The Leader in Event Critical Timing Electronics

Model 6812C
Dual Lane Scoreboard
Owner's Manual
Portatree Eliminator Compatible

Rev A

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RACE AMERICA

Timing Systems

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.

Any product requiring Limited Warranty service during the warranty period should be returned to RaceAmerica with proof of purchase. If return of merchandise is by mail, the customer agrees to insure the product, prepay shipping charges , and ship the product to RaceAmerica, Inc., 280 Martin Avenue Unit 1, Santa Clara, CA 95050.

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

UNDER NO CIRCUMSTANCES WILL RACEAMERICA BE LIABLE TO THE USER FOR DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE, SUCH PRODUCT.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

PRODUCT OVERVIEW

Model 6812C Dual Lane Scoreboard is a dual microprocessor controlled system based upon the 7-segment format display digit using the latest technology Ultra-Bright LEDs. The 6812C is designed to connect to Portatree Eliminator 2000 timing systems with capability to display Elapsed Time and Vehicle Speed.

Each Scoreboard receives serial RS232 data for analysis and display from a Portatree printer port transmitted via RS422 communication PODs and cable using an RS422 multidrop links or via wireless link units.

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

Each Dual Lane Scoreboard package includes:

2 - Scoreboard Display Units
2 - Scoreboard Interconnect Rails
4 - Hanger Plates
16 - 1/4-20 X 1/2" Hex Head screws/washers

1 - ET/Speed Center Panel
2 - Left/Right Lane Panels
8 - 1/4-20 X 1" Hex Head screws/washers

1 - Interconnect Data Cable with Power Conn

1 - Power Patch Cable

1 - Owner's Manual

Model 6812 Available Options

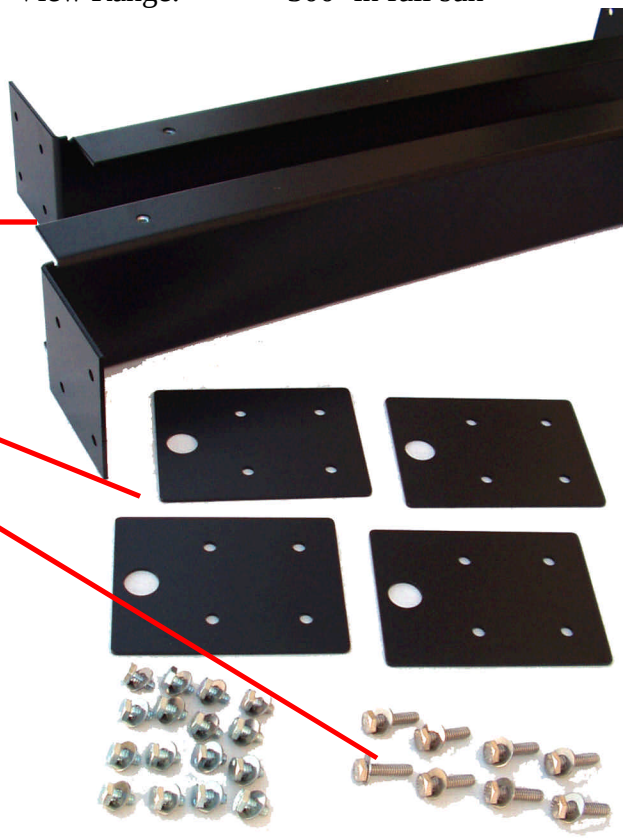
4500 RS232/RS422 Communication PODs
07-3434 RS422 communication cabling
4520 Wireless Link Units

POWER REQUIREMENTS

The Model 6812C Dual Lane Scoreboard can be powered by a 12VDC automotive battery or any 12VDC power source capable of 2.5 amperes current load maximum. Average power consumption is approximately 1.0 ampere. Maximum voltage should never exceed 13.2VDC at the Power Input Connector.

PRODUCT SPECIFICATIONS

Display Type:	7-Segment LED
Digit Height:	Eight inch tall
Number of digits:	10 per lane
Dimensions:	37"H x 111" W x 4"D
Mounting:	Side/Top 1/4-20 taps
Housing:	Powder coat aluminum
View Filter:	Red transparent acrylic
View Range:	300' in full sun



PRODUCT SET-UP

Model 6812C Dual Lane Scoreboard is designed to hang from side mounted hanger plates or be solid mounted directly to the side frames of each display unit. It is suggested to setup the Scoreboard units and operate them to gain familiarity before installing them in a permanent or hard to access location. The two halves do not need to be connected together to display data.

STEP 1 - Assemble the Scoreboard

Tools Required:
7/16" hex wrench

Connect Left/Right Display Units:
Identify the Left and Right Display Units by the CONFIGURED LEFT/RIGHT label on the side panel. Position the Display Units inline approximately 23" apart (the left and right connector panels will face each other). The two Interconnect Rails are mounted as shown in Figure 1 (the 'U' sections face each other and allow the lower section to hold cables, PODs and AC adapters) with four 1/4-20 X 1/2" hex head screws at each end of each rail. (See Fig. 1)

If the unit is being hung using the included hanger plates, the center hanger plates should be mounted outside of the Interconnect Rails with the same screws.

STEP 2 - Attach the Panels

Attach the Center Panel:
The Center Panel attachs to the connector rails using four 1/4"-20 hex head screws. Align the screws to the holes in the upper and lower Interconnect Rails as illustrated in Fig. 2.

Attach the L/R Lane Panels:
Place the appropriate Left/Right Lane panels on top of the Scoreboard Display Units aligning the mounting holes to the taps on the top of the display frame. Using the 1/4"-20 X 1/2" hex head screws, attach the Lane Panels to the Display Units.

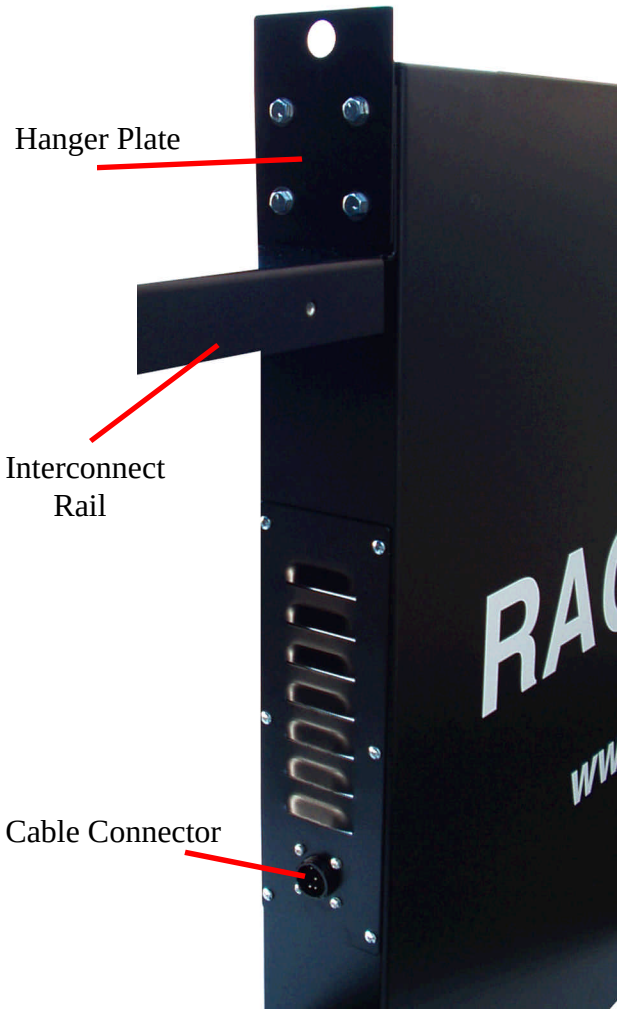


Fig. 1 - Center Section Assembly

STEP 3 - Connect the Data Cable

Cables or Wireless Link units are connected as shown in Fig. 3. Connect the part number 07-4554 RS232 Interconnect Blue Cable large round connectors between the scoreboard halves and the RS232 connector of the 4500A Communication POD (blue cable/connector) or Wireless Link Units. Connect the long 07-3434 Red RS422 Interconnect Cable between the 4500A Communications POD RS422 connectors (red cable/connector) and the Portatree printer port. Use the rear basket ('U' section of the interconnect rails) or waterproof tube to also hold loose cable and AC Adapters or other power connections. Place the wireless units off the ground with line of sight transmission for optimal performance.

STEP 4 - Conect the Power Cable

12VDC power will be supplied to the Scoreboard either from a 12VDC Auto type battery or an AC Adapter.

SCOREBOARD MOUNTING

The side frames of the Display Units have hanger plates for hanging the Scoreboard from a cable or chain. See Fig. 4.

To solid mount the Scoreboard, 1/4"-20 screws may be inserted into the top, sides and bottom taps of each Display Unit. This enables the Scoreboard to be bolted directly to rigid upright mounting brackets. See Fig. 5.

To hang the Scoreboard, four hanger plates are attached to the top corners of the Scoreboards. When hanging the Scoreboard, a cable should extend from the left hanger on the left Display unit to the right hanger on the left Display Unit. A second cable should extend from the left hanger on the right Display Unit to the right hanger on the right Display Unit. The four points of contact are required to insure the integrity of the Scoreboard remains rigid in windy conditions. The double suspension cabling also helps in the event one cable fails.

POWER-ON SELF-TEST

When the Model 6812C Dual Lane Scoreboard power source is connected, the Scoreboard begins an internal self-test and an external visual check of the display elements.

The self-test begins by stepping through each segment of all twenty digits, one segment at a time. Each segment is then cleared sequentially on all 20 digits. The self-test then displays all vertical segments, then all horizontal segments, followed by three boxes inside each other. The self-test then displays the revision level of the microprocessor code and **[rEAdy]**, then scrolls the display until blank. The Scoreboard is ready for use.

SCOREBOARD OPERATION

RaceAmerica Digital Scoreboards connected to the Portatree Eliminator 2000 are controlled by the timer printer port; when data is sent to print, the Elapsed Time and Speed are displayed by the respective lanes. The scoreboards are configured and labeled at the factory for left and right lanes.

SCOREBOARD MAINTENANCE

The model 6812 Dual Line Scoreboards do not require any maintenance to maintain proper operation. If the display is subjected to moisture, it is recommended to allow it to dry out.

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. While the Scoreboard may not shut down the racing action, a spare emitter/sensor pair and end of track cable sections should be available in the event of an unfortunate accident during a program. 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.

EXPLODED VIEW OF SCOREBOARD

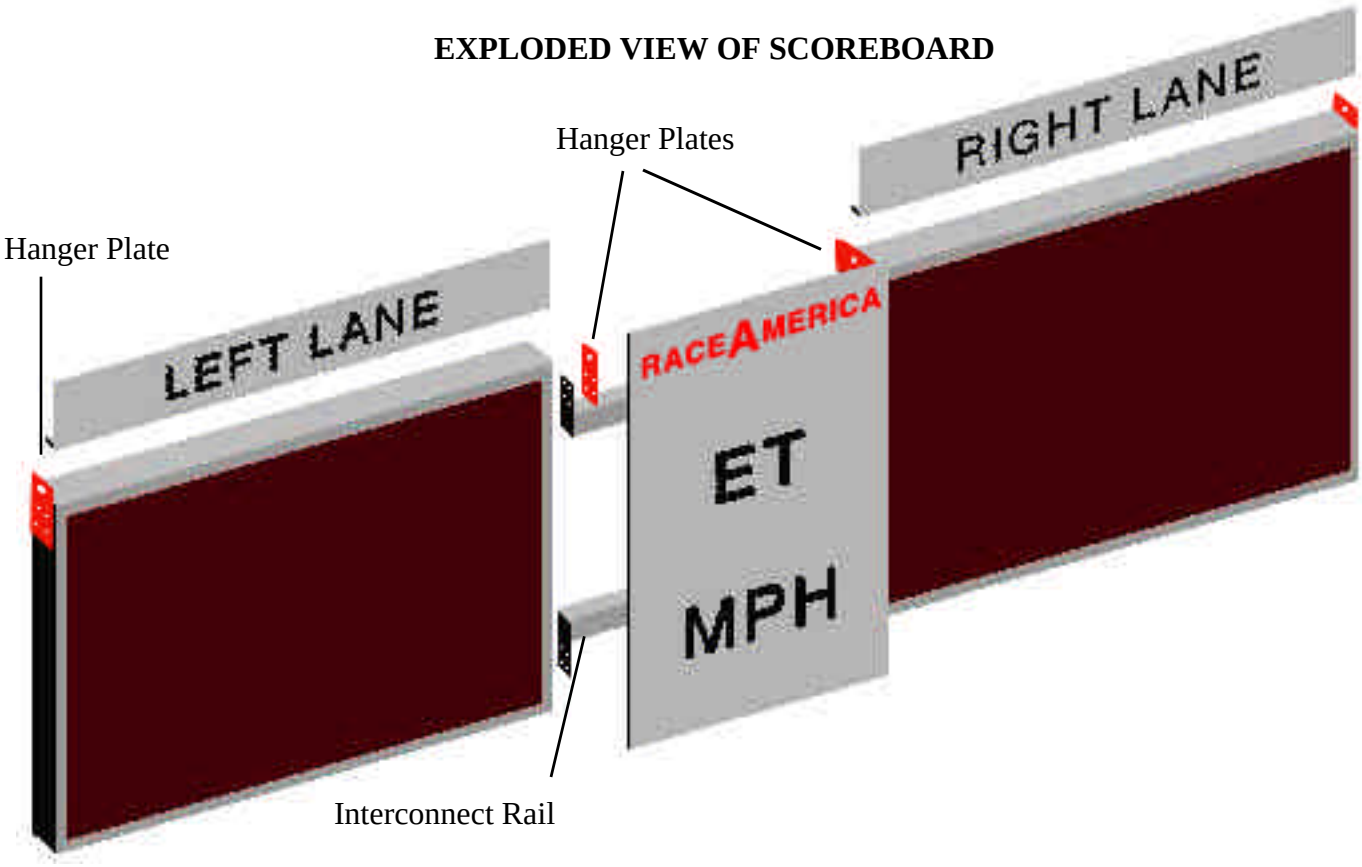


Fig. 2 - Scoreboard Assembly

CABLING DIAGRAM

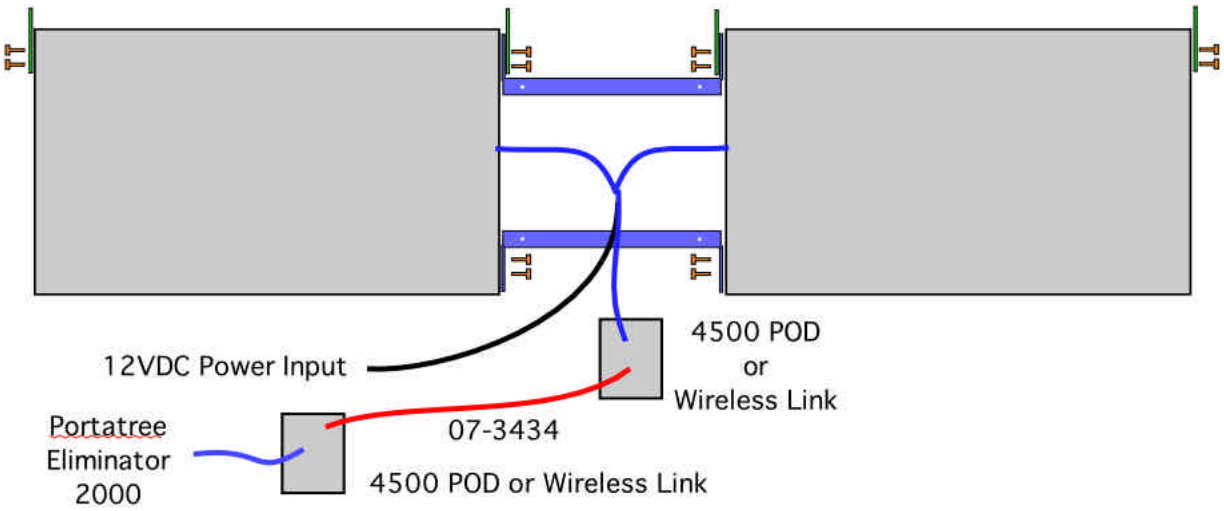


Fig. 3 - Cable or Wireless (no 07-3434 cable) **connections diagram**

MOUNTING EXAMPLES

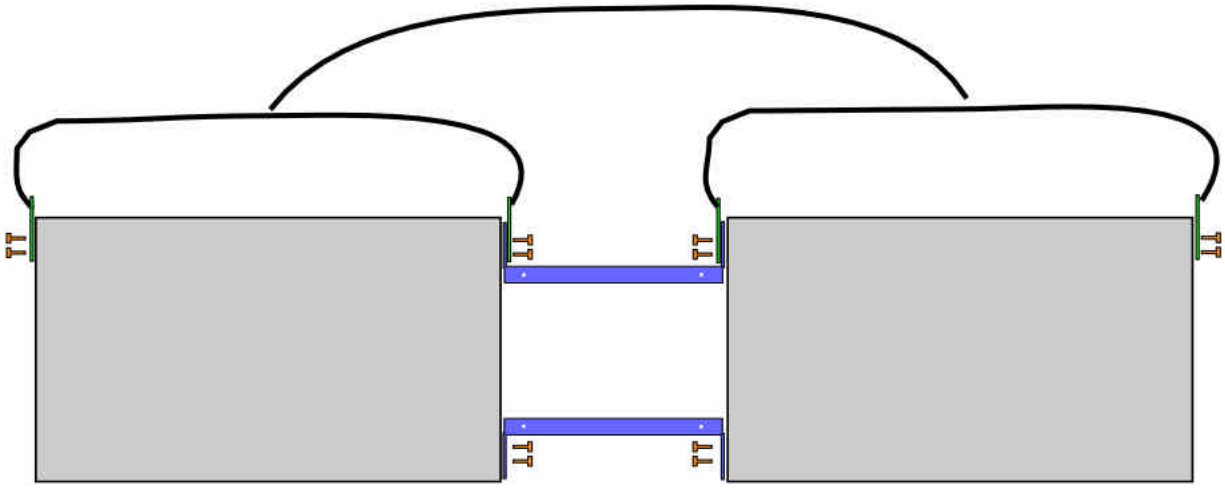


Fig. 4 - Hanging the Scoreboards

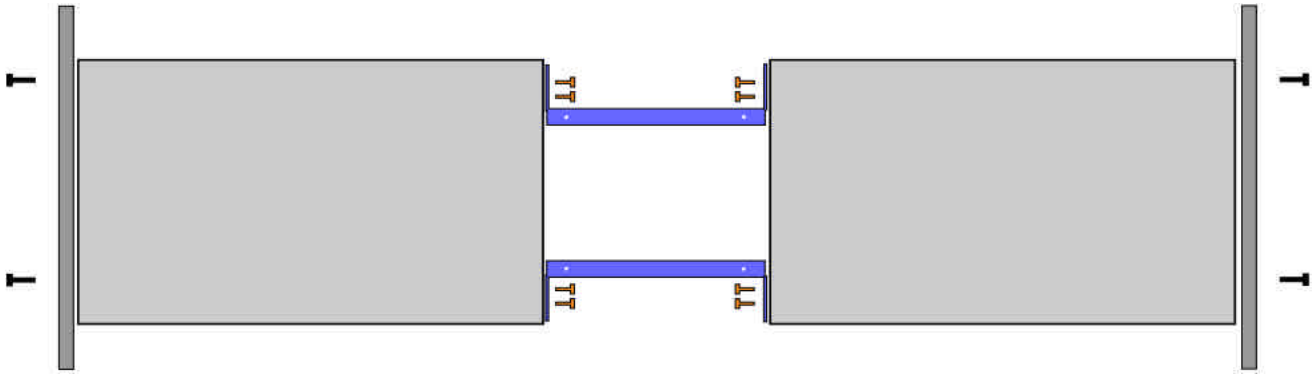


Fig. 5 - Solid mount the Scoreboards