RACE AMERICA

INNOVATION. TECHNOLOGY. RELIABILITY.

Model 6627
Single Line Scoreboard
Owner's Manual
Portatree Eliminator 2000 Compatible

Rev A

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LIMITED WARRANTY

To the original purchaser of this RACEAMERICA product, RACEAMERICA warrants it to be in good working order for a period of ninety (90) days from the date of purchase from RACEAMERICA or an authorized RACEAMERICA distributor. Should this product malfunction during the warranty period, RACEAMERICA will, at its option, repair or replace it at no charge, provided the product has not been subjected to misuse, abuse, or alterations, modifications, and/or repairs not authorized by RACEAMERICA.

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ALL EXPRESSED AND IMPLIED WARRANTIES FOR THIS PRODUCT ARE LIMITED IN DURATION TO THE ABOVE NINETY DAY PERIOD.

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PRODUCT OVERVIEW

Model 6627 Single Line Scoreboard is a microprocessor controlled system based upon the 7-segment format display digit using the latest technology Ultra-Bright LEDs. The display uses an RS232 serial link to receive data to be displayed. The serial link is preconfigured for use with a Portatree Eliminator 2000 Drag Timing System. Race results to be displayed are selected through DIP switches located on the rear of the display.

NOTE: THIS PRODUCT USES ULTRA-BRIGHT LED TECHNOLOGY. DUE TO THE BRIGHTNESS LEVEL OF THIS DISPLAY, CARE SHOULD BE TAKEN, AS WITH ANY BRIGHT LIGHTING SOURCE,TO AVOID PROLONGED VIEWING AT CLOSE RANGE AND SHORT DISTANCES. AS WITH ANY BRIGHT LIGHTING SOURCE, VISION MAY BE AFFECTED SHORT TERM SIMILAR TO A CAMERA FLASH.

PACKAGE COMPONENTS

2 - Single Line Scoreboard Units
2 - Power Patch Cords
1 - Owner's Manual

Model 6627 Available Options:

04-0020 Eliminator 2000 data cable
4500B Data Communication POD (for printers and displays greater than100ft from console)
07-3434 RS422 Cable for use with PODs
4520 Wireless Data Communication Links
6501A AC Power Adapter

PRODUCT SPECIFICATIONS Model 6627

Display Type:	7-Segment
Digit Height:	Fifteen Inches Tall
Number of digits:	Five
Dimensions (half):	64.6"W x 22.3"H x 4"D
Mounting:	1/4-20 PEMs on corners
Housing:	Powder coated steel
View Filter:	Red Transparent acrylic
View Range:	660ft/201M in full sun

POWER REQUIREMENTS

Each Scoreboard unit can be powered by a 12VDC automotive battery or any 12VDC power source capable of 0.85 ampere current load maximum. Average power consumption is approximately 1.0 ampere. Maximum voltage should never exceed 13.2VDC at the Power Input Connector.

PRODUCT SET-UP

Model 6627 Single Line Scoreboard is designed to hang free using corner plates supplied with the display or secured by the 1/4-20 PEMS located on the side corners. It is suggested to use the hanging method in windy conditions to avoid damage to the display and the display housing.

STEP 1 - Configure the Display

DIP Switches are located on the backside of each display unit and are used to select the race results to be displayed. Each 6627 Single Line Scoreboard is shipped preconfigured to display left or right lane ET. To change the configuration and determine the new switch settings, read the **DIP SWITCH SETTINGS** section of this manual. Switch settings have two positions, ON and OFF. The ON position is indicated on the DIP switch and is active when the switch button is moved to the ON side.

STEP 2 - Connect the Interface Cable

The RS232 interface cable contains an RJ45 modular connector on one end of the cable which is connected to the SERIAL PORT connector on the back of the 4500 POD. The other end of the cable has a RJ12 connector which is connected to the printer port of the Eliminator 2000. If a second outlet is needed for a printer, a telephone jack line splitter can be used. When inserting this connector, press inward until a click is heard to lock the cable in place. If the cable remains loose and no click is heard, carefully bend outward the locking tab on the RJ45 connector approximately 45 degrees from the connector body. Re-insert the cable into the serial port until the click is heard and the cable remains locked in place. To remove this cable, pinch the locking tab against the body of the RJ45 connector and pull the connector out.

View the wiring diagram in this manual to properly connect the display units, and RS422 PODs to the Portatree Eliminator 2000 Drag Timing System.

STEP 3 - Connect the Power

Power is supplied to each display unit through the 12VDC POWER INPUT connector located on the rear of the display. Connecting power to the display will set the display into a power-up self-test mode. Once the self-test has succesfully completed, the display is ready for use.

POWER-ON SELF-TEST

When the 6627 power source is connected, each display unit begins an internal self-test and and external visual check of the display elements.

The self-test begins by stepping through each segment of all five digits, one segment at a time including the colon or decimal point which exist to the right of each digit except the rightmost digit. The self-test continues by sequentially illuminating each segment until all segments, colons, and decimal points are on. The revision level of the code running in the microprocessor is displayed. When the internal self-test and external visual test is complete, **[rEAdy]** scrolls in from left to right and blanks out. The display is now ready for use.

FACTORY DIP SWITCH SETTINGS

Switch	Position	
1	Rt Lane - OFF	Lt Lane - ON
2	OFF	
3	ON	
4	OFF	
5	ON	
6	OFF	
7	OFF	
8	OFF	

SCOREBOARD CONTROL

REACTION TIME - displayed at the end of the race when both lanes have finished.

ELAPSED TIME & VEHICLE SPEED - displayed at the end of a race. When both are selected, the scoreboard displays both, toggling between ET and SPEED.

DIAL-IN TIME - displayed at the end of the race when both lanes have finished.

DIP SWITCH DEFINITIONS

The 6627 has 8 DIP switches located on the back of the unit that are numbered from 1 to 8 and can be switched ON or OFF. The ON position is indicated on the switch itself. Each switch function and setting are discussed below.

Race Results

Switches 2 thru 6 on the back of the Scoreboard unit determine which race results will be displayed: (select display result by moving the switch to the OFF position)

Race Result	Switch	Position
Reaction Time (RT)	3	OFF
SPEED	4	OFF
Elapsed Time (ET)	2	OFF
Dial-in	5	OFF

When both SPEED and ET are selected, the Scoreboards will toggle between SPEED and ET at the end of the race. The flashing Win Indicator is always active except when ET and Speed are selected.

NOTE: If ET or SPEED ae selected with RT or Dial-ins, the display of ET and SPEED will take priority.

Lane Selection

Switch number 1 determines which lane's race results will be displayed:

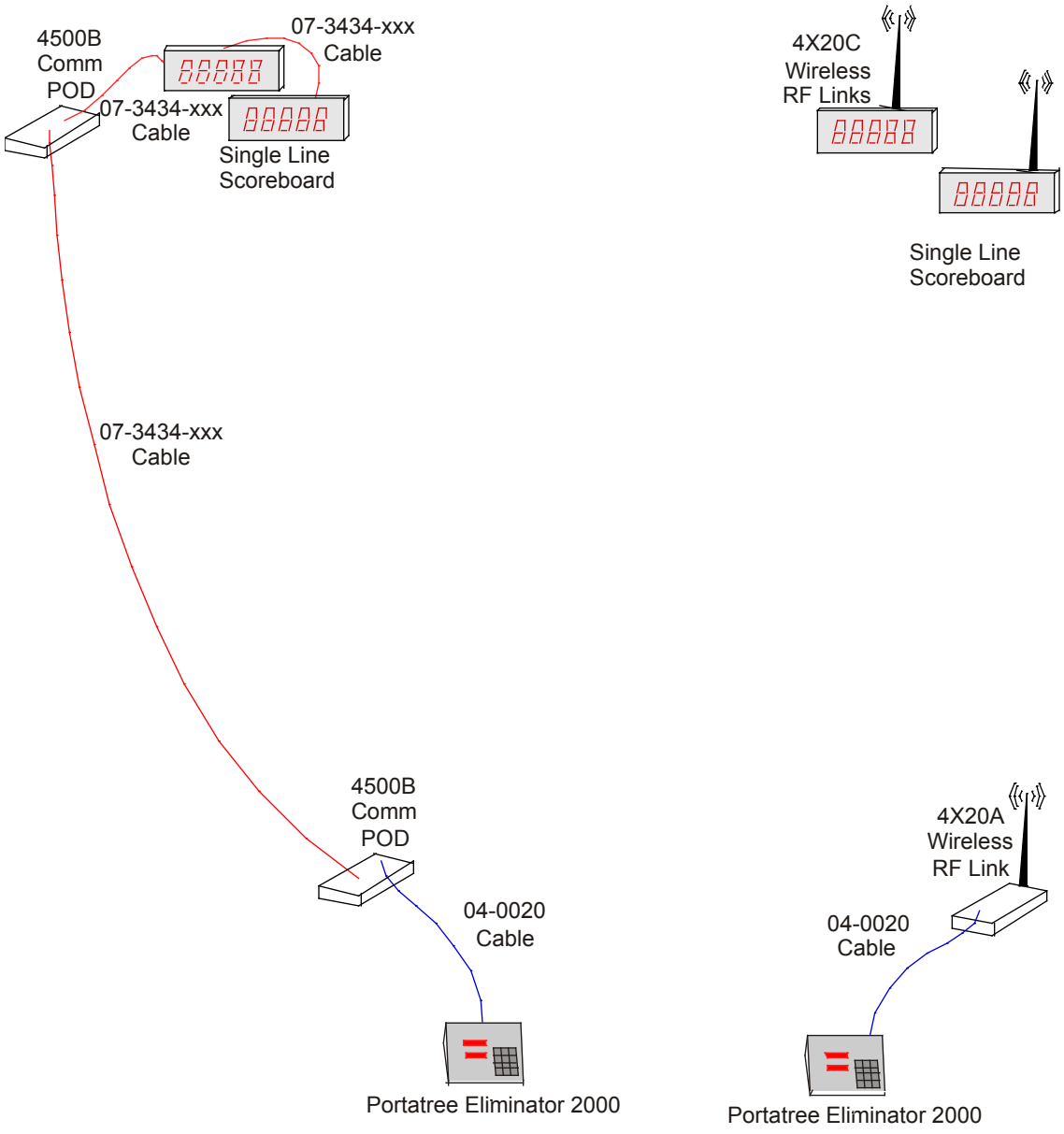
Lane to Display	1
Left	ON
Right	OFF

Display Hold Time

Switches numbered 6 & 7 work together to set the time race results will be displayed following a race; 30 seconds for fast paced action, 120 seconds for large viewing audiences or until new data is received. If the display is sent new race results prior to the 30 or 120 seconds expiring, the display will be updated with the new results and the display hold time timer is reset to 30 or 120 seconds. The results can be resent by pressing the PRINT button.

Display Hold Time	7	6
30 seconds	ON	ON
120 seconds	ON	OFF
When new data received	OFF	N/A

WIRING/WIRELESS OPTIONS FOR 6627



Data communication options shown for the 6627 Portatree compatible scoreboards showing the required components. Hard wired on the left and internal wireless on the right

DISPLAY MAINTENANCE

The model 6627 Single Line Scoreboards do not require any maintenance to maintain proper operation. If the display is to be used in rainy or wet conditions, it is suggested to protect the back panel from direct moisture by shielding the connection to power and the serial port.

To clean the red lens, use a non-abrasive cleaner on a soft cloth. This will keep the protective lens clean and maximize visibility and clarity of the digits. If the red lens is soiled with mud or dirt, gently remove the grit using a soft cloth being careful not to press when wiping to avoid scratching the red lens material.

SPARE PARTS

Further to minimize race program interruptions, RaceAmerica recommends some spare parts. Related cables and PODs for the Scoreboard should be in considered. Contact RaceAmerica for availability and pricing of spares items.

SUPPORT AGREEMENTS

Support agreements are available from RaceAmerica providing Telephone Assistance on technical issues and operational questions, repair and/or replacement of hardware failures, Software and Firmware updates and bug reporting. Contact RaceAmerica for more information and pricing of Support Agreements.