Eliminator Competition
Stand Alone Mode - Instruction Manual

Main Menu:

After startup, the *Eliminator Competition* will enter the Main Menu. Press the right/left arrow buttons to move through the menu. Swiping across the screen also moves to the next menu item. Press the menu item to use the feature.

> ***Race Screen:*** Run races
> ***Display:*** Tree cycles in pro/full tree display
> ***Track Diagnostics:*** Test track inputs and outputs
> ***Setup:*** Modify track (enable/disable sensors, printer, external sign, or win lights), set
> display/LED brightness, or restore unit to factory defaults

Navigate Menus:

Each multi-page menu in the *Eliminator Competition* is denoted by dots at the bottom of the screen. The number of dots indicates the number of pages in the menu. The "white" dot indicates which page of the menu is currently displayed. To change pages, **swipe** your finger across the screen from left to right or right to left.

Figure 1: Menu Navigation

Race Screen:

All race functions are performed from the Race Screen. Here the race operator can enter vehicle information, change race setups, run races, and save results.

> ***Left & Right Lane Settings:*** All items on the main page of the Race Screen are lane settings. Lane settings can be set differently for the left and right lane
> - Entry – Six digit alphanumeric vehicle number
> - Dial-In – Accepts 0.00 to 30.00
>   *Note: Both lanes must have a valid dial otherwise the dials are cleared at the start of race*
> - Tree Type – Tap to select Full, Pro, or Green tree
>   - o Full Tree – Sportsman countdown tree
>   - o Pro Tree – All amber bulbs light together
>   - o Green Tree – Green bulb lights at start of race (no amber bulbs)
> - Tree Speed – 0.100 to 0.900
> - Bye – Set lane to Bye Run
> - Deep – Indicate that the lane will deep stage
>   - o Not available with Super Start enabled
>   - o Not available if Pre-Stage disabled
> - Cross – Indicate that the lane wants crossover
>   - o Available when Top Bulb Lock enabled
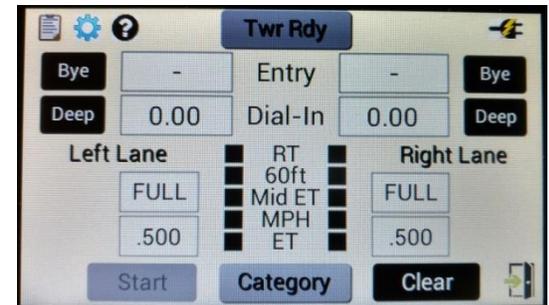
Figure 2: Race Screen
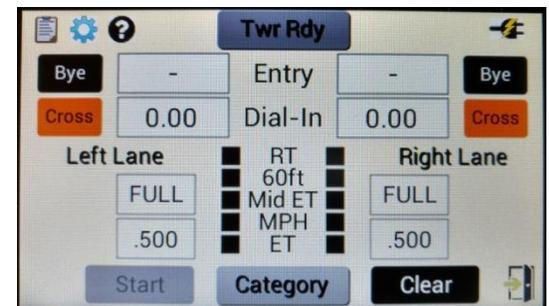
Figure 3: Race Screen with Top Bulb Lock

> ***Clear:*** Touch to clear the left and right lane settings (Entry, Dial-In, Bye, Deep, Cross)

> ***General Settings:*** Touch the "Gear" icon in the upper left corner of the Race Screen to change general race settings
> - Super Start – Enable to prevent deep staging

- o When on, the blue bulb lights to inform racers that deep staging is not permitted and deep staging is treated as a staging fault
- Breakout – Determines how winners are declared
  - o When on, running quicker than the dial-in is considered a foul
  - o When off, first vehicle to the finish line wins
- Top Bulb Lock – Only available when Top Bulb Oscillate is disabled
  - o When on, the top amber in both lanes will light at the same time
- Pro Tree Lock – Only available when Top Bulb Lock is enabled
  - o When on, all pro tree ambers will light at the same time in both lanes
- Top Bulb Oscillate – Only available when Top Bulb Lock is disabled
  - o Varies when the top amber of the full tree lights by +/- 0.1s
- Perfect Tree – Determines how reaction times are displayed
  - o When on, *Eliminator Competition* uses 0.000 for a perfect reaction time
  - o When off, *Eliminator Competition* uses the tree speed for a perfect reaction time
- Dual Red – Determines how red lights are displayed
  - o When on, red lights will display in each lane that red lights
  - o When off, a red light will only display in the lane that fouls
- Real Red – Determines how a winner is declared when both lanes red light
  - o When off, the first vehicle that red lights loses the race
  - o When on, the vehicle that red lights worst loses the race
- LB3 Instant Red – Real Red Option
  - o When on, a vehicle leaving before the 3rd amber is immediately declared red
  - o When off, real red rules apply even if a vehicle leaves before the 3rd amber
- Show Green – Real Red Option
  - o When yes, the tree will show green until red lights are declared
  - o When no, the tree will show neither green nor red until red lights are declared
- Auto Number – Controls left and right lane entry numbers
  - o When on, the *Eliminator Competition* automatically sets the entry numbers for each lane (begins at 1 and increases sequentially each run)
  - o When off, the race operator can enter left/right lane entry numbers
- Auto Start – Select between manual start and automatic start
  - o When on, the *Eliminator Competition* starts a run based on Auto Start parameters
  - o When off, the race operator or starter must manually start each race
- Stage On Time – Auto Start parameter. Time for a vehicle to be staged before the *Eliminator Competition* considers the vehicle staged (0.100 to 2.500)
- Stage to Start – Auto Start parameter. Time from when both lanes are staged until the tree activates (0.100 to 2.500)
- Start Delay – Auto Start parameter. Random time added to Stage to Start (0.100 to 0.900)

Track Warnings: Each sensor location is listed in the center of the Race Screen. Disabled sensors display in gray. When a sensor is not detected or misaligned, it displays in red. All functional sensors display in black.

- Finish Line Fault – When a finish line sensor is not detected or misaligned, the red light will turn on in the faulting lane (both on the *Eliminator Competition* and on the external tree)
- Guard Beam Fault – When a guard sensor is not detected or misaligned and guard beam start is enabled, the red light in the faulting lane will flash rapidly
- Panic – Press and hold the track interface box Reset button to enable the panic lights on the track. The red lights and stop lights in both lanes flash until the Reset button is released

Twr Ready: Touch when all race settings and vehicle information are entered and correct. The tower ready light will illuminate and indicate that the "tower" (race operator) is ready for the start of race. The "Twr Rdy" button will turn green.

- Auto Start Enabled
    - o Autostart panel (lower left) turns green
    - o Starter's switch is in the "on" position
        - ▪ Auto Start will ***not*** trigger a start if the starter's switch is not activated
    - o Both vehicles stage before Auto Start Time expires
        - ▪ The tree sequence starts after the stage to start and start delay time

Figure 4: Tower Ready with Auto Start enabled

    - o Single vehicle stages and "Bye" selected in other lane
        - ▪ The tree sequence starts after the stage to start and start delay time
    - o Single vehicle stages
        - ▪ Tree sequence starts after the Auto Start Time expires
    - o *Note: If Auto Start Time expires and a vehicle is initial staged*, the Eliminator Competition will wait for the vehicle to either reach final stage** or de-stage before starting the race.*
- Auto Start Disabled
    - o Stage beams enabled
        - ▪ At least one lane must be staged to start race
    - o Race Screen "Start" button (lower left)
        - ▪ Touch to start the race
    - o External Starter's Switch
        - ▪ Press to start the race

Figure 5: Tower Ready with Auto Start disabled

- ** Initial Stage* – Time from when a vehicle first stages until Stage On Time elapses
- *** Final Stage* – Vehicle is staged and the Stage On Time is complete
- *Note: If a finish line fault or panic occurs during tower ready (before start of race), the tower ready will be cancelled*

Running Races: A race begins when the tree sequence starts. The *Eliminator Competition* will show "Race in Progress" and will not accept input from the display. The *Eliminator* will stay in this state until one of the following conditions occurs:

- End of Race – All active lanes complete
    - o Starting Line Only: Each active lane breaks the starting line
    - o Finish Line: Each active lane crosses the finish line
- Hard Reset – Reset button on the track interface box is pressed
    - o Starting Line Incomplete – Lane will display "NT"
    - o Finish Line Incomplete– Lane will display "64.9999"
- Time Out – One or more active lanes does not complete
    - o Starting Line Only: Each lane has 30 seconds to break the starting line
    - o Finish Line: Each lane has 30 seconds to break the starting line followed by 60 seconds to cross the finish line
    - o Starting Line Incomplete – Lane will display "NT"
    - o Finish Line Incomplete – Lane will display "65.0000"

Once a race is complete, the race results will display on the *Eliminator Competition*. The following items are included in the race result display:

- Race Times – Displays times from each sensor triggered during the race
    - Blank Field – A sensor was enabled but not triggered during the race
    - Hyphen Field ('-') – Sensor was not enabled for the race
    - Null Field (0) – Down track sensor was triggered prior to the vehicle launching

Figure 6: End of Race Display

- Red – Turns red when a vehicle red lights (lane's reaction time is also displayed in red). Panel is gray otherwise.
- BO – Turns red when breakout is enabled, dial-ins are entered, and the lane's elapsed time is less than the dial-in (lane's elapsed time is also displayed in red). Panel is gray otherwise.
- Over/Under – Displays the amount the lane is over or under the dial-in. Blank when no dial-ins are entered.
    - Negative Ov/Un: Elapsed Time is less than the Dial-In
    - Positive Ov/Un: Elapsed Time is greater than the Dial-In
- Margin of Victory (MOV) – When win lights are enabled, MOV displays in the winning lane; otherwise, it displays in the lane that crossed the finish line first.
    - Positive MOV: Winning lane crossed the finish line first
    - Negative MOV: Winning lane crossed the finish line second
- Win Lights – When enabled, a green dot and "WIN" will appear in the winning lane
- Print Icon – When a time slip printer is enabled, a print icon will appear in the upper left corner of the display. The *Eliminator Competition* will automatically print the specified number of time slips at the end of a race. If additional time slips are needed, press the print icon to print another slip.
- Auto Start Time Remaining – When Auto Start is enabled, the time that remained before the Auto Start Time Out will display in the bottom left corner of the display.

Race Results: Press the clipboard icon to view/store race results

- View the last 10 runs
    - Entry numbers, dial-ins, all enabled times, over/under dial, and MOV
    - Runs are displayed left lane followed by right lane
    - Winning lane is displayed in green
- Press "Save" to save race results to a file
    - Results from at least one run must be available before pressing "Save"
    - If more than 20 results files exist, a new file will not be created
- Press "Clear" to clear the race results
- Press the folder icon in the upper left corner to View or Delete saved result files
- Press "Return" to return to the Race Screen

Category: Touch to enter the *Eliminator Competition* category editor. The category editor allows the race operator to create up to 5 categories with saved race settings.

- New – Touch to create a new race category
- Select – Touch to load a race category
    - The category's settings are used for running races
- Delete – Touch to delete an existing race category
- Edit – Touch to edit the settings of the loaded/selected race category

- o Category settings include: Tree Type, Tree Speed, Category Index (Dial-In), Super Start, Breakout, Top Bulb Lock, Pro Tree Lock, Top Bulb Oscillate, Real Red, and Auto Start Parameters
- Close – Touch to close the active race category
  - o General settings are used for running races
- Return – Touch to return to the Race Screen
- *Note: When a category is selected (active), the tree type and tree speed cannot be changed from the Race Screen. If a category has a valid Category Index, Dial-Ins cannot be entered from the Race Screen. The name of the active category will display on the "Category" button on the Race Screen.*

Help Mode: Press the question mark icon to enter help mode. The question mark will turn green. Press and hold icons/buttons on the screen to learn more about the icon. Press the question mark icon again to exit help mode.

Exit: Touch the door icon in the bottom right of the Race Screen to return to the Main Menu

Display:

In Display Mode, the tree randomly cycles and displays reaction times for show. It alternates between Pro and Full Tree as well as heads up and dial-in runs. Press the Main Menu button to exit.

Track Diagnostics:

Track Diagnostics allow the race operator to test the track sensors, start/reset buttons, printer, and lights.

- *Sensor Check* **–** Conduct a test of the track hardware (sensors and printer)
  - o Start – Touch to begin/end a sensor test*.* When green, a sensor test is active. All enabled sensors will appear in black on the display. Disabled sensors will appear in gray. During a sensor test, all active sensors are tied to the lights on the tree. Misaligned sensors will cause a bulb to light in the lane with the issue. The sensor indicator on the *Eliminator Competition* display will appear white when a sensor is misaligned. External start and reset switches can also be tested (white when pressed, black when released)

Sensor Misaligned	Tree Light
Pre-Stage	Pre-Stage
Stage	Stage
Guard	First Amber
60ft	Second Amber
Mid ET	Third Amber
MPH/KPH	Green
Finish	Red

  - o Print – Touch to print a time slip printer test message
- *Light Check* – Conduct a test of the down track, track interface box, and tree lights. All black dots on the screen correspond to a light on the track.
  - o Temp – Touch and hold each black dot to turn on the corresponding light on the track (light will turn off when released)
  - o On/Off - Touch to turn on and touch again to turn off each light on the track
  - o Loop – Touch to begin a light loop (button will turn green and the *Eliminator Competition* will turn each light on then off in a sequence). Touch again to stop the light loop

Setup:

Change the LED or Display brightness; enable a printer, win lights, automatic reset, or an external display; alter the track setup; or restore the *Eliminator Competition* to factory defaults.

LED Brightness: Slide the bar to change the *Eliminator* LEDs from max brightness to off
Display Brightness: Slide the bar to change the *Eliminator* display from max to min brightness

Track Reset: Restore the *Eliminator Competition* to factory defaults. The track configuration and
time slip message will not be affected by the reset

LED Sign: Turn external sign on/off

    Sign Type: Select between Portatree or Betabrite external sign

        2" displays are "Portatree" type and 4" displays are "Betabrite" type

    Sign Setup: Select from Burnout Box, Time Trial, or Elimination display modes

- Burnout Box – Display vehicle Entry Number and/or Dial-In. When both are selected will alternate between Entry Number and Dial-In until start of race. After start of race, Dial-In will display
- Time Trial – Display RT, 60ft, Mid ET, MPH/KPH, and/or ET (will only display times if a sensor is enabled). Prior to start of race, the display will be blank. After race completion, the display will alternate between the selected times
- Elimination – Display Dial-In, RT, MPH/KPH, and/or ET (will only display times if a sensor is enabled). Prior to start of race, the display will show Dial-In (or blank if Dial-In not selected). After race completion, the display will alternate between the selected times (RT, MPH/KPH, or ET)

Printer: Turn time slip printer on/off

    Time Slips: Select to print 1 or 2 time slips at the end of a race

Win Lights: Turn win lights on/off

    Light Style: Select how win lights are displayed

- Stage Flash – Pre-Stage and Stage lights flash on/off in the winning lane
- Light Sweep – Tree lights sweep from red to Pre-Stage in the winning lane
- Light Flash – All tree lights flash on/off in the winning lane
- External – Down track win lights only (no tree win lights)

    Note: Down track win lights will function as long as Win Lights are enabled

    Win Light Time: Length of time for tree win lights to display after a race is complete

Auto Reset: When on, the *Eliminator Competition* will automatically reset after each race.
Otherwise, the race operator must press reset after the race.

    Auto Reset Time: Length of time for race results to display before the *Eliminator Competition* automatically resets for the next race.

    Note: The Win Light Time must always be less than or equal to the Auto Reset Time

Track Configuration: Enable/disable sensors and choose start type, speed type, and trap size

- Stage beam is mandatory if Guard beam is disabled
- Pre-Stage is not available if Stage beam is disabled
- 60ft, Mid ET, and MPH/KPH beams are not available when Finish is disabled
- Start can be triggered by the Stage beam, Guard beam, or both
  - If Guard beams are disabled, the system will default to Stage beam start
  - If Stage beams are disabled, the system will default to Guard beam start
- Speed type can be MPH or KPH
- Speed trap can range from 1 to 99 (ft or m)

Exit: Touch the door icon in the bottom right of the Setup Menu to return to the Main Menu

Computer Connection:

The *Competition Connect* software is available for download from www.portatree.com. This free software does NOT allow you to run races from a computer. It can be used to download race results from the *Eliminator Competition* or update the *Eliminator's* time slip message. The *Eliminator Competition* connects to a computer using a standard Type A to B USB cable.

- Connect *Eliminator Competition* to computer and open software
  - *Eliminator* must be in the Main Menu to recognize the computer connection
- Click the "Connect" button

- If successful, *Eliminator* will show "Computer Connected Do Not Disconnect" and program will show the *Eliminator Competition* serial number and version
    - The Track Layout, Track Settings, and Printer Settings will load from the *Eliminator*
    - *Competition Connect* will NOT connect if the *Eliminator* is not a competition version
- If an error occurs while connecting, click the "Setup" button and check the connection port
    - Open Device Manager
        - In Windows XP, go to Control Panel, select System, select Hardware, click Device Manager
        - In Windows 7, go to Control Panel, select "View by Small Icons", click Device Manager
        - In Windows 8 and 10, right click the Windows menu icon and select Device Manager
    - Under Ports (COM & LPT) find "Communication Device Class ASF Example"
    - Type the COM number in the Connection Port box
- If the *Eliminator* is not listed in Ports (COM & LPT), the device drivers may need to be installed
    - Search for *Eliminator Next Gen* under "Other Devices"
    - Right-click and select "Update Driver"
    - Select "Browse my computer for driver software"
    - The driver is located in "C:\Program Files (x86)\Portatree\CompetitionConnect"
- Once connected, you can edit the *Eliminator Competition's* time slip message
    - Click "Print Setup" to receive the current printer settings and time slip message
    - Click "Send" to send a new time slip message to the *Eliminator Competition*
    - When "Center Lines" is checked, the computer will center the time slip message in spaces
    - When "Center Lines" is not checked, the time slip message will be left justified
- Once connected, you can download or delete Race Files from the *Eliminator Competition*
    - Click "Download" to download all Race Files from the *Eliminator Competition*
    - Click "Delete" to delete all Race Files from the *Eliminator Competition*
- Race Data
    - Click a Race File from the list of file names
        - Click "Delete" to delete the file from the computer
            - Must be disconnected from the *Eliminator Competition*
        - Click "Open" to view the Race File
        - Click "Export" to save the Race File file as a comma separated values (.csv) file that can be opened in Excel
    - Click "Merge" to combine multiple Race Files into a single Race File
        - Files must have the same track setup or merge will fail
        - Click "Merge" to begin
        - Press "Ctrl" and select files to merge
        - Click "Merge" to finish
        - The files will be deleted and replaced with a single merged file