster than having to key all of the times into RunScore manually.
- You may want to upload times for most finishers before every runner has finished. To do this, leave one TM with times being recorded and take the other one to the laptop running RunScore.
- To upload times:
  - Take the unit to the laptop location.
  - Connect the unit to RunScore:
    - Enter the port number of the TM in the first row displaying the 'Time' event.
    - Click OK.
    - The green light on the TM will light when the unit is connected.
    - It may take 2 or 3 tries to make the connection.
    - You may have to click 'Stop' and 'OK' and then 'Start' and 'OK' again to make the connection.
  - Upload the times:
    - on the TM:
      - Press the Set Up key until the [RS232 PORT] display appears.
      - Press Enter until the 'Times have been uploaded' message appears.
  - In RunScore on the laptop:
    - Click Results to open the Results page.
    - The uploaded results should be displayed.