OmniSport® 2000 Timing Console and Pro Software

Operations Manual

ED-13312 ***Rev 9 – 7 June 2006***

DAKTRONICS

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OmniSport 2000 Timing Console and Pro Software Operations Manual

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3. Drawings referenced in this manual are listed below. Insert the drawings in **Appendix: Reference Drawings** in alphanumeric order:

A Drawings		B Drawing
A-026288	**A-135163**	**B-163808**
A-023633	**A-154282**	**B-180044**
A-023635	**A-180566**	**B-182350**
A-026538	**A-180922**	**B-184685**
A-026797	**A-180923**	**B-188395**
A-026798	**A-186535**	**B-220003**
A-132981	**A-186548**	
A-132982	**A-191692**	

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6. Please direct question and suggestions to Engineering Support.

7. Pull all new drawings.

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Section 1: Introduction

1.1 Using This Manual

This manual is designed to explain the operation of the OmniSport® 2000 series timing console. For questions regarding the safety, installation, operation, or service of this system, please refer to the telephone numbers listed on the cover page of this manual. To fully understand this manual and the operation of the OmniSport 2000 timer, Daktronics recommends reading all general sections in conjunction with your specific sport or sports.

Important Safeguards:

1. Read and understand all instructions.
2. Do not drop the timer or allow it to get wet.
3. Do not let any power cord touch hot surfaces or hang over the edge of a table, which could damage or cut the cord.
4. If an extension cord is necessary, a three-prong, polarized cord should be used. Arrange the cord with care – away from foot traffic – so it can not be tripped over or pulled from its outlet.
5. Always turn off and/or unplug the control equipment when it is not in use. Never yank the power cord to pull the plug from the outlet. Grasp the plug and pull it firmly to disconnect.
6. To avoid electrical shock, do not disassemble the control equipment or the driver modules. Incorrect reassembly can cause electric shock to the operator, faulty operation of the timer, or permanent damage to the circuits.

The manual is divided into fifteen sections and four Appendices.

- **Introduction** defines terms and explains concepts used throughout the manual.
- **Basic Operation** details the basic OmniSport 2000 timer operation.
- **Swimming/Diving Setup/Shutdown** describes procedure used to install an OmniSport 2000 system into a swimming facility.
- **Swimming Operations** details the operational procedures for running the OmniSport 2000 system at a swim meet.
- **Pro Swimming Software** describes the operations and setup of the OmniSport 2000 Pro Swimming software for personal computers.
- **Pro Synchronized Swimming Software** describes the operations and setup of the OmniSport 2000 Pro Synchronized Swimming software for personal computers.
- **Diving Operations** details the operational procedures for running the OmniSport 2000 system at a dive meet.
- **Pro Diving Software** describes the operations and setup of the OmniSport 2000 Pro Diving software for personal computers.

- **Track Operations** details the operational procedures for running the OmniSport 2000 system at a track meet.
- **Water Polo Operations** details the operational procedures for running the OmniSport 2000 system at a water polo match.
- **Pace Clock Operations** details the operational procedures for running the OmniSport 2000 system as a pace clock.
- **In-Deck Cabling System Installation** details the procedures for in-deck cabling systems.
- **Relay Takeoff Judging Operation** explains the "relay takeoff judging" feature of the OmniSport 2000.
- **Judging Console Operation** explains the operational procedures for entering scores during diving ad swimming events.
- **RTD Output Specifications** contains Real Time Data (RTD) specification for the OmniSport 2000 and 6000.
- **Appendix** at the end of this manual contains specific information pertaining to protocols of the software and/or RTD data tables.

Daktronics identifies manuals by an ED number located on the cover page of each manual. The ED number will identify any manuals referenced in this manual. For example, this manual would be referred to as **ED-13312**.

The illustration at right is an example of the numbering system used with Daktronics drawings. Each drawing bears a label in its lower-right corner. The number "7087-P08A-69945," located at the bottom of the label, is an example of Daktronics' standard reference for individual drawings. This manual refers to drawings by their last set of digits and the letter preceding them. In the label illustrated, the drawing would be referred to as "**Drawing A-69945**."

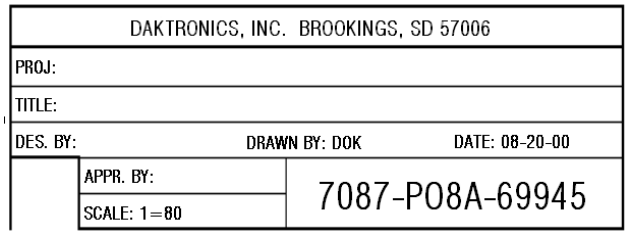


Figure 1: Drawing Number

All reference drawings and sport insert drawings are grouped in the **Appendix**.

1.2 Timer Overview

Reference Drawing:

Connector Designations, OmniSport 2000..... **Drawing A-154282**

The OmniSport 2000 Series controller is a state-of-the-art timing and scoring system. It has the capability to run a variety of timing events. The timer's liquid crystal display (LCD) guides the user through the operation of the system.

Refer to **Drawing A-154282** for an overview of the OmniSport 2000 series timer layouts and connectors.

As a safety feature, this product has a three-wire, ground-type plug equipped with a third (grounding) pin. This plug only fits into a grounding-type power outlet. If you are unable to insert the plug into the outlet, contact a qualified electrician to replace the obsolete outlet.

When you first open your timer packages, inspect for shipping damage such as rattles and dents. Verify that all equipment is included as itemized on the packing slip. Immediately report any deficiencies to Daktronics, and save all packing materials for shipping if warranty repair or exchange is necessary.

1.3 Using the Mouse and Keyboard

The following terms are used to describe various mouse actions that can be used with the OmniSport 2000 Pro software. These instructions are based on the standard, right-handed mouse configuration, with the left button acting as the primary mouse button and the right acting as the secondary mouse button.

- CLICK means quickly press and release the primary mouse button.
- DRAG means to click and hold the left mouse button when the cursor is on an item. Then move the cursor while holding the left mouse button down and the object will move with it.
- DOUBLE-CLICK means quickly press and release the primary mouse button twice.
- RIGHT-CLICK means click the button on the right side of the mouse.
- HIGHLIGHT means to click the mouse button over text. The text will have a colored bar placed over it.
- SELECT means to click the mouse button over text. The text will be marked, such as by a check mark , in a nearby box.

An uppercase word in brackets (such as [**OK**]) represents a *button* on the screen. The names or letters of *keys* on the keyboard will be given enclosed in arrows (such as <**ENTER**>) to differentiate between the screen commands. For two or more key combinations such as <**ALT+E**>, <**CTRL+HOME**> or <**CTRL+SHIFT+SPACE**>; hold down the first key (and the second key, if applicable) as the last key is pressed.

Many of the OmniSport 2000 timer and Pro software options can be accessed with the keyboard as well as the mouse. Where applicable, both mouse and keyboard actions are given to accomplish a command. Many screen buttons have labels which have a letter underlined. Pressing the key on the keyboard that correlates with the underlined letter will activate that particular button. To activate secondary buttons, press the underlined key while holding the <**SHIFT**> key. To activate menu bar items from the keyboard, press the underlined key while holding <**ALT**>.

1.4 Timing Console Revision History

Version 2.8.16 Release date: 16 August 2002

- Initial software release

Version 2.8.19 Release date: 19 August 2002

- Moved the button and backup labels under the lengths label on the printouts so that the '*' stands out more for marked times.
- Added extra spacing between the last backup/button time and the next lane on the printouts.
- Added program version to the settings printout.

Version 2.9.10 Release date: 23 September 2002

- Corrected the ED number shown on the center LCD after power up.
- Added a PAPER message to the right LCD to indicate when the printer is out of paper.
- Made the event number go from 1 to 999.
- Added a request for configuration data from the Pro software.
- Updated the messages shown during the LCD test step of the product test.

Version 2.9.27 Release date: 2 October 2002

- Added a set time-of-day command for the Pro software.
- Added the ability to edit and print a diving event in the event order.
- Fixed a problem with the multiline test code.
- Fixed a printer problem of large spaces between characters.

Version 2.10.11 Release date: 11 October 2002

- Added a Start/Finish List request from the Pro software to be sent to the meet manager.
- Fixed problem with the printer paper status.

Version 3.1.7 Release date: 7 January 2003

- Added the first release of the Pro diving program with integration of swimming from the event order.
- Added the ability to receive the home, guest 1, guest 2, and guest 3 team scores from Hy-Tek® MEET MANAGER.
- Added a race transfer complete command from the Pro software.
- Added ability to print the current running time for the +Touch operation when a lane is armed for finish.

- Corrected miscellaneous small problems with the meet manager and Pro software interfaces when the OmniSport 2000 timer is configured to work as an OmniSport 6000.

Version 3.3.28 Release date: 28 March 2003

General

- Added the first release of the water polo program.
- Added the first release of the track program.
- Added control of radios for the multidrop scoreboard protocol only.
- Increased the number of multidrop codes to include address 1 and 22 for all sports plus standard football scoreboards for track and water polo scoreboards for water polo.

Swimming

- Added display of subtractive splits on the numeric and matrix scoreboard outputs.
- Added “Daktronics” logo to matrix scoreboard output.
- Corrected problem with subtractive splits configuration not being stored.
- Corrected problem with home/guest 1 score module on CTS scoreboard outputs.
- Corrected problem for cumulative and subtractive splits printing for lanes that were turned off.
- Corrected problem with the lane and place being swapped on the single line of the matrix scoreboard output.

Diving

- Added capability to control the CAN (control area network) judge’s consoles and a test function to the menu.
- Added capability to edit the total score for current diver from the keyboard.
- Corrected problem with total score being printed incorrectly on the dive log after reaching a certain value.
- Corrected problem of a Failed dive not setting all judges to a score of ‘0.0’.

Version 3.4.10 Release date: 10 April 2003

General

- Corrected the printer and lane module tests for production testing.

Water Polo

- Added control of the horn on the multisport module for the multidrop scoreboard protocol.

Version 3.4.18 Release date: 18 April 2003

Track

- Added the non-lane timing capability.

Version 3.4.23 Release date: 23 April 2003

Track

- Added place timing capability.
- Modified operation of multiline scoreboard outputs.

Version 3.5.15 Release date: 15 May 2003

General

- Changed from a 7 segment to an 8 segment font on the single line output for swimming, track and water polo.

Version 3.5.15a Release date: 4 June 2003

Diving

- Corrected a bug that would make the "Enter Judge Number" text not appear on consoles with recent CAN terminal software (any CAN terminal that auto arbitrates ID's)

Version 3.6.18 Release date: 18 June 2003

General

- Generated an official release of last bug fix for diving.

Version 3.7.18 Release date: 18 July 2003

General

- Added first release of the pace clock program.
- Changed from a 7 segment to an 8 segment font on the game/shot clock and locker room address of the multidrop protocol for incandescent scoreboard compatibility in all of the programs.

Diving

- Completed an official release of the interface to the Diving Pro Windows application.

Version 3.9.10 Release date: 11 September 2003

Swimming

- Corrected problem of requests from the Swim/Dive application on a Venus 7000 and the ‘Scoreboards’ tab of the OmniSport 2000 Pro swimming application not being transmitted to a Venus for display.

Version 3.9.23 Release date: 23 September 2003

General

- Modified the production test so that the default configurations will be set when the console is first run after this.

Swimming

- Corrected problem in the function that updates race information to the Pro software so that if lane 1 is turned off it will not send over back-up times.

Version 3.10.30 Release date: 30 October 2003

Water Polo

- Moved where the shot clock was displayed on the swimming board. It was displayed on min x1, sec x10 and should have been on min x10, sec x1.
- Added the address for the MS-2013 (11) and displayed time, score, and period.
- Added the display of clock and shot clock data to game/shot address (1).

Pace Clock

- Fixed the display of 'r' on the min x10 digit for rest time. It was not clearing any old data that might have been on the digit.

Swimming

- Added the address for the standard water polo board (13) and displayed the home and guest score on that board.

Version 4.1.12 Release date: 12 January 2004

Swimming

- Added a configuration that allows blanking the place information for intermediate splits on the enhanced RTD output.
- Corrected the digit assignment for the event/heat and guest 2/guest 3 modules on the CTS output.

Version 4.1.23 Release date: 23 January 2004

General

- Added Channel 0D and 13 to CTS scoreboard output for home and guest scores.

Swimming

- Elminated timeout in Hy-Tek software waiting for button times from Results output when none were recorded on the lane modules.

Water Polo

- Added control of horn to CTS scoreboard output.
- Corrected layouts of 1 to 10 line scoreboards on the Multidrop and CTS scoreboard outputs.

Version 4.4.13 Release date: 4 April 2004

Diving

- Added interface to dive results program on Results Port.
- Added display of event number and round to RTD output on RTD Port.
- Added judge's console status to LCD and transmission to Pro application.
- Corrected periodic lockup problem with judge's consoles.

Pace Clock

- Corrected problem of another edit key being pressed while editing step type (swim, race).

Version 4.10.28 Release date: 28 October 2004

General

- Added tenths of a second to CTS output in swimming and track.
- Increased the maximum number of judge's consoles from 9 to 18 for synchronized swimming.
- Added support for control of wireless handheld judge's consoles.

Swimming

- Added tenths of a second to CTS output.
- Corrected problem with the transfer of DQ's from the Pro application to the meet manager when the race number was greater than 255.

Diving

- Added support for synchronized diving in the Diving Pro application.
- Corrected problem with the transfer of the dive order from meet manager to timing console.

Pace Clock

- Corrected problem with STOP being first step in workout.

Synchronized Swimming

- Initial release of program

Track

- Added tenths of a second to CTS output.
- Added configuration for always showing the running time on a single line scoreboard for the non-lane timing mode.

Version 5.1.04 Release date: 4 January 2005

Swimming

- Added ability to record start reaction times on relay takeoff sensors.
- Increased number of relay exchanges from 3 to 6.

- Added ability to transfer start reaction and relay exchange times to meet manager.
- Added ability to show the start list and reaction times on the Enhanced RTD output by lane when the mode is set to Place order.
- Modified position of 'F' and '*' on the printouts.
- Added ability to record start reaction times on relay takeoff sensors.
- Added ability to display start reaction times on Enhanced RTD output when the mode is set to Lane order.

Water Polo

- Added address 15 and 16 to show up to three home/guest player-penalties on dedicated displays.

Version 5.2.02 Release date: 2 February 2005

Swimming

- Limited relay exchanges to Near end only.

Version 5.2.23 Release date: 23 February 2005

Swimming

- Added configuration from showing start reaction times on enhanced RTD output.
- Modified configuration to show 'BTN/DAKTRONICS' and 'OMEGA PLATFORM' for Relay Take-Off in the Setup-Timer menu.
- Limited function of relay platforms to relay events only when event order is downloaded from the Meet Manager or Pro application.
- Decreased number of relay exchanges from 6 back to 3 and limited the active length numbers to 4x50, 4x100, etc.

Water Polo

- Added control of horn segment on 7-E of address 1.
- Added additional columns for shot clock and control of horn segment on 5-H of address 2.
- Increased priority of the updated for the game clock, shot clock and horn.

Version 5.3.15 Release date: 15 March 2005

Track

- Added ability to page through all competitors in NON-LANE timing mode.

Version 5.4.21 Release date: 21 April 2005

General

- In die C3 of 80C390, the SMOD_1 bit for Serial Port 1 seems to be ignored and the baud rate is always doubled (WDCON.7=1) so the reload values of Timer 1 were adjusted.

Version 5.5.19 Release date: 19 May 2005

General

- Added a selection for Omega on the scoreboard output.
- Implemented OSM6 protocol for swimming, diving, pace clock, water polo, and synchronized swimming.
- Implemented OTR7 protocol for track.

Version 5.9.26 Release date: 26 September 2006

Swimming

- Changed the menu setting text for relay platforms from saying "Arming Delay" to "Arm Time"

Track

- Changed the menu setting text for running time selection on a single line display from "no splits" - "splits" to "continuous" - "finish"

Water Polo

- Added a setting to control if the main clock stops when shot clock reaches zero.
- Added a setting to select if the shot clock will reset when a penalty time is entered.
- Added a setting to select if the main clock timing is automatic or manual.
- Added new configured time settings for Rest 1, Rest 2, Warning, and Overtime.
- Changed the Set Time key function so that it allows for selecting the type of time period to enter. Each press of the key goes to the next type of time period.
- Added partial time out settings for number and time of partial time outs.
- Added more players to player list, now can go to 99 players.
- Changed RTD output from a fixed 1-13 players penalty numbers to 25 positions of variable player numbers and penalties sorted by those with most penalties at the top.
- Fixed a bug with Set Time that added one second to the time if the Set Time was exited by pressing the clear key twice.

1.5 Pro Swimming Software Revision History

Version 1.0.0 Release date: 25 October 2002

- Initial Swimming release.

Version 1.10 (Beta) Release Date: 1 November 2002

- Added functionality for Event Order printouts.
- Added code to stop console from sending a race with bad/incomplete data in an infinite loop.

- Added some functionality to the scoreboards property page.

Version 1.11 (Beta) Release Date: 14 November 2002

- Fixed registrations issues with Windows® XP.
- Fixed problem where Omni 6000 style database files weren't getting added to the list of files sent to the meet manager software.

Version 1.12 (Beta) Release Date: 5 December 2002

- Added code to notify the console when requested race data was done being sent.
- Reset heat number to 1 when the user changes the event number.

Version 1.13 Release Date: 3 January 2003

- Changed Title edit box to combo box on main dialog. This allows the user to switch between events by title.
- Added code to check if multiple events exist with the same event & heat. If that heat is requested, the newest data is returned to Hy-Tek MEET MANAGER.
- Fixed code so that up and down arrows work correctly, especially in combo boxes.
- Changed label on test property page from T1 to TP.

Version 1.14 Release Date: 3 February 2003

- Fixed problems with the race requests by event and heat numbers from Hy-Tek not returning data.

Version 1.15 Release Date: 29 July 2003

- Fixed the software that wouldn't store race information if a swimmer didn't get a touchpad time or a backup time on the final length. The console wouldn't send data for that length, but the software was looking for that data.
- Fixed the code that was supposed to catch when the same stored race data was being sent over and over again by the console and tell the console to stop sending. The software was sending the response too quickly, and the console was throwing it away. Software now sends the response after any stored race data is received more than five times, not just the race configuration packet.
- Fixed problems related to printing stored race results while a race is in progress. Also fixed were printing a stored race information from the current event database would print blanks.
- Added auto-configuration of the user edited times as the user is editing them.
- Added code to print backup times for a lane, even if no touchpad time was received.

Version 1.16 Release Date: 23 September 2003

- Fixed the swimmer's name and affiliation that would get removed from the current race results if a minus touch was pressed.
- Updated the DakAboutD1g and the location of the license agreement.
- Fixed the names stored in the database that were not correct if a race was reset before it was completed.
- Fixed the database files that were not showing up in the list in the stored races tab.
- Fixed the swimmer's lane number that was sometimes wrong in the stored data.

Version 1.17 Release Date: 19 November 2003

- Converted to DLStreams communications library.
- Fixed bug that caused software to close if the unlock level is the software wasn't the highest level.
- Fixed where resources were being leaked because the running time wasn't being drawn on the screen correctly.
- Removed use of the CDLRegistry class because it was throwing debug assertions.
- Combined the installs for swimming, diving, and synchronized swimming into a single install using Install Shield 8.
- Made the software conform with new Microsoft Windows® standards by writing all application data to the Documents and Settings folder rather than locally in the Program Files folder.

Version 1.18 Release Date: 3 March 2004

- Switched back to using separate installs for each PRO software application.
- Added code for the new standard DakAboutDlg, which includes system information.

Version 1.19 Release Date: 6 July 2004

- Fixed bug that was introduced in version 1.17 where old database files were not being correctly located when a request for race information was received from the timer.

Version 1.1.10 Release Date: 6 October 2004

- Fixed bug that was causing the Hy-Tek software to have problems getting results from the current database file.

Version 1.1.11 Release Date: 16 November 2004

- Added functionality for Start Reaction times and Relay Exchanges.
- Fixed bug where power transitions were not being logged correctly in the log file.

Version 1.1.12 Release Date: 4 January 2005

- Added support for multiple languages.
- Added support for German.

Version 1.1.13 Release Date: 2 February 2005

- Added support for Chinese (Traditional)
- Added Exchange printout.
- Fixed bug with the "Use Missed Start At:" dialog, which was introduced in version 1.1.12.
- Changed the log file so that Touchpad-Close events were logged rather than Touchpad-Open.

Version 1.1.14 Release Date: 23 February 2005

- Added code to dump stored race data to a text file if it appears the data being sent from the console is invalid.
- Modified how the certain items are logged in the log file.
- Removed relays 4-6.

1.6 Pro Diving Software Revision History

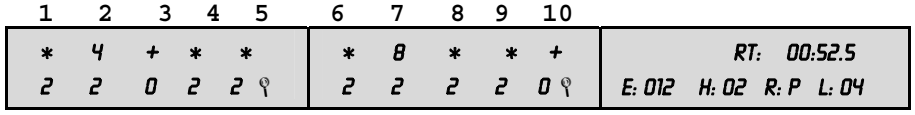
Version 1.0.2.0 Release date: 21 August 2003

- Initial Diving release.

Section 2: Basic Operation

2.1 Liquid Crystal Displays

The timer face contains three separate two-line-by-16-character liquid crystal displays (LCDs). These LCDs will show the status, configuration menus, and testing information that relates to the specific sports code entered into the timer. The image below represents a common view during a swimming event.



2.2 Using the Keypad

The OmniSport 2000 timer consists of sport specific inserts and a numeric keypad. The plastic inserts are provided for each sport used with this timer. This manual references the color-coded inserts by their part number. For instance, the swimming insert is **LL-2549**.

Throughout the manual the names or letters of keys on the keyboard are enclosed in arrows (such as <**ENTER**>). The standard fixed keys and functions on the right side of the timer are explained in **Section 2.8**. All of the keys that pertain to a specific sport code insert are explained in detail in this section of the manual.

2.3 Sport Inserts

Sport inserts are used to allow a single timer to control multiple sports. Select the proper insert from the chart below and slide it into the insert opening on the left side of the timer until it stops. To remove a sport insert, pull on the tab that extends from the left side of the timer.

If an insert is lost or damaged, a copy of the insert drawing (located in **Appendix B**) can be used until a replacement can be ordered.

Sport	Insert Number
Swimming	LL-2549
Diving	LL-2566
Water Polo	LL-2569
Track	LL-2573
Pace Clock	LL-2581

Note: Ensure the protective plastic film is removed from the insert before using it in the OmniSport 2000 timer.

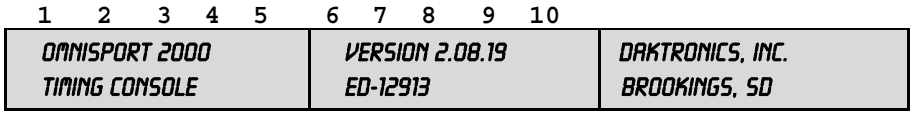
2.4 Sport Insert Operation Concepts

A sport insert identifies keys used in the normal course of operation for a specific sport. In most cases, pressing a key immediately changes the scoreboard. Sometimes a sequence of keys must be pressed before a change takes place on the scoreboard. Some keys have been blocked together to emphasize that these keys have similar uses or apply to certain lanes.

Other keys also include a <**+1**>. Pressing one of these keys once increments, or increases, by one the corresponding field on the scoreboard (such as heat). A key with <**-1**> decrements, or decreases, the total of a scoreboard field by one.

2.5 Startup

When the OmniSport 2000 timer is initially powered up, the information shown below appears on the LCDs.



After a few moments, the far right LCD changes from what is shown to what is presented in the table following the LCD rendering.

Right LCD Display	Action
ENTER DATE: DATE: 01/01/00	Enter the date in the standard format (MM/DD/YY). Press <ENTER> when complete. The date entered here displays on every event printed from the OmniSport 2000.
ENTER TIME: TIME: 00:00:01	Enter the current time-of-day (HH:MM:SS). Press <ENTER> when complete. The time is used as a bench mark for the beginning of events. When an event is started, it gains a time stamp. If the start time is edited, the time at which the race started is entered into the OmniSport timer. If the time entered into the system does not correspond with the time on the timer, the system will not be able to accurately time an event. This is also used when synchronizing multiple timers. To synchronize the time-of-day clock, use the external [START INPUT] button when the time shown is correct.

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Right LCD Display	Action
SELECT SPORT 1-SWIMMING	When the self-test completes, the **Select Sport** prompt allows you to select a new sport. To select a new sport: **1.** Use the arrow keys to display the desired sport and press the <ENTER> key.

2.6 Setting Radio Channels

Reference Drawings:

Channel Selection;
Single Control Console, Gen IV ..... **Drawing A-180566**
Channel Selection;
Single Broadcast Group; Gen IV ..... **Drawing A-180922**
Channel Selection;
Multiple Broadcast Group, Gen IV ..... **Drawing A-180923**

The radio receiver units used in the scoreboards have a channel-setting switch that can be set from 1 through 8 (channels 0, and 9-15 are not used). A radio receiver will accept data from a console transmitter with the same channel (and broadcast group) setting. The drawings listed above show how to install the OmniSport 2000 in order to operate one scoreboard or multiple scoreboards at a time.

The receivers also have a jumper that can be used to select broadcast group 1, 2, 3, or 4. A “Broadcast Group” defines a group of radio receivers that in addition to “listening” to the channel selected on the channel switch will also “listen” for data broadcast on their broadcast channel. There are a total of four broadcast groups available.

In this type of system, the receiver unit at the scoreboard must have the channel switch set to a specific channel. The operator must know which channel the board is set on. The operator must then enter the specific channel during console startup when prompted to do so.

Each radio receiver will accept data sent from the broadcast channel of its respective broadcast group. This is selected by setting the transmitter radio (from the console) to the respective broadcast group (either 1, 2, 3, or 4). Every radio receiver will also accept data sent from the “Master Broadcast” channel. This is selected when a transmitter (console) radio is set to Broadcast Group 0 (BCAST 0) and Channel 0. The channel number and broadcast group set on the radio installed in each scoreboard can be verified by cycling power to the scoreboard. Approximately seven seconds after power up, the scoreboard will show the current channel in the scoreboard clock digits.

A CXX will first be shown when XX is the current radio channel number. This will be followed by BXCY when X is the current broadcast group and Y is the current channel number within this broadcast group.

There are three different radio scenarios that can be accommodated.

1. **Single Controller System:**
   In a single controller system, all radio receivers and scoreboards receive signal from the same All Sport® console. The default channel and broadcast group settings on the receiver are not typically modified. An example of this type of system is a typical high school football installation.

2. **Multiple Controller System With a Single Broadcast Group:**
   In a multiple controller system with a single broadcast group, there are additional All Sport controllers for controlling multiple scoreboards. There is never a scenario where groups of scoreboards run by individual controllers need to be run by a single controller. An example of this type of system is a softball complex with multiple fields and a scoreboard and controller on each field.

3. **Multiple Controller with Multiple Broadcast Groups:**
   In a multiple controller with multiple broadcast (split court operation) system, there are additional All Sport controllers that can control multiple scoreboards. The broadcast group jumper is used to select broadcast group 1, 2, 3, or 4. By changing the All Sport settings to a broadcast address, a single All Sport controller can control all scoreboards or specific groups of scoreboards (defined by the broadcast group). One example of this scenario is split court operation in basketball installations, where scoreboards are used to score multiple games at once, but can be grouped together to score one game if necessary. Refer to the drawings listed on the previous page for more information.

The All Sport console will automatically detect when a radio transmitter is installed and will prompt the user for transmitter settings.

The All Sport console will show the current transmitter radio status on the LCD when a code is entered. The table on the following page describes broadcast group and channel settings.

LCD Display	Action
 The LCD will toggle these screens	The LCD shows the current radio settings along with a prompt to accept or modify these values. If the radio settings are correct, press <ENTER> If these values are incorrect, press <CLEAR> If <CLEAR> is pressed to modify the radio settings, the LCD at the left is shown, allowing edit of the channel or broadcast group setting.

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LCD Display	Action
ENTER TO ACCEPT CLEAR TO MODIFY The bottom line shows the current setting BCAST GROUP 1 RADIO CHAN 01 The default setting is Broadcast 1 Channel 1	Edit the broadcast setting. Use the number keys to enter the desired broadcast group and press <ENTER> to accept. The asterisk will move to the channel setting. Use the number keys to edit this value and press <ENTER> to accept. Edit the channel number to the desired value and press <ENTER> to accept.

Broadcast Group	Channel Setting	Control Scoreboards
0	0	All Scoreboards
1	0	All in BCAST Group 1
	1-8	Set to corresponding BCAST 1 Channel
2	0	All in BCAST Group 2
	1-4	Set to Corresponding BCAST 2 Channel
3	0	All in BCAST Group 3
	1-8	Set to corresponding BCAST 3 Channel
4	0	All in BCAST Group 4
	1-4	Set to corresponding BCAST 4 Channel

Single Controller Systems Channel Setting

Typically all single controller systems will use the default setting BCAST = 1, CHAN = 1. All radio receivers must be set with a switch setting of 1 with the Broadcast 1 (BCAST1) jumper set.

If you suspect interference from a nearby Daktronics system, press <CLEAR> at the **RADIO SETTINGS** prompt to change the channel number.

The following table describes broadcast channel and channel settings.

LCD Display	Action
ENTER TO ACCEPT CLEAR TO MODIFY The bottom line shows default settings.	The LCD shows the current radio settings along with a prompt to accept or modify these values. If the radio settings are correct, press <ENTER> If these values are incorrect, press <CLEAR>
RADIO SETTINGS BCAST Y CHAN XX The LCD will toggle these screens.	If <CLEAR> is pressed to modify the radio settings, the LCD at the left is shown, allowing edit of the channel or broadcast group setting. Edit the broadcast setting. Use the number keys to enter the desired broadcast group and press <ENTER> to accept.
BCAST GROUP 1 RADIO CHAN 01	***Broadcast Group Setting*** 1 Use this setting for all single controller systems The asterisk will move to the channel setting. Use the number keys to edit this value and press <ENTER> to accept. Edit the channel number to the desired value and press <ENTER> to accept. ***Channel Setting*** 1-8 Channels that may be used with broadcast channel 1. The channel switch on the receiver must match this value and only the Broadcast 1 (BCAST1) jumper must be installed.

Multiple Controller with Single Broadcast Group Channel Setting

Typically all multiple controller systems will use broadcast 1 and channel 1 for the first controller and channels 2-8 for all remaining controllers. All radio receivers must be set with a switch setting corresponding to the console controlling the scoreboard and a Broadcast 1 (BCAST1) jumper set.

If you suspect interference from a nearby Daktronics system, press <**CLEAR**> at the **RADIO SETTINGS** prompt to change the channel number.

Typically all multiple controller systems will use channel 1 for the first controller. All other controllers will use sequential channel settings (2-8). The table on the following page describes broadcast group and channel settings.

LCD Display	Action
ENTER TO ACCEPT CLEAR TO MODIFY	The LCD shows the current radio settings along with a prompt to accept or modify these values. If the radio settings are correct, press <**ENTER**>.
RADIO SETTINGS BCAST Y CHAN XX The LCD will toggle these screens	If these values are incorrect, press <**CLEAR**> If <**CLEAR**> is pressed to modify the radio settings, the LCD at the left is shown, allowing edit of the channel or broadcast group setting.
BCAST GROUP 1 RADIO CHAN 01 The bottom line shows default settings.	Edit the broadcast setting. Use the number keys to enter the desired broadcast group and press <**ENTER**> to accept. ***Broadcast Group Setting*** 1 Use this setting for all multiple controller with single broadcast group setups. The asterisk will move to the channel setting. Use the number keys to edit this value and press <**ENTER**> to accept. Edit the channel number to the desired value and press <**ENTER**> to accept. ***Channel Setting*** 1-8 Channels that may be used with broadcast channel 1. The channel switch on the receiver must match this value and only the Broadcast 1 (BCAST1) jumper must be installed.

Multiple Controller with Multiple Broadcast Systems Channel Setting

Typically all multiple controller systems will use Broadcast Group 1 Channel 1 for the first controller in Broadcast Group 1 and Broadcast Group 2 Channel 1 for the first controller in Broadcast Group 2. All other consoles in each group are added sequentially, using channels 2-4.

LCD Display	Action
ENTER TO ACCEPT CLEAR TO MODIFY	The LCD shows the current radio settings along with a prompt to accept or modify these values. If the radio settings are correct, press <ENTER>.
RADIO SETTINGS BCAST Y CHAN XX The LCD will toggle these screens	If these values are incorrect, press <CLEAR> If <CLEAR> is pressed to modify the radio settings, the LCD at the left is shown, allowing edit of the channel or broadcast group setting. Edit the broadcast setting. Use the number keys to enter the desired broadcast group and press <ENTER> to accept. The asterisk will move to the channel setting. Use the number keys to edit this value and press <ENTER> to accept. Edit the channel number to the desired value and press <ENTER> to accept.

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LCD Display	Action
BCAST GROUP 1 RADIO CHAN 01 The bottom line shows default settings.	

Broadcast Group	Channel Setting	Control Scoreboards
0	0	All Scoreboards
1	0	All in BCAST Group 1
	1-8	Set to corresponding BCAST 1 Channel
2	0	All in BCAST Group 2
	1-4	Set to Corresponding BCAST 2 Channel
3	0	All in BCAST Group 3
	1-8	Set to corresponding BCAST 3 Channel
4	0	All in BCAST Group 4
	1-4	Set to corresponding BCAST 4 Channel

2.7 Updating Software Versions

Software updates for the OmniSport 2000 timer may be available. Contact Daktronics Customer Service (877-605-1115) for information about the latest software versions.

To update the OmniSport 2000 timer, put the CD from Daktronics into your computer and complete the following instructions:

1. Open the **DakLoader** utility by double clicking the .exe file on the CD drive.
2. Select the **Utilities menu** and then choose **Ports** option. Next, select the port you would like to use to program the OmniSport 2000 timer.
3. Connect a serial cable (W-1267) from the port selected here to the "J4" port on the rear of the OmniSport 2000 timer. This cable should be in the users kit that came with the OmniSport 2000 timer.
4. Select the **File menu** and then choose **Load** option to select the .hex file you would like to program onto the OmniSport. The .hex file will also be on the CD that you received from Daktronics.
5. Select the **Console menu** and then choose **Auto Update** to set the DakLoader to program this hex file to the OmniSport 2000 timer on power up.
6. Turn the power to the OmniSport 2000 off and then back on. The console should automatically begin programming the hex file selected.
7. Follow the directions that appear on your computer screen until the **Upload Complete** dialog appears. Click [OK] and disconnect the serial cable.

Contact Daktronics for other means by which the updates can be received.

2.8 Common Sport Keys

Menu

Pressing <MENU> displays options available within each sport code. The options range from display dimming to printouts to timer settings. Each specific sport section will detail the menu options available within each sport.

Enter

Pressing <ENTER> accepts changed data when editing competition information. The operator enters the new values to display and presses <ENTER> to accept it. Pressing the key will accept the new data and end the edit.

Clear

Pressing <CLEAR> cancels the current menu or edits selection and returns you to the previous operational level. In the menu, that level may be the main menu selections, a sub-menu selection, or the standard operational mode.

Yes/No Keys

These keys accept and decline operational options. They are the same keys as <ENTER> and <CLEAR>.

Number Key Pad

Press these keys to enter specific numerical information into the timer. The data may pertain to a specific lane, an event number, or a particular setting among others.

Arrow Keys

These keys function as the menu navigation buttons. Use these keys to cycle through the menu options.

Section 3: Swimming and Diving Setup/Shutdown

Follow the installation procedures below. Since every pool is unique, a different procedure may work best for different pools. If this is a first time installation, leave plenty of time to complete the job (2-3 hours). Place cables and equipment in places where the least amount of traffic is anticipated.

The OmniSport 2000 is a sensitive system that can be affected by electrical disturbances including EFT (electrical fast transients), ESD (static) and conducted noise on the power and I/O cables. Precautions must be taken during setup to avoid these conditions or erratic operation may occur.

Recommended Tools and Equipment:

- $^{7}/_{16}$" wrench to adjust the touchpad brackets
- Touchpads
- Lane modules and cables for each lane
- OmniSport 2000 timer
- Horn Start 200 (HS-200)

3.1 On-deck System

Reference Drawing:

Lane Module .....**Drawing A-23633**
Typical Swimming Installation (On-deck).....**Drawing A-23635**

The on-deck cabling system begins with the lane module. Each lane module controls one touchpad and up to three button inputs and works in any lane. The lane modules daisy chain together, allowing another module to be plugged into the end to add another lane. Any module can be used in any lane position.

Easy servicing is an additional benefit. If one lane goes bad, the whole harness does not have to be replaced; only that individual lane needs to be replaced. The bad module can simply be removed from that lane and replaced with another Daktronics lane module.

The on-deck system uses lane modules to interconnect the touchpads and backup buttons to the timing consoles. Each lane module is identical and can be used for any lane. The lane module has five connection jacks: one touchpad, three backup push buttons and one next lane.

Common Concerns:

- Do not connect touchpads to the lane module backwards. Make sure the ground tab of the touchpad connector matches with the black jack on the lane module.

Note: If some touchpads are connected backwards and some connected correctly, it will cause touchpads to register times when the pad has not been touched.

- Watch for poor connections between plugs and jacks of the lane module. Use the silicon lubricant found in the maintenance kit to protect the jacks and plugs. This will ensure a good connection and make it easier to connect/disconnect the jacks and plugs

Lane Modules

Refer to **Drawing A-23633**. The lane module is the on-deck interconnecting harness that links all the touchpads and backup buttons in the pool to the OmniSport 2000 timer. The lane module has five connection jacks: one touchpad connection, three backup hand-held button connections and one next lane connection.

Touchpad Connections. The lane module jack that connects to the touchpad is marked "TOUCHPAD." The red jack is for the *positive* input of the touchpad and the black jack is for the *ground* connection. The touchpad ground connection is electrically connected to the backside of the touchpad and is identified by the tab marked "GND" on the touchpad connector.

Backup Push-button Connections. The push-button connection jacks (marked "BUTTON 1", "BUTTON 2" and "BUTTON 3") are present on the module to accept input from backup buttons. These are held by up to three timing judges per lane. The red and black jacks represent the positive and ground connections for each push-button. The tab marked "GND" on the push-button connector identifies the push-button ground connection.

Next Lane Connections. Modules for each lane are connected together through the jacks marked "NEXT LANE." The four-pin plug on the end of the ten-foot cable on each module connects to the previous module, a deck extension or directly to J10/J11 on the OmniSport 2000 timer.

On-Deck Setup (refer to Drawing A-23635)

1. **Install the touchpads in the pool.** With one person on each end of the touchpad, carefully lower the touchpad into the pool. Center the touchpad in the lane. Adjust the supplied adjustable bracket to hug the pool gutter securely. If the pool does not have a gutter, secure the touchpad by running a cord through the holes on top of the touchpad and tying it to the starting block.
2. **Lay out the lane modules on the pool deck.** Place a lane module behind each lane on the pool deck extending the cable toward the next lane. Make sure that the plug on the end of the cable that comes from the module points toward the OmniSport timer.
3. **Connect the touchpads to the lane modules.** Attach the cable from the touchpad to the jack on the lane module marked "TOUCHPAD." Match the Ground plug (marked with a tab) from the touchpad to the black connection on the lane module.

4. **Connect the backup buttons to the lane modules.** Attach each backup button to the jacks marked “BUTTON 1," “BUTTON 2," and “BUTTON 3." Match the ground plug from each backup button to the black connection on the lane module. If only one backup button is to be used, connect it to the jack marked “BUTTON 1."
5. **Link the lane modules.** Link all the lane modules together by attaching the cable from the lane module to the jack marked “TO NEXT LANE” on the lane module in the next lane. The lane cable will fit only one way. Position the lane modules so that they are out of the way of the swimmers and are not directly submerged in water.
   Note: Do not connect the far end lane module harness into the near end lane module harness. Each harness system should connect to the OmniSport separately.
6. **Connect the deck extension cables.** Connect the first lane module plug to the 25' extension cable. The 25' extension cable then plugs into “J10”, “NEAR LANE” jack, on the OmniSport. If far end touchpads are being used, connect the first lane module to the 175' extension cable. Next, plug the extension cable into “J11 FAR LANE” jack, on the OmniSport.
7. **Connect the start input.** Connect the cable from the starting device to the jack on the OmniSport marked “J12 START INPUT.”
   Note: Make sure the ground tab is connected to the black input.
8. **Connect the scoreboard.** Connect the cable from the LED scoreboard to “J2/J3” (current loop scoreboard). Refer to the proper scoreboard user’s manual for more information about installation and use of the particular scoreboard.
9. **Connect the power.** Connect each of the components to their power source.

3.2 In-deck System

Reference Drawing:

Typical Swimming Installation (In-deck) .....**Drawing A-26797**

The in-deck cabling system is designed to eliminate most cables from the pool deck. It is essential to include all the appropriate conduits and drainage, depending on your facility’s layout.

The in-deck system uses cabling imbedded in the deck, deck plates, and a lane interface to interconnect the touchpads and backup buttons with the timing console. The deck plate has five connection jacks: one touchpad, three backup push buttons, and one lane horn.

Common Concerns:

- Do not connect the touchpads to the deck plate backwards. Make sure the ground tab of the touchpad connector matches the black jack on the deck plate.

Note: If some touchpads are connected backwards and some connected correctly, it will cause touchpads to register times when the pad has not been touched.

- Watch for poor connections between plugs and jacks on the deck plate. Use the silicone lubricant found in the maintenance kit to protect the jacks and plugs. This will ensure a good connection and make it easier to connect/disconnect the jacks and plugs.

In-Deck Setup (refer to Drawing A-26797).

1. **Install the touchpads in the pool.** With one person on each end of the touchpad, carefully lower the touchpad into the pool. Center the touchpad in the lane. Secure the supplied adjustable bracket to the pool gutter. If the pool does not have a gutter, secure the touchpad by running a cord through the holes on top of the touchpad and tying it to the starting block.
2. **Connect the touchpads to the deck plates.** Attach the cable from the touchpad to the jack on the deck plate marked “TOUCHPAD.” Connect the ground plug (marked with a tab) from the touchpad to the black connection.
3. **Connect the backup buttons to the deck plates.** Attach each backup button to the jacks marked “BUTTON 1," “BUTTON 2," and “BUTTON 3." Match the ground plug from each backup button to the black connection on the deck plate. If only one backup button is to be used, connect it to the jack marked “BUTTON 1."
4. **Connect 20' OmniSport to the lane interface cable.** Connect the “OmniSport to Lane Interface” cable to the jack marked “NEAR” for near end or “FAR” for far end on the OmniSport timer. Connect the plug at the other end of the cable to the jack on the lane interface wall plate.
5. **Connect the start input.** Connect the cable from the starting device to the jack on the OmniSport marked “J12 START INPUT.”
   Note: Make sure the ground tab is connected to the black input.
6. **Connect the scoreboard.** Connect the cable from your LED scoreboard to J2/J3 (current loop scoreboard). Refer to the proper scoreboard user’s manual for more information about installation and use of the particular scoreboard.
7. **Connect the power.** Connect each of the components to their power source.

3.3 Horn Start 200 System

Reference Drawings:

Typical Swimming Installation (On-Deck).....**Drawing A-23635**
Typical Swimming Installation (In-Deck).....**Drawing A-26797**

Refer to **Drawings A-23635** and **A-26797** for information on typical placement of system components.

If using individual lane speakers, connect them underneath the starting platforms (individual lane speakers can also be placed on the wall behind the swimmers). Then, route cabling from the HS-200 to the lane speakers. Carefully secure all cabling from the HS-200 system to the lane speakers.

Make sure all cabling on the deck is secured to prevent injury. Connect the cable into the speaker jacks marked “LANE SPEAKER” on the HS-200 jack panel.

If an auxiliary speaker is being used, place the speaker where desired and route cable from the HS-200 system to the speaker. Connect the cable into the speaker jack marked “AUX SPEAKER” on the HS-200 unit.

Connect the timer output cord to the swim timer. If the swim timer is a Daktronics timer, connect the cord to the timer start jacks marked “DAKTRONICS”. If another type of timer is being used, connect the timer cord to the timer start jacks marked “N/C” for an Omega® Timing system or “N/O” for a Colorado Timing system®.

Connect the microphone into the jack marked “MIC” on the HS-200 system.

Refer to the Horn Start Operator's Manual (ED-12935) for more information on the Horn Start 200 system.

3.4 OmniSport 2000 Pro Software

The OmniSport 2000 Pro software allows official timers to run events from a desktop or laptop computer. The OmniSport 2000 Timer connects to the computer and all operations of the timer can be handled through the computer. Refer to **Section 5** for more information on the OmniSport 2000 Pro Swimming software. To set up this integrated system, follow the step below:

1. Set up the touchpads, lane modules, Horn Start 200 console or other start input system, and OmniSport 2000 timer according to the sights standards (on-deck or in-deck).
2. Install the software onto a computer located near the pool system. Refer to **Section 5.1** for more details on this step.
3. Connect the male end of a serial cable to the Expansion Port (J4) on the back of the OmniSport 2000 timer.

4. Connect the other end of the serial cable to COM port 1 of the OmniSport 2000 Pro computer.
5. Apply power to the timer and then start the software on the computer. After the software is registered, the OmniSport 2000 Pro system should recognize the OmniSport 2000 timer and prompt a synchronization of the configuration settings. Select which settings to use and begin operations.
6. If no COM port is available, the USB Port can be used with the addition of an USB-Serial/RS-232C adapter. The serial cable plugs into the computer.

Note: If COM port 1 is not available, connect the cable to an available port and note which port number it is. To change the configured port within the software, select **Configure** under the **Options** menu. Select the **Comm Ports** tab, and then click [**CONFIGURE**]. Select the COM port number to which the serial cable is connected. Restart the OmniSport 2000 Pro software and it will recognize the timer.

3.5 Shutdown Procedure

By performing the following shutdown procedure, you will help ensure the longevity of your timing equipment.

1. Turn power off to all equipment including the OmniSport 2000, HS-200, results computer, OmniSport 2000 Pro computer, matrix computer, scoreboard, printers and any other equipment associated with the system.
2. Remove the touchpads from the pool and place them onto their storage cart.
3. Completely dry all equipment and place it into their carrying cases (if supplied) or appropriate tote for storage.
4. Dry and clean all portable cabling and place them into an appropriate storage tote.
5. After cleaning and drying all in–deck cabling connections, coat them with a small amount of silicone grease (Daktronics Part# LU–1002).
6. Remove all equipment (for example, touchpads, controllers, Horn start, cabling, etc.) not permanently installed to a cool, dry storage space away from the pool environment and chemicals.

Section 4: Timing Console Swimming Operations

Sport Insert LL-2549

Reference Drawings:

Insert; LL-2549 Swimming Omni 2000 .....**Drawing A-163808**

The sport insert drawing is located in **Appendix B**. If an insert is lost or damaged, a copy of the insert drawing can be used until a replacement can be ordered.

Refer to **Section 2** for information on starting the timer and for instructions on using the sport insert.

4.1 General Features

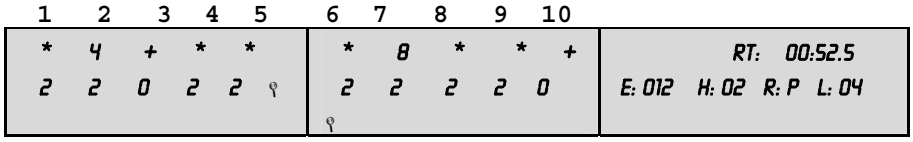
The swimming mode of the OmniSport 2000 timer will perform fully automatic timing for up to ten lanes with two touchpads per lane (one touchpad at each end of pool for near and far end splits), relay take off platforms, and one, two or three backup buttons per lane. Races of up to 66 splits can be accommodated with all split times and final times logged on the printer as they occur. All near and far split times, final times and backup times are also recorded in memory and are available for additional printouts as needed.

The OmniSport 2000 timer can be set up to record split times from both ends of the pool. Near-end cabling is connected to the near end connector on the back of the timer. Far-end cabling is connected to the far end connector on back of the timer. (Refer to **Section 3**).

The OmniSport 2000 timer can store approximately 50 races depending on the number of lanes in the pool and the length of the races. The OmniSport 2000 timer will automatically clear the oldest events. This insures that old races will not be confused with new ones by the operator.

The always-ready-start feature is another operator aid that allows correct times to be recorded in the event of certain operator errors or equipment problems. These features are described fully in **Section 4.5**.

The trio of LCDs on the OmniSport 2000 keeps the operator informed during all operations. Note the following layout of the LCDs shown in the swimming mode.



The lane status and current length are shown on the two, left LCDs, and other race information is shown on the right LCD. During a race, the top line of the right-most LCD shows the race time (RT). The bottom line displays the event number (E), the heat (H), the current round (R), and the total number of lengths to be completed (L). The current round shows whether the race is a standard timed event (blank), a preliminary (P), a semifinal (S), or a final (F). The current round (R) only appears when the selected event is found in the programmed event order. The round disappears if an event is selected that is not programmed.

4.2 Automatic Operation

The normal display of timing information on a single-line or multi-line scoreboard is completely automatic and does not require any operator input. The following information is for normal (automatic) operation. Also included are some special actions that can be done with operator input.

Single-Line Scoreboards

Timer Reset
The scoreboard shows last race data.

Start of Race
The scoreboard shows running time.

Split Times
The first place split time is held on the scoreboard for fifteen seconds (default), after which the running time will return. The Split Time Hold Time can be configured in the **Setup-Numeric Scoreboard** menu**.**

Final Time
The first place final time is held on the scoreboard for at least five seconds (default). The page time (time for the scoreboard to page) can be configured in the **Setup-Numeric Scoreboard** menu. All of the subsequent final times are then automatically sequenced on the scoreboard as they finish. When all of the active lanes have completed the race, the system displays all of the final times in sequence from first place to last place and repeats the sequence until the next race is started.

Multi-line Scoreboards

Timer Reset
The scoreboard shows last race data.

Start of Race
The scoreboard shows the running time on line one of the scoreboard and blanks the remaining lines.

Split Times
Split times are shown in lane order (default) for each lane on the corresponding scoreboard line. Lane or place order can be selected in the **Setup-Numeric Scoreboard** menu (refer to **Section 4.9**). Split times are held for fifteen seconds (default). The split time hold time can be configured in the **Setup-Numeric Scoreboard** menu (refer to **Section 4.9**).

Final Time
Final times are displayed on the scoreboard until the next race begins.

4.3 Event/Heat, Home/Guest, Record Times and Lengths

The Event and Heat Number, Home and Guest Scores, Record Time, and Lengths can be displayed on the appropriate scoreboard module if it is included in the system.

When the Event/Heat module is present, the event and heat numbers will automatically be displayed whenever they are changed with the <EVENT/HEAT> key.

When the Home/Guest or Guest/Guest modules are present, the home, guest 1, guest 2 and guest 3 scores will automatically be displayed after being entered in the **Edit-Team Score** menu (refer to **Section 4.8**).

When the Record Time or Lengths/Record Time module is present, record data for the corresponding event will be displayed at the start of the race. One record can be pre-entered for each event in the **Edit-Event Order** menu (Refer to **Section 4.8**).

When the Lengths/Record Time module is present, the lengths displayed are the number of lengths completed by the first place swimmer.

4.4 Before-Each-Race Operations

Reset
The timer is automatically reset when first turned on. The timer may be reset any time the race clock is running by pressing <RESET><ENTER>.

Next Event
This function sets up the timer for the next programmed event.

Heat +1
This function advances to the next heat.

Event/Heat
Pressing <EVENT/HEAT> can enter a particular event and heat number.

Printer Setup
Before the start of the first race, the printer should be set up to print the desired information. Refer to **Section 4.8** to configure the printer.

4.5 Start-of-Race Operations

Start Operations
The timer will start any time a start impulse is received or the timer is reset (clock shows 00:00.00). As a backup operation or for testing, the <START> key may also be used to start the timer. The printer will note if the start is “External” or “Keyboard.”

Always-Ready-Start
The always-ready-start feature is based on the fact that the OmniSport 2000 timer has an internal time-of-day clock that continually runs when the timer is turned on. The internal clock continues to run even when the race clock has been stopped.

If a start was missed because the timer was not reset (race clock was still running from the previous race), the start impulse is logged in the memory and on the printer. To prompt the operator that a start has occurred, reset the timer. If the operator chooses to use the received start signal, the timer will automatically start timing the event by calculating the correct running time. The <EDIT> key can also be used to retrieve the start impulse used for the last race.

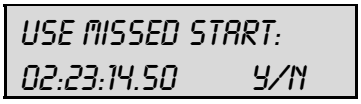
If two independent OmniSport 2000 timers are being used in parallel for an especially critical application and one timer misses a start impulse completely because of a technical problem, a start time may be manually entered when read from the printout of the other timer.

Example:
Editing a Start - If a start is missed because the timer was not reset before the start:

- The Time-of-Day of the start impulse will be logged on the printer.
- The OmniSport will inform the operator of the start after the timer is reset.

Procedure:

1. Reset the timer.
   a. Press <RESET>, then <ENTER>.
   b. The following message displays on the screen at this time:



   c. Accept the missed start by pressing <ENTER> and the timer will start from the missed start time. If the missed start is to be ignored, simply press the <CLEAR> key and the timer will be reset only.

2. If the start time you needed was *not* on the LCD, use the **Edit-Start** menu.
   a. With the timer reset, press <EDIT>- this reveals the **Edit-Start** menu and puts the time-of-day of the last start impulse on the LCD.
   b. Confirm that the time-of-day shown on the LCD is the correct time for the start of the race. The start time may be edited using the number keys.
   c. Press <ENTER>- this completes the editing operation. The race clock will start and the running time will be correct based on the entered start time.

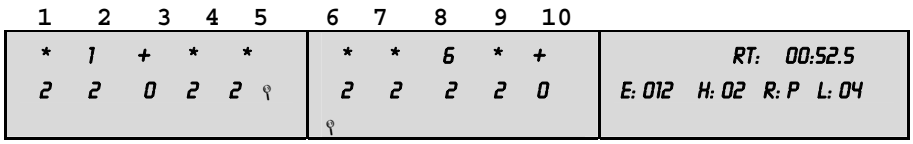
4.6 During-the-Race Operations

Watch Lane Status and Lengths Completed

The operator should now watch the lane status indicators on the two left LCD displays to confirm that all touches are recorded by the touchpads. With touchpads on the near-end only, the lane status is shown on the top line of the LCDs. The following symbols are used to show the lane status.

(Blank)	Lane is off
-	Lane is turned on but unarmed
NN	Arming delay (NN represents a number from 1-99 that is counting down to 0)
+	Lane armed for a split time
*	Lane armed for a final time
O	Lane has finished the race
?	No lane module present or fault

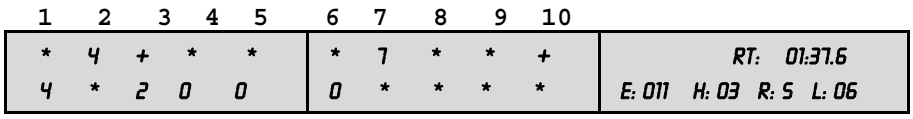
An example of the LCD on a typical near-end only configuration is shown below.



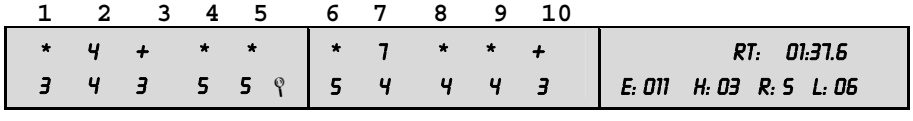
Near End only configuration

The number of lengths completed for each lane can be seen on the second line of the LCD at any time during the race. The lengths completed line is marked by the symbol. This feature is most useful during a long race when the lead swimmer may have "lapped" some slower swimmers and can be useful to determine if a swimmer may have missed a touch (requiring subsequent use of <**SPLIT ARM**>, <**FINISH ARM**>, <**+ TOUCH**> or <**- TOUCH**>.

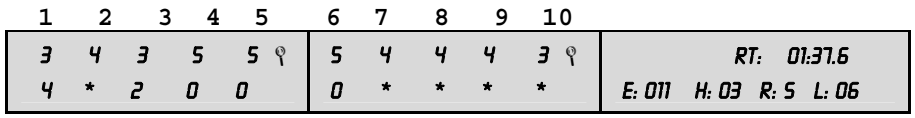
At times, both ends of the pool will have touchpads. In this configuration, the LCDs show both ends lane status. Press any arrow key to cycle through the three lane status views shown below. In these other view modes, the near end status is on the top line of the LCD with the lengths completed status on the bottom, or the far end status is on the bottom with lengths completed on the top.



Near End and Far End Touchpad Status



Near End Touchpad Status and Lengths Completed



Lengths Completed and Far End Touchpad Status

Lane On/Off

Use these keys to disable the empty lanes after the start of a race. Another use for these keys is to prevent extra touches when the arming delay is expected to expire before a relay swimmer gets out of the pool. Press <**LANE ON/OFF**> in the appropriate lane while the arming delay is still counting. Press < **LANE ON/OFF** > again to enable the lane after the athlete has exited the pool. The lane status indicator will be blank when the lane is off.

Finish Arm

Use <**FINISH ARM**> when a lane is on the finish length and the lane status is not set to finish arm. Pressing <**FINISH ARM**> will automatically set that lane status to finish and adjust the length count accordingly. It is critical that a lanes status is armed correctly for the finish of the race to correctly compare the touchpad and push buttons, set the correct place, and display the results on the scoreboard correctly.

Split Arm

Use <**SPLIT ARM**> when an extra touch has been received and the arming delay is counting down. When <**SPLIT ARM**> is pressed, the lane status is armed and the length count is automatically decremented by one. If the lane is already armed, the key press is ignored.

The key would typically be used during a relay event when the previous swimmer delays exiting the pool and triggers the touchpad causing that lane to have an extra touch and the arming delay to start counting.

Manual Touch Commands

The <**+ TOUCH**> and <**- TOUCH**> keys may be used at any time during a race to adjust the length count for an individual lane from the timer keyboard. This would normally be done to keep the timer's internal length count correct if a split time was missed. The <**+ TOUCH** > key and the <**- TOUCH**> key work in combination with the <**LANE ON/OFF**> keys or the numeric keypad to determine which lane to adjust.

< **+TOUCH** >

LCD Display	Action
+ TOUCH LANE NUMBER: NN	Press <**+ TOUCH** >< **LANE ON/OFF** > (for the appropriate lane or lanes) or enter the lane number using the numeric keypad followed by <**ENTER**>. Press <**CLEAR**> to cancel the action midway through.

< **-TOUCH** >

LCD Display	Action
- TOUCH LANE NUMBER: NN	Press <**- TOUCH** >< **LANE ON/OFF** > (for the appropriate lane or lanes) or enter the lane number using the numeric keypad followed by <**ENTER**>**.** Press <**CLEAR**> to cancel the action midway through.

Note: Manual times are marked with a +/- on printouts to distinguish them from normal touchpad times.

4.7 After-the-Race Operations

Store/Print

The <**STORE/PRINT**> stores the race data for later use and prints the results for verification. When pressed, the event data is stored up to its current status. It then performs the printer commands setup in the **Setup-Printer** menu. To print information from a previous race, go to the **Print Stored Data** menu. Refer to **Section 4.8** for further instructions on how to scroll through the various screen options.

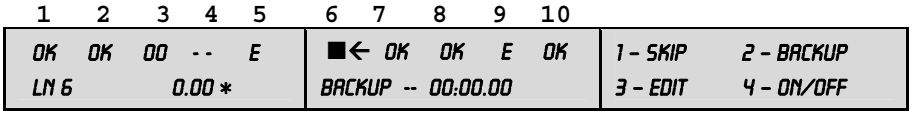
If an error is observed on the printout, use the <EDIT> key (refer to the next subsection). Press <STORE/PRINT> to verify the correction. After all corrections have been completed, press <RESET><ENTER>. The timer is now ready to begin the next event.

The OmniSport 2000 printer uses the following symbols on its printouts to label data.

Symbol	Definition
+	Plus touch
-	Minus touch
B(1-3)	Buttons 1 through 3
R	Relay take-off platform trigger
*	Discrepancy between touchpad and backup
B or BK	Backup time
E	Edited time
M	Manual time
F	Early Relay exchange
R(1-3)	Relay exchange 1 through 3

Edit

When the running time is counting, the <EDIT> key allows corrections to be made to times in the current race memory. The <EDIT> key can be used to insert a backup or stopwatch time when there was a problem with a touchpad. Edited times are marked with an "E" (if manually entered) or "B" (if backup time) on the LCD and printouts to distinguish them from touchpad times.



The top line of the left and center LCD displays the current lane status. An arrow by the lane also indicates which lane is currently selected for editing. The table below defines what each symbol means.

Symbol	Definition
■	There is an error in the lane and the data needs to be edited.
DQ	Indicates the person in the lane has been disqualified.
E	Indicates an edited time.
- -	Lane has been turned off.
OK	All data is correct

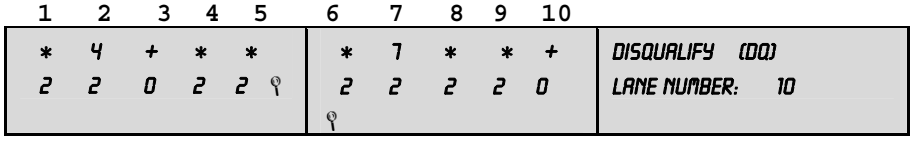
The bottom line of the left LCD shows the lane and time, and the center LCD shows the backup times. The right LCD shows the options available for editing the lane times. Press <**1**> to skip to the next lane, press <**2**> to use the backup time, press <**3**> to edit the lanes time, and press <**4**> to turn the lane ON or OFF.

DQ (Disqualification)

The DQ (disqualification) flag can be used to disqualify a lane with subsequent re-ranking on printouts and on the scoreboard.

Typical operation: Press <**DQ**> and <**LANE ON/OFF**> key for the desired lane or enter the lane number on the number keypad and press <**ENTER**>. Doing this sets the DQ flag for that lane.

The DQ operation should normally be done at the conclusion of the race, after the officials have ruled on the situation that caused the swimmer to be disqualified. On exit from the DQ command, the scoreboard is automatically updated and any subsequent printouts will show the revised placing. The DQ operation can be done at any point in the race and *does not* affect arming or recording of times for the lane. By pressing the same lane number again while in the DQ command, the lane is "re-qualified" and the original status indicator is returned.



4.8 Menu Key

There are two methods of navigating through the menus in the OmniSport 2000 timer.

The first method allows the operator to step through each of the menu levels. To use this method press the <**MENU**> key and then use the <↑>, <↓>, <←>, and <→> keys to scroll through the menu's. Press <**ENTER**> to select the menu displayed on the LCD.

The second method is to go directly to a menu. Press the <**MENU**> key followed by the one- to four-digit number from the list below and the LCD will prompt you for the desired setting or action in that menu. Example **425** will prompt you to enter a new Arming Delay.

After you are done navigating through the menus, press the <**MENU**> key to return to the race in progress.

1) SCOREBOARD MENU functions.

1-1) SCBD ON/OFF clears the display; yes or no.

1-2) DIMMING sets the brightness level of the display.

1-3) TIME-OF-DAY displays the Time-of-Day; yes or no.

2) EDIT MENU functions.

2-1) TEAM SCORE team score edit menu.

2-2) EVENT ORDER event order menu.

2-2-1) EDIT ORDER edits event order.

2-2-2) INSERT EVENT inserts an event into the order.

2-2-3) DELETE EVENT deletes an event

2-2-4) CLEAR ORDER clears event order.

3) PRINT MENU functions.

3-1) RACE RESULTS prints the results of a specific race or a complete meet.

3-2) EVENT ORDER prints out the selected event orders.

3-3) SETTINGS prints out all configurations entered in the *Setup Menu.*

4) SETUP MENU functions.

4-1) POOL is for configuring the pool settings.

4-1-1) # OF LANES sets the number of lanes.

4-1-2) LANE ORDER selects the lane order.

4-1-3) LENGTH sets the pool length.

4-1-4) LANE LABEL selects lane labeling.

4-2) TIMER is used to configure the timer settings.

4-2-1) START IN selects the type of start input.

4-2-2) LM INPUT selects near and far end of pool.

4-2-3) PRIMARY TIME selects which input is the primary time: touchpads or buttons.

4-2-4) FLAG TIME selects the time period for flagging lane times.

4-2-5) ARMING TIME selects the time for arming touchpads after a touch.

4-2-6) PRECISION selects the timer precision.

4-2-7) RELAY TAKE-OFF sets timer to allow for relay results.

4-3) SCOREBOARD is used to set the scoreboard configurations.

4-3-1) NUMERIC selects the type of start input.

4-3-1-1) # OF LINES sets the number of lines on the display.

4-3-1-2) SPLT HOLD TIME sets the hold time for display of splits.

4-3-1-3) FIN PAGE TIME sets the hold time for finish page.

4-3-1-4) RESULTS ORDER selects for lane or place order.

4-3-1-5) SUBTRACTIVE SPLITS selects whether or not to page subtractive splits.

4-3-2) RTD/MATRIX selects near and far end of pool.

4-3-2-1) # OF LINES sets the number of lines on the display.

4-3-2-2) SPLT HOLD TIME sets the hold time for display of splits.

4-3-2-3) FIN PAGE TIME sets the hold time for finish page.

4-3-2-4) RESULTS ORDER selects for lane or place order.

4-3-2-5) SUBTRACTIVE SPLITS selects whether or not to page subtractive splits.

4-4) COMM PORTS allows selection of communication ports.

4-4-1) SCBD OUTPUT selects scoreboard #1 type.

4-4-2) RTD PORT selects scoreboard #2 type.

4-4-3) RESULTS PORT selects results output.

4-5) PRINTER is used to configure the printouts and printer.

4-5-1) RACE LOG selects if race log is on.

4-5-2) PRINT ORDER selects lane or place order.

4-5-3) BACKUPS selects whether backup times are printed or not.

4-5-3) SPLITS selects if split times are printed.

4-5-4) INTENSITY selects printer intensity.

4-6) TIME-OF-DAY allows the setting of the time and day.

5) TESTING MENU functions.

5-1) BATTERY allows testing of the battery.

5-2) LANE MODULES allows the testing of lane modules.

5-3) SCOREBOARD allows testing of scoreboard.

Scoreboard Menu

Selecting the **SCBD MENU** will offer you the following menus:

Scbd On/Off

MENU- SCOREBOARD 1-SCBD ON/OFF	Scoreboard On/Off toggles the scoreboard between blank and displaying the current race data. If the scoreboard is blank, it will remain blank until the start of the next race or until <RESET> is pressed to re-display the data of the last race.
SCBD IS ON SET OFF? Y/N	The LCD will show this message and will ask for a Yes or No response. Press <YES> to clear the scoreboard. Press <NO> to keep the scoreboard data lit and return to SCBD On/Off Menu.

Dimming

LCD Display	Action
MENU- SCOREBOARD 2-DIMMING	Dimming adjusts the dimming level of the scoreboard. The dimming level only applies to scoreboards configured to receive multi-drop protocol.
SCBD DIMMING LEVEL 0-3: NONE	The dimming level is set from 0 to 3 and the levels are: 0 = none 1 = 2/3 2 = 1/2 3 = 1/3 Enter the appropriate dimming level and press <ENTER> to accept the change. Press <CLEAR> to decline the action and return to the Dimming Menu.

Time-of-Day

LCD Display	Action
MENU- SCOREBOARD 3-TIME OF DAY	Time-of-Day blanks the scoreboard and displays the time-of-day on the scoreboard. The scoreboard will show the time-of-day until the start of the next race or until <RESET> is pressed to re-display the data of the last race.
MENU- SCOREBOARD DISPLAY TOD?	Press <YES> to show Time-of-Day on the scoreboard. Press <NO> to decline the action and return to the Scoreboard menu.

Edit Menu

MENU-MAIN
2-EDIT MENU

Selecting the **EDIT MENU** will offer you the following submenus.

Team Score

LCD Display	Action
MENU-EDIT 1-TEAM SCORE	Team Score edits the current team scores for home and three guest team scores. The OmniSport 2000 timer can maintain up to four team scores.
H 000 * G1 000 G2 000 G3 000	Use the <**0**>-<**9**> keys to enter the correct score. Press <ENTER> to accept the change and move to the next score. Edit each other score in the same manner pressing <ENTER> to move on to the next team. When the cursor is flashing, the team that is marked by it is ready to be edited. After the last team score has been edited, the display will move onto the next menu item. Press <CLEAR> to return to the Edit menu.

Event Order

LCD Display	Action
MENU-EDIT 2-EVENT ORDER	Event Order contains additional submenus that allow the operator to edit the event order, insert an event, delete an event, or clear the event order.

Edit Order

LCD Display	Action
MENU-EVENT ORDER 1-EDIT ORDER	The OmniSport 2000 timer can hold up to 500 events. Because some events may carry the same number but have an alpha character (example: event 001 and 001A), event locations have been numbered from 1 to 500. Use the <↑> <↓> keys to move the cursor to select the event location number. Press <ENTER> when the location number to be edited is shown. Press <CLEAR> to return to the menu selection.
EDIT EVENT ORDER #001* E: 001 R: F	
#001 = EVT: 001* RND = FINAL	Use the <**0**>-<**9**> keys to change the event number. Press the <←> or <→> to set the events alpha designator and press <ENTER>.
#001 = EVT: 001 RND = FINAL*	Press the <←> or <→> to change the round type (final, semi-final, prelim, blank) and press <ENTER>.
#001 = EVT: 001 DISTANCE = ▪100*	Enter a distance for the event number and press <ENTER>. Entering a 0 will insert a diving event. Instead of asking for a record time, it will show the dive order (A, B, C, or D) set for that event.
#001 = EVT: 001 REC: ▪1:35.27*	Enter a new record time and press <ENTER>. Pressing <CLEAR> returns to the Event Order menu.

Insert Event

LCD Display	Action
MENU-EVENT ORDER 2-INSERT EVENT	Insert Event is used to insert an event into the event order.
INSERT BEFORE #008* E: 004B R: F	Use the <↑> <↓> keys to move the cursor to select the event location number where the new event will be inserted. Press <ENTER> when the location number is shown. Press <CLEAR> to return to the menu selection.
#008 = EVT: 004A* RND = FINAL	Use the <**0**>-<**9**> keys to change the event number. Press the <←> or <→> to change the events alpha designator and press <ENTER>.
#001 = EVT: 001 RND = FINAL*	Press the <←> or <→> to change the round type (FINAL, SEMI-FINAL, PRELIM, BLANK) and press <ENTER>.
#001 = EVT: 001 DISTANCE = ▪100*	Enter a new distance for this event # and press <ENTER>. Entering a 0 will insert a diving event. Instead of asking for a record time, it will ask for what type of Dive Event (Blank, 1 METER, 3 METER, PLATFORM). Use <←> or <→> to change the selection.
#001 = EVT: 001 REC: ▪1:35.27*	Enter a new record time and press <ENTER>. Pressing <CLEAR> returns to the Insert Event Menu.

Delete Event

LCD Display	Action
MENU-EVENT ORDER 3-DELETE EVENT	Delete Event is used to delete an event from the event order list.
DELETE INDEX #010* E: 006A R: 5	Use the <↑> <↓> keys to move the cursor to select the event location number to be deleted. Press <ENTER> to delete the location number shown. Press <CLEAR> to return to the Event Order menu.

Clear Order

LCD Display	Action
MENU-EVENT ORDER 4-CLEAR ORDER	Clear Order is used to clear the entire event order list.
MENU – EVENT ORDER CLEAR ORDER? Y/N	Press <YES> to clear the entire event log or press <NO> to go back to the Event Order menu.

Print Menu

MENU - MAIN
3-PRINT MENU

Selecting the **PRINT MENU** will offer you the following submenus.

Race Results

LCD Display	Action
MENU - PRINT 1-RACE RESULTS	Race Results allows the results of a previous race to be printed.
PRINT RESULTS RACE NUMBER 001*	Enter the number of a race to be printed and press <ENTER>. Press <CLEAR> to return to the Print menu.

Event Order

LCD Display	Action
MENU - PRINT 2-EVENT ORDER	Event Order allows the event order to be printed.
MENU - PRINT PRINT ORDER? Y/N	Press <ENTER> to allow the event order to print. Press <CLEAR> to return to the Print menu.

Settings

LCD Display	Action
MENU - PRINT 3-SETTINGS	The Settings menu allows the current configured settings to be printed.
MENU - PRINT PRINT SETTINGS?	Press <ENTER> to allow the settings to print. Press <CLEAR> to return to the Print Menu.

Setup Menu

MENU-MAIN
4-SETUP MENU

Selecting the **SETUP MENU** will offer you the following submenus.

Pool

MENU-SETUP
1-POOL

Selecting the **POOL MENU** will offer you the following submenus.

Number of Lanes

LCD Display	Action
MENU - POOL 1-# OF LANES	The Number of Lanes setup is used to configure the number of lanes that will be connected to the timer. Select the number (1-10) of lanes in the pool (Default=6), followed by the <ENTER> key. Press <CLEAR> to exit to the Pool menu.
MENU - POOL # OF LANES: NN*	

Order of Lanes

LCD Display	Action
MENU - POOL 2-LANE ORDER	When using lane modules, the timer may be set to accept lane inputs in the "Normal" order (timer is closest to lane 1) or the "Reverse" order (timer is closest to last lane). Use the <←> <→> keys to select "NRM" or "REV" (Default=Normal) and press the <ENTER> key. Press <CLEAR> to exit to the Pool menu.
MENU - POOL LANE ORDER: NRM*	

Length of Pool

LCD Display	Action
MENU - POOL 3-LENGTH	The length setup is used to calculate the number of lengths by dividing the distance of the event by the length of the pool. Use the <←> <→> keys to select one of the pool lengths of 25Y, 25M, or 50M. When correct, press the <ENTER> key. Press <CLEAR> to exit the Pool menu.
MENU - POOL LENGTH: 25M*	

Lane Label

LCD Display	Action
MENU - POOL 4-LANE LABEL	This configuration is set to 0-9 when lanes are numbered 0-9 for prelims and then the center lanes 1-8 for finals. Use the <←> <→> keys to select one of the lane labels: 1-10 or 0-9. Press the <ENTER> key. Press <CLEAR> to exit to the Pool menu.
MENU - POOL LANE LABEL: 1-10*	

Timer

MENU - SETUP
2-TIMER

The SETUP MENU will offer the following submenus.

Start In

LCD Display	Action
MENU - TIMER 1 -START IN	The Start Input can be configured to receive normally open or normally closed start signals. Select "N.O." for normally open type start inputs. Select "N.C." for normally closed-type start inputs (default=N.O.). Use the arrow keys to select desired input. Press <ENTER> to accept and continue. Press <CLEAR> to exit the pool menu.
MENU - TIMER START IN: N.O. *	

Note: Normally Open (N.O.) is the standard setting for Daktronics timing accessories with the OmniSport 2000 timer.

Lane Module (LM) Inputs

LCD Display	Action
MENU - TIMER 2 – LM INPUT	Lane Module Inputs are used to configure the timer for touchpads and push buttons at the near end only, or both near and far ends of the pool.
MENU - TIMER LM INPUT: NEAR*	Select “NEAR” if touchpads are located at only one end of the pool. Select “BOTH” if touchpads are located at both ends of the pool (Default=Near). Use the <←> <→> keys to select desired input. Press <ENTER> to accept and continue. Press <CLEAR> to exit to theTimer menu.

Note: Races configured to one length can be finished on either end of the pool provided both near and far end touchpads are used. Multiple length races must finish at the near end of the pool.

Primary Time

LCD Display	Action
MENU – TIMER 3 – PRIMARY TIME	Primary Time is used to tell the timer to use the touchpad, button 1, or buttons 1-3 for split and finish times.
MENU – TIMER INPUT=TOUCHPAD*	Use the <←> <→> keys to select “Touchpad,” “Button 1,” or “Buttons 1-3” (Default = “Touchpad”). If touchpads are connected to the system, the answer should be set to “Touchpad.” Press <CLEAR> to exit to the Timer menu.

Selections “Button 1,” or “Buttons 1-3” tells the timer to use the button(s) provided with the lane modules as primary inputs. Therefore, split times (non-final times) are printed when any of the three buttons are pressed. Final times (the last length) are printed when the median time is received if using three buttons. If two buttons are being used, the average time is printed after both buttons are pressed. If one button is used, that is the time.

Flag Time

LCD Display	Action
MENU – TIMER 4 – FLAG TIMER	Flag Time is the time used when the touchpad is compared to the backup time. If the discrepancy exceeds the flag time, the timer puts an asterisk (*) next to that touchpad time on the final results.
MENU - TIMER FLAG TIME: 0.3*	The timer may be set from 0.1 to 0.9 seconds. The recommended setting is 0.3 seconds with that being the default. Use the <↑> <↓> keys to select one of the other Pool Menu items. Press <**CLEAR**> to exit to the Timer menu.

Arming Delay

LCD Display	Action
MENU – TIMER 5 – ARMING DELAY	The arming delay is the length of time that the touchpad will be inactive following a split time. This is extremely useful for relay exchanges to provide enough time for the athlete to exit the pool.
MENU - TIMER ARMING DELAY: NN*	The delay can be set from **1**-**99** seconds. The recommended setting is **15** seconds with the (Default = 15). Press <**CLEAR**> to exit to the Timer menu.

Precision

LCD Display	Action
MENU – TIMER 6 – PRECISION MENU - TIMER PREC: 1/100*	Precision is used to configure the timer to store and print times to 1/100th or 1/1000th of a second. Use the <←> <→> keys to select between 1/100th or 1/1000th (Default = 1/100th) Press <CLEAR> To exit to the Timer Menu .

Relay Take-Off

LCD Display	Action
MENU – TIMER 7 – RELAY TAKE-OFF RELAY TAKE-OFF BUTTON * RELAY EXCHANGE INPUT USED: 3*	This menu allows the operator to select the type of input used for relay exchanges. Use the <←> <→> keys to select between the choices of NONE, BUTTON, or PLATFORM. Press <ENTER> when the desired selection is showing. If button or platform is selected, then a button input selection will need to be made. Use the <←> <→> keys to select 1, 2, or 3 and press <ENTER>. Press <ENTER> to exit to the Timer menu.

Scoreboard

```
MENU – SETUP
3 – SCOREBOARD
```

The **SCOREBOARD MENU** will offer the following submenus.

Numeric

LCD Display	Action
`MENU - SCOREBOARD` `1 - NUMERIC`	Use the Numeric Scoreboard Setup menu to set the output data configuration for the specific numeric display in use.

Number of Lines

LCD Display	Action

`MENU - NUMERIC`
`1-# OF LINES`
 	
`# OF LINES`
`LINES: NN*`
`NN` – number of lines
	Enter a value from **1-10** depending on how many lanes the facility's scoreboard will display. If the number of active lanes in the pool is greater than the value set, the timer will automatically page the information in place order according to the time set in the Finish Page Time menu (Default=10).

Split Hold Time

LCD Display	Action

`MENU - NUMERIC`
`2-SPLT HOLD TIME`
 	
`MENU - NUMERIC`
`SPLT HOLD TIME: NN*`
`NN` – value in seconds
	After selecting this option, enter a value from **1-99** seconds. This configures the time that split times will remain on a scoreboard (Default=15 seconds).

Finish Page Time

LCD Display	Action
MENU - NUMERIC 3-FIN PAGE TIME FIN PAGE TIME TIME: NN* NN – value in seconds	Enter a value from **1-99** seconds. This configures the time that finish times will hold on a scoreboard (Default=5 seconds).

Results Order

LCD Display	Action
MENU - NUMERIC 4-RESULTS ORDER RESULTS ORDER ORDER: LANE*	Select **Lane** to display the results in the order of the lane in which the swimmers finished. Select **Place** to display the results in the order of which the swimmers placed (Default=**Lane**).

Subtractive Splits

LCD Display	Action
MENU - NUMERIC 5-SUBTRACTIVE SUBTRACTIVE SHOW: NO*	Selects whether or not to page subtractive splits.

RTD/Matrix

LCD Display	Action
MENU - SCOREBOARD 2 – RTD/MATRIX	Use the RTD/Matrix Setup Menu to set the output data configuration for the specific matrix display in use.

Number of Lines

LCD Display	Action
MENU - RTD/MATRIX 1-# OF LINES # OF LINES LINES: NN* NN – number of lines	Enter a value from **1-10** depending on how many lanes the facility's display will show. If the number of active lanes in the pool is greater than the value set, the timer will automatically page the information in place order according to the time set in the Finish Page Time menu (Default=10).

Split Hold Time

LCD Display	Action
MENU - RTD/MATRIX 2-SPLT HLD TIME SPLT HLD TIME TIME: NN* NN – value in seconds	After selecting this option, enter a value from **1-99** seconds. This configures the time that split times will remain on a display (Default=15 seconds).

Finish Page Time

LCD Display	Action
MENU - RTD/MATRIX 3-FIN PAGE TIME FIN PAGE TIME TIME: NN* NN – value in seconds	Enter a value from **1-99** seconds. This configures the time that finish times will hold on a display (Default=5 seconds).

Results Order

LCD Display	Action
MENU - RTD/MATRIX 4-RESULTS ORDER RESULT ORDER ORDER: LANE*	Select Lane to display the results in the order of the lane in which the swimmers finished. Select Place to display the results in the order of which the swimmers placed (Default=Lane).

Subtractive Splits

LCD Display	Action
MENU - NUMERIC 5-SUBTRACTIVE SUBTRACTIVE SHOW: NO*	Selects whether or not to page subtractive splits.

Comm Ports

MENU – SETUP
4 – COMM PORTS

The following is a more detailed look at the Comm Ports configurations.

Scbd Outputs

LCD Display	Action
MENU – COMM PORTS 1–SCBD OUTPUTS	Scoreboard Outputs is used to configure which protocol (Multidrop or Multiline) will be transmitted out of the scoreboard outputs (J2 and J3).
MENU – COMM PORTS SCBD: MULTIDROP*	Use the <←> <→> keys to choose either **Multiline** or **Multidrop** depending on which type of display is used (Default = Multidrop*).

*To identify a display as either **Multiline** or **Multidrop**, use the following procedure. Power up the scoreboard with the signal connected. If the Lane and Place digits show P0, the scoreboard is a **Multidrop** display. If the digits show P1, the scoreboard is **Multiline**.

RTD Port

LCD Display	Action
MENU – COMM PORTS 2–RTD PORT	RTD Port is used to configure which protocol (RTD or CTS) will be transmitted out of the RTD port (J5) connector on the OmniSport 2000 timer.
MENU – COMM PORTS RTD PORT: RTD*	Select RTD to send information to a Venus® controller. Select CTS to send information to a numeric CTS Scoreboard (Default = RTD).

Results Port

LCD Display	Action
MENU – COMM PORTS 3–RESULTS PORT	Results Port is used to configure which protocol (Omni2000, Omni 6000, or CTS) will be used to communicate with the meet management software. Use the <←> <→> keys to select between Omni 2000, Omni 6000, or CTS. Omni 2000 and Omni 6000 are bi-directional protocols. CTS is a unidirectional protocol, utilizing the standard CTS scoreboard information. (Default = Omni 2000).
MENU – COMM PORTS RSLT: OMNI 2000*	

Note: Selecting Omni 6000 will tell the timer to transmit Omni 6000 RTD item numbers on the RTD output.

Printer

MENU – SETUP
5–PRINTER

The **PRINTER MENU** will offer the following submenus.

Race Log

LCD Display	Action
MENU – PRINTER 1–RACE LOG	The Race Log menu allows logging to be turned off or on Press any arrow key to toggle between ON and OFF. Press <ENTER> to accept the setting. Press <CLEAR> to abort and return to the Printer menu.
MENU – PRINTER RACE LOG: ON*	

Results

LCD Display	Action
MENU – PRINTER 2 – RESULTS	The Results menu allows for selecting printouts by LANE or PLACE order.
MENU – PRINTER RSLT BY: LANE*	Press any arrow key to toggle between YES and NO. Press <ENTER> to accept the setting. Press <CLEAR> to abort and return to the Printer menu.

Backups

LCD Display	Action
MENU – PRINTER 3 – BACKUPS	The Backups menu configures if backup times will be printed with race results.
MENU – PRINTER BACKUPS: YES*	Press any arrow keys to select NONE, SUBTRACTIVE, or CUMULATIVE. Press <ENTER> to accept the setting. Press <CLEAR> to abort and return to the Printer menu.

Splits

LCD Display	Action
MENU – PRINTER 4 – SPLITS	The Splits menu configures if split times will be printed with the race results.
MENU – PRINTER SPLITS: NONE*	Press any arrow keys to select NONE, SUBTRACTIVE, or CUMULATIVE. Press <ENTER> to accept the setting. Press <CLEAR> to abort and return to the Printer menu.

Intensity

LCD Display	Action
MENU – PRINTER 5 – INTENSITY	Use the Intensity menu to set the printer intensity.
PRINT INTENSITY LEVEL 1-5: 5*	Press the number, 1-5, to select a new intensity. Press <ENTER> or <CLEAR> to return to the Printer menu.

Time-of-Day

LCD Display	Action
MENU – SETUP 6 – TIME OF DAY	Time-of-day is used to set the console date and time.
DATE MM/DD/YY TOD HH:MM:SS*	Use the <**0**> thru <**9**> keys to enter the correct date and time. Press <ENTER> to accept and continue. Press <CLEAR> to clear the time and date and press it again to exit without saving. If this is done, the previous time and date will remain

Test Menu

MAIN MENU
5-TEST MENU

The OmniSport 2000 timer is equipped with test features that can be used to test battery level, the lane modules, and the numeric scoreboard. The following tables explain how to use each of these tests.

Battery

LCD Display	Action
MENU – TEST 1 – BATTERY	The Battery test allows for the checking of the battery power level.
BATTERY TEST LEVEL: CHARGED	The battery level will show as CHARGED or LOW. Press <ENTER> to exit and return to the Test menu.

Lane Modules

LCD Display	Action
MENU – TEST 2 – LANE MODULES	The Lane Module test allows for testing the lane module inputs.
← NEAR END DATA ← FAR END DATA	The two, left LCDs will show the lane module input status by lane. Press <ENTER> or <CLEAR> to exit and return to the Test menu.

Scoreboard:

LCD Display	Action
MENU – TEST 3 – SCOREBOARDS	The Scoreboard test allows for the testing of scoreboard drivers.

Cycle On/Off

LCD Display	Action
SB TEST MENU 1 – CYCLE ON/OFF	Press <**1**> to cycle scoreboards ON and OFF.
DISPLAY ALL ON ENTER TO EXIT White area shown above cycles from ON to OFF.	When this menu is selected, an all on signal is sent at intervals of approximately three seconds. This will continue to cycle on and off and on again until <**ENTER**> is pressed.

Driver Address

LCD Display	Action
SB TEST MENU 2 – DRIVER ADDRESS	Press <**2**> to display driver addresses.
SHOWING ADDRESS ENTER TO EXIT	All digits on the display will be showing which driver controls this digit. This will remain on the display until <**ENTER**> is pressed.

Driver Address

LCD Display	Action
SB TEST MENU 3 – DIGIT NUMBER	Press <**3**> to display the digit designation. Press <**ENTER**> to exit and return to the test menu.
SHOWING DIGIT # ENTER TO EXIT	All digits on the display will show what its digit designation is (digit number). This will remain on the display until <**ENTER**> is pressed.

Section 5: OmniSport 2000 Pro Swimming Software

The OmniSport 2000 Pro Swimming software interfaces with the OmniSport 2000 timer and allows timing officials to control the competition through an easy-to-use, reliable, and convenient Windows® based user interface installed on an IBM® compatible computer system.

This section describes how to install, configure, and use this software system.

5.1 Computer Requirements

The OmniSport 2000 Pro Swimming software was designed to operate on an IBM compatible personal computer. In most circumstances, the computer used by the software will be purchased through Daktronics. This ensures the software requirements will be met. If a computer is not purchased through Daktronics, the following list describes the requirements for the OmniSport 2000 Pro software.

- OmniSport 2000 timing console
- Microsoft Explorer® 5.0 or higher
- Intel Pentium® processor at 400 MHz or higher
- Windows 98 operating system or better
- Minimum 64 MB of RAM
- Standard keyboard and mouse
- One open serial port for connection to the OmniSport 2000 timer (COM port)

5.2 Hardware Setup

The OmniSport 2000 Pro software is a computer interface to the OmniSport 2000 timer. There must be a serial connection for the timing operations to be controlled by the Pro software. The OmniSport 2000 timer must also be connected properly to all competition equipment and accessories. Refer to **Section 3** for more information pertaining to the hardware installation of the OmniSport 2000 timer.

5.3 Installation

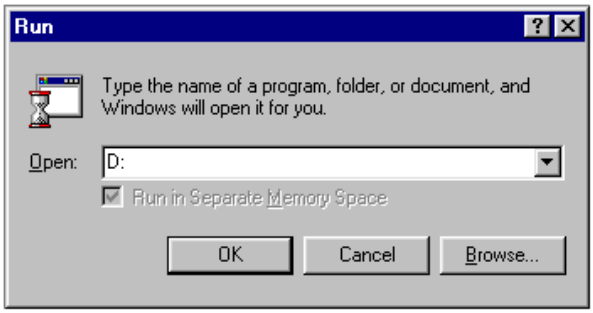


Figure 2: Run Dialog Box

The OmniSport 2000 Pro software installs using the Windows InstallShield Wizard guided installation program. To launch the installation program, insert the software CD into your CD-Rom drive. If the autorun program does not start, left click on the Windows **Start** menu. On the menu, Select "Run…" and the dialog box shown in **Figure 2** displays. Type the address of your CD-Rom drive (usually D:) and click <**OK**>. This will display the files on the OmniSport 2000 Pro CD. Select **OmniSport Pro.exe**. The InstallShield Wizard dialog displays. Refer to **Figure 3** below. Click [**NEXT**] to continue.

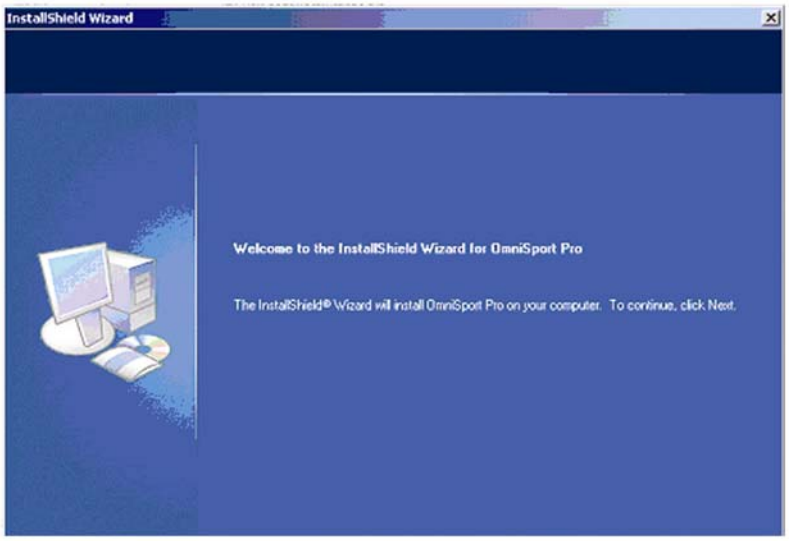


Figure 3: OmniSport 2000 Pro Software Installation

In the Select Features Dialog box you are able to select which programs you want to install. Refer to **Figure 4** below. Select the programs your wish to install and click [**NEXT**] to install OmniSport 2000 Pro software. Program files are automatically installed to a default directory, **C:\Program Files\Daktronics\OmniSport 2000 Pro**, on the computer's hard drive.

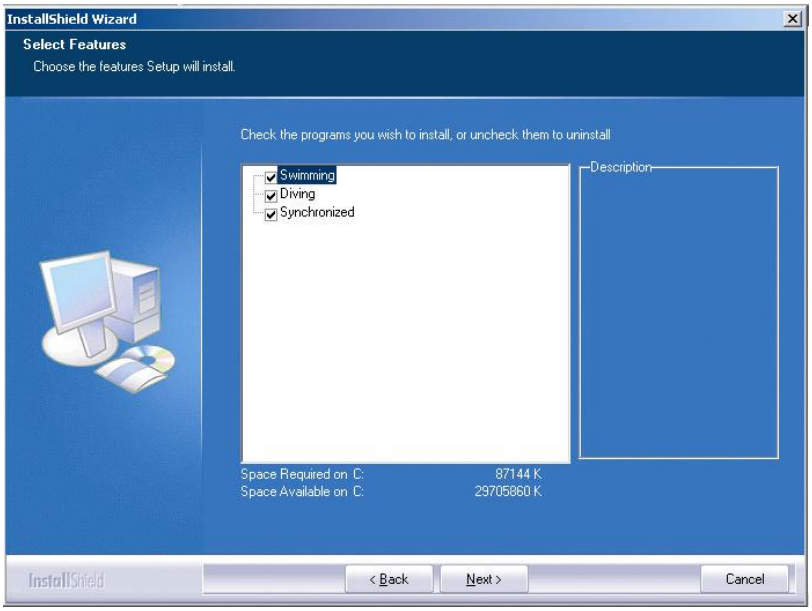


Figure 4: Select Features Box

5.4 On First Run

To initiate the program, double-click the OmniSport 2000 Pro Swimming icon on the desktop. Refer to **Figure 5**. The InstallShield Wizard will automatically install this icon after installation is complete. If there is not an icon present, locate the OmniSport Pro Swimming file and double-click **OSPD.exe**. The folder should be located under Program Files on the local disk (usually C:) of your computer.

Figure 5: Swimming Icon

On initial startup, the registration dialog displays. Either register or click [**CONTINUE**] to bypass registration. If you do not register, you will have access to the demo version, which has all the same functions as the registered version, for up to 30 days. If you have not registered by this time, the software will lock. The registration code must then be entered to continue running the software. Refer to **Figure 6**.

Figure 6: Registration Dialog

Registering

Daktronics allows potential users to test the full version of the software before purchasing. When the registration code has not been entered, the 30 days remaining dialog on startup of the program is visible, and the software will not run after that period expires. If you wish to purchase the software after testing it, simply contact Daktronics at 1-877-605-1115 for pricing and information. Upon proof of purchase you will receive the unlock code which allows unlimited use of the software.

The Standard Console Control level of registration allows the complete use of the software except the use of the race log files and the results printouts. The Race Log and Results Printouts level is the full version of the software. It is not possible to unlock only the Race Log and Results Printouts level.

To register the software, follow these steps.

1. Start the program.
2. Enter the Registration Code received from Daktronics in the field.
3. Click [REGISTER].

If the user registers the OmniSport software on a computer, the registration code pertains only to that workstation. Reloading the software on a separate computer requires a new registration code.

Serial Port

Once the hardware and software have been installed and the software is running, the OmniSport 2000 Pro system should synchronize with the timer. A message box may display requesting which configuration settings you prefer. If the message box says, “cannot detect console”, then the wrong COM Port is configured in the Configurations dialog. Do the following steps to establish a proper connection.

1. Ensure the cable is connected to a COM Port on the back of the computer and to the expansion port on the OmniSport 2000 timer.

2. Start the Pro software. Open the Configure dialog in the options menu and select the tab that reads **Comm Ports**, and then click [CONFIGURE] in the Interface Comm Port area.

3. A dialog box with all of the current Comm Ports displays. Select a port and click [OK].

4. Now click [MONITOR]. If you are receiving data in the top half of the monitor window, the connection was made properly and the correct port was selected. Data on the bottom half is the data being sent by the pro software.

5. If you are receiving no data, go back to step **3** and select a different port. Do this until data is received over the selected port.

Note: Some computers purchased with this software will have a Rocket® port installed with the system. The port labeled “Port 0” will be normally set as COM port 5 in the computer system. The next port would then be COM 6, then COM 7, and finally COM 8 for a four-port Rocket port. The OmniSport 2000 Pro software recognizes these ports no matter what port number has been assigned to them.

New Event Order

When the Pro software is started, the OmniSport 2000 timer sends the event order data. If a file has not yet been created for this event order, the software will inquire whether or not a new file should be created. Rename this file and click [OK] to create a new file.

This is an excellent way to store old event orders and use them over. The OmniSport 2000 timer is only able to store 500 different events. The Pro software can store several of these event lists, each with 500 different events. Those lists can be edited and reused. Refer to Pro Configuration information in **Section 5.5** for more information on editing the event order.

Synchronization with the Timer

Once the hardware and software have been installed and the software is running, the OmniSport 2000 Pro system should synchronize with the timer.

If the OmniSport Pro Software is unable to detect the console, ensure the cable is connected to a COM port on the back of the computer and to the expansion port on the OmniSport 2000 timer. If they are, set the COM port properties in the **Options/Communications/Setup menu.**

Note: If the cables are connected properly the "connection icon" on the main dialog will be green. It will flash green when receiving data and will be red when it is not connected.

5.5 OmniSport 2000 Pro Software Overview

Once the OmniSport 2000 Pro system is synchronized and configured, event management is quick and simple. The Horn Start 200 start system starts the timer. The touchpads, backup buttons, and lane modules obtain split and final times. In addition, this system sends that data to the output devices, whether they are a matrix display, a numeric scoreboard, or a paper printout.

This section describes the operational buttons, lane icons and indicators, and operations of the OmniSport 2000 Pro system.

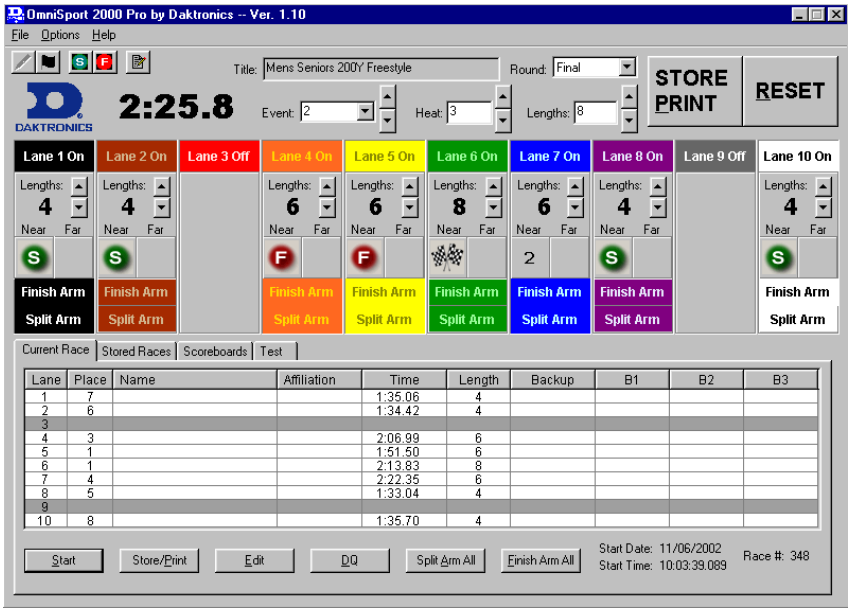


Figure 7: Main Timing Dialog

Lane Indicators, Buttons, and Icons

The lane indicators, buttons, and icons relay event information to the user. This information should be used to determine timing discrepancies and event results. It is also editable from the main dialog of the software system.

Figure 8 shows the lane information. Each area displays information editable on each lane.

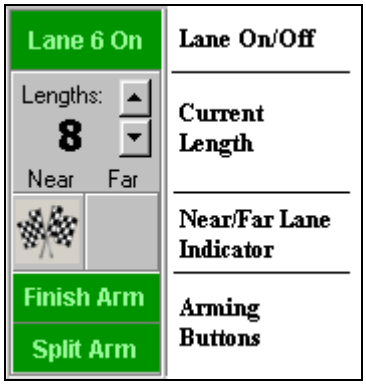


Figure 8: Lane Information

- **Lane On/Off** area is a toggle that turns that lane on or off. If the lane is off, no data will be received for this lane. Turn the lane off if no one is using that lane during the current event.

  Note: **<F1>** toggles Lane 1 On/Off, **<F2>** toggles Lane 2 On/Off, etc.

- **Current Lengths** can be changed by clicking the up or down arrows on the right side of this area. This would be done to subtract an accidental touch or to add a missed touch. The current length will not go beyond the maximum lengths set for the current event.

- **Near/Far Lane Indicator** displays the current arming state of the lane. The table below describes each icon and what it represents.

- **Arming Buttons** are used to change the lane arming status during an event. There may be a time when a swimmer's touch is not registered by the touchpad. When this happens, use these buttons to change the arming of the lane.

ICON	Description
	Split Armed. When this is showing, this lane is armed to take a split time.
	Arming Delay. This is the amount of time left until the touchpad is active. A number from 1-99 will display decrementing by one every second.
	Finish Armed. When this is showing, this lane is armed for a finish time.
	Finished. This indicated the lane is finished timing.
	Lane Problem. This indicates a problem has occurred within the lane indicated.

Event Details

Figure 9: Event Data Area

The top area of the main dialog displays current event details and options. The elapsed time is displayed to the right of the Daktronics logo. The Event, Heat, Length, and Round are set by the event order file, but may be selected from here by clicking the Up/Down arrows to the right of the data fields. You must manually increment the event number, heat number, and round at the end of an event or heat. To change the event order file, refer to **Section 5.5**.

Note: Editing can be done here also by the writer. However, in that instance the data will not be saved in the event order file.

Clicking [STORE/PRINT] will store the current event data into an event file and print the results according to the configurations set in the Configurations dialog.

Clicking [RESET] will reset the time and begin a new event. [RESET] also stores the current event data into an event file and prints the data according to the configurations set in the Configurations dialog if [STORE/PRINT] was not clicked.

The upper left area of the main dialog contains five buttons used before and during events. The buttons are, from left to right: [EDIT S TART TIME], [DISQUALIFY], [SPLIT ARM ALL], [FINISH ARM ALL], and [RACE LOG FILE].

- [EDIT S TART TIME] allows the user to change the start time of any event. This is not enabled during events (mainly used when a start input is missed).
- [DISQUALIFY] toggles a swimmers disqualification flag. Click this button and select the lanes to be disqualified.
- [SPLIT ARM ALL] arms all touchpads to take split times.
- [FINISH ARM ALL] arms all touchpads to take finish times.
- [RACE LOG FILE] opens the race log file for the current race.

Main Dialog Tabs

This area of the main dialog contains four tabs. Each tab pertains to a different function of the system. Select the tab to switch between them.

Change the name and affiliation during the race at any time without changing the Hy-Tek names.

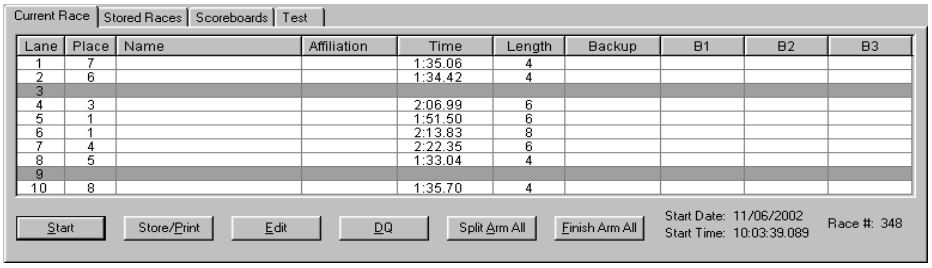
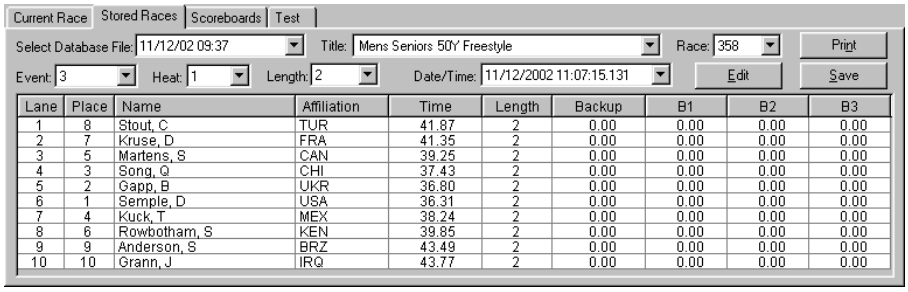


Figure 10: Current Race Tab

The **Current Race** tab shows information pertaining to the current swimmers and event. Name, Affiliation, and Time are all editable fields. To edit one of these fields, select the field desired and click [EDIT] or double-click in the selected field. A cursor displays. To disqualify a lane, select the lane row and click [DQ].

Click [SPLIT ARM ALL] or [FINISH ARM ALL] to arm the touchpads for split times or finish times respectively. [START] initiates the timing system and [STORE/PRINT] sends the current event data to the printers and saves the data into a file.

Clicking [START] on this tab will show the start source on the printout results as a keyboard designating an unofficial start of the race.



Lane	Place	Name	Affiliation	Time	Length	Backup	B1	B2	B3
1	8	Stout, C	TUR	41.87	2	0.00	0.00	0.00	0.00
2	7	Kruse, D	FRA	41.35	2	0.00	0.00	0.00	0.00
3	5	Martens, S	CAN	39.25	2	0.00	0.00	0.00	0.00
4	3	Song, Q	CHI	37.43	2	0.00	0.00	0.00	0.00
5	2	Gapp, B	UKR	36.80	2	0.00	0.00	0.00	0.00
6	1	Semple, D	USA	36.31	2	0.00	0.00	0.00	0.00
7	4	Kuck, T	MEX	38.24	2	0.00	0.00	0.00	0.00
8	6	Rowbotham, S	KEN	39.85	2	0.00	0.00	0.00	0.00
9	9	Anderson, S	BRZ	43.49	2	0.00	0.00	0.00	0.00
10	10	Grann, J	IRQ	43.77	2	0.00	0.00	0.00	0.00

Figure 11: Stored Race Tab

The **Stored Race** tab allows the user to view, print, and edit stored events. The upper area allows you to choose the event desired. Select the desired event by clicking the arrow next to the field, and then select the setting. Name, Affiliation, and Time are all editable fields. To edit one of these fields, select the field desired and click [EDIT] or double-click in the selected field. [PRINT] sends the stored race data to the printer, and [SAVE] saves the edited data to a file.

You can also right-click on a field and choose an option from the following menu displays.

- **Edit** allows you to change the field.
- **DQ** initiates the disqualification flag for that lane.
- **Use Backup** sets the backup-time as the lane time.
- **Lane Log** opens the lane log file.

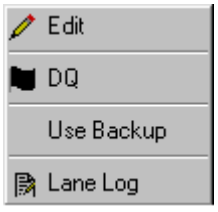


Figure 12: Right-Click Menu

The **Scoreboard** tab is used to control what is shown on the display. The Display to Matrix area contains options for displaying data on a matrix. Select the desired event and information type and click [REQUEST]. [DISPLAY OFF] turns the display off. [DISPLAY TEAM SCORES] sends the team score data from Hy-Tek's MEET MANAGER program to the display. [TIME OF DAY] shows the time-of-day on the display. The **Team Scores** area shows what the current team scores are. In the current version of the software, [DISPLAY OFF], [DISPLAY TEAM SCORES], and [TIME OF DAY] are disabled.

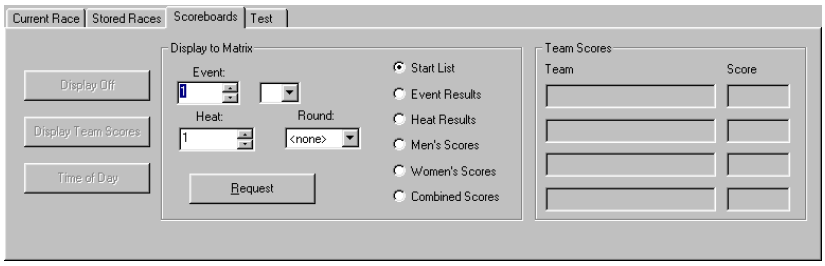


Figure 13: Scoreboard Tab

The **Test** tab is used to test the battery, display, lane modules, and touchpads. The Battery area displays the power source and the power level of that supply. The Lane Module area displays which touchpad or backup buttons is being activated. An X displays in the area being tested if the equipment is working properly. This test procedure requires at least two people; one to monitor the system and another to activate the input devices.

If there is only one person available, click the [**LANE MODULE TEST MODE**] toggle, then turn the computer monitor so it can be seen from the touchpads and lane modules. Go to the input devices and active them. The monitor will display the activated device so that it can be seen from the poolside.

In the current version of the OmniSport 2000 Pro software, the Scoreboard area is disabled.

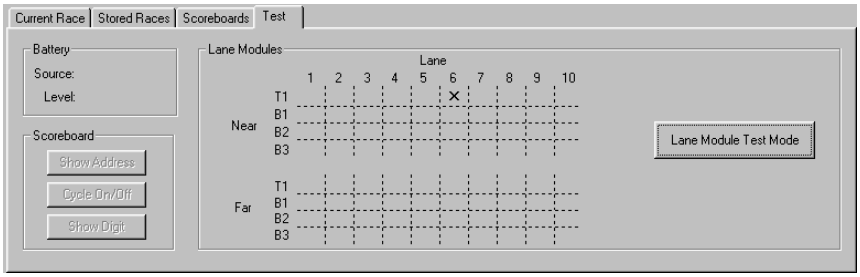


Figure 14: Test Tab

Pro Configuration

Configuring the OmniSport 2000 Pro software is an important part of managing your events. Once running the software, select the **Options** menu then select Configure… The Configure dialog displays eight tabs: **Pool**, **Timer**, **Console Printer**, **Pro Printer**, **SCBD**, **Results**, **Event Order**, and **Comm Ports**. The following subsection details how each tab is used and describes what they do.

Pool

The **Pool** tab configures the OmniSport 2000 Pro software to the pool being used. Refer to **Figure 15**. The figure shows the default settings.

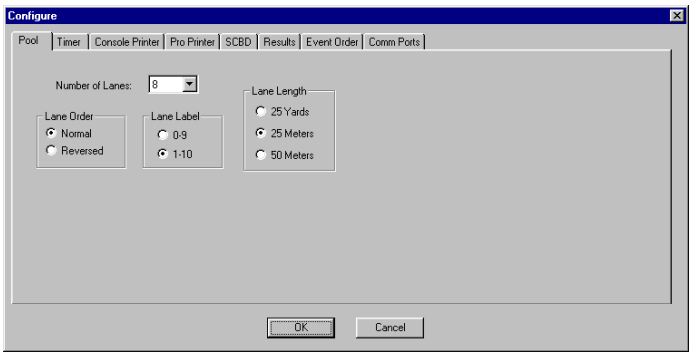


Figure 15: Pool Configuration

- Select the **Number of Lanes** from the drop down list with ten being the maximum number and one being the minimum.
- **Lane Order** is determined by how the lane modules are connected to the timing console. If the lane connected to the console is one, then select Normal. If it is not, select Reversed.
- **Lane Label** is used to accommodate pools with lane numbering of 1-10 or 0-9.
- **Lane Length** should be set to the length that matches your pool. The lane length is used in conjuncture with the race length to calculate how many lengths or "touches" the timer should expect for that race. Choose from the following three sizes: 25 yards, 25 meters, or 50 meters.

The above information pertains to both the OmniSport 2000 Pro software and the OmniSport console. For information on programming the settings listed above using the console, refer to **Section 4** of this manual.

Timer

The **Timer** tab configures the inputs and precision of the timer. Refer to **Figure 16**. The figure shows the default settings. Each setting is described below.

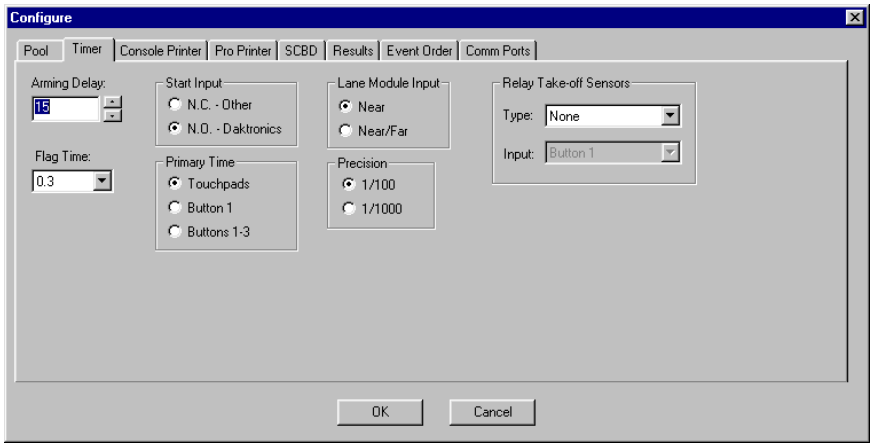


Figure 16: Timer Configuration

- The **Arming Delay** is the length of time that the touchpad will be inactive following a split time. This is extremely useful for relay exchanges to provide enough time for the swimmers to exit the pool. 15 to 20 seconds is a typical setting.
- **Flag Time** is the time used when the touchpad is compared to the backup time. If the discrepancy exceeds the flag time, the timer puts an asterisk (*) next to that touchpad time on the final results.
- **Start Input** can be configured to receive normally open (NO) or normally closed (NC) start signals. NO is used if the Daktronics Horn Start 100 or 200 is in use at the facility. NC is used if the start system is not produced by Daktronics.
- **Primary Time** is used to tell the timer to use the touchpad, button 1, or buttons 1-3 for primary event split and finish times. This is commonly the touchpad.

- **Lane Module Input** is used to configure the timer for touchpads and push buttons at the near end only, or both near and far ends of the pool.
- **Precision** is used to configure the timer to store and print times to 1/100th or 1/1000th of a second. If the time displayed will be to the nearest 100th, then select **1/100**. If it is to the nearest 1000th, then select **1/1000**.
  Note: 1/100 will show two decimal places. **1/1000** will show three.
- The **Relay Takeoff Sensors** area allows the operator to select the type of input used for relay exchanges.

The above information pertains to both the OmniSport 2000 Pro software and the OmniSport console. For information on programming the settings listed above using the console, refer to **Section 4** of this manual.

Console Printer

The **Console Printer** tab configures the printer settings for the printer built into the timing console. Refer to **Figure 17.** The figure shows the default settings. Each setting is described below.

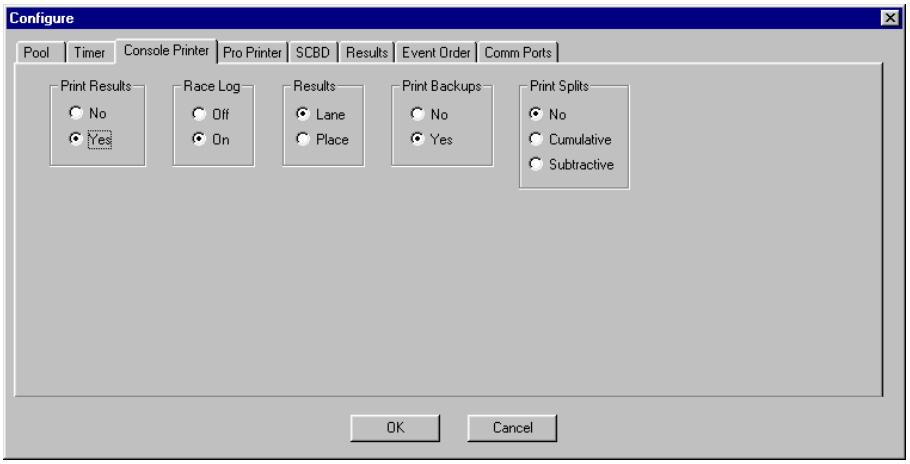


Figure 17: Console Printer Configurations

- **Print Results** enables the console printer to print the results of the event.
- **Race Log** enables the console printer to print the race log of the event.
- **Results** determines how the results will be printed: by Lane or by Place.
- **Print Backups** enables the console printer to print the backup times of the event.
- **Print Splits** enables the console printer to print splits of the event. Select No to disable this option. Select Cumulative to print the split times as a cumulative time (Lap1 0:58.32, Lap2 1:57.68, Lap3 2:57.39). Select Subtractive to print the split times as single lap times (Lap1 0:58.32, Lap2 0:59.36, Lap3 0:59.71).

The above information pertains to both the OmniSport 2000 Pro software and the OmniSport console. For information on programming the settings listed above using the console, refer to **Section 4** of this manual.

Pro Printer

The **Pro Printer** tab configures the printouts for the printer attached to the computer running the pro software. Refer to **Figure 18**. The Printout Format drop-down selectors allow you to set which printouts will be printed and the order in which they are printed. Each format option is described in this subsection.

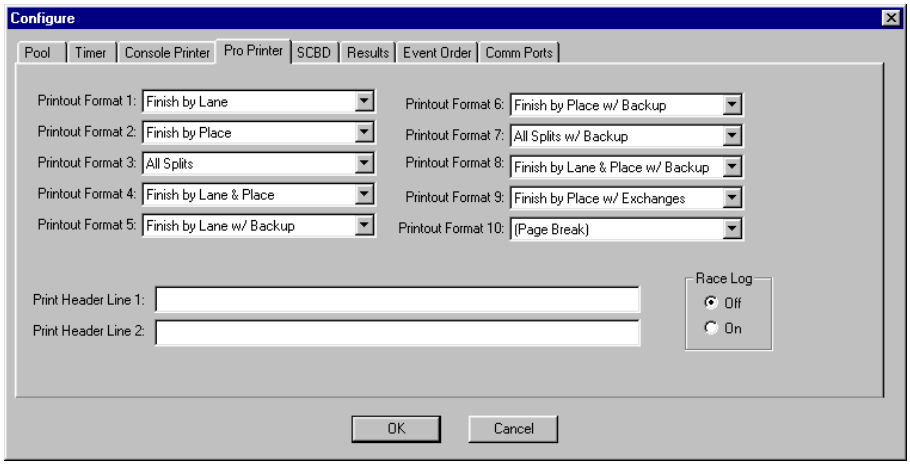


Figure 18: Pro Printer Configuration

Note: Printouts must be unlocked (registered) before this configuration tab will work.

- **Finish by Lane** prints the results of the event by lane.
- **Finish by Place** prints the results of the event by place.
- **All Splits** prints the split times.
- **Finish by Lane and Place** prints the results by both Lane and place.
- **Finish by Lane w/ Backup** prints the results of the event by lane with backup times.
- **Finish by Place w/ Backup** prints the results of the event by place with backup times.
- **All Splits w/ Backup** prints the split times with backup times.
- **Finish by Lane and Place w/ Backup** prints the results by both Lane and place with backup times.
- **Finish by Place w/ Exchanges** prints the results of the event by place and shows the times of the relay exchanges.
- **(Page Break)** places the following printout on the next page.
- **(None)** means no reports will print.

No event may have more than ten print formats. If all formats are set to (none) and the race log is set to off, reports will not print. Otherwise, all printouts can be sent to the console printer.

Note: Printouts are sent to the computer's default printer.

SCBD

The **SCBD** tab configures the output for both a numeric scoreboard and a matrix display. Refer to **Figure 19**.

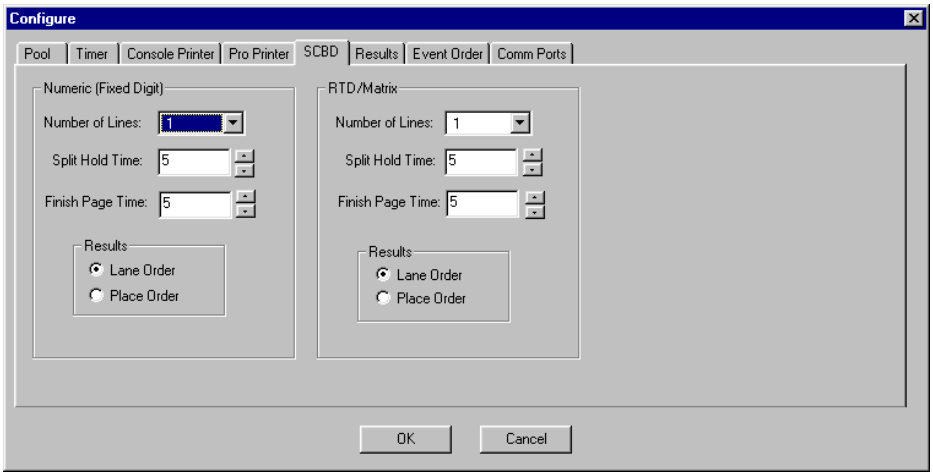


Figure 19: SCBD Configuration

- **Numeric (Fixed Digit):** This area pertains to configuring data for use on numeric scoreboards.
    - **Number of Lines** designates how many lines there are on the display.
    - **Split Hold Times** sets the amount of time the split times remain on the display.
    - **Finish Page Times** configures the time that finish times will hold on a scoreboard (Default=5 seconds). Enter a value from 1-99 seconds.
    - **Results** sets whether the results are displayed by Lane order or by Place order.
- **RTD/Matrix:** This area pertains to configuring data for use on matrix displays.
    - **Number of Lines** designates how many lines are to be displayed.
    - **Split Hold Times** sets the amount of time the split times remain on the display.
    - **Finish Page Times** configures the time that finish times will hold on a display (Default=5 seconds). Enter a value from 1-99 seconds.
    - **Results** sets whether the results are displayed either by Lane or Place order.

The above information pertains to both the OmniSport 2000 Pro software and the OmniSport console. For information on programming the settings listed above using the console, refer to **Section 4** of this manual.

Results

The **Results** tab in the configuration dialog is not enabled. Currently, only a serial connection is available until future expansion of the software.

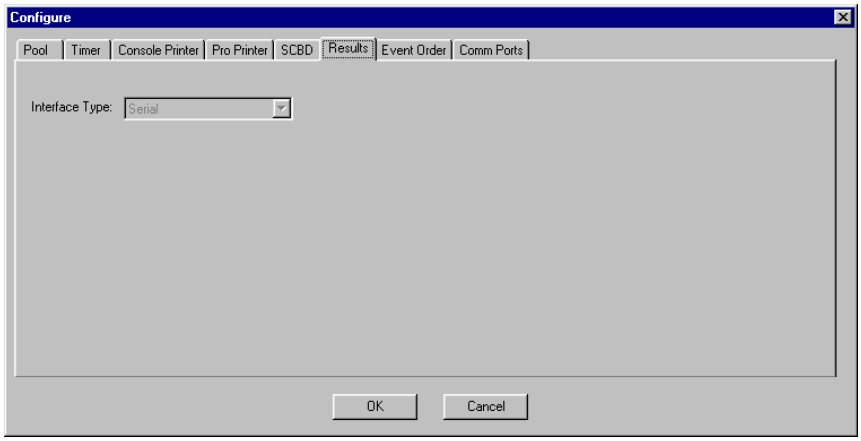


Figure 20: Results Configuration

Event Order

The **Event Order** tab displays the current event order and allows you to edit an event list and change the active list if more than one list has been created. Each button is described within this subsection. Refer to **Figure 21**.

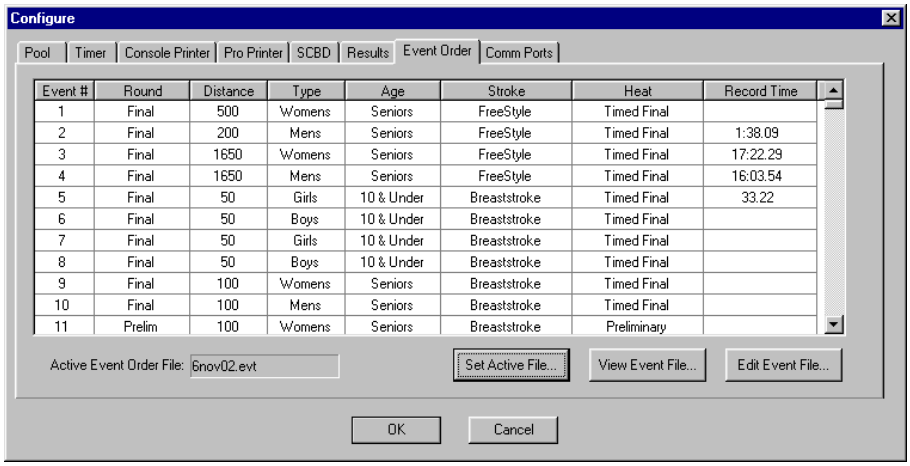


Figure 21: Event Order Configuration

- Click [**SET ACTIVE FILE**] to choose which event file is to be used.
- Click [**VIEW EVENT FILE**] to view any event file created and stored in your current OmniSport 2000 pro computer system.
- Click [**EDIT EVENT ORDER**] to edit or create a new event file.

Comm Ports

The **Comm Ports** tab allows you to select the port types used for input and output data.

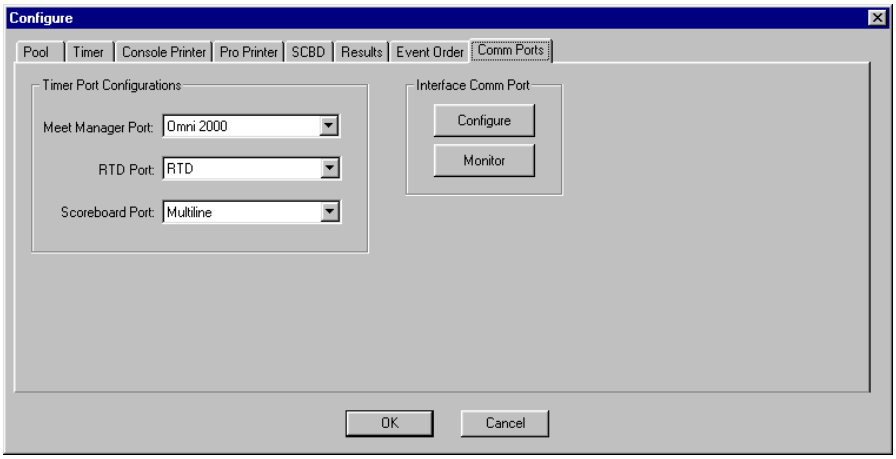


Figure 22: Comm Port Configure

The **Timer Port Configurations** area configures the output ports for the correct output device used with this system.

- **Meet Manager:** configures which protocol (Omni2000, Omni 6000, or CTS) will be used to communicate with the meet management software.
- **RTD Port:** configures which protocol (RTD or CTS) will be transmitted out of the RTD port (J5) connector on the OmniSport 2000 timer.
- **Scoreboard Port:** configures which protocol (Multidrop or Multiline) will be transmitted out of the scoreboard outputs (J2 and J3).

The **Interface Comm Port** area configures which port is used to interface the OmniSport 2000 timing console to the OmniSport 2000 Pro computer. Click [CONFIGURE] to change the port number to the desired port. Click [MONITOR] to ensure data is flowing between the to systems.

The above information pertains to both the OmniSport 2000 Pro software and the OmniSport console. For information on programming the settings listed above using the console, refer to **Section 4** of this manual.

5.6 Typical Operation

This section details the operational procedures used before a meet, and during and after each event.

Before the meet

Before each meet, three things must be done: verify the configurations, test the system and setup or download the event order.

Verify the Configurations

Once the system is tested, open the Configurations dialog. Go through each tab and make sure all the configurations are set to the necessary settings. The system will maintain the setting that it used during the last time it was operated. If any configuration setting was changed while the timer and software were not connected, the system will request that the configuration be synchronized upon reconnection.

Though the configuration will not change unless you change them, it is recommended to print the configuration settings so that they can be re-entered if there is a sudden loss of power or damage to any equipment that may cause a loss of memory. This can be done from the timer. Press <MENU>, <**3**>, <**3**>, <ENTER> on the keypad of the OmniSport 2000 console.

Test the System

The OmniSport 2000 timer and Pro system must be operating properly for a meet to run smoothly. Test the system by following the steps below:

1. Test the start input device by depressing the start button. The tone should sound, the strobe should flash, and the time should begin counting on both the timer and the software. If not, ensure the cables are properly connected.
2. On the main dialog, select the **Test** tab. Test each lane input device by pressing the backup buttons and touching the touchpads. Refer to **Subsection Main Dialog Tabs** for more information on this operation.
3. If using a display, test run an event to ensure the display shows what is expected.

Set Up Event Order

Open the event order file by selecting the **Event Order** tab on the Configure dialog. From here, a new file can be downloaded or an old file can be opened. Make any adjustments to this file by clicking [EDIT]. Refer to Subsection Pro Configuration in **Section 5.5** for more details on editing and downloading event order files.

Before a Race

Though the event order file establishes the event order, there may be situations where an event changes or combines with another event. All events can be edited during a race from the main dialog. Three things must be remembered when doing this: verify the console is set to the correct race, verify the lengths, and verify that the timer has been reset.

Verify Console Settings

The OmniSport 2000 timer must be set to the correct race in order for the system to function accurately. Selecting the <EDIT> key on the console allows the user to change the event order, insert an event, delete an event, or clear the event order as shown in **Section 4.8** of this manual. Verify that the correct information is shown for the current event.

To edit current race information using the Pro Software, select the **Current Race** tab on the main dialog screen, which shows information pertaining to the current swimmers and event. Name, Affiliation, and Time are all editable fields. To edit one of these fields, select the field desired and click [EDIT] or double-click in the selected field. A cursor displays. To disqualify a lane, select the lane row and click [DQ]. Click [SPLIT ARM ALL] or [FINISH ARM ALL] to arm the touchpads for split times or finish times respectively. [STORE PRINT] sends the current event data to the printers and saves the data into a file.

Verify the Lengths

Once the console settings have been verified, the lengths of the pool must be set correctly. To do this, select the **Options** menu, then choose **Configure…** The Configure dialog displays. Select the **Pool** tab.

Lane Length should be set to the length that matches your pool. The lane length is used in conjunction with the race length to calculate how many lengths or "touches" the timer should expect for that race. Choose from the following three sizes: 25 yards, 25 meters, or 50 meters. Select [OK].

Always Ready Start

The Always-ready-start feature functions because the OmniSport 2000 timer has an internal time-of-day clock that continually runs when the timer is turned on. The internal clock continues to run even when the race clock has been stopped.

If a start was missed because the timer was not reset (race clock was still running from the previous race), the start impulse is logged in the memory and on the printer. To use the missed start, first reset the timer. If the operator chooses to use the received start signal, the timer will automatically start timing the event by calculating the correct running time. The <EDIT> key can also be used to retrieve the start impulse used for the last race.

If two independent OmniSport 2000 timers are being used in parallel for an especially critical application and one timer misses a start impulse completely because of a technical problem, a start time may be manually entered when read from the printout of the other timer.

Example: Editing a Start - If a start is missed because the timer was not reset before the start:

- The time-of-day of the start impulse will be logged on the printer
- The OmniSport will inform the operator of the start after the timer is reset

Procedure:

1. Reset the timer.
   a. Click [RESET], then [YES] to reset the time to zero.
   b. The following message in **Figure 23** displays on the screen at this time:
   c. Accept the missed start by clicking [YES] and the timer will start from the missed start time. If the missed start is to be ignored, simply press [NO] and the timer will be reset.

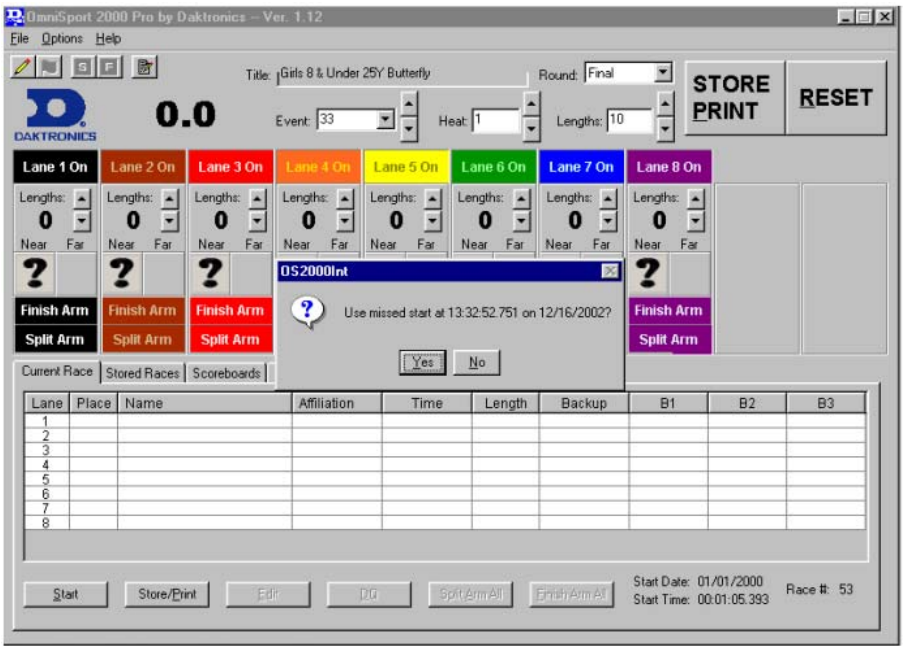


Figure 23: Always Ready Start Dialog Box

2. If the start time you needed was *not* on the LCD, click the [EDIT START TIME] button on the OmniSport 2000 Pro menu, shown at right (it is in the upper left-hand corner of the dialog).

   a. With the timer reset, press [EDIT START TIME]. This reveals the time-of-day of the last start impulse on the LCD.
   b. Confirm that the time-of-day shown on the LCD is the correct time for the start of the race. The start time may be edited using the number keys.

c. Click [OK] - This completes the editing operation. The race clock will start and the running time will be correct based on the entered start time.

During a Race

During a race, the lane status may be changed using three editable areas: Lane On/Off, Current Lengths, and the Arming Buttons. The user may monitor the lane status by viewing the Near/Far Lane Indicator, also located on the main dialog of the Pro Software.

Lane Status

During the race, verify the lane status using the editable areas listed below.

- **Lane On/Off** area is a toggle that turns that lane on or off. If the lane is off, no data will be received for this lane. Turn the lane off if no one is using that lane during the current event.
- **Current Lengths** can be changed by clicking the up or down arrows on the right side of this area. The current length will not go beyond the maximum lengths set for the current event.
- **Arming Buttons** are used to change the lane arming status during an event. There may be a time when a swimmer's touch is not registered by the touchpad. When this happens, use these buttons to change the arming of the lane.

To verify the current arming state of a lane, refer to the Near/Far Lane Indicator on the main dialog of the Pro Software. **Section 5.5** of this manual provides a description of each icon the indicator uses and what it represents.

After a Race

After a race is finished, the following actions must be completed: store/print the race data, reset the time for the event, and advance the event/heat to the next race.

Store/Print

Click [STORE/PRINT] to store the current event data into an event file and print the results according to the configurations set in the Configurations dialog. Refer to **Section 5.6**.

Reset

Clicking [RESET] will reset the time and begin a new event. [RESET] also stores the current event data into an event file and prints the data according to the configurations set in the Configurations dialog if [STORE/PRINT] was not clicked. Refer to **Section 5.6**.

Advance Event/Heat to Next Race

The **Event**, **Heat**, **Length**, and **Round** are set by the event order file, but can be edited from the main dialog by clicking the Up/Down arrows to the right of the data

fields at the top of the screen. At the end of an event or heat, you must manually increment the event number, heat number, and round.

Section 6: OmniSport 2000 Pro Synchronized Swimming Software

The OmniSport 2000 Pro software interfaces with the OmniSport 2000 timer and allows officials to control the competition through an easy-to-use, reliable and convenient Windows-based user interface installed on an IBM personal compatible computer. Synchronized swimming is only available with the OmniSport Pro software; the timer by itself cannot score synchronized swimming.

6.1 Computer Requirements

The OmniSport 2000 Pro software operates on an IBM compatible personal computer. In most circumstances, the computer used by the software will be purchased through Daktronics. This ensures the software hardware requirements will be met. If a computer is not purchased through Daktronics, the following list describes the requirements for the OmniSport 2000 Pro software.

- Microsoft Explorer 5.0 or higher
- Intel Pentium processor at 400 MHz or higher
- Windows 98 operating system or better
- Minimum 32 MB of RAM
- Standard keyboard and mouse

6.2 Hardware Setup

The OmniSport 2000 Pro software is a computer interface to the OmniSport 2000 timer. Judging a synchronized swimming event can be completed without the timing console, but there must be a console present to send the data to a display or to interface with the judge's consoles. The OmniSport 2000 timer must be connected properly to all competition equipment and accessories if using a display or judge's consoles.

6.3 Installation

The OmniSport 2000 Pro software installs using the Windows InstallShield Wizard guided installation program. To launch the installation program, insert the software CD into your CD-Rom drive.

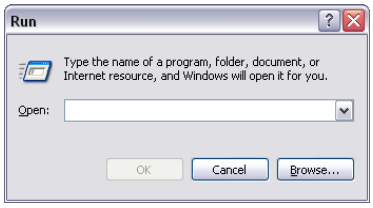


Figure 24: Run Dialog Box

If the autorun program does not start, left click on the Windows Start menu, Select "Run…" and the dialog box shown above in **Figure 24** displays. Type the address of your CD-Rom drive (usually D:) and click <OK>. This will display the files on the OmniSport 2000 Pro CD. Select **OmniSport ProSynchro.exe**. The InstallShield Wizard dialog displays. Click **[NEXT]** to continue. Refer to **Figure 25** below.

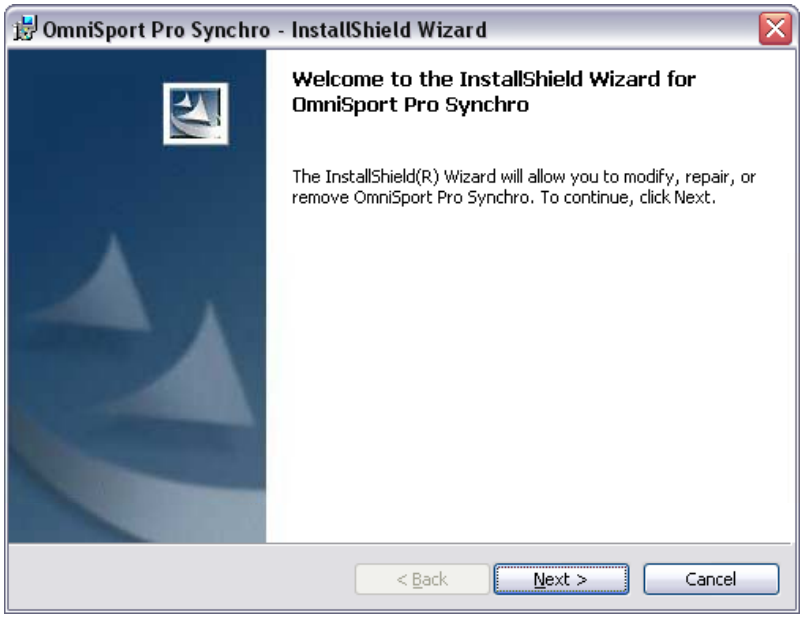


Figure 25: OmniSport Pro Software Installation

6.4 On First Run

To initiate the program, double-click the OmniSport 2000 Pro Synchronized Swimming icon on the desktop. Refer to **Figure 26**. The InstallShield Wizard will automatically install this icon after installation is complete. If there is not an icon present, locate the OmniSport Pro Synchro file and double-click **OSPSS.exe**. The folder should be located under Program Files on the local disk (usually C:) of your computer.

Figure 26: Synchronized Swimming Icon

On initial setup, the registration dialog displays. Either register or click **[CONTINUE]** to bypass registration. If you do not register, you will have access to the demo version, which has all the same functions as the registered version, for up to 30 days.

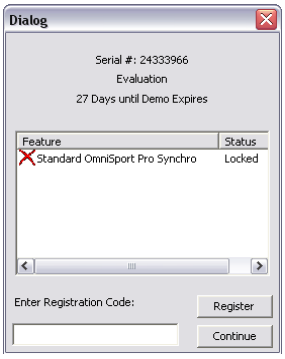


Figure 27: Registration Dialog

If you have not registered by this time, the software will lock. The registration code must then be entered to continue running the software. Refer to **Figure 27.**

Registration

Daktronics allows potential users to test the full version of the software before purchasing. When the registration code has not been entered, the 30 days remaining dialog on startup of the program is visible, and the software will not run after the trial period expires. If you wish to purchase the software after testing it, simply contact Daktronics at 1-877-605-1115 for pricing and information. Upon proof of purchase you will receive the unlock code which allows unlimited use of the software.

To register the software, follow these steps.

1. Start the program.
2. Enter the Registration Code received from Daktronics in the field.
3. Click **[REGISTER].**

Unlimited use of the software is available after registering. The trial period should give many opportunities to test the software before purchasing it.

If the user registers the OmniSport software on a computer, the registration code pertains only to that workstation. Reloading the software on a separate computer requires a new registration code.

Using the Pro Synchronized Swimming Software Without the Console

The OmniSport 2000 Pro Synchronized Swimming software may be used independently. It does not depend on the console for calculating judge's scores or printing reports. A complete synchronized swimming competition can be recorded with only the Pro software and by manually entering the individual judges scores.

If a video display or a scoreboard is to be used with the software, the OmniSport 2000 timer must be present and connected. The timing console only acts as an interface in this configuration and handles no operational functions. The timer must also be used to interlink the judge's consoles with the Pro software. The following table describes the equipment needed to perform different levels of competition recording.

Scoring Devices	Scoring Display Type	Equipment
Pro Software	Paper Score Pin-Up	OmniSport 2000 Pro Computer; printer
Pro Software and Judge's Consoles	Numeric Display	OmniSport 2000 Pro Computer; Printer; OmniSport 2000 timer; Judge's Consoles
Pro Software and Judge's Consoles	Matrix Display	OmniSport 2000 Pro Computer; Printer; OmniSport 2000 timer; Judge's Consoles; Venus® 7000 Computer

Synchronization with Timer

Once the hardware and software have been installed and the software is running, the OmniSport 2000 Pro system should synchronize with the timer.

If the OmniSport Pro software is unable to detect the console, ensure the cable is connected to a “COM” port on the back of the computer and to the “EXPANSION” port on the OmniSport 2000 timer. If they are, set the COM Port properties in the **Options/Communications/Setup** menu.

Note: If the cables are connected properly the "connection icon" on the main dialog will be green. It will flash green when receiving data, and will be red when it is not connected. Refer to **Figure 28**.

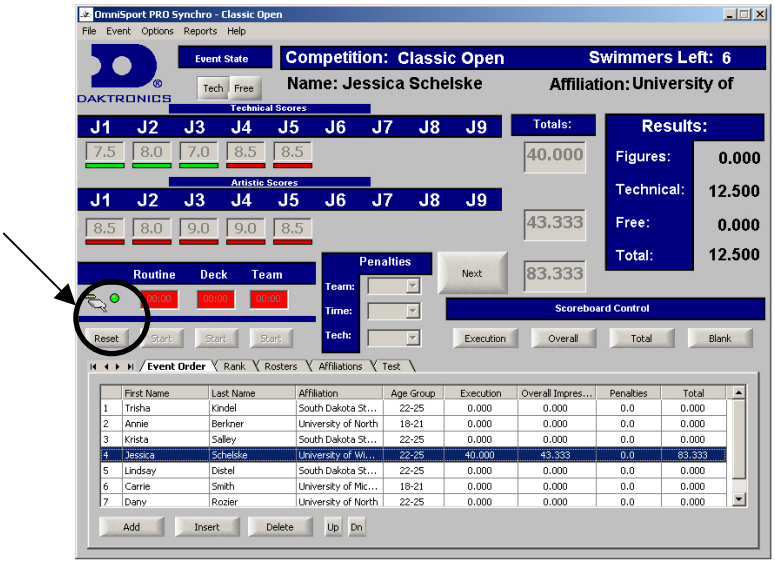


Figure 28: Connection Indicator

A message box will display requesting which configuration settings you prefer, when differences are found in the configurations stored on the timer and the Pro software. Once a selection has been made, both system configurations will be exactly the same. Any change made to the configuration operating on one system will be recorded on the other as long as the serial connections is operating properly. Console detection is continual; others only come across when changed.

When connected and operating properly the LCD on the timer will read, "Controlled by Pro."

Note: Some computers purchased with this software will have a Rocket® port installed with the system. The port labeled "Port 0" will be normally set as COM 5 in the computer system. The next port would then be COM 6, then COM 7, and finally COM 8 for a four-port Rocket port. The OmniSport 2000 Pro software recognizes these ports regardless of which port number has been assigned to them.

6.5 OmniSport 2000 Pro Synchronized Swimming Operation

Once the OmniSport 2000 Pro Synchronized Swimming system is synchronized and configured, event management is quick and simple. This system sends the data to the output devices, whether they are a matrix display, a numeric scoreboard or a paper printout.

This section describes the operation of the buttons and indicators for the OmniSport 2000 Pro Synchronized Swimming software.

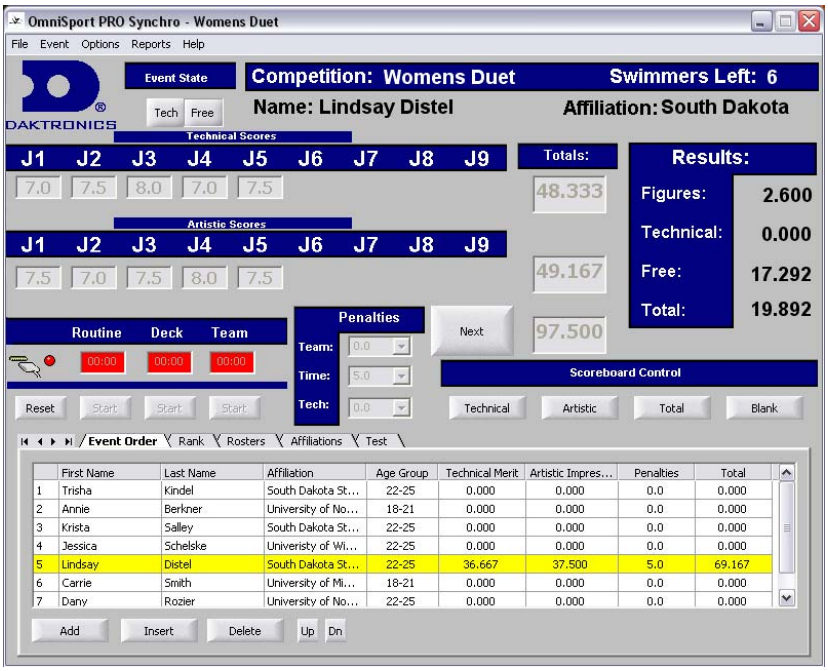


Figure 29: Main Synchronized Swimming Dialog

Event Routine

These buttons allow you to switch between Technical and Free routines if configured for the current event.

Figure 30: Event Routine

Competitor Information

This section in the main dialog box displays the current swimmer's name and affiliation, the competition, and how many swimmers are left in the event.

Figure 31: Competitor Information

Judges Scores

Individual technical and artistic judges' scores and the total scores are shown here.

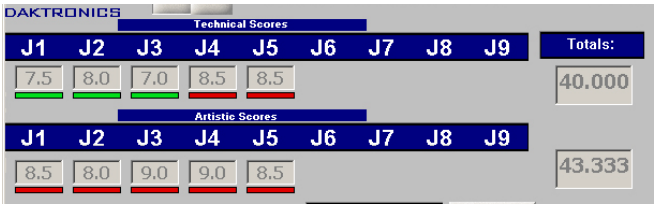


Figure 32: Judges' Scores

Results

This section shows the final calculated results for each swimmer.

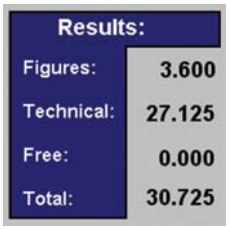


Figure 33: Results

Connection/Timers

This section displays a "connection icon" that will flash green when the OmniSport console is connected. Routine, Deck and Team timers are also displayed.

Figure 34: Connection/Timers

Penalty

The pull down menus are used to calculate a swimmers score minus their penalties. These automatically show penalties when the associated timer indicates a penalty.

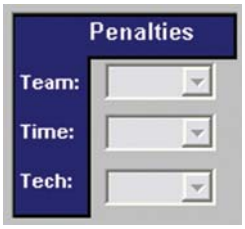


Figure 35: Penalties

Scoreboard Control

These buttons allow you to choose what information you want to display on your scoreboard (Technical/Execution scores, Artistic/Overall Impression scores, Total scores, or no information).

Figure 36: Scoreboard Control Buttons

6.6 Event Menu/Creating Events

To create a new event, choose "New Event" from the **Event** menu located on the main menu. The Event Setup dialog box will display. Refer to **Figure 37**.

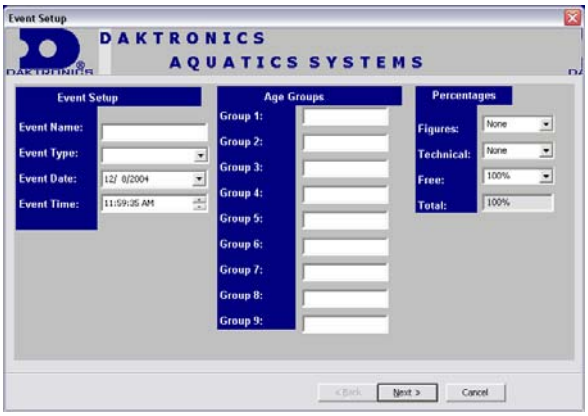


Figure 37: Event Setup Dialog Box

In the event section of the dialog box enter the appropriate Event Name, Event Type, Event Date and Event Time. Next, designate the different age groups that will be participating in the competition. If there is only one age group competing this section does not need to be completed.

The percentages section of the dialog box allows you to set up which percentages of the Figures, Technical and Free scores, will be used to calculate the Final score. Click **[NEXT].**

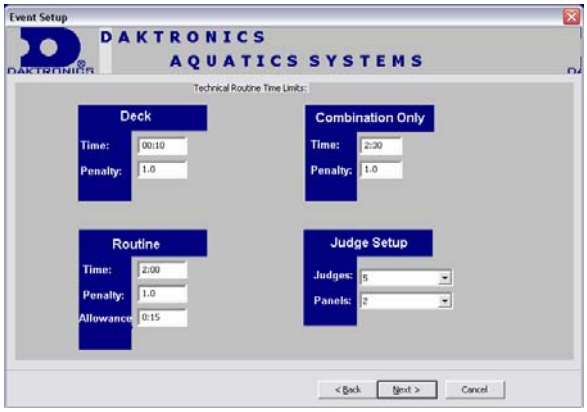


Figure 38: Technical Routine Time Limits Dialog Box

Technical Routines Dialog Box

The Technical Routine Time Limit Dialog box will then display. Set the appropriate time limit and penalty in each section. Use the pull down menus to designate the number of judges and panels for this portion of the event. Click **[NEXT].**

Free Routine Dialog Box

This dialog box is exactly the same as the Technical Routine Dialog Box, but is used for free routines instead of technical. Set the appropriate time limit and penalty in each section. Use the pull down menus to designate the number of judges and panels. Click **[FINISH].**

Note: The Technical and Free routine dialogues will not allow entry (grayed out) if their percentage is set to NONE on the first dialog box. Refer to **Figure 37**.

Opening Events

To open an event, choose **Open Event** in the **Event** menu. Select an event from the list and click the **[OPEN]** button. You can then begin entering in competitor names and affiliations in the Rosters and Affiliations tabs.

Editing Events

To edit an event, choose **Edit Event** in the **Event** menu. Select the event you want to edit and click the **[EDIT]** button.

Copying Events

To copy an event, choose **Copy Event** in the **Event** menu. Select the event you want to make a copy of and click the **[COPY]** button. This allows you to use a previously created event as a template for a new event if there are only a few differences between events.

Deleting Events

To delete an event, choose **Delete Event** in the **Event** menu. Select the event you want to delete and click the **[DELETE]** button.

6.7 Main Dialog Tabs

This area of the main dialog contains five tabs. Refer to **Figure 39**. Each tab pertains to a different function of the system. Select the tab to switch between them.

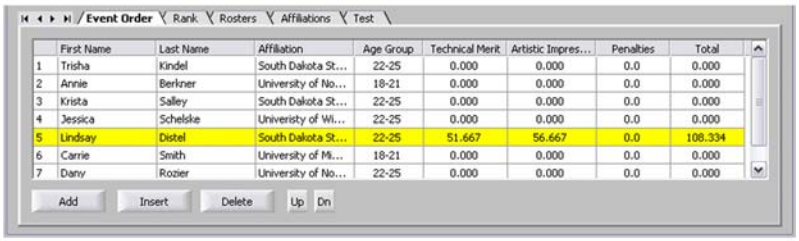


Figure 39: Main Dialog Tabs

Event Order

The **Event Order** tab shows information pertaining to the current swimmers and event. The name of the current swimmer is highlighted in yellow or green depending on the mode of scoring.

The **[UP/DN]** buttons allow you to change the order of the swimmers shown on the event order tab. Select a swimmer's name and use the **[UP/DN]** buttons to move them accordingly.

While on the **Event Order** tab, there are several other options available when you right click on a diver in the pop up menu. Refer to **Figure 40**.

Figure 40: Pop-up Menu Options

The first section of the pop up menu gives you the option to add, insert or remove swimmers. To add a swimmer choose **[ADD SWIMMER]** from the pop up menu. The add/insert swimmer dialog box will display. Refer to **Figure 41.** The dialog box has pull down menus that allow you to choose from swimmers previously entered in other events, or allows you to manually enter new swimmers.

Figure 41: Add/Insert Swimmer Dialog Box

The second section of the pop up menu allows you to change the order of the swimmers. Refer to **Figure 40.** Right click on the name of the swimmer you want to move and choose either **[MOVE UP]** or **[MOVE DOWN]**. This can also be done using the **[UP/DN]** buttons located on the event order tab.

The third section of the pop up menu allows you to change back to the Next mode so another swimmer can be selected as current. The **[BACK TO NEXT]** allows you to abort score entry in the Accept mode. You have to be in Next mode if you want to use the **[MAKE CURRENT]** option in the pull down menu. When in Accept mode judge's scores can be entered but the swimmer's scores and order cannot be edited.
Refer to **Figure 40.**

Note: You can tell what mode you are in by looking at the button located next to the penalties box. When it says "Next" you are in Next mode, and when it says "Accept" you are in Accept mode. Refer to **Figure 42.**

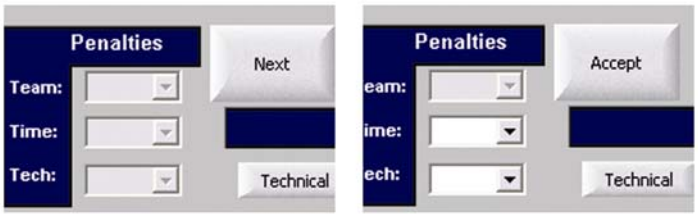


Figure 42: Next/Accept Mode

The fourth section of the pop up menu allows you to edit the current swimmer, the score, the age group, the draw order and the swimmers names. Refer to **Figure 40.**

To edit a swimmers score, right click on that swimmer and choose **[EDIT SCORE]** from the pop up menu. Choose the score you need to update the Edit Score dialog box will display. Enter the proper scores and click **[ACCEPT].** Refer to **Figure 43.**

Figure 43: Edit Score Dialog Box

To edit a swimmers age group, draw number or name, right click on that swimmer and select the information you want to edit. The appropriate dialog box will display allowing you to edit the information; the rest of the options in the box will be locked to prevent accidental changes. Refer to **Figure 44**.

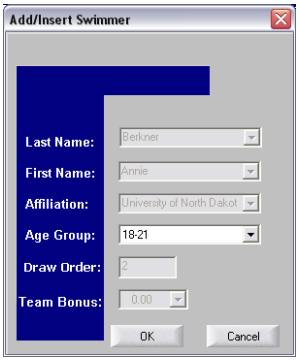
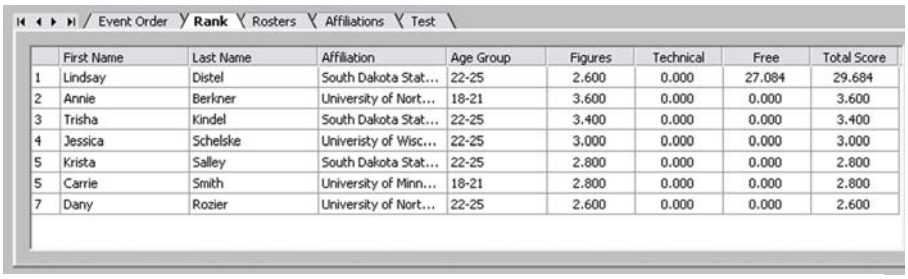


Figure 44: Edit Swimmers Dialog Box

Rank

The **Rank** tab shows the swimmer ranks in order from first to last for the current event selected. Refer to **Figure 45**.



	First Name	Last Name	Affiliation	Age Group	Figures	Technical	Free	Total Score
1	Lindsay	Distel	South Dakota Stat...	22-25	2.600	0.000	27.084	29.684
2	Annie	Berkner	University of Nort...	18-21	3.600	0.000	0.000	3.600
3	Trisha	Kindel	South Dakota Stat...	22-25	3.400	0.000	0.000	3.400
4	Jessica	Schelske	Univeristy of Wisc...	22-25	3.000	0.000	0.000	3.000
5	Krista	Salley	South Dakota Stat...	22-25	2.800	0.000	0.000	2.800
5	Carrie	Smith	University of Minn...	18-21	2.800	0.000	0.000	2.800
7	Dany	Rozier	University of Nort...	22-25	2.600	0.000	0.000	2.600

Figure 45: Rank Dialog Box

Note: The scores shown under the rank tab take into account the pre-configured percentages for Figures, Technical and Free scores.

Roster

The **Roster** tab is used to enter new swimmers names and assign them to the correct affiliations. To add swimmers to the correct affiliations, first select the Affiliation in the drop down list, and then click **[NEW SWIMMER]**. Enter the First Name, Last Name and Event Type. Click **[SAVE]**.

To edit a swimmer, select the swimmer in the roster list on the left side of the tab and edit the diver's data. Click **[SAVE]** when complete or **[UNDO]** to replace the original data. Click **[DELETE DIVER]** to remove the diver from the roster. Refer to **Figure 46**.

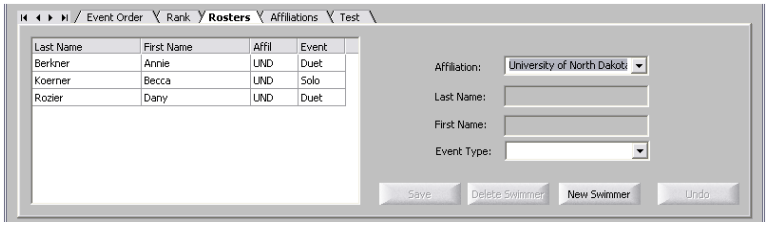


Figure 46: Roster Dialog Box

Affiliations

The **Affiliations** tab is used to create and edit affiliations. To add affiliations, click **[ADD TEAM]**. Enter the Team Name and Team Abbreviation and click **[SAVE]**. To edit the affiliation, select the team in the list on the left side of the tab and edit the team's data on the right.

Click **[SAVE]** when complete or **[UNDO]** to replace the original data. Click **[DELETE TEAM]** to remove it from the list. Refer to **Figure 47**.

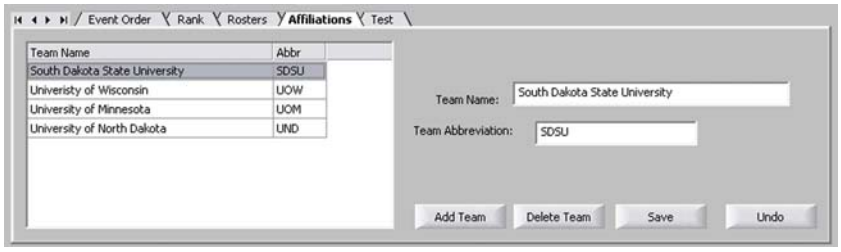


Figure 47: Affiliation Dialog Box

Test

The **Test** tab is used to test the LED display being used. It will cycle the display on and off and show module and digit addresses. Currently, the **Test** tab is disabled. Refer to **Figure 48**.

Figure 48: Test Dialog Box

6.8 Configurations

Timer Configuration

Configuring the OmniSport 2000 Pro Synchronized Swimming software is an important part of managing your events efficiently and completely. Once running the software, select the **Options** menu and then select **Timer Configurations**. The Timer configuration dialog box displays refer to **Figure 49**.

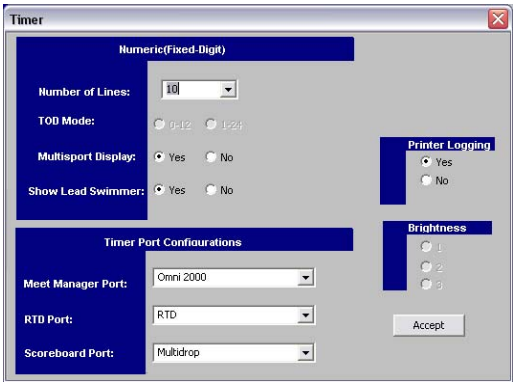


Figure 49: Timer Configuration

- **Number of Lines** tells the software how many lines are on the numeric scoreboard.
- **TOD Mode** (time-of-day mode) sets how the time-of-day will be displayed.
- **MultiSport Display** sets whether or not a multisport module is in use.
- **Show Lead Swimmers** sets whether or not the lead swimmer will be displayed.
- **Printer Logging** turns on printing from the timer thermal printer.
- **Meet Manager Port** configures which protocol (Omni2000, Omni6000 or CTS) communicates with the meet management software out of the Results port (J6) connector on the OmniSport timer.
- **RTD Port** configures which protocol (RTD or CTS) will be transmitted out of the RTD port (J5) connector on the OmniSport 2000 timer.
- **Scoreboard Port** configures which protocol (Multidrop or Multiline) will be transmitted out of the scoreboard outputs (J2 and J3).

Setup Configurations

The Communication Configurations area configures which port interfaces the OmniSport 2000 timing console to the OmniSport 2000 Pro computer. To reach this area, select the **Options** menu then select **Communications/Setup.** The following dialog box displays the General, Com Settings or Protocol List options to be configured.

Figure 50: DL Streams Wizard; General

General Configurations

The General Configurations area configures the settings common to all stream types.

- **Enable:** Should always be checked.
- **Type:** COM Port
- **Name:** Should be a descriptive name for the port.
- **Encrypt:** Should never be checked

Com Settings Configurations

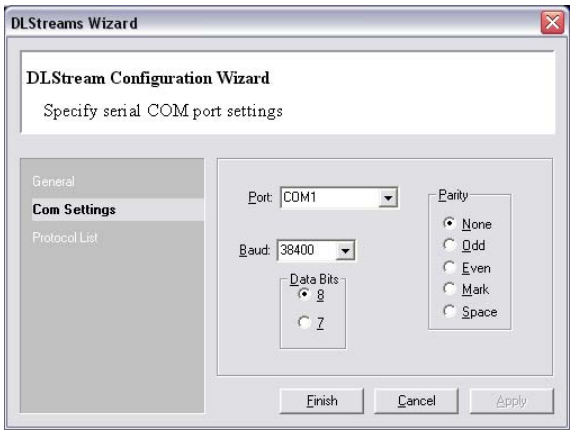


Figure 51: DL Stream Wizard, Com Settings

The Com Settings Configurations area configures the serial COM port settings.

- **Port:** Com # (Use the port # to which the serial cable is connected)
- **Baud:** 38400 (Default – do not change)
- **Data Bits:** 8 (Default – do not change)
- **Parity:** None (Default – do not change)

Protocol List Configurations

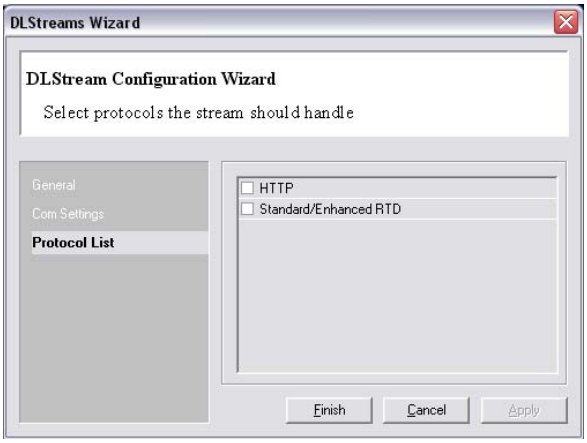


Figure 52: DL Stream Wizard, Protocol Settings

The Protocal List:

- **HTTP:** Should never be checked.
- **Standard/Enhanced RTD:** Should never be checked.

Monitor Data Flow

Select the **Options** menu then select **Communications/Monitor.** To ensure data is flowing between the timer and Pro software, the following screen should display. The top section shows incoming data and the bottom shows outgoing.

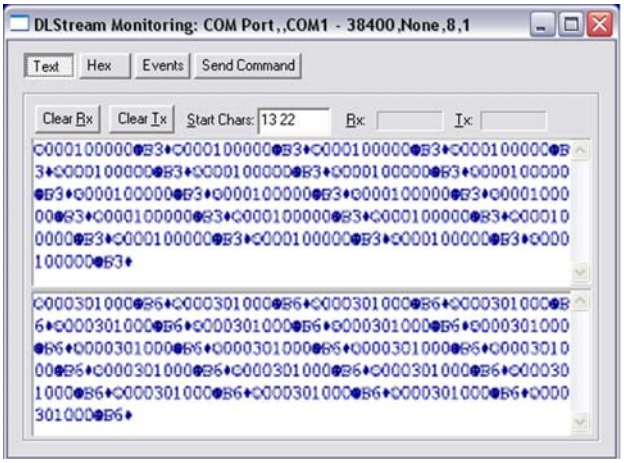


Figure 53: DL Stream Monitoring Screen

6.9 Typical Operation

This section deals with the operational procedures used before a meet and during and after each event.

Before the Meet

Before each meet, three things must be done:

1. Verify the configurations.
2. Test the system.
3. Setup event and swim order.

Verify the Configurations

Once the system is tested, open the Configurations dialog. Go through each tab and make sure all the configurations are set to the necessary settings. The system will maintain the settings that it used during the last time it was operated. If any configuration setting were changed while the timer and software were not connected, the system will request that the configuration be synchronized upon reconnection.

Though the configurations will not change unless you change them, it is recommended to print the configuration settings so that they can re-entered if there is a sudden loss of power or damage to any equipment that may cause a loss of memory. This can be done from the timer. Press **<Menu>, <3>, <3>, <Enter>** on the keypad of the OmniSport 2000 console.

Test the System

The OmniSport 2000 timer and Pro system must be operating properly for a meet to run smoothly. Test the system following the steps below:

1. Turn on the system and ensure the cables are properly connected. Once the software is running, it should detect the OmniSport 2000 timer. If not, reconfigure the Comm Port.

2. Test the peripheral devices such as the judge's consoles. Using a test event and swim order, enter the judges' scores on each console. If the scores do not appear on the software score area, check the cables on the rear of the OmniSport 2000 timer.

   Note: If the judge's consoles are connected properly the bars under each judge's score will be green. If not connected properly they will be red.

3. If using a display, test run an event to ensure the display shows what is expected.

During an Event

During a synchronized swimming competition, judges must make decisions on the quality of the performances. These judgments affect the swimmer's final scores. This subsection details what must be done in order to score a competition successfully.

There are two ways scores are entered into the OmniSport 2000 Pro Synchronized Swimming software: manually with the software or through peripheral judges' consoles. Once entered, the software calculates the awarded score by using the formula set. Ensure the correct percentages are selected before the event.

Once a swimmer has been awarded his or her points, click **[ACCEPT]** to move on to the next swimmer.

After an Event

After the event is finished, print the reports by selecting the **View Reports** from the **Reports** menu. The results available for print are: Starting Lists, Figure Lists, Technical Results (by Draw), Technical Results (by Rank), Free Results (by Draw), Free Results (by Rank) and Total Results. Refer to **Figure 54**.

This prints the results to an HTML file, which can be sent to a printer or published on a web site.

Once the competition is officially completed, turn off and store all equipment in its respective locations.

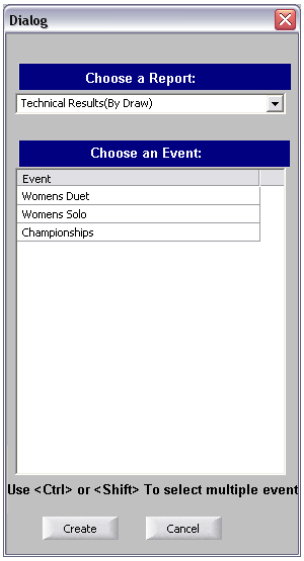


Figure 54: Results Dialog Box

Section 7: Timing Console Diving Operations

Sport Insert LL-2566

Reference Drawings:

Insert; Diving; Omni 2000 .....**Drawing B-180044**

The sport insert drawing is located in **Appendix B**. If an insert is lost or damaged, a copy of the insert drawing can be used until a replacement can be ordered.

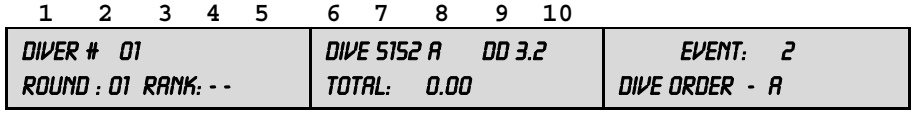
Refer **Section 2** for information on starting the timer and for instructions on using the sport insert.

7.1 General Features

The diving mode of the OmniSport 2000 timer will perform scoring computations based on the judges' scores and the degree of difficulty and can store up to four different dive orders. Any four-digit dive and four position types can be entered into this system along with their corresponding degree of difficulty. Dive scores can be scored with 2, 3, 4, 5, 7, or 9 judges.

The OmniSport 2000 timer will store up to 25 divers with 13 rounds each for as many as four events.

The trio of LCDs on the OmniSport 2000 keeps the operator informed during all operations. Note the following layout of the LCDs shown in the diving mode.



Diving mode

The left LCD shows the diver number, round, and diver rank. The middle LCD displays the current diver's dive type, position, degree of difficulty, and total score for that round. The right LCD shows the selected dive order and the event number.

7.2 Keypad Insert Key Descriptions

There are several different key types on the diving insert, **LL-2566**. Each key has a specific use. When looking at the keys, notice that some of them have been grouped together by location and others have been grouped with a border. The keys with borders are used together or perform similar operations. This section will describe those groups and the key functions.

Judges' Score Keys

The numbers along the top of the insert are the scoring keys. These keys contain numbers ranging from zero to ten at intervals of 0.5 (0, 0.5, 1.0, 1.5…). The keys with borders are used to enter the judges' scores. The console then calculates the awarded score using the formula selected and the degree of difficulty.

Note: Do not confuse the scoring keys with the permanent number keypad at the right side of the console. The number keypad will be used to enter in all of the editable information such as menu selections and round and diver edits. The scoring keys will only be used to enter scores.

Round and Diver Keys

<**ROUND** •> and <**DIVER** •> are used to edit the current round and current diver respectively. Press <**ROUND** •> to edit the round number. Notice in the left-hand LCD that a flashing asterisk has appeared next to the round. Use the numeric keypad to edit the round number and press <**ENTER**>.

Select Order

<**SELECT ORDER**> allows you to change, which Dive Order is being used. The console can hold up to four dive orders: A, B, C, and D. To change the Dive Order selected, press <**SELECT ORDER**>, then press the appropriate letter key for the order desired.

Once an order is selected, it can be edited from the keypad. This is important because you must have the order selected before you can clear one particular order or change an event on that order. You cannot change a Dive Order that has not been selected.

Letter Keys

The insert has four letter keys: <**A**>, <**B**>, <**C**>, and <**D**>. These keys are used in a few different functions in the diving system.

First, they are used to represent dive orders. Each dive order can hold up to 25 divers with 13 rounds. During a diving event, one of these orders is selected and that is the order in which the dives will be performed.

The letter keys also pertain to the position when entering a specific dive. Each letter corresponds with one of the four different positions available for a particular dive type. The table below shows which letter corresponds with which position.

Dive Position	OmniSport 2000 Letter
Straight	A/S
Pike	B/P
Tuck	C/T
Free	D/F

Print and Paper Feed

<PRINT> and <PAPER FEED> are functions of the printer. Pressing <PRINT> will open a three-option menu. Those three options are Dive Results, Individual Dive List, and All Dive List. See **Section 3** for Dive Results, the Individual Dive List and the All Dive List. Press < PAPER FEED > to feed two lines of unprinted paper through the printer.

Scoring Group

The scoring group of keys consists of the following: <SCORE>, <ABORT>, and <EDIT>.

Press < SCORE > to enter the judge's scores. Once pressed, the LCDs will request scores equal to the number of judges that had been set in the menu. Refer to **Section 6.7**. When all the scores have been entered, press < SCORE > to accept the scores. Press < ABORT > to stop the scoring process and return to the dive entry.

Press < EDIT > to change the current dive type, position, and Degree of Difficulty (DD). A curser displays in the center LCD allowing you to change the dive type and position. Once the correct dive type and position is entered, press <ENTER> on the numerical keypad. This will allow you to change the DD. Once the correct DD is entered, press <ENTER>again to exit.

Fail and Balk

These keys are only used when the score operation is active. If an official determines that a diver balked on the dive or failed to perform the dive properly, the judges will be notified and the scores will be determined based on this. Pressing <BALK> will subtract two points from each judges' score. Pressing <FAIL> sets the awarded score to 0.

Note: The < BALK > and < FAIL > keys are only available after <SCORE> has been pressed the first time and the judges scores are being entered. You will see < FAIL > or < BALK > on the center LCD if it is enabled.

Cut

Pressing <CUT> prevents divers from getting scores. Use this on divers who have been cut. They will remain in the dive order, but they will not be active. The text <CUT> will display on the LCD by the diver if cut. Press <CUT> again to disable the hold on the diver.

Event Keys

The event keys are used to increment and decrement the current event. When pressed, the right LCD will prompt you to enter if this is the end of the dive order. Press <YES> to confirm or <NO> to go back. If these buttons are pressed and the next event is a swimming event rather than diving, the prompt will ask if you wish to change to swimming mode. Press <YES> to confirm or <NO> to go back. <ENENT HEAT> allows you to go directly to any event in the event order list.

7.3 Before-Each-Event Operations

Clearing the Order

Before a new diving competition or event can be performed, the dive order must be set. Clear any old information from the dive orders to eliminate any confusion that may arise. Complete the following steps to clear the orders.

1. Press <SELECT ORDER>, <**A**> to set the current Diver Order to A.
2. Press <MENU>, <**2**>, <**3**>, and <ENTER> to clear out Dive Order A.
3. Repeat this step selecting <**B**>, <**C**>, and <**D**> to clear the remaining Drive Orders.

Entering Dive Lists (Optional)

Each diver must perform certain dives during an event. The Dive List of each diver can be stored in the Dive Orders. To enter the Dive List for each of the divers in Dive Order A, follow the steps below.

1. Press < SELECT ORDER >, <**A**> to set the current Diver Order to A.
2. Verify on the left LCD that the Diver # and Round are both set to 01.
3. Enter the first diver's dive list by pressing < MENU >, <**2**>, <**4**>, and < ENTER >.
4. The LCD will prompt you to enter the dive and position. Use the numeric keypad to enter the four-digit dive number and the letter keys to select the position. Press < ENTER > to accept the dive and position. Use the numeric keypad to enter the DD for the dive selected. Press < ENTER > to accept the DD and increment the round by one. Repeat this sequence to enter the dive, position, and DD for each additional round for the selected diver.

Note: when in the Editing Order menu, use the <←> key to decrement the round by one, the <→> key to increment the round by one, the <↑> key to decrement the diver by one, and the <↓> to increment the diver by one.

5. After the first diver's dive list is entered, press <↓> to increment the diver by one. Press <←> as many times as necessary to decrement the round to one. Now repeat the above instructions for each diver's dive list.
6. Press <**PRINT**>, <**3**>, and <**ENTER**> to print the dive list for all the divers in the selected Dive Order.
7. Repeat this step selecting <**B**>, <**C**>, and <**D**> to pre-program each of the Dive Orders.

Entering Judges

The correct number of judges is a critical part of scoring an event. To set the number of judges, press <**MENU**>, <**4**>, <**1**>, and enter 2, 3, 5, 7, or 9 to enter the correct number of judges. If 7 or 9 judges are selected, it will prompt you for the correct formula.

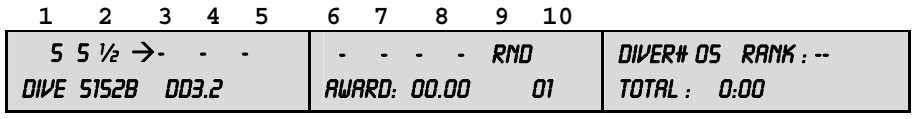
7.4 During-the-Event Operations

Selecting the Order

At the beginning of a diving event, the correct dive order must be selected. To do this, press <**SELECT ORDER**> and the correct letter key. Verify on the left LCD that the Diver # and Round # are both set to 01.

Entering Scores

Entering the scores is the most important part of a diving event. The following image represents what the LCD should look like if you were entering scores with nine judges. The top row of the two left-hand LCDs displays the judges' scores. The bottom row of those two LCDs show the dive number, position, degree of difficulty, total points awarded, and the round. If a diver fails a dive or balks on a dive, AWARD is replaced with FAIL or BALK.



To start entering scores, you must first select a diver, dive, position, and DD. There are two methods of doing this: one method is used when the dive order is preprogrammed, and the other is when the dive order has not been preprogrammed. Both situations are described hereafter.

When the dive order is pre-programmed. Refer to **Section 6.**

1. Verify on the center LCD that the correct dive, position, and DD is programmed.

2. If not, press <EDIT>and correct any mistakes.
3. Press <SCORE> and the left two LCDs will prompt you for the judges scores.

When the dive order is not pre-programmed.

- Press <SCORE> and the left two LCDs will prompt you to enter dive and position. Use the numeric keypad to enter the three or four digit dive number and the <**A**>, <**B**>, <**C**>, <**D**> keys for the position. Press <ENTER> to accept the dive and position. Use the number pad to enter the DD for the dive selected, then press < ENTER >. The left two LCDs will prompt you for the judges' score.

Use <**0**>, <**.5**> thru <**10**> on the insert to fill in the judges scores. Press <FAIL> or <BALK> if they apply. When the correct judges' scores have been filled in, press <SCORE> to accept the awarded score and advance to the next diver in that round. Repeat for each dive.

If that was the last diver for that round, press the <→> key to increment the round by one. Next, press <DIVER •>, <**1**>, and <ENTER>. Repeat the above step until all dives and rounds are completed.

7.5 Menu Key

There are two methods of navigating through the menus in the OmniSport 2000 console:

- The first method allows the operator to step through each of the menu levels. To use this method press the <MENU> key and then use the <↑>, <↓>, <→>, and <←> keys to scroll through the menus. Press <ENTER> to select the menu displayed on the LCD.
- The second method is to go directly to a menu. Press the <MENU> key followed by the 1- to 3-digit number from the list below and the LCD will prompt you for the desired setting or action in that menu. For example, **5-2-1** will cycle the display from an all on signal to an all off signal. After you are done navigating through the menus, press the <MENU> key to return to the event in progress.

1) SCBD MENU functions

1-1) SCBD ON/OFF clears the display; yes or no

1-2) DIMMING sets the brightness level of the display

1-3) TIME-OF-DAY displays the time-of-day; yes or no

2) EDIT MENU functions

2-1) TEAM SCORE team score edit menu

2-2) EVENT ORDER event order menu

2-2-1) EDIT ORDER edit event order

2-2-2) INSERT EVENT inserts an event into the order

2-2-3) DELETE EVENT deletes an event

2-2-4) CLEAR ORDER clears event order

2-3) CLEAR ORDER A (A-D) clears only one of the four dive orders

2-4) DIVER ORDER allows editing of the diver order

2-5) CLEAR TOTALS clears scoring totals

2-6) DIVER TOTALS edits diver score totals

3) PRINT MENU functions

3-1) DIVE RESULTS prints the results of the dives or a complete meet

3-2) EVENT ORDER prints out the selected event orders

3-3) SETTINGS prints out all configurations entered in the *Setup Menu*

3-4) IND DIVE LIST prints the individual dive list of a selected diver

3-5) ALL DIVE LIST prints out the entire dive list

4) SETUP MENU functions.

4-1) JUDGES sets the number of judges used in the meet

4-2) NUMERIC SCBD is used to set the scoreboard configurations

4-2-1) # OF LINES sets the number of lines on the display

4-2-2) LEAD DIVER sets the lead diver

4-2-3) MULTISPORT SB selects the type of numeric scoreboard

4-3) COMM PORTS allows selection of communication ports

4-3-1) SCBD OUTPUT selects between multidrop or multilane protocol

4-3-2) RTD PORT selects between RTD or CTS protocol

4-3-3) RESULTS PORT selects results protocol

4-4) PRINTER is used to configure the printouts and printer.

4-4-1) DIVE LOG selects if dive log is on

4-4-2) INTENSITY selects printer intensity

4-5) TIME-OF-DAY allows the setting of the time and day

5) TEST MENU functions

5-1) BATTERY allows testing of the battery

5-2) SCOREBOARD allows testing of scoreboard

5-2-1) CYCLE ON/OFF turns the display on and off

5-2-2) DRIVER ADDRESS selects the driver address

5-2-3) DIGIT NUMBER turns on a particular digit

Scoreboard Menu

Selecting the **SCBD MENU** will offer you the following menus:

SCBD On/Off

LCD Display	Action
MENU- SCOREBOARD 1-SCBD ON/OFF	Scbd ON/OFF toggles the scoreboard between blank and displaying the current race data. If the scoreboard is blank, it will remain blank until the start of the next race or until <RESET> is pressed to re-display the data of the last race.
SCBD IS ON SET OFF? Y/N	The LCD will show this message and will ask for a yes/no response. Press <YES> to clear the scoreboard. Press <NO> to keep the scoreboard data lit and return to **SCBD ON/OFF** menu.

Dimming

LCD Display	Action
MENU- SCOREBOARD 2-DIMMING	Dimming adjusts the dimming level of the scoreboard. The dimming level only applies to scoreboards configured to receive multi-drop protocol.
SCBD DIMMING LEVEL 0-3: NONE	The dimming level is set from 0 to 3 and the levels are: 0 = none 1 = 2/3 2 = 1/2 3 = 1/3 Enter the appropriate dimming level and press <ENTER> to accept the change. Press <CLEAR> to decline the action and return to the **Dimming** menu.

Time-of-Day

LCD Display	Action
MENU- SCOREBOARD 3-TIME OF DAY	Time-of-day (TOD) blanks the scoreboard and displays the TOD on the scoreboard. The scoreboard will show the TOD until the start of the next race or until <RESET> is pressed to re-display the data of the last race.
MENU- SCOREBOARD DISPLAY TOD?	Press <YES> to show TOD on the scoreboard. Press <NO> to decline the action and return to the Display **TOD** menu.

Edit Menu

Selecting the **EDIT MENU** will offer you the following submenus.

Team Score

LCD Display	Action
MENU-EDIT 1-TEAM SCORE	Team Score edits the current team scores for home and three guest team scores. The OmniSport 2000 timer can maintain up to four team scores.
H 000* G1 000 G2 000 G3 000	Use the <**0**>-<**9**> keys to enter the correct score. Press <**ENTER**> to accept the change and move to the next score. Edit each score in the same manner pressing <**ENTER**> to move on to the next team. When the cursor is flashing, the team that is marked is ready to be edited. After the last team score has been edited, the display will move onto the next menu item. Press <**CLEAR**> to return to the **Team Score** menu.

Event Order

LCD Display	Action
MENU-EDIT 2-EVENT ORDER	Event Order contains additional submenus that allow the operator to edit the event order, insert an event, delete an event, or clear the event order.

Edit Order

LCD Display	Action
MENU-EVENT ORDER 1-EDIT ORDER	The OmniSport 2000 timer can hold up to 500 events. Because some events may carry the same number but have an alpha character (example: event 001 and 001A), event locations have been numbered from 1 to 500. Use the <↑> <↓> keys to move the cursor to select the event location number. Press <ENTER> when the location number to be edited is shown. Press <CLEAR> to return to the menu selection.
EDIT EVENT ORDER #001* E: 001 R: F	
#001 = VET: 001* RND = FINAL	Use the <**0**>-<**9**> keys to change the event number. Press the <←> or <→> to set the events alpha designator and press <ENTER>.
#001 = EVT: 001 RND = FINAL*	Press the <←> or <→> to change the round type (FINAL, SEMI-FINAL, PRELIM, BLANK) and press <ENTER>.
#001 = EVT: 001 DISTANCE = ▪100*	Enter a distance for this event # and press <ENTER>. Entering a 0 will insert a diving event. Instead of asking for a record time, it will show the dive order (A, B, C, or D) set for that event.
#001 = EVT: 001 REC: ▪1:35.27*	Enter a new record time and press <ENTER>. Pressing <CLEAR> returns to the **Event Order** menu.

Insert Event

LCD Display	Action
MENU-EVENT ORDER 2-INSERT EVENT	Insert Event is used to insert an event into the event order.
INSERT BEFORE #008* E: 004B R: F	Use the <↑> <↓> keys to move the cursor to select the event location number where the new event will be inserted. Press <**ENTER**> when the location number is shown. Press <**CLEAR**> to return to the menu selection.
#008 = EVT: 004A* RND = FINAL	Use the <**0**>-<**9**> keys to change the event number. Press the <←> or <→> to change the events alpha designator and press <**ENTER**>.
#001 = EVT: 001 RND = FINAL*	Press the <←> or <→> to change the round type (FINAL, SEMI-FINAL, PRELIM, BLANK) and press <**ENTER**>.
#001 = EVT: 001 DISTANCE = ▪100*	Enter a new distance for this event # and press <**ENTER**>. Entering a 0 will insert a diving event. Instead of asking for a record time, it will show the dive order (A, B, C or D) set for that event.
#001 = EVT: 001 REC: ▪1:35.27*	Enter a new record time and press <**ENTER**>. Pressing <**CLEAR**> returns to the **Insert Event** menu.

Delete Event

LCD Display	Action
MENU-EVENT ORDER 3-DELETE EVENT	Delete Event is used to delete an event from the event order list.
DELETE INDEX #010* E: 006A R: 5	Use the <↑> <↓> keys to move the cursor to select the event location number to be deleted. Press <ENTER> to delete the location number shown. Press <CLEAR> to return to the menu selection.

Clear Order:

LCD Display	Action
MENU-EVENT ORDER 4-CLEAR ORDER	Clear Order is used to clear the entire event order list.
MENU – EVENT ORDER CLEAR ORDER? Y/N	Press <YES> to clear the entire event log or press <NO> to go back to the menu selection.

Clear* Order *A (A-D)

LCD Display	Action
MENU-EDIT 3-CLEAR ORDER A	The Clear Order A menu allows you to clear one of the four dive orders. The dive order you wish to clear must be selected before you enter the menu. To do this, refer to **Section 6.4**.
CLEAR OUT DIVE ORDER -A Y/N	Press <YES> to clear the order. Press <NO> to leave order as is and return to the **Main** menu**.**

Diver Order

LCD Display	Action
MENU-EDIT 4-DIVER ORDER	Diver Order allows you to edit one of the four dive orders. The dive order you wish to edit must be selected before you enter the menu. To do this, refer to the Select Order information in **Section 6.4**.
MENU-EDIT EDITING ORDER A	Verify on the left LCD that the diver # and round are both set to 01. Use the numeric keypad to enter the four-digit dive number and the letter keys to select the position. Press <ENTER> to accept the dive and position. Use the numeric keypad to enter the DD for the dive selected. Press <ENTER> to accept the DD and increment the round by one. Repeat this sequence to enter the dive, position, and DD for each additional round for the selected diver. Use the <←> key to decrement the round by one, the <→> key to increment the round by one, the <↑> key to decrement the diver by one, and the <↓> to increment the diver by one. Press <CLEAR> to return to the **Main** menu.

Clear Totals

LCD Display	Action
MENU-EDIT 5-CLEAR TOTALS	The Clear Totals menu allows you to clear one of the four dive order's scores. The dive order you wish to clear must be selected before you enter the menu. To do this, refer to **Section 6.4**.
CLEAR OUT DIVER TOTALS -A Y/N	Press <YES> to clear the totals. Press <NO> to leave them as is and return to the **Main** menu.

Diver Totals

LCD Display	Action
MENU-EDIT 6-DIVER TOTALS	The Diver Totals menu allows you to edit the total scores for each diver in the selected dive order. The dive order of which you wish to edit the scores must be selected before you enter the menu. To do this, refer to **Section 6.4**.
EVENT A TOTALS #01 TOT: NN.NN NN.NN represents the numbers of the total being edited.	Press <ENTER> to select a diver to edit. Use the number keypad to edit the totals of a diver. Press <ENTER> to accept the changes. The arrow keys increment and decrement the diver number by one. Press <CLEAR> to leave the menu and return to the **Edit** menu**.**

Print Menu

MENU - MAIN
3-PRINT MENU

Selecting the **PRINT MENU** will offer you the following submenus.

Dive Results

LCD Display	Action
MENU - PRINT 1-DIVE RESULTS	Dive Results allows the results of the current dive order to be printed.
MENU - PRINT PRINT RESULTS?	Press <ENTER> to print dive results. Press <CLEAR> to return to the **Print** menu.

Event Order

LCD Display	Action
MENU - PRINT 2-EVENT ORDER	Event Order allows the event order to be printed.
MENU - PRINT PRINT ORDER? Y/N	Press <ENTER> to print the event order. Press <CLEAR> to return to the **Print** menu.

Settings

LCD Display	Action
MENU - PRINT 3-SETTINGS	The Settings menu allows the current configured settings to be printed.
MENU - PRINT PRINT SETTINGS?	Press <ENTER> to print the settings. Press <CLEAR> to return to the **Print** menu.

Individual Dive List

LCD Display	Action
MENU - PRINT 4-IND DIVE LIST	Individual Dive List allows the Dive Order of the current diver to be printed.
MENU - PRINT PRINT IND LIST?	Press <ENTER> to print the dive list. Press <CLEAR> to return to the **Print** menu.

All Dive List

LCD Display	Action
MENU - PRINT 5-ALL DIVE LIST	The All Dive List menu allows you to print the dive list for all divers in the current dive order.
MENU - PRINT PRINT ALL LIST?	Press <ENTER> to print the dive list. Press <CLEAR> to return to the **Print** menu.

Setup Menu

MENU-MAIN
4-SETUP MENU

Selecting the **SETUP MENU** will offer you the following submenus.

Judges

MENU-SETUP
1-JUDGES

The following is a more detailed look at this configuration.

LCD Display	Action
MENU - SETUP # OF JUDGES: 7 *	The # of Judges setup is used to configure the number of judges used to score an event. 2, 3, 4, 5, 7, and 9 judges can be selected. Enter the number on the number keypad and press <ENTER>.
SCORING FORMULA DROP 1 HI & 1 LO *	If seven or nine judges have been selected, the console will prompt for a formula selection. Select the proper formula being used then press <ENTER>. Press <CLEAR> to exit to the **Judges** menu.

Numeric SCBD

MENU – SETUP 2 – SCOREBOARD

The following is a more detailed look at the scoreboard configurations:

Number of Lines

LCD Display	Action
MENU - SCOREBOARD 1-# OF LINES # OF LINES LINES: NN* NN – number of lines	Enter a value from **1-10** depending on how many lanes the facility's scoreboard will display. If the number of active lanes in the pool is greater than the value set, the timer will automatically page the information in place order according to the time set in the Fin Page Time (Default=10).

Lead Diver

LCD Display	Action
MENU - SCOREBOARD 2-LEAD DIVER DISPLAY LEAD DIVER – YES*	The Lead Driver menu sets whether or not the diver with the most points is displayed. Use the arrow keys to select YES/NO and press <ENTER>.

Multisport SB

CD Display	Action
MENU - SCOREBOARD 3-MULTISPORT SB MULTISPORT SCOREBOARD – YES*	The Multisport SB menu sets whether or not the display in use at the facility is a multisport scoreboard. Use the arrow keys to select YES/NO and press <ENTER>.

Comm Ports

MENU – SETUP 3 – COMM PORTS

The following is a more detailed look at the Comm Port configurations.

Scbd Outputs

LCD Display	Action
MENU – COMM PORTS 1–SCBD OUTPUTS	The Scbd Outputs are used to configure which protocol (multidrop or multiline) will be transmitted out of the scoreboard outputs (J2 and J3).
MENU – COMM PORTS SCBD: MULTIDROP*	Use the <←> <→> keys to choose either multiline or multidrop depending on which type of display is used (Default = Multidrop).

Note: To identify a display as either **Multiline** or **Multidrop**, use the following procedure. Power up the scoreboard with the signal connected. If the Lane and Place digits show P0, the scoreboard is a **Multidrop** display. If the digits show P1, the scoreboard is **Multiline**.

RTD Port

LCD Display	Action
MENU – COMM PORTS 2–RTD PORT	RTD Port is used to configure which protocol (RTD or CTS) will be transmitted out of the RTD port (J5) connector on the OmniSport 2000 timer.
MENU – COMM PORTS RTD PORT: RTD*	Select **RTD** to send information to a Venus controller. Select **CTS** to send information to a numeric CTS Scoreboard (Default = RTD).

Results Port

LCD Display	Action
MENU – COMM PORTS 3–RESULTS PORT	The results Port is used to configure which protocol (Omni 2000, Omni 6000, or CTS) will be used to communicate with the meet management software. Use the <←> <→> keys to select between Omni 2000, Omni 6000, or CTS. Omni 2000 and Omni 6000 are bi-directional protocols. CTS is a unidirectional protocol, utilizing the standard CTS scoreboard information (Default = Omni 2000).
MENU – COMM PORTS RSLT: OMNI 2000*	

Note: Selecting Omni 6000 will tell the timer to transmit Omni 6000 RTD item numbers on the RTD output.

Printer

The following is a more detailed look at printer configurations.

Dive Log

LCD Display	Action
MENU – PRINTER 1–DIVE LOG	The Dive Log menu allows logging to be turned off or on
MENU – PRINTER DIVE LOG: ON*	Press any arrow key to toggle between ON/OFF. Press <ENTER> to accept the setting. Press <CLEAR> to abort and return to the **Printer** menu.

Intensity

LCD Display	Action
MENU – PRINTER 2 – INTENSITY	Use the Intensity Menu to set the printer's intensity.
PRINT INTENSITY LEVEL 1-5: 5*	Press the number, 1-5, to select a new intensity. Press <ENTER> or <CLEAR> to return to the **Printer** menu.

Time-of-Day

LCD Display	Action
MENU – SETUP 5 – TIME OF DAY	Time-of-day is used to set the console date and time.
DATE MM/DD/YY TOD HH:MM:SS *	Use the <**0**> thru <**9**> keys to enter the correct date and time. Press <ENTER> to accept and continue. Press <CLEAR> to clear the time and date and press it again to exit without saving. If this is done, the previous time and date will remain

Test Menu

MAIN MENU
5-TEST MENU

The OmniSport 2000 timer is equipped with test features that can be used to test battery level, lane modules, and the numeric scoreboard. The following tables explain how to use each of these tests.

Battery

LCD Display	Action
MENU – TEST 1 – BATTERY	The Battery Test allows for the checking of the battery power level.
BATTERY TEST LEVEL: CHARGED	The battery level will show as CHARGED or LOW**.** Press <ENTER> to exit and return to the **Test** menu.

Scoreboard

LCD Display	Action
MENU – TEST 2 – SCOREBOARD	The Scoreboard Test allows for the testing of scoreboard drivers.

Cycle On/Off

LCD Display	Action
SB TEST MENU 1 – CYCLE ON/OFF	Press <**1**> to cycle scoreboards ON/OFF.
DISPLAY ALL ON ENTER TO EXIT White area shown above cycles from ON to OFF.	When this menu is selected, an all on signal is sent at intervals of approximately three seconds. This will continue to cycle on and off and on again until <ENTER> is pressed.

Driver Address

LCD Display	Action
SB TEST MENU 2 – DRIVER ADDRESS	Press <**2**> to display driver addresses.
SHOWING ADDRESS ENTER TO EXIT	All digits on the display will be showing which driver controls this digit. This will remain on the display until <**ENTER**> is pressed.

Driver Address

LCD Display	Action
SB TEST MENU 3 – DIGIT NUMBER	Press <**3**> to display the digit designation. Press <**ENTER**> to exit and return to the **Test** menu**.**
SHOWING DIGIT # ENTER TO EXIT	All digits on the display will have a digit designation (digit number). This will remain on the display until <**ENTER**> is pressed.

Section 8: OmniSport 2000 Pro Diving Software

The OmniSport 2000 Pro software interfaces with the OmniSport 2000 timer and allows officials to control the competition through an easy-to-use, reliable and convenient Windows-based user interface installed on an IBM compatible computer system.

This section describes how to install, configure and use this software system.

8.1 Computer Requirements

The OmniSport 2000 Pro software operates on an IBM compatible personal computer. In most circumstances, the computer used by the software will be purchased through Daktronics. This ensures the software requirements will be met. If a computer is not purchased through Daktronics, the following list describes the requirements for the OmniSport 2000 Pro software.

- Microsoft Explorer 5.0 or higher
- Intel Pentium processor at 800 MHz or higher
- Windows 98 operating system or better
- Minimum 128 MB of RAM
- Standard keyboard and mouse

The following list describes the optional equipment you may use with OmniSport 2000 Pro software:

- One open serial port for connection to the OmniSport 2000 timer (COM port)
- OmniSport 2000 timing console

8.2 Hardware Setup

The OmniSport 2000 Pro software is a computer interface to the OmniSport 2000 timer. The software can be used to judge a diving event without the timing console, but there must be a console present to send the data to a display or to interface the handheld judge's consoles. The OmniSport 2000 timer must be connected properly to all competition equipment and accessories if using a display or judge's consoles. Refer to **Section 3** for more information pertaining to the hardware installation of the OmniSport 2000 timer.

8.3 Installation

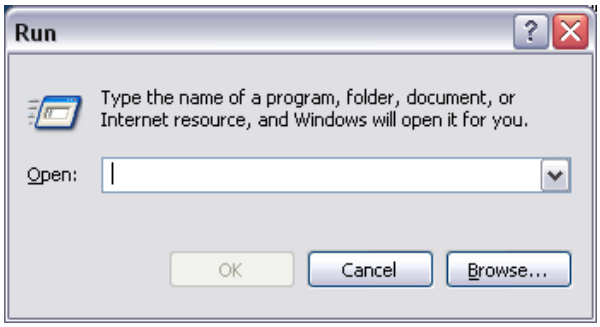


Figure 55: Run Dialog Box

The OmniSport 2000 Pro software installs using the Windows InstallShield Wizard guided installation program. To launch the installation program, insert the software CD into your CD-Rom drive. If the autorun program does not start, left click on the Windows Start menu. On the menu, Select "Run…" and the dialog box shown in **Figure 55** will be displayed. Type the address of your CD-Rom drive (usually D:) and click <**OK**>. This will display the files on the OmniSport 2000 Pro CD. Select **OmniSport ProDiving.exe**. The InstallShield Wizard dialog displays. Click [**NEXT**] to continue. Refer to ***Figure 56*** below.

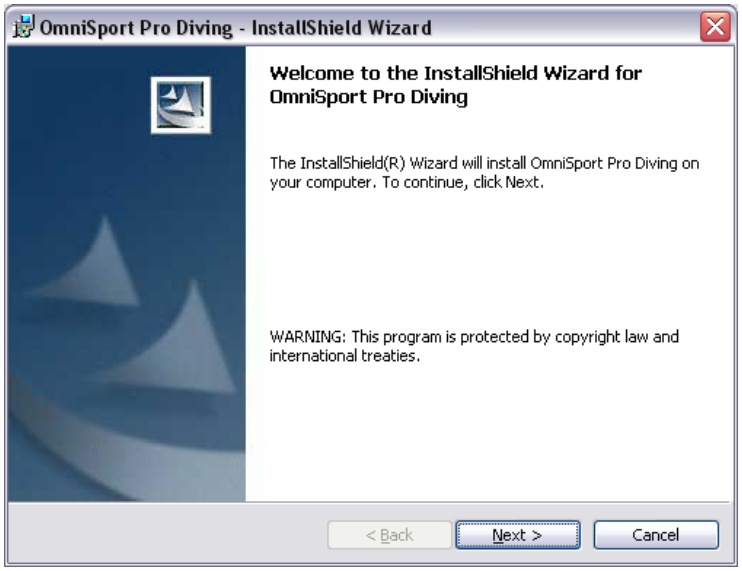


Figure 56: OmniSport 2000 Pro Software Installation

8.4 On First Run

To initiate the program, double-click the OmniSport 2000 Pro Diving icon ***Figure 57*** on the desktop. The InstallShield Wizard should have automatically installed this icon. If there is not an icon present, locate the OmniSport Pro Diving folder and double click **OSPD.exe**. The folder should be located under Program Files on the local disk (usually C:) of your computer.

Figure 57: Diving Icon

On initial startup, the registration dialog **Figure 58** is displayed. Either register or click [CONTINUE] to bypass registration. If you do not register, you will have access to the demo version, which has the same functions as the registered version, for up to 30 days. If you have not registered by this time, the software will lock. You must then enter the registration code to continue running the software.

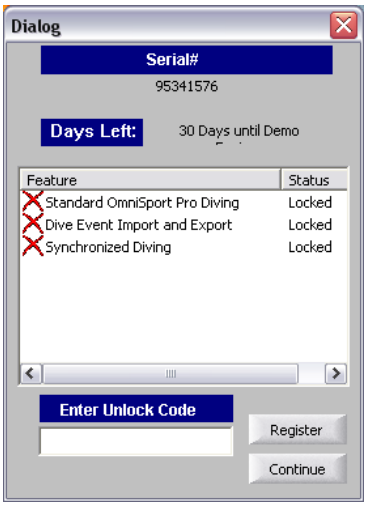


Figure 58: Registration Dialog

Registering

Daktronics allows potential users to test the full version of the software before purchasing. If the registration code has not been entered, the *30 days remaining* dialog is visible when the program starts, and the software will not run after the trial period expires. If you wish to purchase the software after testing it, simply contact Daktronics at 1-877-605-1115 for pricing and information. After purchasing the software you will receive the unlock code, which allows unlimited use of the software.

To register the software, follow these steps.

1. Start the program.
2. Enter the Registration Code received from Daktronics.
3. Click [REGISTER].

Unlimited use of the software is now available at the level registered. The trial period should give many opportunities to try out the software before purchasing it.

If the user registers the OmniSport software on a computer, the registration code pertains only to that workstation. Reloading the software on a separate computer requires a new registration code.

There are three unlock levels:

1. Level 1 – Normal OmniSport Pro Diving

2. Level 2 – XML import and export
   (This allows for the importing and exporting of events and scores), as well as Degree of Difficulty tables.
3. Level 3 – Synchronized diving

Using the Pro Diving Software Without the Console

The OmniSport 2000 Pro Diving software may be used independently. It does not depend on the console for calculating judge's scores or printing reports. A complete diving competition can be recorded with only the software.

If a video display or a scoreboard is to be used with the software, the OmniSport 2000 timer must be present and connected. The console only acts as an interface in this configuration and handles no operational activities. The timer must also be used to interlink the judge's consoles with the Pro software. The following table describes the equipment needed to perform different levels of competition recording.

Scoring Devices	Scoring Display Type	Equipment Needed
Pro Software	Paper Score Pin-Up	OmniSport 2000 Pro Computer; Printer
Pro Software and Judge's Consoles	Numeric Display	OmniSport 2000 Pro Computer; Printer; OmniSport 2000 timer; Judge's Consoles
Pro Software and Judge's Consoles	Matrix Display	OmniSport 2000 Pro Computer; Printer; OmniSport 2000 timer; Judge's Consoles; Venus 7000 Computer

Configuration Synchronization

Once the hardware and software has been installed and the software is running, the OmniSport 2000 Pro system should synchronize with the timer.

If the OmniSport Pro software is unable to detect the console, ensure the cable is connected to a COM port on the back of the computer and to the expansion port on the OmniSport 2000 timer. If they are, set the Comm Port properties in the **Options/Communications/Setup** menu.

Note: If the cables are connected properly the "connection icon" on the main dialog will be green. It will flash green when receiving data, and will be red when it is not connected.

Once a selection has been made, both systems' configurations will be exactly the same. Any change made to the configuration operating on one system will be recorded on the other as long as the serial connection is operating properly. Along with the Event Order data and Console Detection data, the Configuration data is continually transmitted between the two systems. Refer to **Section 5.5** for information about Pro Configuration.

Serial Port

When connected and operating properly the LCD on the timer will read, "controlled by Pro."

Note: Some computers purchased with this software will have a Rocket® port installed with the system. The port labeled “PORT 0” will be normally set as COM port 5 in one of these computer systems. The next port would then be COM 6, then COM 7, and finally COM 8 for a four-port Rocket port. The OmniSport 2000 Pro software recognizes these ports regardless of which port number has been assigned to them.

8.5 OmniSport 2000 Pro Diving Software Overview

Once the OmniSport 2000 Pro Diving system is synchronized and configured, event management is quick and simple. This system sends the data to the output devices, whether it is a matrix display, a numeric scoreboard or a paper printout.

This section describes the operational buttons, indicators and operations of the OmniSport 2000 Pro Diving software.

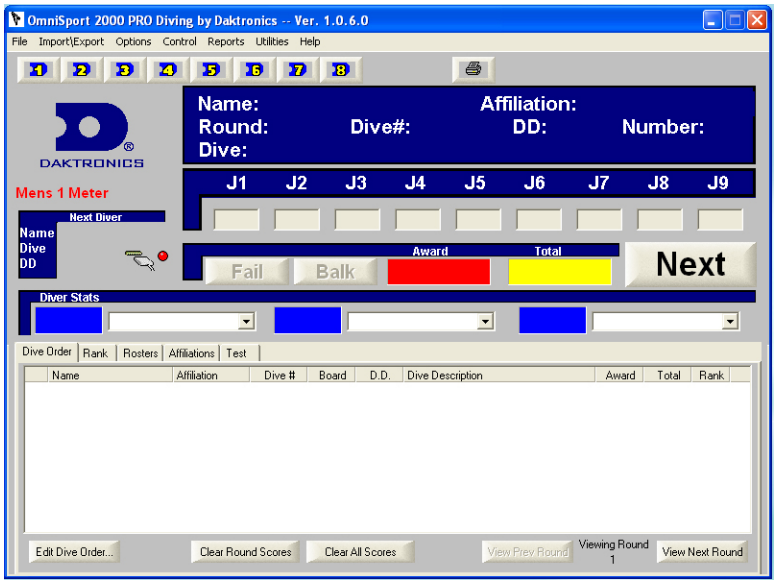


Figure 59: Main Diving Dialog

Dive Area

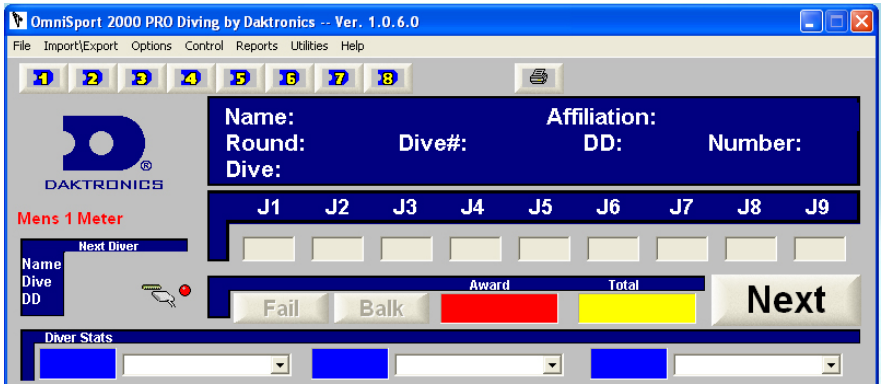


Figure 60: Dive Area

The top area of the main dialog displays current dive details and options. This area shows the diver's name, affiliation, current round, dive number, degree of difficulty, dive type, judges scores, next diver, scores needed for placement and the awarded score for the dive.

There are three sets of buttons used in this area. The upper left corner contains the event buttons. Click these buttons to toggle between the eight events. Up to eight events can be run simultaneously. [FAIL] and [BALK] are used when scoring the dives. The last button in the dive area is [NEXT/ACCEPT]. This button says "Next" after a dive's scores have been calculated and the next diver is ready. Once the "Next" button is clicked, the next diver's information will be displayed in the dive area and the button will change to "Accept." Once the judges' scores are entered and the "Accept" button is clicked, the diver's awarded score for the dive and total score will be displayed and the button will change back to "Next."

The diver stats box on the bottom of this area shows up to three different scores. For each score, any rank can be selected. The score then shows how many points the current diver must earn to take that place in the diver rankings.

Main Dialog Tabs

This area of the main dialog contains five tabs, each of which pertain to a different function of the system. Each tab is described below. Refer to **Figure 61**.

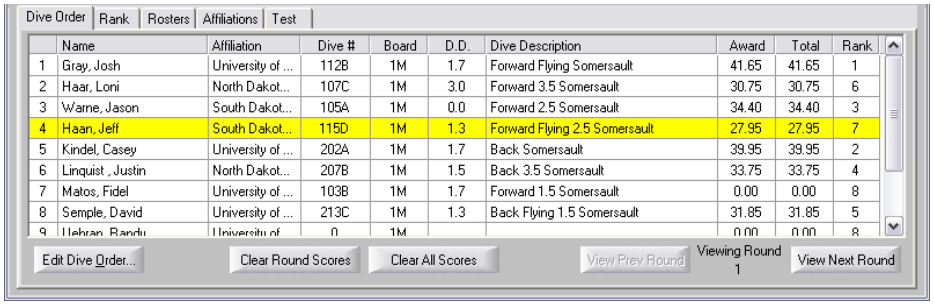


Figure 61: Main Dialog Tabs

Dive Order

The **Dive Order** tab shows information pertaining to the current divers and events. To edit a diver's dive, double-click on that diver. The dive editor dialog is displayed. Refer to **Figure 62**. Enter the Dive # and Pos values and the DD value will be automatically calculated. Then, click [**OK**]. The information will be updated on the Dive Order list.

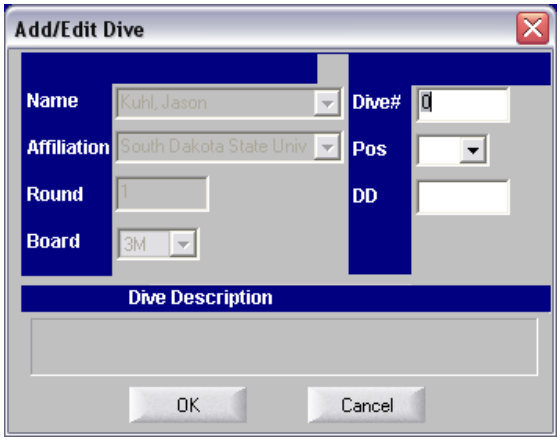


Figure 62: Dive Editor Dialog

Five buttons also appear on the **Dive Order** tab: [**EDITE DIVE ORDER**], [**CLEAR ROUND SCORES**], [**CLEAR ALL SCORES**], [**VIEW PREV ROUND**], and [**VIEW NEXT ROUND**].

The [**EDIT DIVE ORDER**] opens a dialog that allows you to change the order of the divers in the round. Divers can be inserted before other divers or added to the end of the list. They can also be removed from the dive order list. Refer to **Figure 63**.

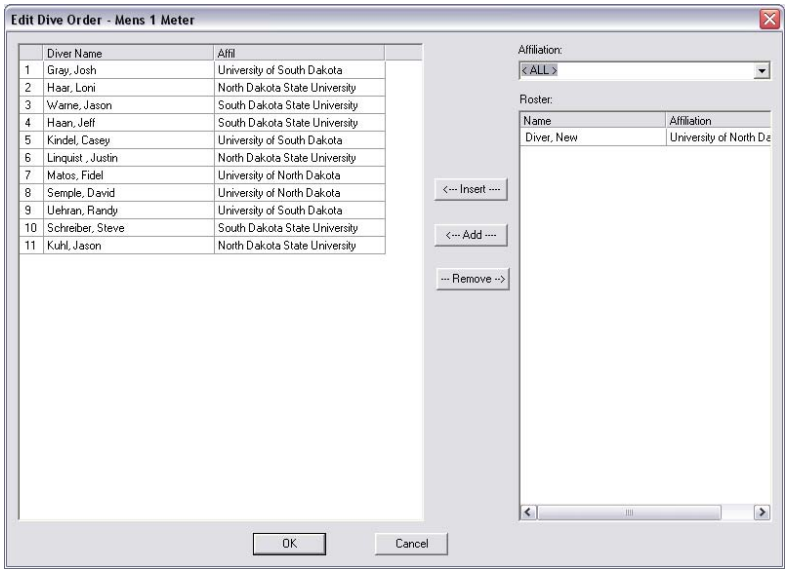


Figure 63: Edit Dive Order Menu

The clear score buttons on the bottom of the **Dive Order** tab are used to clear the divers' scores. There is also a button that clears only the current round displayed, and a button to clear all of the scores. The latter should only be used upon event completion because all the data for every round will be cleared.

The view rounds buttons are use to cycle through each round. The [**VIEW PREV ROUND**] shows the round previous to the current round displayed and the [**VIEW NEXT ROUND**] shows the next round.

While on the **Dive Order** tab, you may also right click on a diver to see a pop-up menu. This menu allows you to add divers, insert divers, remove divers, cut divers, cancel score entry (turn "Accept" back to "Next"), edit scores, edit dive lists and edit the current dive. You may also make a selected diver the current diver. **[MAKE CURRENT DIVER]** operation is only allowed when the [**NEXT**] button is visible. Refer to **Figure 64**.

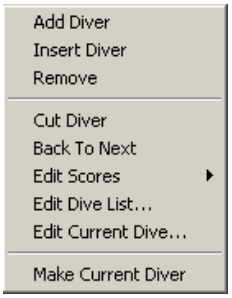


Figure 64: Pop-up Options

Rank

The **Rank, Figure 65,** tab shows the divers ranked in order from first to last for the current event selected. On the right side of this tab, the [**CUT**] button is used to cut the divers from the dive order if they do not make a certain rank by a certain round. The cut is made manually by the operator and cannot be preconfigured in the software.

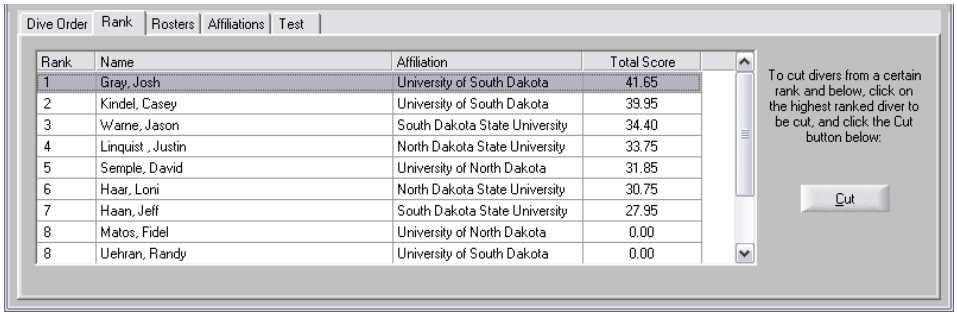


Figure 65: Rank Tab

Roster

The **Roster** tab is used to enter new divers names and assign them to the correct affiliations. To add divers to the correct affiliations, first select the **Affiliation** in the drop down list, and then click [**NEW DIVER**]. Enter the **First Name** and **Last Name** and click [**SAVE**]. To edit a diver, select the diver in the roster list on the left side of the tab and edit the diver's data. Click [**SAVE**] when complete or [**UNDO**] to replace the original data. Click [**DELETE DIVER**] to remove the diver from the roster. Refer to **Figure 66**.

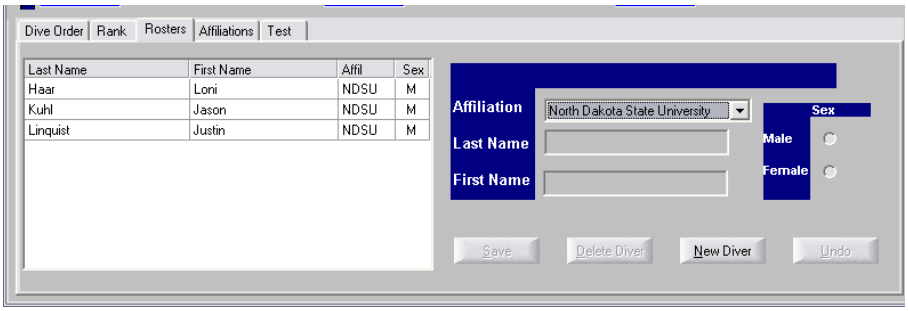


Figure 66: Roster Tab

Affiliations

The **Affiliations** tab is used to create and edit affiliations. To add affiliations, click [**ADD AFFILIATION**]. Enter the Team Name and Team Abbreviation and click [**SAVE**]. To edit an affiliation, select the team in the list on the left side of the tab and edit the team's data. Click [**SAVE**] when complete or [**UNDO**] to replace the original data. Click [**DELETE TEAM**] to remove it from the list. Refer to **Figure 67**.

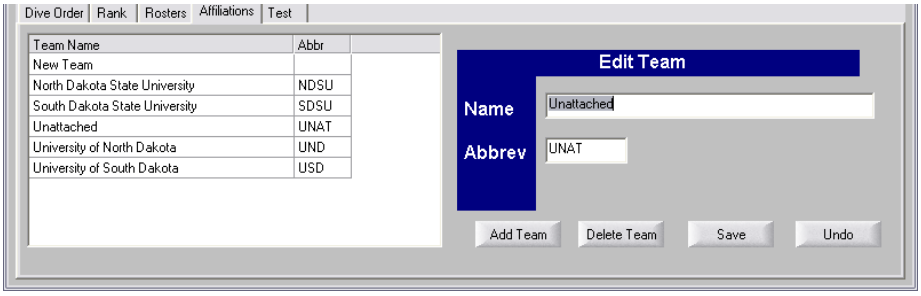


Figure 67: Affiliation Tab

Test

The **Test** tab is used to test the display being used. It will cycle the display on and off and show module and digit addresses. In the figure shown, the **Test** tab is disabled. Refer to **Figure 68**.

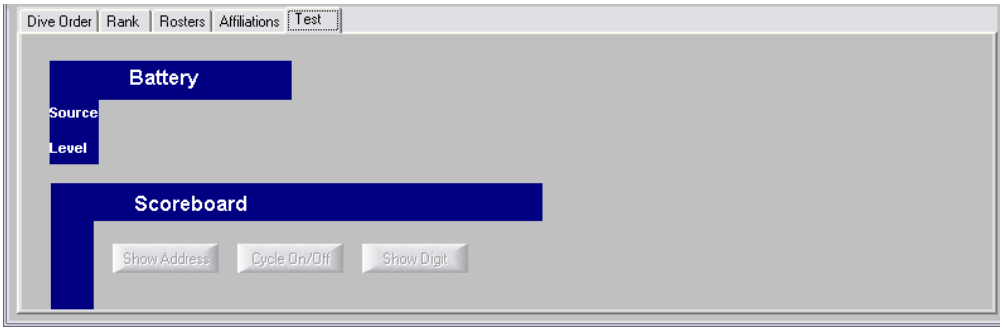


Figure 68: Test Tab

Pro Diving Configuration

Configuring the OmniSport 2000 Pro Diving software is an important part of managing your events efficiently and completely. Once running the software, select the **File** menu then select **Configure Events.**

Event

The **Event** tab configures the different events available in the OmniSport 2000 Pro Diving software. Refer to **Figure 69**. The figure shows the default settings.

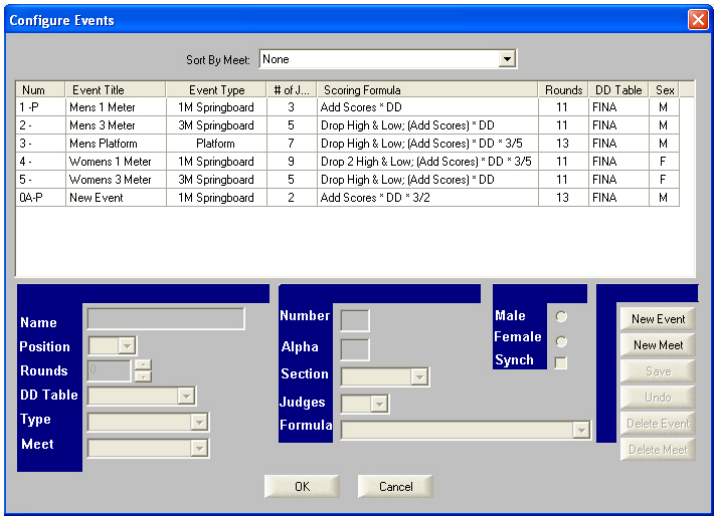


Figure 69: Event Configuration

There are six preconfigured event types in the Pro Diving software: Men's 1 Meter, Men's 3 Meter, Men's Platform, Women's 1 Meter, Women's 3 Meter and Women's Platform. You may also add new events and delete old ones. Each event has a number of configurable options. Each option is described below. Once the configurations have been set, click [**SAVE**] to save the new or edited event.

- The **Meet** field contains the name of the meet you are configuring. Select the meet name from the list.
- The **Name** field contains the name of the event you are configuring. Click in the field and enter the name.
- **Type** sets the diving apparatus used in the event. 1 Meter, 3 Meter and Platform are the available settings.
- **Judges** sets the number of judges at the event. The number of judges may be set to 2, 3, 5, 7 or 9.
- **Formula** pertains to the formula used to calculate the scores. This field changes according to the **Number of Judges** setting.
- **Rounds** sets the number of rounds for the event.
- **DD Table** sets the degree of difficulty table used to calculate the scores of the dives. These tables can be edited or created new. FINA is the preconfigured DD table.
- **Sex** sets the gender of the event.

- **Position** sets how the dive positions will be annotated. This can be set either as A-D or S-F. A-D shows the dive position with an A, B, C or D. The S-F setting displays the positions as the first character of the four dive positions.
- **Alpha** this is word only when using Hy-Tek software with the OmniSport Pro and the OmniSport Console. Change the setting, if necessary, to match the Hy-Tek setting.
- **Section** this is word only when using Hy-Tek software with the OmniSport Pro and the OmniSport Console. Change the setting, if necessary, to match the Hy-Tek setting.
- **Number** this is word only when using Hy-Tek software with the OmniSport Pro and the OmniSport Console. Change the setting, if necessary, to match the Hy-Tek setting.

The above information pertains to both the OmniSport 2000 Pro software and the OmniSport console. For information on programming the settings listed above using the console, refer to **Section 6** of this manual.

Add Meet

The **Add Meet** feature allows for grouping multiple days of events. Type the name of the meet in the top box. Then choose a date from the bottom box and click **[OK]**.

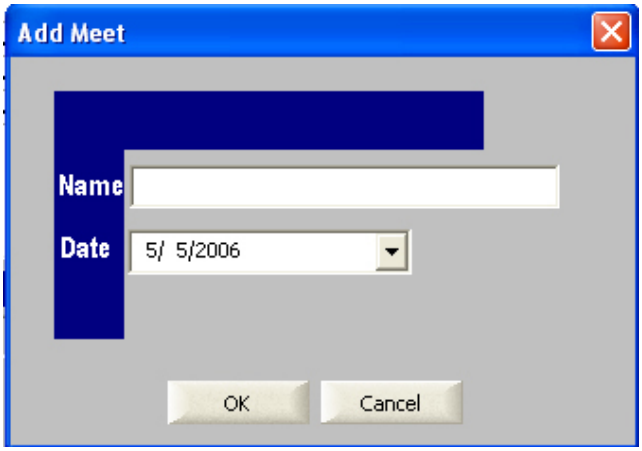


Figure 70: Add Meet

Timer

Select the **Options** menu then select **Timer Port Configuration,** this configures the software for the scoreboard used. Refer to **Figure 71.** The figure shows the default settings. Each setting is described below.

- **Meet Manager:** configures which protocol (Omni 2000, Omni 6000 or CTS) communicates with the meet management software.
- **RTD Port:** configures which protocol (RTD or CTS) will be transmitted out of the RTD port (J5) connector on the OmniSport 2000 timer.
- **Scoreboard Port:** configures which protocol (Multidrop or Multiline) will be transmitted out of the scoreboard outputs (J2 and J3).

The above information pertains to both the OmniSport 2000 Pro software and the OmniSport console. For information on programming the settings listed above using the console, refer to **Section 6**.

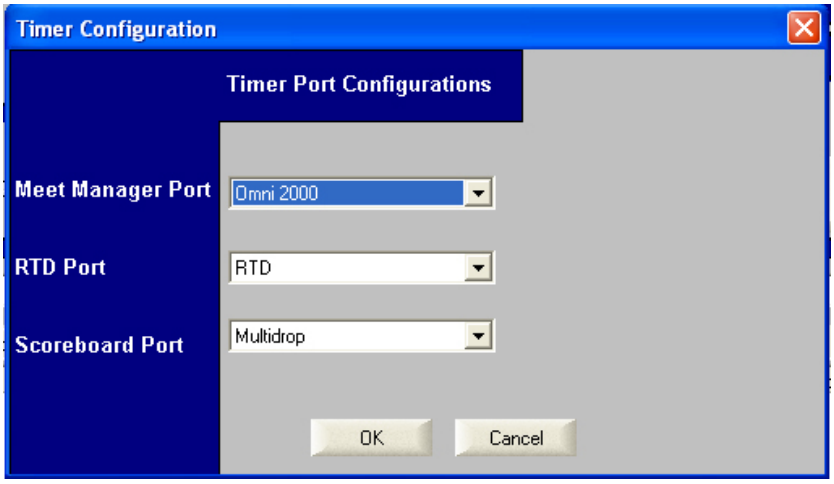


Figure 71: Timer Configuration

Comm Ports

Select the **Options** menu then select **Scoreboard Options**, this allows you to select the port types used for input and output data. Refer to **Figure 72.** The figure shows the default settings. Each setting is described below.

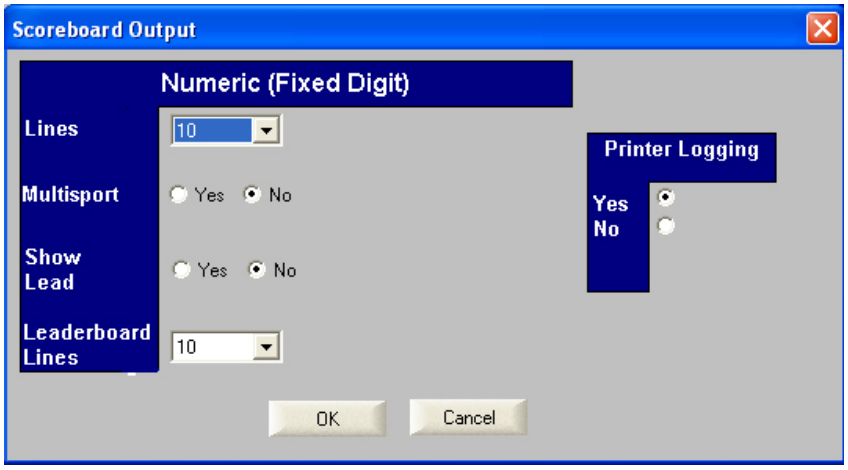


Figure 72: Console Printer Configurations

The Comm Port Configuration configures the output ports for the correct output device used with this system.

- **Number of Lines** tells the software how many lines are on the display.
- **Multisport Display** sets whether or not a multisport display is in use.
- **Show Lead Diver** sets whether the display will show the lead diver or not.
- **Printer Logging** enables the system that logs the printed data to be logged in a file.

The above information pertains to both the OmniSport 2000 Pro software and the OmniSport console. For information on programming the settings listed above using the console, refer to **Section 6** of this manual.

Communications Configurations

The **Communications Configurations** area configures which port interfaces the OmniSport 2000 timing console to the OmniSport 2000 Pro computer. To reach this area, select the **Options** menu then select **Communications/Setup.**
Refer to **Figure 73**.

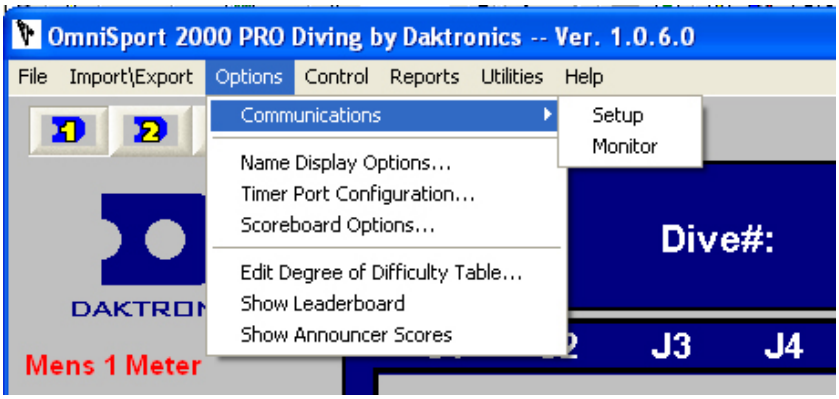


Figure 73: Communications sub-menu on Options menu

After choosing **Setup**, the following screen is displayed:

Figure 74: DL Streams Wizard; General

You may configure the General or Com Settings options..

The **General Configurations** area configures the settings common to all stream types.

- **Enable:** Selected (default)
- **Type:** COM Port
- **Name:** Should be a descriptive name for the port
- **Encrypt:** Deselected (default)

Next click **[COM SETTINGS],** the following screen will display:

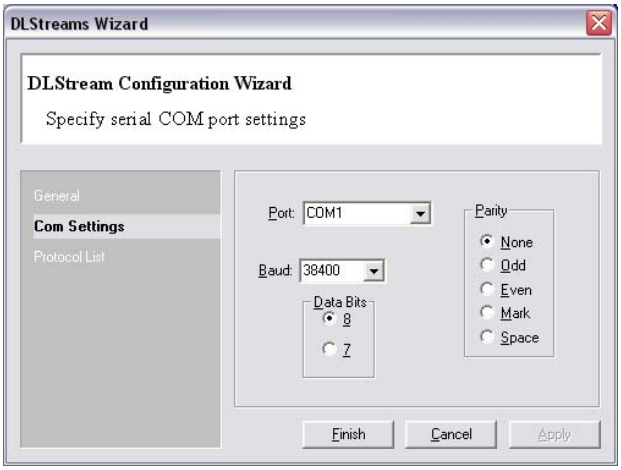


Figure 75: Com Settings

The **Com Settings Configurations** area configures the serial COM port settings.

- **Port:** Com # (Use the port # to which the serial cable is connected)
- **Baud:** 38400 (Default, do not change)
- **Data Bits:** 8 (Default, do not change)
- **Parity:** None (Default, do not change)

Name Display Options

The **Name Display Options** area in the **Options** menu chooses the settings for output to the scoreboard display. Under **Diver Name**, choose from First, Last; Last, First; Last, Abbr (Abbreviation); or Last. Under **Team Name**, choose Full Name or Abbrev (Abbreviation).

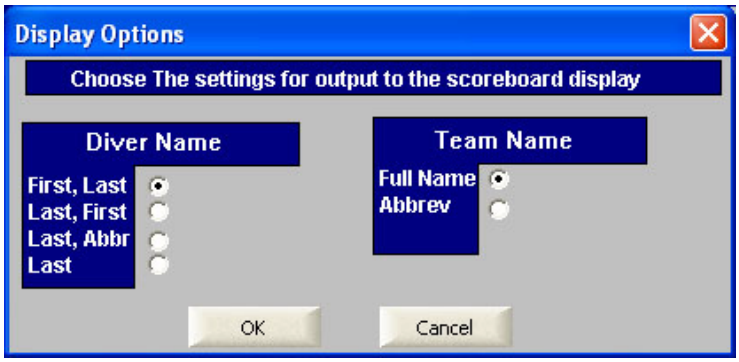


Figure 76: Name Display Options

Show Leaderboard

Select **Show Leaderboard** under the **Options** menu to display the Current Leaderboard window below the Main Dialog box. The leaderboard displays Place, Order, Name, Affiliation, and Total of the leading athletes. Click on the **[Page]** button to see the continuation of the list on the next page.

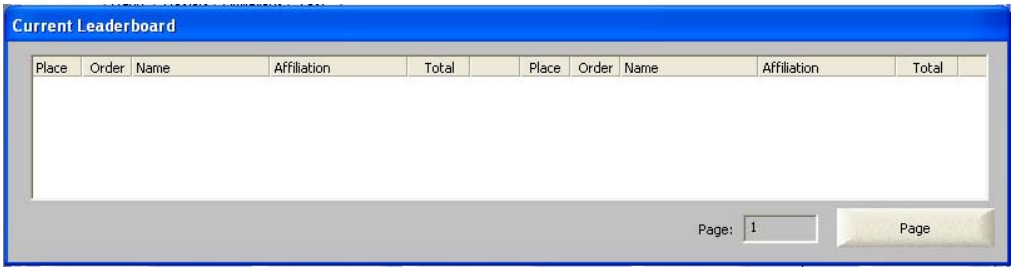


Figure 77: Show Leaderboard

Show Announcer Scores

Select Show Announcer Scores under the Options menu to display the current judges scores above the Main Dialog box. The Judges Scores window displays each judges' score and the total score.

Figure 78: Show Announcer Scores

Monitor Data Flow

Select the **Options** menu then choose **Communications/Monitor** to ensure data is flowing between the timer and Pro software. The following screen displays. The top section shows incoming data and the bottom shows outgoing.

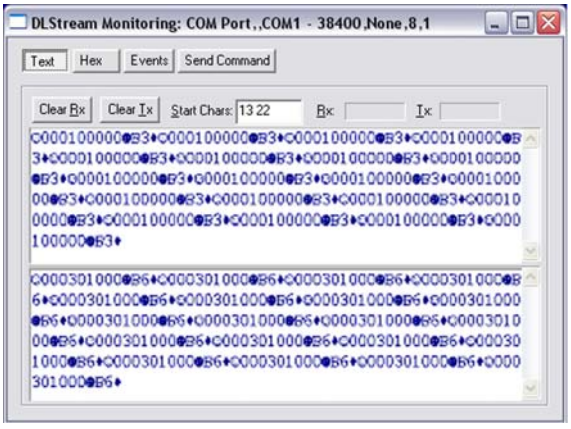


Figure 79: DL Stream Monitoring Screen

8.6 Typical Operation

This section details the operational procedures used before a meet and during and after each event.

Before the Meet

Before each meet, three things must be done: verify the configurations, test the system and setup dive order.

Verify the Configurations

Once the system is tested, open the Configurations dialog. Go through each tab and make sure all the configurations are set to the necessary settings. The system will maintain the setting that it used during the last time it was operated. If any configuration setting was changed while the timer and software were not connected, the system will request that the configuration be synchronized upon reconnection.

Though the configuration will not change unless you change it, it is recommended to print the configuration settings so that they can be re-entered if there is a sudden loss of power or damage to any equipment that may cause a loss of memory. This can be done from the timer. Press <**MENU**>, <**3**>, <**3**>, <**ENTER**> on the keypad of the OmniSport 2000 console.

Test the System

The OmniSport 2000 timer and Pro system must be operating properly for a meet to run smoothly. Test the system following the steps below:

1. Turn on the system and ensure the cables are properly connected. Once the software is running, it should detect the OmniSport 2000 timer and show a green light in the main window. If not, reconfigure the Comm Port; refer to **Section 5.5** for information on Pro Diving Configurations.

2. Test the peripheral devices such as the judge's consoles. Using a testing dive order, enter the judges' scores on each console. If the scores do not appear on the software score area, check the cables on the rear of the OmniSport 2000 timer.

3. If using a display, test run an event to ensure the display shows what is expected.

Set Up Dive Order

Select the **Affiliation** tab and add the new affiliations to the list. Then select the **Roster** tab and enter the divers for the correct affiliations. Open the dive order dialog by clicking [**EDIT DIVE ORDER**] on the **Dive Order** tab. From here, select the dive order from the list of divers. Refer to the Main Dialog Tabs in **Section 8.5**.

Set Degree of Difficulty Table

Once the configurations have been verified and the dive order set, the degree of difficulty (DD) table must be selected. To do this, select the **Options** menu, then select **Edit Degree of Difficulty Table.** Select the desired table from the dropdown list at the top of the dialog. Refer to **Figure 80**.

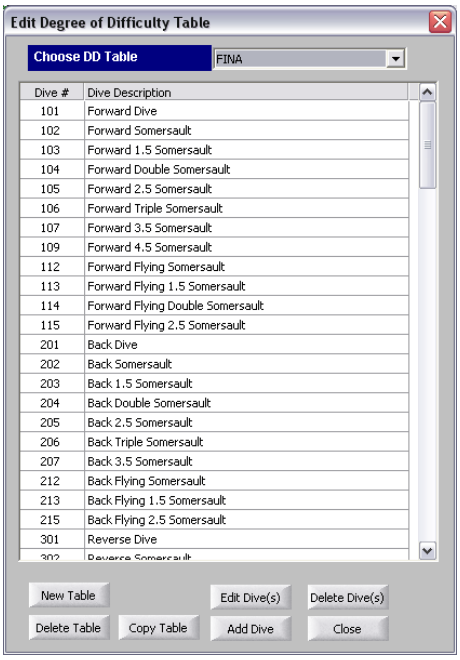


Figure 80: Degree of Difficulty Table

Seven buttons are on the bottom of this table: [**NEW TABLE**], [**EDIT DIVE(S)**], [**DELETE DIVE(S)**], [**DELETE TABLE**], [**COPY TABLE**], [**ADD DIVE**] and [**CLOSE**].

[**NEW TABLE**] creates a new table. Once a new table is created or an old table is selected, the other buttons are enabled.

[**EDIT DIVE(S)**] edits the DD of the selected dive or dives. Enter the DD in the correct board type and position and click [**OK**]. [**ADD DIVE**] operates the same way as [**EDIT DIVE(S)**] except it is creating a new dive.

[**DELETE DIVE(S)**] deletes the selected dives.

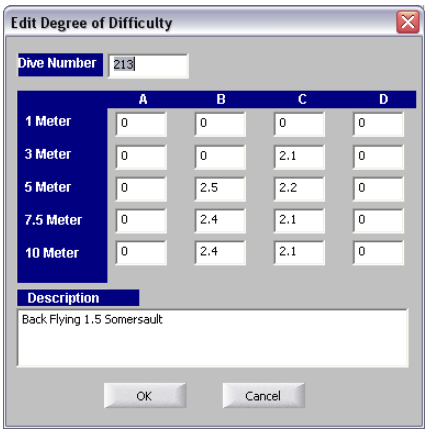


Figure 81: Edit Degree of Difficulty

Note: FINA is a preconfigured table. You may edit, add and delete dives on this table. Keep in mind, though, that the changes you make to this table should be kept in accordance with the actual FINA degree of difficulty settings.

[**DELETE TABLE**] deletes a table from the dropdown list at the top of the dialog.

[**COPY TABLE**] copies a table from the dropdown list at the top of the dialog. Simply type the name of the new table, and the table that is currently opened will be copied and renamed. [**ADD DIVE**] adds a dive.

[**CLOSE**] closes the dialog window.

During an Event

During a diving competition, judges must make quick decisions on the quality of dives that are being made. These judgments affect a diver's final scores. This subsection details what must be done in order to score a competition successfully.

Dive Scores

There are two ways scores are entered into the OmniSport 2000 Pro Diving software: manually and through peripheral judges' consoles. Once entered, the software then calculates the awarded score by using the formula set in the **Event Configuration** dialog. Ensure the correct formula is selected before the event. Refer to **Section 8.5**, subsection **Pro Diving Configurations**.

Once a diver has been awarded his or her points, click [ACCEPT] to move on to the next diver.

Dive Status Buttons

During the dive, ensure the [FAIL] and [BALK] buttons are not selected unless the judges have deemed the dive to be either a failed attempt or a balk.

A failed dive eliminates the scores from being calculated for the dive. A balk automatically reduces a diver's score by two points. These buttons are critical to scoring a competition successfully.

XML Imports/Exports

Allows users to import and export a full meet and the degree of difficulty table.

After the Competition

After the competition is finished, print the reports by selecting the **View Reports** from the **Reports** menu. The results available for print are: Detailed Results (by round), Detailed Results (by diver), Dive Sheets (individuals no scores and totals), Dive Order, Print Entire Meet Results, Results (official)-by Rank, Total Results (w/ Judges Scores), DD Table, and Event Settings. Multiple platforms may also be selected. Refer to **Figure 82**.

This prints the results to an HTML file, which can be sent to a printer or published on a web site.

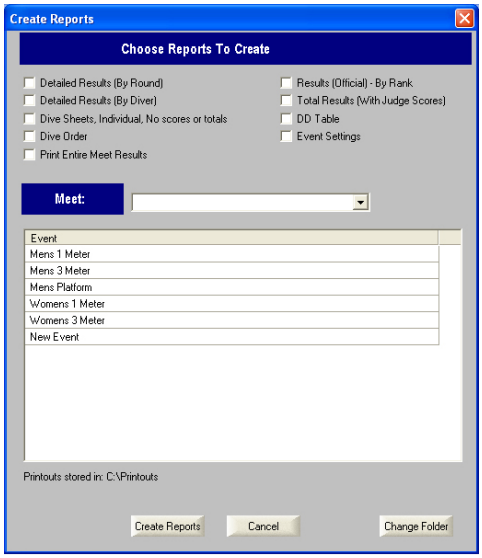


Figure 82: Results

Once the competition is officially completed, turn off and store all equipment in its respective, secure locations.

8.7 OmniSport 2000 Pro Synchronized Diving Operation

Once the OmniSport 2000 Pro Synchronized Diving system is synchronized and configured, event management is quick and simple. This system sends that data to the output devices, whether they are a matrix display, a numeric scoreboard or a paper printout.

This section describes the operation of the buttons and indicators for the OmniSport 2000 Pro Synchronized Diving software.

Event Configuration

To configure a synchronized event, select **Configure Events** from the **File** menu. To designate an event as a synchronized event, simply check the synchronized check box when configuring the event. Synchronized events must have either 7 or 9 judges.

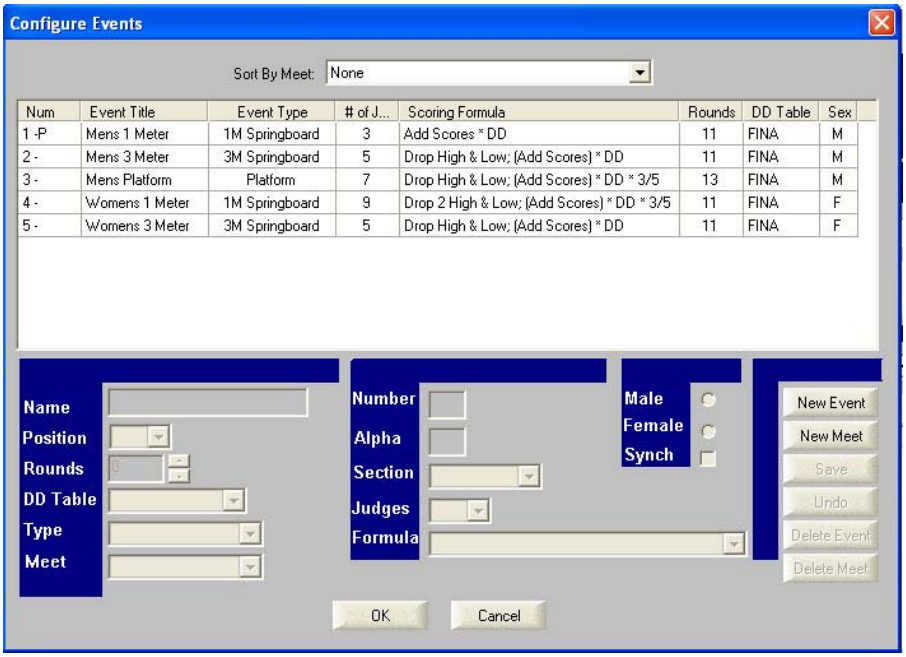


Figure 83: Event Configuration Dialog

Adding Divers

To add divers to a synchronized event, make sure the event is open, and select **Add Diver** from the **Control** menu. This will bring up the Add Synchronized Pair dialog. Click on each [DIVER] button to select a pre-configured diver to be part of this pair. Add new divers by clicking the [DIVER] button. If needed, you may enter a pair name as well, although one is provided by default, based on both divers last names.

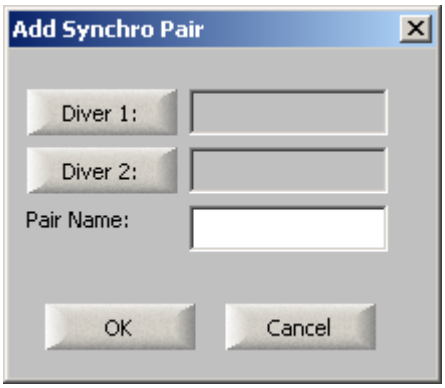


Figure 84: Add Divers Dialog

Entering Dive Information

As in normal diving operation, there are two ways to enter dive information. The first method, you enter information as it happens. This is accomplished by double clicking on a competitor, or by clicking the next button to move to the next competitor.

The second method for entering dive entry is to enter in all the information for the specified pair for the entire event after it has ended. This is done by right clicking on the specified dive pair and selecting Edit Dive list.

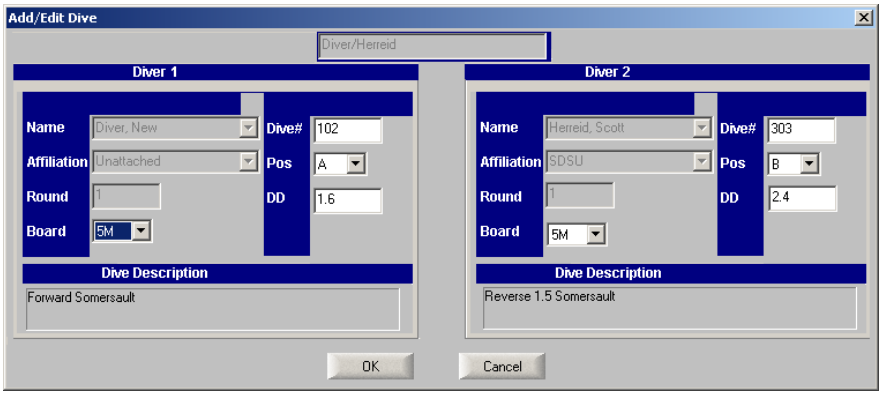


Figure 85: Add/Edit Dive Dialog

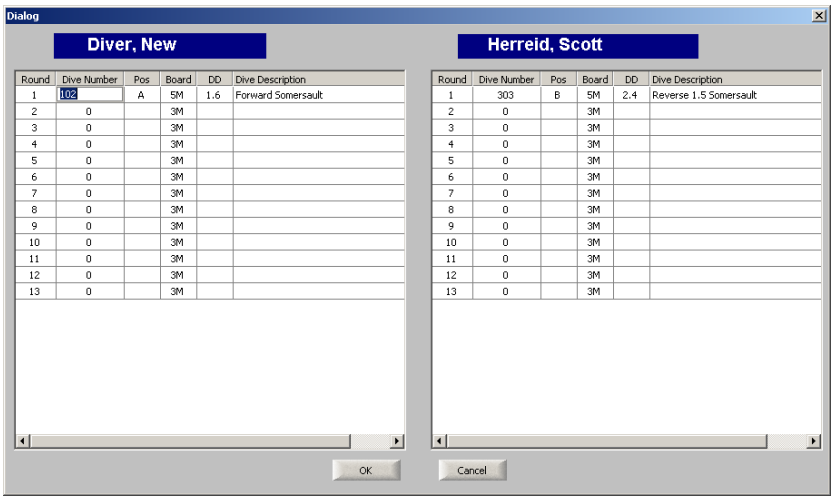


Figure 86: Edit Dive List Dialog

Scoring a Dive

To score a dive, first make sure you have a current diver. The current dive pair will be highlighted. Clicking the **[NEXT]** button will allow you to score the dive.

Note: The colors above the judges indicate which type of judge they are. Green indicates the synchronicity judges, while red and crimson indicate execution judges.

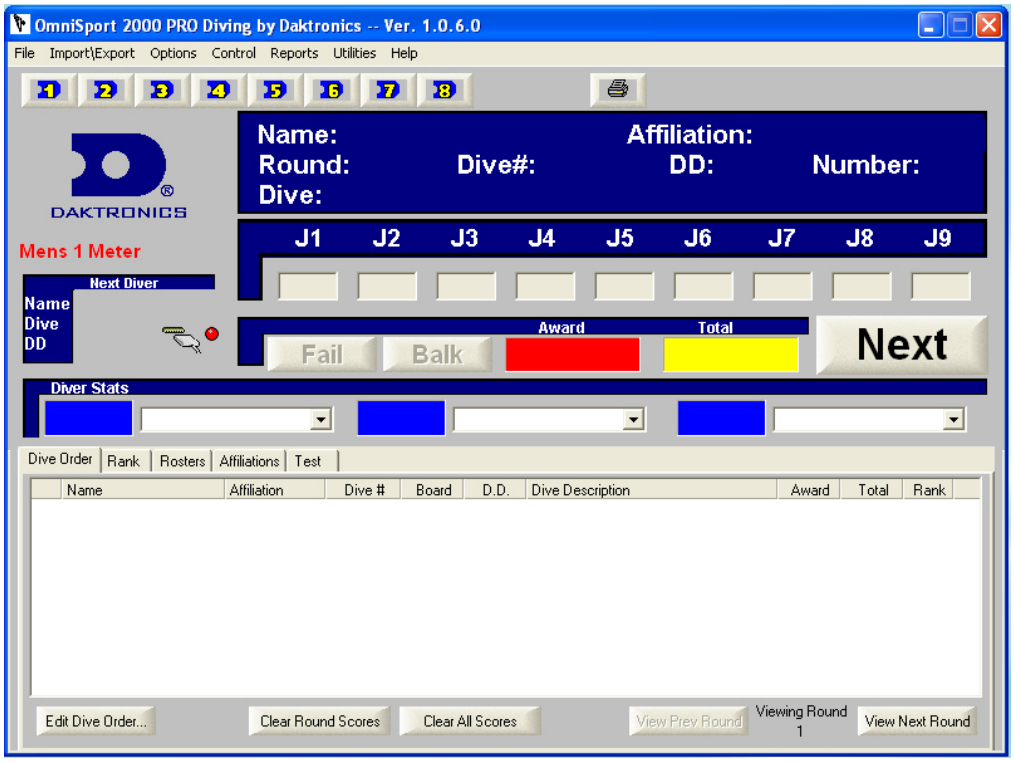


Figure 87: Main Dialog

Creating Reports

Synchronized diving events have their own set of reports, separate from those of normal diving. When selecting reports from the **Reports** menu, choose the synchronized event you wish to view.

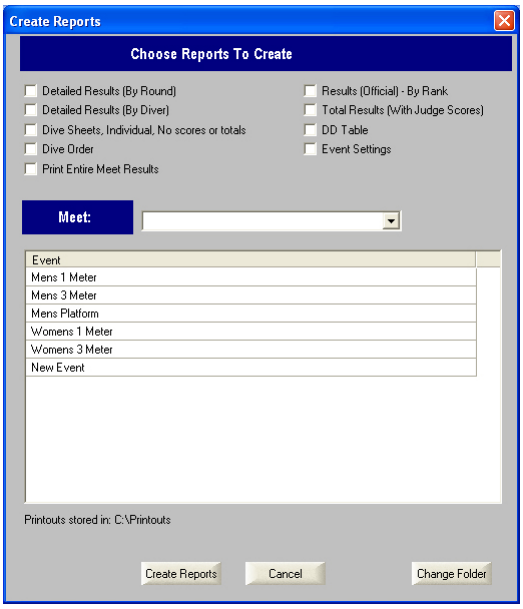


Figure 88: Create Reports Dialog

Section 9: Timing Console Track Operations

Sport Insert LL-2573

Reference Drawings:

System Riser; FB/Track SCBD w/ Omni 2000, in Field.....**Drawing A-186535**
System Riser; Track SCBD w/ Omni 2000, in Field .....**Drawing A-186548**
Insert, Omni2000 Track Timing .....**Drawing B-184685**

The system riser diagrams are located in **Appendix A**; the sport insert drawing is located in **Appendix B**. If an insert is lost or damaged, a copy of the insert drawing can be used until a replacement can be ordered.

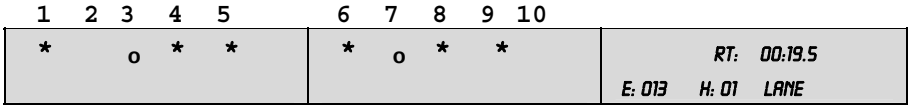
Refer to **Section 2** for information on starting the timer and for instructions on using the sport insert.

9.1 General Features

The track mode of the OmniSport 2000 timer will perform timing operations for lane and place timing for up to ten positions and non-lane timing. In lane and place timing, each lane's time is recorded with one, two, or three buttons per lane.

The always-ready-start feature is an operator aid that allows correct times to be recorded in the event of certain operator errors or equipment problems. These features are described fully in **Section 8.5**.

The trio of LCDs on the OmniSport 2000 keeps the operator informed during all operations. Note the following layout of the LCDs shown in the Track mode.



The lane status is shown on the first two LCDs and other race information is shown on the right LCD. During a race, the top line of the right-most LCD shows the race time (RT). The bottom line displays the event number (E), the heat (H), and whether it is in LANE or NON-LANE timing mode.

9.2 Automatic Operation

The normal display of timing information on a single-line or multi-line scoreboard is completely automatic and does not require any operator input. The following information is for normal (automatic) operation. Also included are some special actions that can be done with operator input.

Single-line Scoreboards

Timer Reset: The scoreboard shows last race data.

Start of Race: The scoreboard shows running time.

Final Time: The first place final time is held on the scoreboard for at least five seconds (default). The page time (time for the scoreboard to page) can be configured in the **Setup-Numeric Scoreboard** menu. All of the subsequent final times are then automatically sequenced on the scoreboard as they finish. When all of the active lanes have completed the race, the system displays all of the final times in sequence from first place to last place and repeats the sequence until the next race is started.

Multi-line Scoreboards

Timer Reset: The scoreboard shows last race.

Start of Race: The scoreboard shows the running time on line one of the scoreboard and blanks the remaining lines.

Final Time: Final times are displayed on the scoreboard until the next race begins.

9.3 Event/Heat and Home/Guest

The Event/Heat Number and Home/Guest Scores can be displayed on the appropriate scoreboard module if it is included in the system.

When the Event/Heat module is present, the event and heat numbers will automatically be displayed whenever they are changed with the <EVENT/HEAT> key.

When the Home/Guest or Guest/Guest modules are present, the home, guest 1, guest 2 and guest 3 scores will automatically be displayed after being entered in the **Edit-Team Score** menu (refer to **Section 4.8**).

When the Record Time module is present, record data for the corresponding event will be displayed at the start of the race. One record can be pre-entered for each event in the **Edit-Event Order** menu (Refer to **Section 4.8**).

9.4 Before-Each-Race Operations

Reset: The timer is automatically reset when first turned on. The timer may be reset any time the race clock is running by pressing <RESET><ENTER>.

Event +1: This function increments the event number by one.

Heat +1: This function increments the heat number by one.

Heat -1: This function decrements the heat number by one.

Event/Heat: Pressing <EVENT/HEAT> can enter a particular event and heat number.

Lane Timing: Pressing <LANE TIMING> enables all lanes and buttons configured in the system. When this is enabled, each lane has one to three buttons that will record when a racer finishes the race.

Place Timing: Pressing <PLACE TIMING> enables all places and buttons configured in the system. When this is enabled, each place has one to three buttons that will record when a racer finishes the race.

Non-Lane Timing: Pressing <NON-LANE TIMING> disables all of the buttons except Lane 1, Button 1. The official should press the button for every competitor finishing the race.

Non-Lane Split Enabled: <NON-LANE SPLIT ENABLED> uses the next button recorded to calculate the cumulative and subtractive split for that last lap. The split time will be printed and displayed on the scoreboard. The <NON-LANE SPLIT ENABLED> key only works if the <NON-LANE TIMING> key has been pressed.

Printer Setup: Before the start of the first race, the printer should be set up to print the desired information. Refer to **Section 4.8** to configure the printer.

9.5 Start-of-Race Operations

Start Operations

The timer will start any time a start impulse is received and the timer is reset (clock shows 00:00.00). As a backup operation or for testing, the <START> key may also be used to start the timer. The printer will note if the start is “External” or “Keyboard”.

Always-Ready-Start

The Always-ready-start feature is based on the fact that the OmniSport 2000 timer has an internal time-of-day clock that continually runs when the timer is turned on. The internal clock continues to run even when the race clock has been stopped.

If a start was missed because the timer was not reset (race clock was still running from the previous race), the start impulse is logged in the memory and on the printer. To prompt the operator that a start has occurred, reset the timer. If the operator chooses to use the received start signal, the timer will automatically start timing the event by calculating the correct running time. The <**EDIT**> key can also be used to retrieve the start impulse used for the last race.

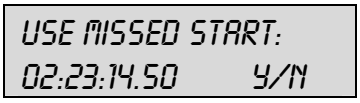
If two independent OmniSport 2000 timers are being used in parallel for an especially critical application and one timer misses a start impulse completely because of a technical problem, a start time may be manually entered when read from the printout of the other timer.

Example: Editing a Start - If a start is missed because the timer was not reset before the start:

- The time-of-day of the start impulse will be logged on the printer.
- The OmniSport will inform the operator of the start after the timer is reset.

Procedure:

1. Reset the timer.
   a. Press <**RESET**>, then <**ENTER**>.
   b. The following message displays on the screen at this time:



   c. Accept the missed start by pressing <**ENTER**> and the timer will start from the missed start time. If the missed start is to be ignored, simply press the <**CLEAR**> key and the timer will be reset only.

2. If the start time you needed was *not* on the LCD, use the **Edit-Start** menu**.**
   a. With the timer reset, press <EDIT>- This reveals the **Edit-Start** menu and puts the time-of-day of the last start impulse on the LCD.
   b. Confirm that the time-of-day shown on the LCD is the correct time for the start of the race. The start time may be edited using the number keys.
   c. Press <ENTER>. This completes the editing operation. The race clock will start and the running time will be correct based on the entered start time.

9.6 During-the-Race Operations

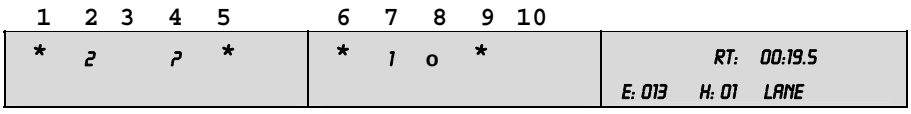
This section describes operations that should be done during an event. Doing these operations will increase the effectiveness of accurate timing and help ease the flow of running a track meet.

Lane Status

The following symbols are used to show the lane status.

Symbol	Definition
(Blank)	Lane is off
–	Timer has been reset
NN	Arming delay (NN represents a number from 1-2 that is counting down to 0)
*	Lane armed for a final time
O	Lane has finished the race
?	There is a problem with the button interface

An example of the LCD is shown below (all possible lane status symbols are shown, though it is unlikely it would appear like this).



The top line shows each lane status. Use the table above to determine what each symbol represents.

Lane On/Off

Use these keys to disable the empty lanes after the start of a race.

9.7 After-the-Race Operations

This section describes operations that must take place after an event has completed. Doing these operations will increase the effectiveness of accurate timing and help ease the flow of running a large track meet.

Store/Print

The <STORE/PRINT> key stores the race data for later use and prints the results for verification. When pressed, the event data is stored up to its current status. It then performs the printer commands setup in the **Setup-Printer** menu (refer to **Section 4.8**). To print information from a previous race, go to the **Print Stored Data** Menu. Refer to **Section 4.8** for further instructions on how to scroll through the various screen options.

If an error is observed on the printout, use the <EDIT> key to make corrections. Press <STORE/PRINT> to verify the correction. After all corrections have been completed, press <RESET><ENTER>. The timer is now ready to begin the next event.

The OmniSport 2000 printer uses the following symbols on its printouts to label data.

Symbol	Definition
B (1-3)	Buttons 1 through 3
B or BK	Backup time
E	Edited time
M	Manual time

Edit

When the running time is counting, the <EDIT> key allows corrections to be made to times in the current race memory. Press < EDIT > then the desired lane number key. Enter the new time with the numeric keypad then press <ENTER>. <EDIT> is disabled during non-lane timing.

DQ (Disqualification)

The DQ (disqualification) flag can be used to disqualify a racer with subsequent re-ranking on printouts and on the scoreboard.

Typical operation: Press <DQ> and <LANE ON/OFF> key for the desired lane or enter the lane number on the number keypad and press <ENTER>. Doing this sets the DQ flag for that lane.

The DQ operation should normally be done at the conclusion of the race, after the officials have ruled on the situation that caused the athlete to be disqualified. On exit from the DQ command, the scoreboard is automatically updated and any subsequent printouts will show the revised placing. The DQ operation can be done at any point in the race and *does not* affect arming or recording of times for the lane.

By pressing the same lane number again while in the DQ command, the lane is "re-qualified" and the original status indicator is returned.

9.8 Menu Key

There are two methods of navigating through the menus in the OmniSport 2000.

The first method allows the operator to step through each of the menu levels. To use this method press the <MENU> key and then use the <↑>, <↓>, <←>, and <→> keys to scroll through the menu's. Press <ENTER> to select the menu displayed on the LCD.

The second method is to go directly to a menu. Press the <MENU> key followed by the one to four-digit number from the list below and the LCD will prompt you for the desired setting or action in that menu. Example **222** will prompt you to enter the record time to be displayed on the scoreboard.

After you are done navigating through the menus, press the <MENU> key to return to the race in progress.

1) SCOREBOARD MENU functions

- **1-1) SCBD ON/OFF** clears the display; yes or no
- **1-2) DIMMING** sets the brightness level of the display
- **1-3) TIME-OF-DAY** displays the time-of-day; yes or no

2) EDIT MENU functions

- **2-1) TEAM SCORE** opens the team score edit menu
- **2-2) RECORD TIME** opens the record time edit menu

3) PRINT MENU functions

- **3-1) RACE RESULTS** prints the results of a specific race or a complete meet
- **3-2) SETTINGS** prints out all configurations entered in the Setup Menu

4) SETUP MENU functions

4-1) TIMER is for configuring the Track settings

4-1-1) # OF LANES sets the number of lanes

4-1-2) START IN selects the start input

4-1-3) PRIMARY TIME sets the number of timing buttons used per lane

4-1-4) PRECISION sets the level of precision used in the timing

4-2) SCOREBOARD is used to set the scoreboard configurations

4-2-1) NUMERIC selects the type of start-input

4-2-1-1) # OF LINES sets the number of lines on the display

4-2-1-2) FIN PAGE TIME sets the hold time for finish page

4-2-1-3) RESULTS ORDER selects for lane or place order

4-2-1-4) FOOTBALL SCBD sets the timer output to a football display

4-2-2) RTD/MATRIX selects near and far end of pool

4-2-2-1) # OF LINES sets the number of lines on the display

4-2-2-2) FIN PAGE TIME sets the hold time for finish page

4-2-2-3) RESULTS ORDER selects for lane or place order

4-3) COMM PORTS allows selection of communication ports

4-3-1) SCBD OUTPUT selects scoreboard #1 type

4-3-2) RTD PORT selects scoreboard #2 type

4-3-3) RESULTS PORT selects results output

4-4) PRINTER is used to configure the printouts and printer

4-4-1) RACE LOG selects if race log is on

4-4-2) RESULTS selects style in which race results are printed

4-4-3) BACKUPS selects whether backup times are printed or not

4-4-4) INTENSITY selects printer intensity

4-5) TIME-OF-DAY allows the setting of the time and day

5) TESTING MENU functions

5-1) BATTERY allows testing of the battery

5-2) LANE MODULES allows the testing of lane modules

5-3) SCOREBOARD allows testing of scoreboard

5-3-1) CYCLE ON/OFF tests the display by turning all digits on and off

5-3-2) DRIVER ADDRESS displays which driver controls which digit

5-3-3) DIGIT NUMBER displays the numerical address of each digit

5-4) SWITCH tests port J7

Scoreboard Menu

```
MENU-MAIN
1-SCBD MENU
```

Selecting the **SCBD MENU** will offer you the following menus:

Scbd On/Off

LCD Display	Action
`MENU- SCOREBOARD` `1-SCBD ON/OFF`	Scoreboard On/Off toggles the scoreboard between blank and displaying the current race data. If the scoreboard is blank, it will remain blank until the start of the next race or until <RESET> is pressed to re-display the data of the last race.
`SCBD IS ON` `SET OFF? Y/N`	The LCD will show this message and will ask for a Yes or No response. Press <YES> to clear the scoreboard. Press <NO> to keep the scoreboard data lit and return to **SCBD On/Off** menu.

Dimming

LCD Display	Action
`MENU- SCOREBOARD` `2-DIMMING`	Dimming adjusts the dimming level of the scoreboard. The dimming level only applies to scoreboards configured to receive multi-drop protocol.
`SCBD DIMMING` `LEVEL 0-3: NONE`	The dimming level is set from 0 to 3 and the levels are: 0 = none 1 = 2/3 2 = 1/2 3 = 1/3 Enter the appropriate dimming level and press <ENTER> to accept the change. Press <CLEAR> to decline the action and return to the **Dimming** menu.

Time-of-Day

LCD Display	Action
MENU- SCOREBOARD 3-TIME OF DAY	Time-of-Day blanks the scoreboard and displays the time-of-day on the scoreboard. The scoreboard will show the time-of-day until the start of the next race or until <RESET> is pressed to re-display the data of the last race.
MENU- SCOREBOARD DISPLAY TOD?	Press <YES> to show time-of-day (TOD) on the scoreboard. Press <NO> to decline the action and return to the **Display TOD** menu.

Edit Menu

MENU-MAIN
2-EDIT MENU

Selecting the **EDIT MENU** will offer you the following submenus.

Team Score

LCD Display	Action
MENU-EDIT 1-TEAM SCORE	Team Score edits the current team scores for home and three guest team scores. The OmniSport 2000 timer can maintain up to four team scores.
H 000 * G1 000 G2 000 G3 000	Use the <**0**>-<**9**> keys to enter the correct score. Press <ENTER> to accept the change and move to the next score. Edit each other score in the same manner pressing <ENTER> to move on to the next team. When the cursor is flashing, the team that is marked by it is ready to be edited. After the last team score has been edited, the display will move onto the next menu item. Press <CLEAR> to return to the **Edit** menu.

Record Time

LCD Display	Action
MENU-EDIT 2-RECORD TIME	Record Time allows you to set the record time of an event.
EDIT TIME REC: NN:NN.NN	Enter a record time with the keypad and press <ENTER>. Press <CLEAR> twice to leave this unchanged and return to the **Edit** menu.

Print Menu

MENU - MAIN
3-PRINT MENU

Selecting the **PRINT MENU** will offer you the following submenus.

Race Results

LCD Display	Action
MENU - PRINT 1-RACE RESULTS	Race Results allow the results of a previous race to be printed.
PRINT RESULTS RACE NUMBER 001*	Enter the number of a race to be printed and press <ENTER>. Press <CLEAR> to return to the **Print** menu.

Settings

LCD Display	Action
MENU - PRINT 2-SETTINGS	The settings menu allows the current configured settings to be printed.
MENU - PRINT PRINT SETTINGS?	Press <ENTER> to allow the settings to print. Press <CLEAR> to return to the **Print** menu.

Setup Menu

Selecting the **SETUP MENU** will offer you the following submenus.

Timer is for configuring the pool settings.
Scoreboard is used to select the type of scoreboard.
Comm Ports allows selection of communication ports.
Printer is used to configure the printouts and printer.
Time-of-day allows the setting of the time and day.

Timer

The following is a more detailed look at track configurations.

Number of Lanes

LCD Display	Action
	The Number of Lanes setup is used to configure the number of lanes that will be connected to the timer.
	Select the number (1-10) of lanes on the track (Default=6), followed by the <ENTER> key**.** Press <CLEAR> to exit to the **Track** Menu.

Start In

LCD Display	Action
MENU - TIMER 1 -START IN	The Start Input can be configured to receive normally open or normally closed start signals.
MENU - TIMER START IN: N.O. *	Select "N.O." for normally open type start inputs. Select "N.C." for normally closed-type start inputs (Default=N.O.). Use the arrow keys to select desired input. Press <ENTER> to accept and continue. Press <CLEAR> to exit the **Track** menu.

Note: Normally Open (N.O.) is the standard setting for Daktronics timing accessories with the OmniSport 2000 timer.

Primary Time:

LCD Display	Action
MENU – TIMER 3 – PRIMARY TIME	Primary Time is used to tell the timer to use J7 and 1 button per lane for up to 8 lanes, or to use J10 1, 2, or3 buttons for up to 10 lanes
MENU – TIMER INPUT=BUTTONS 2 *	**Input:** J7 1 button J10 1 button J10 2 button J10 3 button Press <CLEAR> to exit to the **Timer** menu.

When three buttons are used, final times are printed when the middle time is received. If two buttons are being used, the time of the second button is printed after both buttons are pressed. If one button is used, that is the time. In non-lane events, only one button for lane one is used for all racers.

Precision

LCD Display	Action
MENU – TIMER 4 – PRECISION MENU - TIMER PREC: 1/100*	Precision is used to configure the timer to store and print times to 1/100th or 1/1000th of a second. Use the <←> <→> keys to select between 1/100th or 1/1000th (Default = 1/100th) Press <CLEAR> to exit to the **Timer** menu.

Scoreboard

MENU – SETUP
2 – SCOREBOARD

The following is a more detailed look at the scoreboard configurations:

Numeric

LCD Display	Action
MENU - SCOREBOARD 1 - NUMERIC	Use the Numeric Scoreboard Data Menu to set the output data configuration for the specific numeric display in use.

Number of Lines

LCD Display	Action
MENU - NUMERIC 1-# OF LINES # OF LINES LINES: NN* NN – number of lines	Enter a value from **1-10** depending on how many lanes the facility's scoreboard will display. If the number of active lanes on the track is greater than the value set, the timer will automatically page the information in place order according to the time set in The Fin Page Time (Default=10).

Finish Page Time

LCD Display	Action
MENU - NUMERIC 3-FIN PAGE TIME FIN PAGE TIME TIME: NN* NN – value in seconds	Enter a value from 1-99 seconds. This configures the time that finish times will hold on a scoreboard (Default=5 seconds).

Results Order

LCD Display	Action
MENU - NUMERIC 3-RESULTS ORDER RESULTS ORDER ORDER: LANE*	Select Lane to display the results in the order of the lane in which the athlete finished. Select Place to display the results in the order of which the athletes placed (Default=Lane).

Football SCBD

LCD Display	Action
MENU - NUMERIC 4-FOOTBALL SCBD RESULTS ORDER ORDER: LANE*	Select Lane to display the results in the order of the lane in which the athletes finished. Select Place to display the results in the order of which the athletes placed (Default=Lane).

RTD/Matrix

LCD Display	Action
MENU - SCOREBOARD 2 – RTD/MATRIX	Use the Rtd/Matrix Setup Menu to set the output data configuration for the specific matrix display in use.

Number of Lines

LCD Display	Action
MENU - RTD/MATRIX 1-# OF LINES # OF LINES LINES: NN* NN – number of lines	Enter a value from 1-10 depending on how many lanes the facility's display will show. If the number of active lanes on the track is greater than the value set, the timer will automatically page the information in place order according to the time set in the FIN PAGE TIME (Default=10).

Finish Page Time

LCD Display	Action
MENU - RTD/MATRIX 2-FIN PAGE TIME FIN PAGE TIME TIME: NN* NN – value in seconds	Enter a value from 1-99 seconds. This configures the time that finish times will hold on a display (Default=5 seconds).

Results Order

LCD Display	Action
MENU - RTD/MATRIX 3-RESULTS ORDER RESULT ORDER ORDER: LANE*	Select Lane to display the results in the order of the lane in which the athletes finished. Select Place to display the results in the order of which the athletes placed (Default=Lane).

Comm Ports

MENU – SETUP
3 – COMM PORTS

The following is a more detailed look at the Comm Port configurations.

Scbd Outputs

LCD Display	Action
MENU – COMM PORTS 1–SCBD OUTPUTS MENU – COMM PORTS SCBD: MULTIDROP*	Scbd Outputs used to configure which protocol (Multidrop or Multiline) will be transmitted out of the scoreboard outputs (J2 and J3). Use the <←> <→> keys to choose either Multiline or Multidrop depending on which type of display is used (Default = Multidrop).

Note: To identify a display as either Multiline or Multidrop, use the following procedure. Power up the scoreboard with the signal connected. If the Lane and Place digits show P0, the scoreboard is a Multidrop display. If the digits show P1, the scoreboard is Multiline.

RTD Port

LCD Display	Action
MENU – COMM PORTS 2–RTD PORT	Rtd Port is used to configure which protocol (RTD or CTS) will be transmitted out of the RTD port (J5) connector on the OmniSport 2000 timer.
MENU – COMM PORTS RTD PORT: RTD*	Select RTD to send information to a Venus controller. Select **CTS** to send information to a numeric CTS Scoreboard (Default = RTD).

Results Port

LCD Display	Action
MENU – COMM PORTS 3–RESULTS PORT	Results Port is used to configure which protocol (Omni2000, Omni 6000, or CTS) will be used to communicate with the meet management software.
MENU – COMM PORTS RSLT: OMNI 2000*	Use the <←> <→> keys to select between Omni 2000, Omni 6000, or CTS. Omni 2000 and Omni 6000 are bi-directional protocols. CTS is a unidirectional protocol, utilizing the standard CTS scoreboard information (Default = Omni 2000).

Note: Selecting Omni 6000 will tell the timer to transmit Omni 6000 RTD item numbers on the RTD output.

Printer

MENU – SETUP
4–PRINTER

The following is a more detailed look at printer configurations.

Race Log

LCD Display	Action
MENU – PRINTER 1–RACE LOG	The Race Log menu allows logging to be turned off or on
MENU – PRINTER RACE LOG: ON*	Press any arrow key to toggle between ON and OFF. Press < ENTER > to accept the setting. Press < CLEAR > to abort and return to the **Printer** menu.

Results

LCD Display	Action
MENU – PRINTER 2 – RESULTS	The Results menu allows for selecting printouts by LANE or PLACE order.
MENU – PRINTER RSLT BY: LANE*	Press any arrow key to toggle between YES and NO. Press <ENTER> to accept the setting. Press <CLEAR> to abort and return to the **Printer** menu.

Backups

LCD Display	Action
MENU – PRINTER 3 – BACKUPS	The Backups menu configures if backup times will be printed with race results.
MENU – PRINTER BACKUPS: YES*	Press any arrow keys to select NONE, SUBTRACTIVE, or CUMULATIVE. Press <ENTER> to accept the setting. Press <CLEAR> to abort and return to the **Printer** menu.

Intensity

LCD Display	Action
MENU – PRINTER 5 – INTENSITY	Use the Intensity Menu to set the printer intensity.
PRINT INTENSITY LEVEL 1-5: 5*	Press the number, 1-5, to select a new intensity. Press <ENTER> or <CLEAR> to return to the **Printer** menu.

Time-of-Day

LCD Display	Action
MENU – SETUP 5 – TIME OF DAY	Time-of-day is used to set the console date and time.
DATE MM/DD/YY TOD HH:MM:SS *	Use the <**0**> thru <**9**> keys to enter the correct date and time. Press <ENTER> to accept and continue. Press <CLEAR> to clear the time and date and press it again to exit without saving. If this is done, the previous time and date will remain.

Test Menu

MAIN MENU
5-TEST MENU

The OmniSport 2000 timer is equipped with test features that can be used to test battery level, the lane modules, and the numeric scoreboard. The following paragraphs explain how to use each of these tests.

Battery

LCD Display	Action
MENU – TEST 1 – BATTERY	The Battery Test allows for the checking of the battery power level.
BATTERY TEST LEVEL: CHARGED	The battery level will show as CHARGED or LOW. Press <ENTER> to exit and return to the **Test** menu.

Lane Modules

LCD Display	Action
MENU – TEST 2 – LANE MODULES	The Lane Module Test allows for testing the lane module inputs.
← NEAR END DATA ← FAR END DATA	The two, left LCDs will show the lane module input status by lane. Press <ENTER> or <CLEAR> to exit and return to the **Test** menu.

Scoreboard

LCD Display	Action
MENU – TEST 3 – SCOREBOARDS	The Scoreboard Test allows for the testing of scoreboard drivers.

Cycle On/Off

LCD Display	Action
SB TEST MENU 1 – CYCLE ON/OFF	Press <**1**> to cycle scoreboards ON and OFF.
DISPLAY ALL ON ENTER TO EXIT White area shown above cycles from ON to OFF.	When this menu is selected, an all on signal is sent at intervals of approximately three seconds. This will continue to cycle on and off and on again until <**ENTER**> is pressed.

Driver Address

LCD Display	Action
SB TEST MENU 2 – DRIVER ADDRESS	Press <**2**> to display driver addresses.
SHOWING ADDRESS ENTER TO EXIT	All digits on the display will be showing which driver controls this digit. This will remain on the display until <**ENTER**> is pressed.

Driver Address

LCD Display	Action
SB TEST MENU 3 – DIGIT NUMBER	Press <**3**> to display the digit designation. Press <**ENTER**> to exit and return to the Test Menu.
SHOWING DIGIT # ENTER TO EXIT	All digits on the display will show what its digit designation is (digit number). This will remain on the display until <**ENTER**> is pressed.

Switch

LCD Display	Action
MENU – TEST 4 – SWITCH TEST – SWITCH C – CLOSED O – OPEN	The Switch test checks the lane buttons port on the rear of the console. Press <**4**> to test this port.

Section 10: Timing Console Water Polo Operations

Sport Insert LL-2569

Reference Drawings:

Insert, LL-2569; Water Polo, Omni200 ..... **Drawing B-182350**

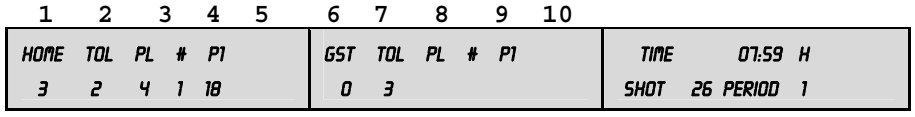
The sport insert drawing is located in **Appendix B**. If an insert is lost or damaged, a copy of the insert drawing can be used until a replacement can be ordered.

Refer to **Section 2** for information on starting the timer and for instructions on using the sport insert.

10.1 General Features

The water polo mode of the OmniSport 2000 timer will perform timing and scoring operations for water polo events. It can store period, shot, timeout, and penalty times as well as each teams scores.

The trio of LCDs on the OmniSport 2000 keeps the operator informed during all operations. Note the following layout of the LCDs shown in the water polo mode.



The first two LCDs show the home and guest team information respectively. Both teams' LCDs display the same information for each team. The first area under the HOME or GST caption shows the score. The number under the TOL caption shows the number of time outs left. PL shows the player's number who has the penalty. The # caption shows the number of penalties that player has; the final area shows the amount of time remaining in the penalty.

The caption above the penalty time remaining (P1 in this example) shows which of the three available penalties is currently being viewed. Since three players can be out of the pool on a team, three players' penalties can be recorded in this area. Press the arrow keys to cycle through the penalties to the one you wish to view. If your scoring system is configured for it, all three penalties can be displayed for both teams at the same time.

The right LCD displays the game time, shot time and period. The "H" after the game time designates that the automatic horn has been enabled. The "TIME" caption will show "REST" when in a rest period.

10.2 Automatic Operation

The normal display of timing information on a single-line or multi-line scoreboard is completely automatic and does not require any operator input. The following information is for normal (automatic) operation. Also included are some special actions that can be done with operator input.

Horn Keys

The <AUTO HORN •> and <HORN> keys are used when the Game Clock reaches zero. Press <HORN> to signal the end of the period. Press <AUTO HORN •> to set the horn to automatically sound when the time reaches zero. An "H" displays after the game time on the right LCD if the auto horn is enabled.

Shot and Game Time

The shot time and game time are synchronized so that if one or the other reaches zero, both clocks stop counting automatically. The shot clock also automatically stops if the <STOP> key in the Game Time area of the insert is pressed.

10.3 Before-Each-Game Operations

Complete the following steps before each game. Review **Section 2** thoroughly before beginning operations.

1. Ensure all cables and harnesses have been properly connected.
2. Turn on the timer. Enter the correct date and time. Then select the proper sport operation.
3. Apply power to the display.
4. Ensure game and shot clock times are set to the proper regulation times.
5. Enter the type of display and the number of lines into the OmniSport 2000 timer. Refer to **Section 10.6** for entering settings and navigating the menu.

10.4 Start-of-Game Operations

The <START> key is used to start the timer. Press <SET TIME •> in the Game Time area of the insert to set the period time. Press <RESET> to reset the time to the original setting established with the <SET TIME •> key. Press <STOP> to stop the clock.

To set the shot clock time, press <SET TIME •> in the Shot Time area of the insert. Press the Shot Time area <START> key to start the shot clock. Once this is pressed, the time will start and stop with the main clock. The main clock will stop if the shot time runs down to zero. Press <RESET> to reset the time at every possession change or scored goal. <RECALL SHOT TIME •> sets the Shot Clock back to the time that was on the clock before the last <RESET> was pressed. This is helpful when <RESET> was accidentally pressed or when a turnover is nullified by an officials ruling.

10.5 During-the-Game Operations

This section describes operations that should be done during an event.

Scoring

To increment the HOME or GUEST team's score, press <**SCORE +1**> in its respective team area. Press <**SCORE -1**> to decrement the score for that team by one. To edit a score directly, press <**SCORE** •>.

Timing

The timer can operate in automatic or manual mode for timing. In manual timing press the <**START**> key to the start the clock, and the <**STOP**> key to stop the clock. Press the <**SET TIME**> key in the game time key section to select a time (Current, Period, Rest 1, Rest 2 and Over) and press <**ENTER**> to accept the time. Each press of the <**SET TIME**> key will change to show the next time period.

In automatic timing the clock will follow the steps shown below after <**START**> has been pressed.

- Count Period 1 time down to zero.
- Switch to Rest 1 time and start counting. Count down to zero.
- Switch to Period 2 and reset time to period time. Wait for start.
- Operator presses <**START**>.
- Count Period 2 time down to zero.
- Switch to Rest 2 time and start counting. Count down to zero.
- Switch to Period 3 and reset time to period time. Wait for start.
- Operator presses <**START**>.
- Count Period 3 time down to zero.
- Switch to Rest 1 time and start counting. Count down to zero.
- Switch to Period 4 and reset to period time. Wait for start.
- Operator presses <**START**>.
- Count Period 4 time down to zero.
- Switch to Rest 2 time and start counting. Count down to zero.
- Switch to Period 5 and reset to overtime. Wait for start.

Enable/Disable Penalty Timer

The <**ENABLE PENALTY TIMER**> and <**DISABLE PENALTY TIMER**> keys enable or disable the penalty times respectively. If a scoreboard is not capable of displaying penalty times, this should be disabled. If the scoring system can display penalty times, press <**ENABLE PENALTY TIMER**> to show the times on the display.

Penalties

If a player commits a penalty, press <**PLAYER PENALTY +1**> in the correct team area. Enter that player's two-digit, jersey number and press <**ENTER**>. The OmniSport 2000 timer will recall any previous penalties by that player. The timer will not allow a player to have more than three penalties.

More than one player can have penalties at the same time, but only one player's penalty can be viewed on the LCD. Press the up and down arrow to cycle through the player penalties.

To clear a selected player penalty from the scoreboard, press <**DELETE PENALTY •**> and use the arrow keys to cycle to the correct player. Press <**ENTER**> when the correct selection has been made.

To clear all of the penalties from the display, press <**CLEAR ALL PENALTIES •**> and press <**ENTER**>.

Period Keys

To increment the period, press <**PERIOD +1**>. To edit the period directly, press <**PERIOD •**>.

Time Outs

The <**TIME OUT ON/OFF**> key toggles the timeout clock. If the timeout clock is on it will turn it off, if off it will allow for selection of a full or partial timeout without it being assigned to either team. Press <**TIME OUT –1**> in the respective team area to select a time out and decrement the number of timeouts a team has remaining. Each press of the key will select the next type available. Press <**ENTER**> to start the type shown on the LCD. Press <**TIME OUT •**> to edit a team's current number of time outs.

10.6 Menu Key

There are two methods of navigating through the menus in the OmniSport 2000.

The first method allows the operator to step through each of the menu levels. To use this method press the <MENU> key and then use the <↑>, <↓>, <←>, and <→> keys to scroll through the menu's. Press <ENTER> to select the menu displayed on the LCD.

The second method is to go directly to a menu. Press the <MENU> key followed by the one- to four-digit number from the list below and the LCD will prompt you for the desired setting or action in that menu. Example **215** will prompt you to enter the maximum number of time outs.

After you are done navigating through the menus, press the <MENU> key to return to the race in progress.

1) SCOREBOARD MENU functions

- **1-1) SCBD ON/OFF** clears the display; yes or no
- **1-2) DIMMING** sets the brightness level of the display
- **1-3) TIME-OF-DAY** displays the Time-of-day; yes or no

2) SETUP MENU functions

- **2-1) TIMER** is for configuring the Track settings
  - **2-1-1) SET TIMES**
    - **2-1-1-1) PERIOD TIME** sets the timing length of the period
    - **2-1-1-2) OVER TIME** sets the timing length of the over time period
    - **2-1-1-3) REST TIME** sets the timing length of the rest periods
    - **2-1-1-4) WARNING TIME** sets the timing length of warning times
    - **2-1-1-5) SHOT TIME** sets the timing length of the shot time
    - **2-1-1-6) TIMEOUT TIME** sets the timing length of timeouts
    - **2-1-1-7) PENALTY TIME** sets the timing length of the penalties
  - **2-1-2) AUTO RUN** sets the automatic clock run
  - **2-1-3) SHOT = 0 CONTROL** sets if the shot clock = 0 will stop the main clock
  - **2-1-4) PENALTIES** sets the maximum amount of penalties, and reset of shot clock
  - **2-1-5) TIMEOUTS** sets the maximum number of timeouts
- **2-2) NUMERIC SCBD** is used to set the scoreboard configurations
  - **2-2-1) # OF LINES** sets the number of lines on the display
  - **2-2-2) SCORE MODULE** sets the number of lines on the display
- **2-3) COMM PORTS** allows selection of communication ports
  - **2-3-1) SCBD OUTPUT** selects scoreboard #1 type
  - **2-3-2) RTD PORT** selects scoreboard #2 type
  - **2-3-3) RESULTS PORT** selects results output

2-4) TIME-OF-DAY allows the setting of the time and day

3) TESTING MENU functions

3-1) BATTERY allows testing of the battery

3-2) SCOREBOARD allows testing of scoreboard

5-3-1) CYCLE ON/OFF tests the display by turning all digits on and off

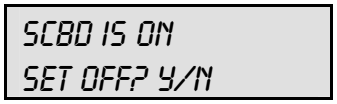
5-3-2) DRIVER ADDRESS displays which driver controls which digit

5-3-3) DIGIT NUMBER displays the numerical address of each digit

Scoreboard Menu

Selecting the **SCBD MENU** will offer you the following menus:

SCBD On/Off

LCD Display	Action
	Scoreboard On/Off Toggles the scoreboard between blank and displaying the current race data. If the scoreboard is blank, it will remain blank until the start of the next game or until <RESET> is pressed to re-display the data of the last race.
	The LCD will show this message and will ask for a YES or NO response. Press <YES> to clear the scoreboard. Press <NO> to keep the scoreboard data lit and return to **SCBD On/Off** menu.

Dimming

LCD Display	Action
MENU- SCOREBOARD 2-DIMMING	Dimming adjusts the dimming level of the scoreboard. The dimming level only applies to scoreboards configured to receive multi-drop protocol.
SCBD DIMMING LEVEL 0-3: NONE	The dimming level is set from 0 to 3 and the levels are: 0 = none 1 = 2/3 2 = 1/2 3 = 1/3 Enter the appropriate dimming level and press <ENTER> to accept the change. Press <CLEAR> to decline the action and return to the **Dimming** menu.

Time-of-Day

LCD Display	Action
MENU- SCOREBOARD 3-TIME OF DAY	Time-of-day blanks the scoreboard and displays the time-of-day on the scoreboard. The scoreboard will show the time-of-day until the start of the next game or until <RESET> is pressed to re-display the data of the last game.
MENU- SCOREBOARD DISPLAY TOD?	Press <YES> to show time-of-day (TOD) on the scoreboard. Press <NO> to decline the action and return to the **Display TOD** menu.

Setup Menu

MENU-MAIN
2-SETUP MENU

Selecting the **SETUP MENU** will offer you the following submenus.

Timer is for configuring the timer settings.
Numeric SCBD is used to select the type of scoreboard.
Comm Ports allows selection of communication ports.
Time-of-day allows the setting of the time and day.

Timer

```
MENU-SETUP
1-TIMER
```

The following is a more detailed look at timer configurations.

Set Times

```
MENU-TIMER
SET TIMES
```

Period Time

LCD Display	Action
`MENU – SET TIME` `1–PERIOD TIME`	The Period Time menu sets the period time.

`MENU – SET TIME`
`PERIOD: NN:NN *`
NN:NN – value in minutes and seconds
	Set the time for the period length with the number keypad and press <ENTER>.
	
	Press <CLEAR> twice to leave this setting as is and exit to the **Timer** menu.

Over Time

LCD Display	Action

`MENU – SET TIME`
`OVER: NN:NN *`
NN:NN – value in minutes and seconds
	The Over Time menu sets the over time.
	
	Set the time for the over time length with the number keypad and press <ENTER>.
	
	Press <CLEAR> twice to leave this setting as is and exit to the **Timer** menu.

Rest Time

LCD Display	Action
MENU – SET TIME REST 1: NN:NN ∗ MENU – SET TIME REST 2: NN:NN ∗ NN:NN – value in minutes and seconds	The Rest Time menu sets the rest period values. Set the time for the rest period length with the number keypad and press <ENTER>. Press <CLEAR> twice to leave this setting as is and exit to the **Timer** menu.

Warning Time

LCD Display	Action
MENU – SET TIME WARNING: NN:NN ∗ NN:NN – value in minutes and seconds	The Warning Time menu sets the warning time. Set the time for the warning time length with the number keypad and press <ENTER>. Press <CLEAR> twice to leave this setting as is and exit to the **Timer** menu.

Shot Time

LCD Display	Action
MENU – SET TIME 5–SHOT TIME	The Shot Time menu sets the shot clock.
MENU – SET TIME SHOT: NN:NN *	Set the time for the period length with the number keypad and press <ENTER>.
NN:NN – value in minutes and seconds	Press <CLEAR> twice to leave this setting as is and exit to the **Timer** menu.

Timeout Time

LCD Display	Action
MENU – SET TIME 6–TIMEOUT TIME	The Time Out Time menu sets the timeout time.
MENU – SET TIME TIMEOUT: NN:NN *	Set the time for the period length with the number keypad and press <ENTER>.
NN:NN – value in minutes and seconds	Press <CLEAR> twice to leave this setting as is and exit to the **Timer** menu.

Penalty Time

LCD Display	Action
MENU – SET TIME 7–PENALTY TIME	The Penalty Time menu sets the time for each penalty.
MENU – SET TIME PENALTY: NN:NN *	Set the time for the period length with the number keypad and press <ENTER>.
NN:NN – value in minutes and seconds	Press <CLEAR> twice to leave this setting as is and exit to the **Timer** menu.

Auto Run

LCD Display	Action
MENU – TIMER 2-AUTO RUN AUTO CLOCKS ON SET OFF? Y/N	Selecting the Auto Run menu will allow the auto clock to be set ON or OFF. Press <YES> to set it ON if currently OFF, or OFF if currently ON. Press <NO> to leave as is.

Shot = 0

LCD Display	Action
MENU – TIMER 3-SHOT =0 CONTROL =0 STOPS CLK - ON SET OFF? Y/N	Selecting the Shot = 0 Control menu will allow the shot = 0 control stopping of the clock to be set ON or OFF. Press <YES> to set it ON if currently OFF, or OFF if currently ON. Press <NO> to leave as is.

Penalties

LCD Display	Action
MENU – TIMER 4-PENALTIES	The Max Penalty menu sets the maximum number of penalties allowed for a player before they are removed from the pool.
MENU – PENALTIES MAX PENALTY NN * NN – number of penalties	Set the maximum number of penalties with the number keypad and press <ENTER>. Press <CLEAR> twice to leave this setting as is and go to the **Reset Shot selection**.
RESET SHOT - OFF SET ON? Y/N	The selection to reset the shot clock after a penalty can be set to ON of OFF. Press <YES> to turn it ON if currently OFF, or OFF if currently ON

Timeouts

LCD Display	Action
MENU – TIMER 5–TIMEOUTS	The Timeouts menu sets the maximum number of timeouts allowed for each team.
MENU – TIMER # FULL T.O. N*	Set the maximum number of full timeouts with the number keypad and press <ENTER>.
N – number of timeouts	
MENU – TIMER # PART T.O. N*	Set the maximum number of partial timeouts with the number keypad and press <ENTER>. Press <CLEAR> twice to leave this setting as is and exit to the **Timer menu**.

Numeric SCBD

MENU – SETUP
2 – SCOREBOARD

The following is a more detailed look at the scoreboard configurations:

Number of Lines

LCD Display	Action
MENU - SCOREBOARD 1-# OF LINES	Enter a value from **1-10** depending on how many lanes the facility's scoreboard will display. If the number of active lanes in the pool is greater than the value set, the timer will automatically page the information in place order according to the time set in the FIN PAGE TIME (Default=10).
# OF LINES LINES: NN*	
NN – number of lines	

Score Module

LCD Display	Action
MENU - SCOREBOARD 2-SCORE MODULE	The Score Module menu sets the use of score modules.
SCORE MODULE – N USE? Y/N	Press <YES> to use the module and <NO> to not use it.

USED? Y/N	

Comm Ports

MENU – SETUP
3 – COMM PORTS

The following is a more detailed look at the Comm Port configurations.

Scbd Outputs

LCD Display	Action
MENU – COMM PORTS 1–SCBD OUTPUTS	Scbd Outputs is used to configure which protocol (Multidrop or Multiline) will be transmitted out of the scoreboard outputs (J2 and J3).
MENU – COMM PORTS SCBD: MULTIDROP*	Use the <←> <→> keys to choose either Multiline or Multidrop depending on which type of display is used (Default = Multidrop*).

Note: To identify a display as either Multiline or Multidrop, use the following procedure. Power up the scoreboard with the signal connected. If the Lane and Place digits show P0, the scoreboard is a Multidrop display. If the digits show P1, the scoreboard is Multiline.

RTD Port

LCD Display	Action
MENU – COMM PORTS 2–RTD PORT	Rtd Port is used to configure which protocol (RTD or CTS) will be transmitted out of the RTD port (J5) connector on the OmniSport 2000 timer.
MENU – COMM PORTS RTD PORT: RTD*	Select **RTD** to send information to a Venus controller. Select **CTS** to send information to a numeric CTS Scoreboard (Default = RTD).

Results Port

LCD Display	Action
MENU – COMM PORTS 3-RESULTS PORT	Results Port is used to configure which protocol (Omni2000, Omni 6000, or CTS) will be used to communicate with the meet management software. Use the <←> <→> keys to select between Omni 2000, Omni 6000, or CTS. Omni 2000 and Omni 6000 are bi-directional protocols. CTS is a unidirectional protocol, utilizing the standard CTS scoreboard information (Default = Omni 2000).
MENU – COMM PORTS RSLT: OMNI 2000*	

Note: Selecting Omni 6000 will tell the timer to transmit Omni 6000 RTD item numbers on the RTD output.

Time-of-Day

LCD Display	Action
MENU – SETUP 4 – TIME OF DAY	Time-of-day is used to set the console date and time.
DATE MM/DD/YY TOD HH:MM:SS *	Use the <**0**> thru <**9**> keys to enter the correct date and time. Press <**ENTER**> to accept and continue. Press <**CLEAR**> to clear the time and date and press it again to exit without saving. If this is done, the previous time and date will remain

Test Menu

MAIN MENU
3-TEST MENU

The OmniSport 2000 timer is equipped with test features that can be used to test battery level, the lane modules, and the numeric scoreboard. The following paragraphs explain how to use each of these tests.

Battery

LCD Display	Action
MENU – TEST 1 – BATTERY	The Battery Test allows for the checking of the battery power level.
BATTERY TEST LEVEL: CHARGED	The battery level will show as CHARGED or LOW. Press <ENTER> to exit and return to the **Test** menu.

Scoreboard

LCD Display	Action
MENU – TEST 3 – SCOREBOARDS	The Scoreboard Test allows for the testing of scoreboard drivers.

Cycle On/Off

LCD Display	Action
SB TEST MENU 1 – CYCLE ON/OFF	Press <**1**> to cycle scoreboards ON and OFF.
DISPLAY ALL ON ENTER TO EXIT White area shown above cycles from ON to OFF.	When this menu is selected, an all on signal is sent at intervals of approximately three seconds. This will continue to cycle on and off and on again until <ENTER> is pressed.

Driver Address

LCD Display	Action
SB TEST MENU 2 - DRIVER ADDRESS	Press <**2**> to display driver addresses.
SHOWING ADDRESS ENTER TO EXIT	All digits on the display will be showing which driver controls this digit. This will remain on the display until <**ENTER**> is pressed.

Driver Address

LCD Display	Action
SB TEST MENU 3 - DIGIT NUMBER	Press <**3**> to display the digit designation. Press <**ENTER**> to exit and return to the **Test** menu.
SHOWING DIGIT # ENTER TO EXIT	All digits on the display will have a digit designation (digit number). This will remain on the display until <**ENTER**> is pressed.

Section 11: Pace Clock

Sport Insert LL–2581

Reference Drawings:
Insert, Omni 2000, Pace Clock ..... **Drawing B–188395**

The sport insert drawing is located in **Appendix B**. If an insert is lost or damaged, a copy of the insert drawing can be used until a replacement can be ordered.

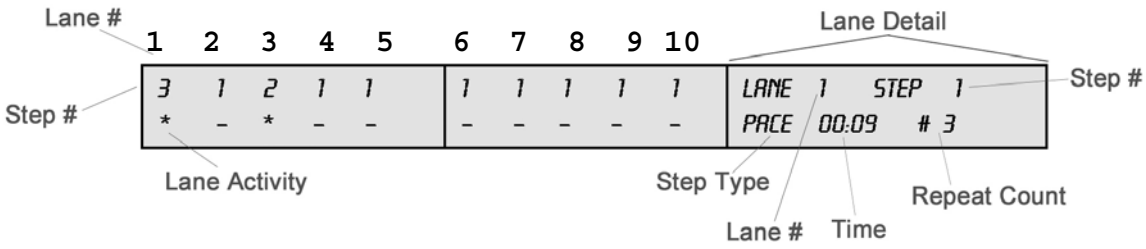
Refer **Section 2** for information on starting the timer and for instructions on using the sport insert.

11.1 General Features

The pace clock mode, available through the OmniSport 2000 console, serves as a workout manager. You can program the pace clock to manage up to ten swimming lanes.

Note: The pace clock allows you to download a workout from Hy-Tek Workout Manager. The Results Port (6) is used for the download of the workout. The OmniSport 2000 will accept 50 steps of the workout for each lane.

The three LCD displays on the OmniSport 2000 keeps you informed during all operations. Note the following layout of the LCDs shown in the Pace Clock mode. The left LCD contains information for lanes 1–5 while the middle LCD has information for lanes 6–10. The right LCD displays detailed information for a specific lane as well editing information when in the editing mode.



Function	Definition
Lane #	Allows you to clearly identify the lane.
Step #	Displays which step a specific swimmer is performing. You may enter up to 50 steps for each lane.
Lane Activity	The – and the flashing * signs indicate whether the timer for that lane is stopped or running. **–** indicates that the timer is stopped ***** when flashing indicates that the timer is running
Step Type	Following is a list of possible steps you may enter: • **Beg Circuit** — allows you to enter, in a workout, a combination of the steps swim, rest, pace and stop that you want to repeat a certain number of times. Basically, this is a workout within the whole workout. When you press **<ENTER>** to select this step, you are prompted to enter the number of times you want this circuit to repeat. Adding different steps within this circuit is the same as adding steps to the whole workout. • **End Circuit** — ends the circuit that you entered within the BEG CIRCUIT option. When you end a circuit, you may still add ste3ps to the end of the total workout. • **Swim** — selects the amount of time athletes will swim within one step. • **Rest** — allows you to enter, within a workout, the amount of time you want to have the swimmers rest within one step. • **Pace –-** overrides the rest of the workout (or circuit if a pace step is entered within one) and continue to count up to the entered time, return to 0:00 and start counting again. It can repeat this step indefinitely. • **Stop –-** identifies where you want to end or "Stop" the workout.
Timer	Counts up during the swimming and pace steps or down during the rest step.
Repeat Count #	Displays which repetition the swimmer is currently on. For example, you may have programmed the step to repeat 5 times. In the previous example, Lane 1 is currently completing that step's third repetition. **Note**: When the repeat count number is "0," the swimmer has not started.

11.2 Basic Operation

Menu Navigation

There are two methods of navigating through the menus in the OmniSport 2000.

1. Step through each menu level by pressing the <MENU> key and then using the arrow keys to scroll through the various menus. Then press < ENTER > to select the menu displayed on the LCD.
2. Go directly to a specific menu by pressing the < MENU > key followed by the one to four digit number listed below. The LCD will prompt you for the desired setting or action in that menu. After you have navigated through the menus, press the < MENU > key to return to the pace clock program operation.

1) SCOREBOARD MENU functions

1-1) SCBD ON/OFF clears the display; yes or no

1-2) DIMMING sets the brightness level of the display

1-3) TIME-OF-DAY displays the Time-of-day; yes or no

2) EDIT MENU functions

2-1) EDIT WORKOUT allows you to select the lane whose workout to edit

2-1-1) EDIT STEP edits a step within the order

2-1-2) INSERT STEP inserts a step into the order

2-1-3) DELETE STEP deletes a step

2-1-4) COPY WORKOUT copies the workout from lane to another

2-1-5) CLEAR WORKOUT clears the workout from a lane

3) PRINT MENU functions

3-1) IND WORKOUT prints the entire workout for a specific lane

3-2) ALL WORKOUTS prints all workouts for every lane

3-3) SETTINGS prints out all configurations entered in the Setup Menu

4) SETUP MENU functions

4-1) TIMER is not activated

4-2) SCOREBOARD allows you to setup the scoreboard

4-2-1) # OF LINES sets the number of lines on the display

4-3) COMM PORTS allows selection of communication ports

4-3-1) SCBD OUTPUTS allows selection between Multiline and Multidrop

4-3-2) RTD PORT allows selection between RTD and CTS

4-3-3) RESULTS PORT allows selection between Omni 2000, Omni 6000, and the CTS Timer

4-4) PRINTER is used to configure the printouts and printer

4-4-1) INTENSITY selects printer intensity

4-5) TIME-OF-DAY allows the setting of the time and day

5) TESTING MENU function

5-1) BATTERY allows testing of the battery

5-2) SCOREBOARD allows testing of scoreboard

5-2-1) CYCLE ON/OFF turns the display completely on and off

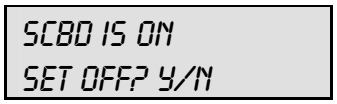
5-2-2) DRIVER ADDRESS displays the scoreboard address

5-2-3) DIGIT NUMBER displays the digit number

Scoreboard Menu

Selecting the **SCBD MENU** will offer you the following submenus:

Scbd On/Off

LCD Display	Action
	Scoreboard On/Off toggles the scoreboard between displaying nothing and displaying the current race data. If the scoreboard is blank, it will remain blank until the start of the next race or until <RESET> is pressed to re-display the data of the last race.
	The LCD will show this message and will ask for a Yes or No response. Press <YES> to clear the scoreboard. Press <NO> to keep the scoreboard data lit and return to **SCBD On/Off** menu**.**

Dimming

LCD Display	Action
MENU- SCOREBOARD 2-DIMMING	Dimming adjusts the dimming level of the scoreboard. The dimming level only applies to scoreboards configured to receive multi-drop protocol. The dimming level is set from 0 to 3 and the levels are: 0 = none 1 = 2/3 2 = 1/2 3 = 1/3 Enter the appropriate dimming level and press <ENTER> to accept the change. Press <CLEAR> to decline the action and return to the **Dimming** menu**.**
SCBD DIMMING LEVEL 0-3: NONE	

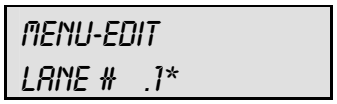
Time-of-Day

LCD Display	Action
	Time-of-day clears the scoreboard and displays the time-of-day. The scoreboard will show the time-of-day until the start of the next race or until <RESET> is pressed to re-display the data of the last race.
	Press <YES> to show time-of-day (TOD) on the scoreboard. Press <NO> to decline the action and return to the **Display TOD** menu.

Edit Menu

Selecting the **EDIT MENU** display the following submenus.

Edit Workout

LCD Display	Action
	Edit Workout allows you to edit a workout by pressing < ENTER >.
	After selecting to edit a workout, select the lane you would like to edit. Use the <**0**>-<**9**> keys to enter the lane number. Press < ENTER > to accept the change and edit that lane.

Edit Step

LCD Display	Action
MENU-EVENT ORDER 1-EDIT STEP	After selecting a lane, the OmniSport 2000 allows you to edit a step by pressing < **ENTER** >.
EDIT 1 STEP 1* REST #5	First enter the step number you wish to edit by either using the arrow keys or by entering the step number and pressing < **ENTER** >. For example, edit Step 1. Instead of resting, you want your swimmer to swim for 30 seconds repeating the step three times.
EDIT 1 STEP 1 SWIM*	Enter the Step Type in one of two ways. 1. Use the arrow keys and press <**ENTER**> when the desired step type is displayed. 2. Enter one of the following numbers and then press < **ENTER** >. • 1=STOP • 2=BEG CIRCUIT (has a repeat count) • 3=END CIRCUIT • 4=SWIM (has a repeat count) • 5=REST • 6=PACE
EDIT 1 STEP 1 SWIM 00:00*	Enter the desired amount of time in the Time Clock and press <**ENTER**>.
EDIT 1 STEP 1 SWIM 00:30 3*	Enter the number of times you would like this step repeated in the Repeat Count and press <**ENTER**>.
EDIT 1 STEP 2* END CIRCUIT	The LCD will automatically display the next step for the lane you have chosen to edit. If you would like to edit another step, continue. Otherwise, press < **MENU** >.

Insert Step

LCD Display	Action
MENU-LANE 1 2-INSERT STEP	Insert Step inserts a step into the workout order. To insert a step, press < ENTER >.
INSERT @STEP 3* SWIM 00:40 # 8	First enter the step number that you wish to insert a step into by either using the arrow keys or by entering the lane number and pressing <ENTER>. For example, if you'd like to insert resting as Step 3, enter 3 and press < ENTER >.

Delete Step

LCD Display	Action
INSERT @STEP 3 3-DELETE STEP	Delete Step deletes a step from the workout order for a specific lane. To delete a step, press < ENTER >.
DELETE STEP 1* SWIM 00:05 # 5	First enter the step number that you wish to delete by either using the arrow keys or by entering the lane number and pressing <ENTER>.

Copy Workout

LCD Display	Action
MENU-LANE 1 4-COPY WORKOUT	Copy Workout copies the workout from one lane to another. To copy a workout press <ENTER >.
COPY LANE 1 WORKOUT TO 2*	Enter the lane number you wish to copy the workout to and press < ENTER >. In this example, you are copying the workout from Lane 1 to Lane 2.

Clear Workout

LCD Display	Action
MENU-LANE 1 5-CLEAR WORKOUT	Clear Workout erases the entire workout that has been set up for a specific lane. To clear a workout, press <ENTER>.
CLEAR WORKOUT LANE 1 Y/N?	Press <YES> to clear the entire workout or press <NO> to go back to the menu selection.

Print Menu

MENU - MAIN
3-PRINT MENU

Selecting the **PRINT MENU** displays the following submenus.

Individual Workout

LCD Display	Action
MENU - PRINT 1-IND WORKOUT	Individual Workout allows you to print the results of an individual workout in a specific lane.
MENU - PRINT LANE # 0*	Enter the lane number for the workout you would like to print and press < ENTER >.
MENU - PRINT PRINT WORKOUT?	The LCD displays a prompt verifying that you want to print this workout. If you do not want to print, press < CLEAR > to return to the Print Menu. If you do want to print, press <ENTER>.

All Workouts

LCD Display	Action
MENU - PRINT 2-ALL WORKOUTS	All Workouts prints the workouts for every lane. Press **< ENTER >** to print all workouts.
MENU - PRINT PRINT ALL? Y/N	Press < **ENTER** > to print all workouts. Press <**CLEAR**> to return to the **Print** menu.

Settings

LCD Display	Action
MENU - PRINT 3-SETTINGS	Settings allows the current configured settings to be printed.
MENU - PRINT PRINT SETTINGS?	Press < **ENTER** > to allow the settings to print. Press < **CLEAR** > to return to the **Print** menu.

Setup Menu

MENU-MAIN
4-SETUP MENU

Selecting the **SETUP MENU** displays the following submenus.

Timer

LCD Display	Action
MENU - SETUP 1-TIMER	This feature is not activated. If you press **<ENTER>,** the display automatically proceeds to choice number two under the **Setup** menu.

Scoreboard

LCD Display	Action
MENU-SETUP 2-SCOREBOARD	Scoreboard allows you to configure the scoreboard setup by pressing <ENTER>.

Number of Lines

LCD Display	Action
MENU - SCOREBOARD 1 - # OF LINES	Number of Lines allows you to set the number of lines on the display by pressing < ENTER >.
# OF LINES LINES = 0*	You may enter any number between zero and 99; then press < ENTER >. If the number of active lanes in the pool is greater than the value set, the timer will automatically page the information in place order according to the time set in the FIN PAGE TIME (Default=10).

Comm Ports

LCD Display	Action
MENU-SETUP 3-COMM PORTS	Comm Ports allows you to configure the communication ports by pressing < ENTER >.

SCBD Outputs

LCD Display	Action
MENU - COMM PORTS 1 – SCBD OUTPUTS	Scoreboard Outputs allows you to select which protocol (Multidrop or Multiline) will be transmitted out of the scoreboard outputs (J2 and J3).
MENU - COMM PORTS SCBD: MULTILINE*	Use the arrow keys to choose between Multiline and Multidrop. When your selection is made, press **< ENTER >.**

Note: To identify a display as either **Multiline** or **Multidrop**, power up the scoreboard with the signal connected. If the Lane and Place digits show P0, the scoreboard is a **Multidrop** display. If the digits show P1, the scoreboard is **Multiline**.

RTD Port

LCD Display	Action
MENU - COMM PORTS 2– RTD PORT	Rtd Port is used to configure which protocol (RTD or CTS) will be transmitted out of the RTD port (J5) connector on the OmniSport 2000 timer.
MENU - COMM PORTS RTD PORT: RTD*	Select **RTD** to send information to a Venus controller. Select **CTS** to send information to a numeric CTS Scoreboard (Default = RTD). Use the <↑> <↓> keys to choose between RTD and CTS ports. When your selection is made, press **< ENTER >. .**

Results Port

LCD Display	Action
MENU – COMM PORTS 3 – RESULTS PORT	Results port is used to configure which protocol (Omni2000, Omni 6000, or CTS) will be used to communicate with the meet management software.
MENU – COMM PORTS RSLT: OMNI 2000*	Use the arrow keys to select between Omni 2000, Omni 6000 or CTS. Omni 2000 and Omni 6000 are bi-directional protocols. CTS is a unidirectional protocol that uses the standard CTS scoreboard information (Default = Omni 2000). Use the arrow keys to choose between OMNI 2000, OMNI 6000 and CTS TIMER. When your selection is made, press <ENTER >. .

Note: Selecting Omni 6000 will tell the timer to transmit Omni 6000 RTD item numbers on the RTD output.

Printer

MENU – SETUP
5–PRINTER

The following is a more detailed look at printer configurations.

Intensity

LCD Display	Action
MENU – PRINTER 4 – INTENSITY	Use the Intensity Menu to set the printer intensity.
PRINT INTENSITY LEVEL 1-5: 5*	Press the number, 1-5, to select a new intensity. Press < ENTER > or <CLEAR> to return to the **Printer** menu.

Time-of-Day

LCD Display	Action
MENU – SETUP 5 – TIME OF DAY	Time-of-day is used to set the console date and time.
DATE MM/DD/YY TOD HH:MM:SS*	Use the <**0**> thru <**9**> keys to enter the correct date and time. Press < **ENTER** > to accept and continue. Press <**CLEAR**> to clear the time and date, and press it again to exit without saving. If this is done, the previous time and date remain.

Test Menu

MAIN MENU
5-TEST MENU

The following is a more detailed look at **Test** menu options.

Battery

LCD Display	Action
MENU – TEST 1 – BATTERY	The Battery Test allows for the checking of the battery power level.
BATTERY TEST LEVEL: CHARGED	The battery level will show as CHARGED or LOW. Press <**ENTER**> to exit and return to the **Test** menu.

Scoreboard

LCD Display	Action
MENU – TEST 2 – SCOREBOARDS	The Scoreboard test allows for the testing of scoreboard drivers.

Cycle On/Off

LCD Display	Action
SB TEST MENU 1 – CYCLE ON/OFF	Press <**1**> to cycle scoreboards ON and OFF.
DISPLAY ALL ON ENTER TO EXIT The white area shown above cycles from ON to OFF.	When this menu is selected, an all on signal is sent at intervals of approximately three seconds apart. This will continue to cycle on and off until you press <**ENTER**>.

Driver Address

LCD Display	Action
SB TEST MENU 2 – DRIVER ADDRESS	Press <**2**> to display driver addresses.
SHOWING ADDRESS ENTER TO EXIT	All digits on the display will be showing which driver controls this digit. This will remain on the display until you press <**ENTER**>.

Digit Number

LCD Display	Action
SB TEST MENU 3 – DIGIT NUMBER	Press <**3**> to display the digit designation. Press <**ENTER**> to exit and return to the **Test** menu**.**
SHOWING DIGIT # ENTER TO EXIT	All digits on the display will show their digit designation (digit number). This will remain on the display until you press <**ENTER**>.

Section 12: In-Deck Cabling System Installation

Reference Drawings:

Deck Box Installation ..... **Drawing A-26288**
Lane Interface (Manual) ..... **Drawing A-26538**
Conduit Diagram (In-deck Cabling) ..... **Drawing B-26798**

Begin installation by reviewing **Drawing B-26798** for an overall system layout and conduit requirements. This drawing also shows the deck box cover that is, along with the lane interface **Drawing A-26538**, connected via cabling to the OmniSport.

Conduit should be installed by one of the two methods shown in **Drawing B-26798**. It is important that the conduit be installed to allow for proper drainage. Diagrams are shown for eight lanes. If this particular application has six lanes, use only the two-inch conduit method. If ten lanes are required, the division can be made between lanes 5 and 6 (1" conduit method). Check to ensure that the deck box covers fit into, and can be secured to, each lane junction box. Each lane junction box should be located so that the touchpad cable and the backup button cables will reach it. It is usually preferred that each lane junction box be located under the starting block to provide a clutter-free deck. A second consideration in locating lane junction boxes is the importance of water drainage from the contacts in the lane junction box cover. This can be accomplished by positioning the box so that the cover is in a vertical position.

The next step is to pull cables from each lane junction box to the box where the lane interface is located. One conductor cable (Alpha #5196 22-gauge stranded, over-all shield) should be pulled from each lane interface. Leave about 12-18 inches of wire at both ends and mark each cable for reference when connections are made later. If the optional individual lane horns are to be installed, pull a two-conductor cable (Belden #8451 22-gauge stranded, twisted, shielded pair) from the last lane to the lane interface's junction box. Leave 12-18 inches of wire looped out of each box. The lane horns will be connected in parallel.

Cables at the lane junction box can be terminated as shown in **Drawing B-26798**. Connections at each lane deck box are to be made with wire nuts. Cut the lane horn speaker cable at each box and wire-nut to the wires connected to the deck box cover, as shown in **Drawing B-26798**. Note that all lane speakers are connected to the same wires. It is strongly recommended that the system be tested with the OmniSport 2000 prior to pouring the encapsulating compound. This compound seals the wires and electrical connections from corrosion and once poured, it cannot be easily removed.

The next step is to make the connection to the lane interface. As seen in the upper left detail of **Drawing B-26798**, the lane interface is to be secured to the cover of its junction box. Plug the cable which comes from the four jacks on the cover into terminal block TB11 of the lane interface. Next, prepare the cables from each lane and plug them into TB1-TB10. Refer to **Drawing A-26288** for wire color and pin number order. Wire ends are to be stripped and inserted under the clamping screw of each terminal block. Plug the cable from lane 1 into TB1, lane 2 into TB2, etc. Terminate the optional horn start cable from the deck boxes to the cable that connects to the horn start junction box (4" x 4" x 2").

Section 13: Relay Takeoff Judging Operation

The “relay takeoff judging” feature of the OmniSport 2000 reduces the judging error in relay races by allowing either semi-automatic or fully automatic judging of relay takeoffs. In the semi-automatic mode, the lane judge presses a push-button for a lane as the relay swimmer leaves the starting block. In fully automatic mode, a pressure sensor in the starting block automatically senses when the swimmer leaves the starting block. In either case, the touchpad senses when the previous swimmer has completed a length. The OmniSport automatically compares the two times and notes on the printer whenever the starting time is earlier than the touchpad (finish) time.

One method to ensure fairness in relay takeoff judging is to have a lane judge that visually checks each relay takeoff and to disqualify a team only when the visual judge and the timing computer both detect an early takeoff. The OmniSport will only flag early takeoffs that are within two seconds of the touchpad touch. Takeoffs earlier than that should be noted by the visual check.

The “relay takeoff judging feature” is always enabled in the OmniSport 2000. A “setup item” selects whether the OmniSport is to expect a push-button (normally open circuit) or the starting block pressure (normally closed circuit when the swimmer is standing on the starting block). Whenever the OmniSport detects a relay start impulse two seconds or less before a touchpad impulse, the occurrence will be logged on the printer with “-” and the amount of time (seconds and hundredths) that the takeoff preceded the touchpad impulse. This is printed on the line directly after the touchpad time.

Note: The relay takeoff comparison is only done on the “split times”; on the final length of a race, an impulse from the “Button” jack is assumed to be a backup button for the touchpad time and is logged in the backup times memory.

A “-” and the early takeoff time are logged on the printer when the touchpad is actually touched. On subsequent requested printouts such as PRINT W/EXCHANGE, the occurrence of an early takeoff on one of the split times for a lane will be identified by a “F” for “False Start” directly in front of the final time for that lane. Selecting “Finish by Lane w/Exchanges” in the **Printer Setup** menu includes a summary of the exchange times.

Wiring Connections

Semi-Automatic Mode (using Button only)

No special wiring is required for this mode. A normal push-button connected to any button position is all that is required. Verify which button input to use in the **Setup Timer** menu. The operator of this button should press the button as each relay swimmer leaves the starting block to start his/her leg of the race. The same button can be used as a backup to the touchpad. On the final length of the race, the operator presses the button as the final swimmer touches the touchpad.

Fully Automatic Mode (takeoff sensor on starting block)

For this mode, the starting block sensor (for takeoff sensing) and a push-button (for final length touchpad backup) are both connected to a “Button” input on the lane module for each lane. Use of two sensors on the single lane module input is possible because the OmniSport keeps track of the length count and thus knows when to expect relay takeoff impulses (on split times) and backup button impulses (on final times). In this mode, the relay takeoff sensing is completely automatic; the button operator only needs to watch for the final length and press the button as the final swimmer touches the touchpad.

Section 14: Judge's Console Operation

Reference Drawings:

System Riser Diagram, OmniSport 2000.....**Drawing B-220003**

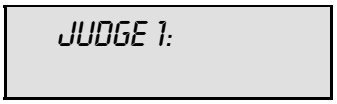
Judge's consoles are used to enter scores during diving and synchronized swimming events. The OmniSport control console can be setup to operate with two, three, five, seven or nine judge's consoles. The consoles are connected to the “J14” or “J15” ports on the back of the console. If wireless judge's consoles are used, the wireless base station is connected to the “J14” or “J15” ports on the back of the OmniSport console. Refer to **Drawing B-220003** for connection details.

14.1 Console Setup

The first time the judge's consoles are connected to the OmniSport timer they will prompt the user to enter a judge's number.

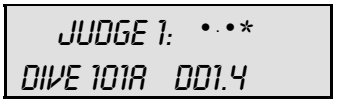
The LCD on the judge's console prompts the user to enter a number from one to the maximum number of judge's consoles the OmniSport has been configured to use. If a number is entered that has already been used by another judge or is higher than the number of judges configured, the console will beep and wait for a new number to be entered.

Once a judge number has been set for the judge's console it will appear on the LCD display.

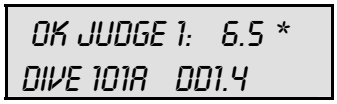


14.2 Diving Event Operation

The request for scores will show on the judge's consoles when the OmniSport diving console has entered scoring mode for the dive. The dive number and degree of difficulty will also be displayed.



Enter the score for the current dive, then press the <**ENTER**> key to accept it.



When the score has been entered, OK will appear to the left of the JUDGE number.

Score Editing

After a score has been entered it may be changed by pressing the <**EDIT**> key. This puts the console back into score entering mode allowing the score to be re-entered. The score cannot be edited if the OmniSport operator has already accepted the judge's scores.

14.3 Synchronized Diving Event Operation

The judge's consoles used to enter scores during synchronized diving events are grouped by their entry function. The OmniSport Pro Synchronized Diving program can be set to use 7 or 9 judge's consoles.

If using seven consoles:

Judge's Numbers	Score
1-3	Dive synchronization
4-5	Diver #1 execution
6-7	Diver # 2 execution

If using nine consoles:

Judge's Numbers	Score
1-5	Dive synchronization
6-7	Diver #1 execution
8-9	Diver # 2 execution

14.4 Synchronized Swimming Event Operation

One or two panels of judges can score a synchronized swimming event. If there is one panel of judges the judge numbers on the consoles are entered as one through the number of judges configured for the event. If there are two panels of judges the second panel would be entered as the next set of judge numbers available after the first panel. If there are two panels of five, the second panel is entered as judge numbers 6-10.

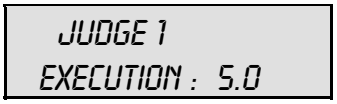
If there is only one panel of judges they enter both sets of scores for the event. When there are two panels of judges, each panel enters a separate set of scores. The operations for one and two panels are detailed in the sections that follow.

One Judge Panel Operation

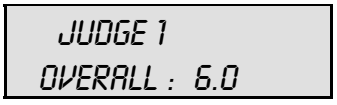
When there is one panel of judges, all of the judges are responsible for entering both sets of scores for the routine. The prompts are shown below.

Technical Routine Operation

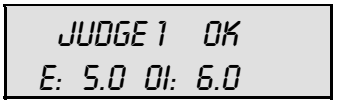
The first score to enter for the technical routine is for execution of the routine.



The second score to enter for the technical routine is for the overall impression of the routine.

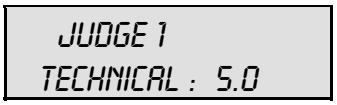


The LCD will then show the two scores and an OK after it has been entered.

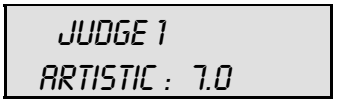


Free Routine Operation

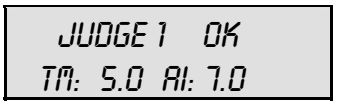
The first score to enter for the free routine is for the technical merit portion of the routine.



The second score to enter for the free routine is for the artistic impression portion of the routine.



The LCD will then show the two scores and an OK after it has been entered.

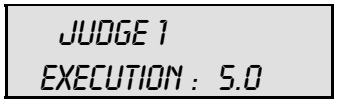


Two Judge Panel Operation

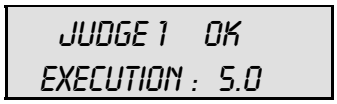
When there are two panels of judges the first panel enters the first set of scores and the second panel enters the second set of scores for the routine. The prompts are shown below.

Technical Routine Operation

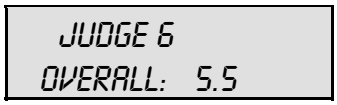
In a technical routine the first panel of judges enter the score for the execution of the routine.



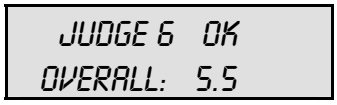
The OK will display by the judge number after the score is entered.



The second panel of judges enter the score for the overall impression of the routine.

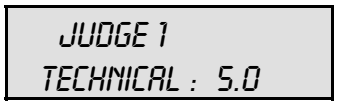


The OK will display by the judge number after the score is entered.

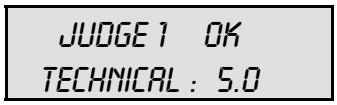


Free Routine Operation

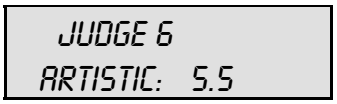
In a free routine the first panel of judges enter the score for the technical merit portion of the routine.



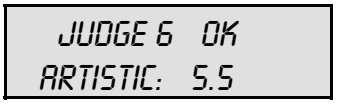
The OK will display by the judge number after the score is entered.



In a free routine the second panel of judges enter the score for the artistic impression portion of the routine.



The OK will display by the judge number after the score is entered.



Score Editing

After a score has been entered it may be changed by pressing the <**EDIT**> key. This puts the console back into score entering mode allowing the score to be re-entered. The score cannot be edited if the OmniSport operator has already accepted the judge's scores.

Section 15: RTD Output Specifications

This section contains Real Time Data, or RTD, output specifications for both the OmniSport 2000 and the OmniSport 6000.

Transmission Specifications

Baud Rate: 19,200
Parity: None
Data Bits: 8
Protocol: Enhanced
Size: 4096

15.1 OmniSport 2000 Swim RTD Item Numbers

	Function	Length	Justification	Item Number
1	Running time	9	L	1
2	Event title line 1	30	L	10
3	Event title line 2	30	L	40
4	Event title lines 1 & 2	30	L	70
5	Event number	3	R	100
6	Event number-Alpha	1	L	103
7	Heat number	2	R	104
8	Heat number-Alpha	20	L	106
9	Round number	1	L	126
10	Maximum lengths to complete	2	R	127
11	Lengths completed	2	R	129
12	Record 1 name	12	L	131
13	Record 1 code	2	L	143
14	Record 1 time	9	L	145
15	Record 2 name	12	L	154
16	Record 2 code	2	L	166
17	Record 2 time	9	L	168
18	Record 3 name	12	L	177
19	Record 3 code	2	L	189
20	Record 3 time	9	L	191
21	Record 4 name	12	L	200
22	Record 4 code	2	L	212
23	Record 4 time	9	L	214
24	Line 1 swimmer name	15	L	223
25	Line 1 team name	5	L	238

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	Function	Length	Justification	Item Number
26	Line 1 lane number	2	R	243
27	Line 1 place number	3	R	245
28	Line 1 split/finish time	9	L	248
29	Line 1 lengths completed	2	R	257
30	Line 2 swimmer name	15	L	259
31	Line 2 team name	5	L	274
32	Line 2 lane number	2	R	279
33	Line 2 place number	3	R	281
34	Line 2 split/finish time	9	L	284
35	Line 2 lengths completed	2	R	293
36	Line 3 swimmer name	15	L	295
37	Line 3 team name	5	L	310
38	Line 3 lane number	2	R	315
39	Line 3 place number	3	R	317
40	Line 3 split/finish time	9	L	320
41	Line 3 lengths completed	2	R	329
42	Line 4 swimmer name	15	L	331
43	Line 4 team name	5	L	346
44	Line 4 lane number	2	R	351
45	Line 4 place number	3	R	353
46	Line 4 split/finish time	9	L	356
47	Line 4 lengths completed	2	R	365
48	Line 5 swimmer name	15	L	367
49	Line 5 team name	5	L	382
50	Line 5 lane number	2	R	387
51	Line 5 place number	3	R	389
52	Line 5 split/finish time	9	L	392
53	Line 5 lengths completed	2	R	401
54	Line 6 swimmer name	15	L	403
55	Line 6 team name	5	L	418
56	Line 6 lane number	2	R	423
57	Line 6 place number	3	R	425
58	Line 6 split/finish time	9	L	428
59	Line 6 lengths completed	2	R	437
60	Line 7 swimmer name	15	L	439
61	Line 7 team name	5	L	454
62	Line 7 lane number	2	R	459
63	Line 7 place number	3	R	461

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	Function	Length	Justification	Item Number
64	Line 7 split/finish time	9	L	464
65	Line 7 lengths completed	2	R	473
66	Line 8 swimmer name	15	L	475
67	Line 8 team name	5	L	490
68	Line 8 lane number	2	R	495
69	Line 8 place number	3	R	497
70	Line 8 split/finish time	9	L	500
71	Line 8 lengths completed	2	R	509
72	Line 9 swimmer name	15	L	511
73	Line 9 team name	5	L	526
74	Line 9 lane number	2	R	531
75	Line 9 place number	3	R	533
76	Line 9 split/finish time	9	L	536
77	Line 9 lengths completed	2	R	545
78	Line 10 swimmer name	15	L	547
79	Line 10 team name	5	L	562
80	Line 10 lane number	2	R	567
81	Line 10 place number	3	R	569
82	Line 10 split/finish time	9	L	572
83	Line 10 lengths completed	2	R	581
84	Reserved 1	418	N	583
85	Single line swimmer name	15	L	1001
86	Single line team name	5	L	1016
87	Single line lane number	2	R	1021
88	Single line place number	3	R	1023
89	Single line split/finish time	9	L	1026
90	Single line lengths completed	2	R	1035
91	Single line logo	30	L	1037
92	Reserved 2	434	N	1067
93	Women's event title	20	L	1501
94	Women's division name	15	L	1521
95	Women's team 1 place	3	R	1536
96	Women's team 1 name	20	L	1539
97	Women's team 1 abbreviation	5	L	1559
98	Women's team 1 score	6	R	1564

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	Function	Length	Justification	Item Number
99	Women's team 2 place	3	R	1570
100	Women's team 2 name	20	L	1573
101	Women's team 2 abbreviation	5	L	1593
102	Women's team 2 score	6	R	1598
103	Women's team 3 place	3	R	1604
104	Women's team 3 name	20	L	1607
105	Women's team 3 abbreviation	5	L	1627
106	Women's team 3 score	6	R	1632
107	Women's team 4 place	3	R	1638
108	Women's team 4 name	20	L	1641
109	Women's team 4 abbreviation	5	L	1661
110	Women's team 4 score	6	R	1666
111	Women's team 5 place	3	R	1672
112	Women's team 5 name	20	L	1675
113	Women's team 5 abbreviation	5	L	1695
114	Women's team 5 score	6	R	1700
115	Women's team 6 place	3	R	1706
116	Women's team 6 name	20	L	1709
117	Women's team 6 abbreviation	5	L	1729
118	Women's team 6 score	6	R	1734
119	Women's team 7 place	3	R	1740
120	Women's team 7 name	20	L	1743
121	Women's team 7 abbreviation	5	L	1763
122	Women's team 7 score	6	R	1768
123	Women's team 8 place	3	R	1774
124	Women's team 8 name	20	L	1777
125	Women's team 8 abbreviation	5	L	1797
126	Women's team 8 score	6	R	1802
127	Women's team 9 place	3	R	1808
128	Women's team 9 name	20	L	1811

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	Function	Length	Justification	Item Number
129	Women's team 9 abbreviation	5	L	1831
130	Women's team 9 score	6	R	1836
131	Women's team 10 place	3	R	1842
132	Women's team 10 name	20	L	1845
133	Women's team 10 abbreviation	5	L	1865
134	Women's team 10 score	6	R	1870
135	Reserved 3	125	N	1876
136	Men's event title	20	L	2001
137	Men's division name	15	L	2021
138	Men's team 1 place	3	R	2036
139	Men's team 1 name	20	L	2039
140	Men's team 1 abbreviation	5	L	2059
141	Men's team 1 score	6	R	2064
142	Men's team 2 place	3	R	2070
143	Men's team 2 name	20	L	2073
144	Men's team 2 abbreviation	5	L	2093
145	Men's team 2 score	6	R	2098
146	Men's team 3 place	3	R	2104
147	Men's team 3 name	20	L	2107
148	Men's team 3 abbreviation	5	L	2127
149	Men's team 3 score	6	R	2132
150	Men's team 4 place	3	R	2138
151	Men's team 4 name	20	L	2141
152	Men's team 4 abbreviation	5	L	2161
153	Men's team 4 score	6	R	2166
154	Men's team 5 place	3	R	2172
155	Men's team 5 name	20	L	2175
156	Men's team 5 abbreviation	5	L	2195
157	Men's team 5 score	6	R	2200
158	Men's team 6 place	3	R	2206
159	Men's team 6 name	20	L	2209
160	Men's team 6 abbreviation	5	L	2229
161	Men's team 6 score	6	R	2234
162	Men's team 7 place	3	R	2240
163	Men's team 7 name	20	L	2243

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	Function	Length	Justification	Item Number
164	Men's team 7 abbreviation	5	L	2263
165	Men's team 7 score	6	R	2268
166	Men's team 8 place	3	R	2274
167	Men's team 8 name	20	L	2277
168	Men's team 8 abbreviation	5	L	2297
169	Men's team 8 score	6	R	2302
170	Men's team 9 place	3	R	2308
171	Men's team 9 name	20	L	2311
172	Men's team 9 abbreviation	5	L	2331
173	Men's team 9 score	6	R	2336
174	Men's team 10 place	3	R	2342
175	Men's team 10 name	20	L	2345
176	Men's team 10 abbreviation	5	L	2365
177	Men's team 10 score	6	R	2370
178	Reserved 4	125	N	2376
179	Combined event title	20	L	2501
180	Combined division name	15	L	2521
181	Combined team 1 place	3	L	2536
182	Combined team 1 name	20	L	2539
183	Combined team 1 abbreviation	5	L	2559
184	Combined team 1 score	6	R	2564
185	Combined team 2 place	3	L	2570
186	Combined team 2 name	20	L	2573
187	Combined team 2 abbreviation	5	L	2593
188	Combined team 2 score	6	R	2598
189	Combined team 3 place	3	L	2604
190	Combined team 3 name	20	L	2607
191	Combined team 3 abbreviation	5	L	2627
192	Combined team 3 score	6	R	2632
193	Combined team 4 place	3	L	2638
194	Combined team 4 name	20	L	2640
195	Combined team 4 abbreviation	5	L	2661

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	Function	Length	Justification	Item Number
196	Combined team 4 score	6	R	2666
197	Combined team 5 place	3	L	2672
198	Combined team 5 name	20	L	2675
199	Combined team 5 abbreviation	5	L	2695
200	Combined team 5 score	6	R	2700
201	Combined team 6 place	3	L	2706
202	Combined team 6 name	20	L	2709
203	Combined team 6 abbreviation	5	L	2729
204	Combined team 6 score	6	R	2734
205	Combined team 7 place	3	L	2740
206	Combined team 7 name	20	L	2743
207	Combined team 7 abbreviation	5	L	2763
208	Combined team 7 score	6	R	2768
209	Combined team 8 place	3	L	2774
210	Combined team 8 name	20	L	2777
211	Combined team 8 abbreviation	5	L	2797
212	Combined team 8 score	6	R	2802
213	Combined team 9 place	3	L	2808
214	Combined team 9 name	20	L	2811
215	Combined team 9 abbreviation	5	L	2831
216	Combined team 9 score	6	R	2836
217	Combined team 10 place	3	L	2842
218	Combined team 10 name	20	L	2845
219	Combined team 10 abbreviation	5	L	2865
220	Combined team 10 score	6	R	2870

15.2 OmniSport 6000 Swim RTD Item Numbers

	Function	Length	Justification	Item Number
1	Running time	9	R	1
2	Event title line 1	30	L	10
3	Event title line 2	30	L	40
4	Event title lines 1 & 2	30	L	70
5	Event number	3	R	100
6	Heat number	2	R	103
7	Maximum lengths to be completed	2	R	105
8	Lengths completed	2	R	107
9	Record 1 name	12	L	109
10	Record 1 code	2	R	121
11	Record 1 time	9	R	146
12	Record 2 name	12	L	132
13	Record 2 code	2	R	144
14	Record 2 time	9	R	146
15	Record 3 name	12	L	155
16	Record 3 code	2	R	167
17	Record 3 time	9	R	169
18	Record 4 name	12	L	178
19	Record 4 code	2	R	190
20	Record 4 time	9	R	192
21	Line 1 swimmer name	15	L	201
22	Line 1 team name	5	L	216
23	Line 1 lane number	2	R	221
24	Line 1 place number	3	R	223
25	Line 1 split/finish time	9	R	226
26	Line 1 lengths completed	2	R	235
27	Line 2 swimmer name	15	L	237
28	Line 2 team name	5	L	252
29	Line 2 lane number	2	R	257
30	Line 2 place number	3	R	259
31	Line 2 split/finish time	9	R	262
32	Line 2 lengths completed	2	R	271
33	Line 3 swimmer name	15	L	273

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	Function	Length	Justification	Item Number
34	Line 3 team name	5	L	288
35	Line 3 lane number	2	R	293
36	Line 3 place number	3	R	295
37	Line 3 split/finish time	9	R	298
38	Line 3 lengths completed	2	R	307
39	Line 4 swimmer name	15	L	309
40	Line 4 team name	5	L	324
41	Line 4 lane number	2	R	329
42	Line 4 place number	3	R	331
43	Line 4 split/finish time	9	R	334
44	Line 4 lengths completed	2	R	343
45	Line 5 swimmer name	15	L	345
46	Line 5 team name	5	L	360
47	Line 5 lane number	2	R	365
48	Line 5 place number	3	R	367
49	Line 5 split/finish time	9	R	370
50	Line 5 lengths completed	2	R	379
51	Line 6 swimmer name	15	L	381
52	Line 6 team name	5	L	396
53	Line 6 lane number	2	R	401
54	Line 6 place number	3	R	403
55	Line 6 split/finish time	9	R	406
56	Line 6 lengths completed	2	R	415
57	Line 7 swimmer name	15	L	417
58	Line 7 team name	5	L	432
59	Line 7 lane number	2	R	437
60	Line 7 place number	3	R	439
61	Line 7 split/finish time	9	R	442
62	Line 7 lengths completed	2	R	451
63	Line 8 swimmer name	15	L	453
64	Line 8 team name	5	L	468

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	Function	Length	Justification	Item Number
65	Line 8 lane number	2	R	473
66	Line 8 place number	3	R	475
67	Line 8 split/finish time	9	R	478
68	Line 8 lengths completed	2	R	487
69	Line 9 swimmer name	15	L	489
70	Line 9 team name	5	L	504
71	Line 9 lane number	2	R	509
72	Line 9 place number	3	R	511
73	Line 9 split/finish time	9	R	514
74	Line 9 lengths completed	2	R	523
75	Line 10 swimmer name	15	L	525
76	Line 10 team name	5	L	540
77	Line 10 lane number	2	R	545
78	Line 10 place number	3	R	547
79	Line 10 split/finish time	9	R	550
80	Line 10 lengths completed	2	R	559
81	Single line swimmer name	15	L	561
82	Single line team name	5	L	576
83	Single line lane number	2	R	581
84	Single line place number	3	R	583
85	Single line split/finish time	9	R	586
86	Single line lengths completed	2	R	595
87	Single line logo	30	L	597
88	Women's event title	20	L	627
89	Women's division name	15	L	647
90	Women's team 1 place	3	R	662
91	Women's team 1 name	20	L	665
92	Women's team 1 abbreviation	5	L	685
93	Women's team 1 score	8	R	690
94	Women's team 2 place	3	R	698
95	Women's team 2 name	20	L	701
96	Women's team 2 abbreviation	5	L	721

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	Function	Length	Justification	Item Number
97	Women's team 2 score	8	R	726
98	Women's team 3 place	3	R	724
99	Women's team 3 name	20	L	727
100	Women's team 3 abbreviation	5	L	757
101	Women's team 3 score	8	R	762
102	Women's team 4 place	3	R	770
103	Women's team 4 name	20	L	773
104	Women's team 4 abbreviation	5	L	793
105	Women's team 4 score	8	R	798
106	Women's team 5 place	3	R	806
107	Women's team 5 name	20	L	809
108	Women's team 5 abbreviation	5	L	829
109	Women's team 5 score	8	R	834
110	Women's team 6 place	3	R	842
111	Women's team 6 name	20	L	845
112	Women's team 6 abbreviation	5	L	865
113	Women's team 6 score	8	R	870
114	Women's team 7 place	3	R	878
115	Women's team 7 name	20	L	881
116	Women's team 7 abbreviation	5	L	901
117	Women's team 7 score	8	R	906
118	Women's team 8 place	3	R	914
119	Women's team 8 name	20	L	917
120	Women's team 8 abbreviation	5	L	937
121	Women's team 8 score	8	R	942
122	Women's team 9 place	3	R	950
123	Women's team 9 name	20	L	953
124	Women's team 9 abbreviation	5	L	973
125	Women's team 9 score	8	R	978
126	Women's team 10 place	3	R	986
127	Women's team 10 name	20	L	989
128	Women's team 10 abbreviation	5	L	1009
129	Women's team 10 score	8	R	1014
130	Men's event title	20	L	1022

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	Function	Length	Justification	Item Number
131	Men's division name	15	L	1042
132	Men's team 1 place	3	R	1057
133	Men's team 1 name	20	L	1060
134	Men's team 1 abbreviation	5	L	1080
135	Men's team 1 score	8	R	1085
136	Men's team 2 place	3	R	1093
137	Men's team 2 name	20	L	1096
138	Men's team 2 abbreviation	5	L	1116
139	Men's team 2 score	8	R	1121
140	Men's team 3 place	3	R	1129
141	Men's team 3 name	20	L	1132
142	Men's team 3 abbreviation	5	L	1152
143	Men's team 3 score	8	R	1157
144	Men's team 4 place	3	R	1165
145	Men's team 4 name	20	L	1168
146	Men's team 4 abbreviation	5	L	1188
147	Men's team 4 score	8	R	1193
148	Men's team 5 place	3	R	1201
149	Men's team 5 name	20	L	1204
150	Men's team 5 abbreviation	5	L	1224
151	Men's team 5 score	8	R	1229
152	Men's team 6 place	3	R	1237
153	Men's team 6 name	20	L	1240
154	Men's team 6 abbreviation	5	L	1260
155	Men's team 6 score	8	R	1265
156	Men's team 7 place	3	R	1273
157	Men's team 7 name	20	L	1276
158	Men's team 7 abbreviation	5	L	1296
159	Men's team 7 score	8	R	1301
160	Men's team 8 place	3	R	1309
161	Men's team 8 name	20	L	1312
162	Men's team 8 abbreviation	5	L	1332
163	Men's team 8 score	8	R	1337
164	Men's team 9 place	3	R	1345
165	Men's team 9 name	20	L	1348

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	Function	Length	Justification	Item Number
166	Men's team 9 abbreviation	5	L	1368
167	Men's team 9 score	8	R	1373
168	Men's team 10 place	3	R	1381
169	Men's team 10 name	20	L	1384
170	Men's team 10 abbreviation	5	L	1404
171	Men's team 10 score	8	R	1409
172	Mixed event title	20	L	1417
173	Mixed division name	15	L	1437
174	Mixed team 1 place	3	R	1452
175	Mixed team 1 name	20	L	1455
176	Mixed team 1 abbreviation	5	L	1475
177	Mixed team 1 score	8	R	1480
178	Mixed team 2 place	3	R	1488
179	Mixed team 2 name	20	L	1491
180	Mixed team 2 abbreviation	5	L	1511
181	Mixed team 2 score	8	R	1516
182	Mixed team 3 place	3	R	1524
183	Mixed team 3 name	20	L	1527
184	Mixed team 3 abbreviation	5	L	1547
185	Mixed team 3 score	8	R	1552
186	Mixed team 4 place	3	R	1560
187	Mixed team 4 name	20	L	1563
188	Mixed team 4 abbreviation	5	L	1583
189	Mixed team 4 score	8	R	1588
190	Mixed team 5 place	3	R	1596
191	Mixed team 5 name	20	L	1599
192	Mixed team 5 abbreviation	5	L	1619
193	Mixed team 5 score	8	R	1624
194	Mixed team 6 place	3	R	1632
195	Mixed team 6 name	20	L	1635
196	Mixed team 6 abbreviation	5	L	1655
197	Mixed team 6 score	8	R	1660
198	Mixed team 7 place	3	R	1668
199	Mixed team 7 name	20	L	1671
200	Mixed team 7 abbreviation	5	L	1691

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	Function	Length	Justification	Item Number
201	Mixed team 7 score	8	R	1696
202	Mixed team 8 place	3	R	1704
203	Mixed team 8 name	20	L	1707
204	Mixed team 8 abbreviation	5	L	1727
205	Mixed team 8 score	8	R	1732
206	Mixed team 9 place	3	R	1740
207	Mixed team 9 name	20	L	1743
208	Mixed team 9 abbreviation	5	L	1763
209	Mixed team 9 score	8	R	1768
210	Mixed team 10 place	3	R	1776
211	Mixed team 10 name	20	L	1779
212	Mixed team 10 abbreviation	5	L	1799
213	Mixed team 10 score	8	R	1804

15.3 OmniSport 2000/6000 Diving RTD Item Numbers

	Byte	Function	Item #	Length
1	1-2	Current diver number	1	2
2	3-22	Current diver's name	3	20
3	27-37	Current diver's team	23	15
4	38-43	Current diver's total score	38	6
5	44-47	Current dive number	44	4
6	48-77	Dive description	48	30
7	78	Dive position	78	1
8	79-81	Degree of difficulty	79	3
9	82-85	Judge 1	82	4
10	86-89	Judge 2	86	4
11	90-93	Judge 3	90	4
12	94-97	Judge 4	94	4
13	98-101	Judge 5	98	4
14	102-105	Judge 6	102	4
15	106-109	Judge 7	106	4
16	110-113	Judge 8	110	4
17	114-117	Judge 9	114	4

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	Byte	Function	Item #	Length
18	118-123	Award for current round	118	6
19	124-125	1st place diver's number	124	2
20	126-145	1st place diver's name	126	20
21	146-160	1st place diver's team	146	15
22	161-166	1st place diver's total score	161	6
23	167-168	2nd place diver's number	167	2
24	169-188	2nd place diver's name	169	20
25	189-203	2nd place diver's team	189	15
26	204-209	2nd place diver's total score	204	6
27	210-211	3rd place diver's number	210	20
28	212-231	3rd place diver's name	212	20
29	232-246	3rd place diver's team	232	15
30	247-252	3rd place diver's total score	247	6
31	253-254	4th place diver's number	247	20
32	255-274	4th place diver's name	255	20
33	275-289	4th place diver's team	275	15
34	290-295	4th place diver's total score	290	6
35	296-297	5th place diver's number	296	2
36	298-317	5th place diver's name	298	20
37	318-332	5th place diver's team	318	15
38	333-338	5th place diver's total score	333	6
39	339-340	6th place diver's number	339	2
40	341-360	6th place diver's name	341	20
41	361-375	6th place diver's team	361	15
42	376-381	6th place diver's total score	376	6
43	382-383	7th place diver's number	382	2
44	384-403	7th place diver's name	384	20
45	404-418	7th place diver's team	404	15
46	419-424	7th place diver's total score	419	6
47	425-426	8th place diver's number	425	2
48	427-446	8th place diver's name	427	20
49	447-461	8th place diver's team	447	15
50	462-467	8th place diver's total score	462	6
51	468-469	9th place diver's number	468	2
52	470-489	9th place diver's name	470	20

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	Byte	Function	Item #	Length
53	490-504	9th place diver's team	490	15
54	505-510	9th place diver's total score	505	6
55	511-512	10th place diver's number	511	2
56	513-532	10th place diver's name	513	20
57	533-547	10th place diver's team	533	15
58	548-553	10th place diver's total score	548	6
59	554-579	Event name	554	26
60	580-588	Platform event height	580	9
61	589-590	Event current round	589	2

15.4 OmniSport 2000/6000 Pace Clock RTD Item Numbers

	Function	Length	Justification	Item Number
1	Line 1 Lane Number	2	R	1
2	Line 1 Current Step Number	2	R	3
3	Line 1 Current Step Name	4	L	5
4	Line 1 Current Rep Number	3	R	9
5	Line 1 Time of Current Step	5	R	12
6	Line 2 Lane Number	2	R	17
7	Line 2 Current Step Number	2	R	19
8	Line 2 Current Step Name	4	L	21
9	Line 2 Current Rep Number3	3	R	25
10	Line 2 Time of Current Step	5	R	28
11	Line 3 Lane Number	2	R	33
12	Line 3 Current Step Number	2	R	35
13	Line 3 Current Step Name	4	L	37
14	Line 3 Current Rep Number	3	R	41
15	Line 3 Time of Current Step	5	R	44
16	Line 4 Lane Number	2	R	49
17	Line 4 Current Step Number	2	R	51
18	Line 4 Current Step Name	4	L	53
19	Line 4 Current Rep Number	3	R	57
20	Line 4 Time of Current Step	5	R	60
21	Line 5 Lane Number	2	R	65
22	Line 5 Current Step Number	2	R	67
23	Line 5 Current Step Name	4	L	69
24	Line 5 Current Rep Number	3	R	73

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	Function	Length	Justification	Item Number
25	Line 5 Time of Current Step	5	R	76
26	Line 6 Lane Number	2	R	81
27	Line 6 Current Step Number	2	R	83
28	Line 6 Current Step Name	4	L	85
29	Line 6 Current Rep Number	3	R	89
30	Line 6 Time of Current Step	5	R	92
31	Line 7 Lane Number	2	R	97
32	Line 7 Current Step Number	2	R	99
33	Line 7 Current Step Name	4	L	101
34	Line 7 Current Rep Number	3	R	105
35	Line 7 Time of Current Step	5	R	108
36	Line 8 Lane Number	2	R	113
37	Line 8 Current Step Number	2	R	115
38	Line 8 Current Step Name	4	L	117
39	Line 8 Current Rep Number	3	R	121
40	Line 8 Time of Current Step	5	R	124
41	Line 9 Lane Number	2	R	129
42	Line 9 Current Step Number	2	R	131
43	Line 9 Current Step Name	4	L	133
44	Line 9 Current Rep Number	3	R	137
45	Line 9 Time of Current Step	5	R	140
46	Line 10 Lane Number	2	R	145
47	Line 10 Current Step Number	2	R	147
48	Line 10 Current Step Name	4	L	149
49	Line 10 Current Rep Number	3	R	153
50	Line 10 Time of Current Step	5	R	156

15.5 OmniSport 2000/6000 Water Polo RTD Item Numbers

	Function	Length	Justification	Item Number
1	Period Time	5	R	1
2	Shot Time	5	R	6
3	Time Out Time	5	R	11
4	Home Score	2	R	16
5	Guest Score	2	R	18
6	Home Time Outs	1	R	20
7	Guest Time Outs	1	R	21
8	Period	1	R	22
9	Home Penalty 1 Number	2	R	23

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	Function	Length	Justification	Item Number
10	Home Penalty 1 Time	5	R	25
11	Home Penalty 2 Number	2	R	30
12	Home Penalty 2 Time	5	R	32
13	Home Penalty 3 Number	2	R	37
14	Home Penalty 3 Time	5	R	39
15	Guest Penalty 1 Number	2	R	44
16	Guest Penalty 1 Time	5	R	46
17	Guest Penalty 2 Number	2	R	51
18	Guest Penalty 2 Time	5	R	53
19	Guest Penalty 3 Number	2	R	58
20	Guest Penalty 3 Time	5	R	60
21	Home Player 1 Penalties	1	R	65
22	Home Player 2 Penalties	1	R	66
23	Home Player 3 Penalties	1	R	67
24	Home Player 4 Penalties	1	R	68
25	Home Player 5 Penalties	1	R	69
26	Home Player 6 Penalties	1	R	70
27	Home Player 7 Penalties	1	R	71
28	Home Player 8 Penalties	1	R	72
29	Home Player 9 Penalties	1	R	73
30	Home Player 10 Penalties	1	R	74
31	Home Player 11 Penalties	1	R	75
32	Home Player 12 Penalties	1	R	76
33	Home Player 13 Penalties	1	R	77
34	Guest Player 1 Penalties	1	R	78
35	Guest Player 2 Penalties	1	R	79
36	Guest Player 3 Penalties	1	R	80
37	Guest Player 4 Penalties	1	R	81
38	Guest Player 5 Penalties	1	R	82
39	Guest Player 6 Penalties	1	R	83
40	Guest Player 7 Penalties	1	R	84
41	Guest Player 8 Penalties	1	R	85
42	Guest Player 9 Penalties	1	R	86
43	Guest Player 10 Penalties	1	R	87
44	Guest Player 11 Penalties	1	R	88
45	Guest Player 12 Penalties	1	R	89
46	Guest Player 13 Penalties	1	R	90

15.6 OmniSport 2000 Track RTD Item Numbers

	Function	Length	Justification	Item Number
1	Running Time	9	L	1
2	Cumulative Split	9	R	10
3	Subtractive Split	9	R	19
4	Event Title Line 1	30	L	28
5	Event Title Line 2	30	L	58
6	Event Title Lines 1 & 2	30	L	88
7	Event Number	3	R	118
8	Event Number - Alpha	1	L	121
9	Heat Number	2	R	122
10	Heat Number - Alpha	20	L	124
11	Round Number	1	L	144
12	Open - For Future Use	2	R	145
13	Splits Completed	2	R	147
14	Record 1 Name	12	L	149
15	Record 1 Code	2	L	161
16	Record 1 Time	9	L	163
17	Record 2 Name	12	L	172
18	Record 2 Code	2	L	184
19	Record 2 Time	9	L	186
20	Record 3 Name	12	L	195
21	Record 3 Code	2	L	207
22	Record 3 Time	9	L	209
23	Record 4 Name	12	L	218
24	Record 4 Code	2	L	230
25	Record 4 Time	9	L	232
26	Line 1 Runner Name	15	L	241
27	Line 1 Team Name	5	L	256
28	Line 1 Lane Number	2	R	261
29	Line 1 Place Number	3	R	263
30	Line 1 Split/Finish Time	9	L	266
31	Line 1 Splits Completed	2	R	275
32	Line 2 Runner Name	15	L	277
33	Line 2 Team Name	5	L	292
34	Line 2 Lane Number	2	R	297
35	Line 2 Place Number	3	R	299
36	Line 2 Split/Finish Time	9	L	302
37	Line 2 Splits Completed	2	R	311
38	Line 3 Runner Name	15	L	313
39	Line 3 Team Name	5	L	328

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	Function	Length	Justification	Item Number
40	Line 3 Lane Number	2	R	333
41	Line 3 Place Number	3	R	335
42	Line 3 Split/Finish Time	9	L	338
43	Line 3 Splits Completed	2	R	347
44	Line 4 Runner Name	15	L	349
45	Line 4 Team Name	5	L	364
46	Line 4 Lane Number	2	R	369
47	Line 4 Place Number	3	R	371
48	Line 4 Split/Finish Time	9	L	374
49	Line 4 Splits Completed	2	R	383
50	Line 5 Runner Name	15	L	385
51	Line 5 Team Name	5	L	400
52	Line 5 Lane Number	2	R	405
53	Line 5 Place Number	3	R	407
54	Line 5 Split/Finish Time	9	L	410
55	Line 5 Splits Completed	2	R	419
56	Line 6 Runner Name	15	L	421
57	Line 6 Team Name	5	L	436
58	Line 6 Lane Number	2	R	441
59	Line 6 Place Number	3	R	443
60	Line 6 Split/Finish Time	9	L	446
61	Line 6 Splits Completed	2	R	455
62	Line 7 Runner Name	15	L	457
63	Line 7 Team Name	5	L	472
64	Line 7 Lane Number	2	R	477
65	Line 7 Place Number	3	R	479
66	Line 7 Split/Finish Time	9	L	482
67	Line 7 Splits Completed	2	R	491
68	Line 8 Runner Name	15	L	493
69	Line 8 Team Name	5	L	508
70	Line 8 Lane Number	2	R	513
71	Line 8 Place Number	3	R	515
72	Line 8 Split/Finish Time	9	L	518
73	Line 8 Splits Completed	2	R	527
74	Line 9 Runner Name	15	L	529
75	Line 9 Team Name	5	L	544
76	Line 9 Lane Number	2	R	549
77	Line 9 Place Number	3	R	551
78	Line 9 Split/Finish Time	9	L	554
79	Line 9 Splits Completed	2	R	563
80	Line 10 Runner Name	15	L	565
81	Line 10 Team Name	5	L	580

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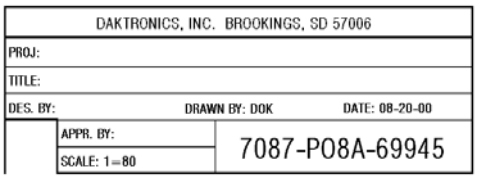
	Function	Length	Justification	Item Number
82	Line 10 Lane Number	2	R	585
83	Line 10 Place Number	3	R	587
84	Line 10 Split/Finish Time	9	L	590
85	Line 10 Splits Completed	2	R	599
86	Reserved 1	400	N	601
87	Single Line Runner Name	15	L	1001
88	Single Line Team Name	5	L	1016
89	Single Line Lane Number	2	R	1021
90	Single Line Place Number	3	R	1023
91	Single Line Split/Finish Time	9	L	1026
92	Single Line Splits Completed	2	R	1035
93	Single Line Logo	30	L	1037

Section 16: Appendix A: Reference Drawings



The illustration at right is an example of the numbering system for Daktronics drawings. Each drawing bears a label in its lower-right corner. The number "7087-P08A-69945," located at the bottom of the label, is an example of Daktronics' standard reference for individual drawings. This manual refers to drawings by their last set of digits and the letter preceding them. In the label illustrated, the drawing would be referred to as "**Drawing A-69945**."

The following reference drawings are filed in alphanumerical order; sport insert drawings are located in **Appendix B**:

A Drawings

Lane Module ..... **Drawing A-023633**
Typical Swimming Installation (On-deck) ..... **Drawing A-023635**
Deck Box Installation ..... **Drawing A-026288**
Lane Interface (Manual) ..... **Drawing A-026538**
Typical Swimming Installation (In-deck) ..... **Drawing A-026797**
Conduit Diagram (In-deck Cabling) ..... **Drawing A-026798**
Outdoor Scoreboard Radio Receiver Installation ..... **Drawing A-132981**
Indoor Scoreboard Radio Receiver Installation ..... **Drawing A-132982**
Indoor Shot Clock SCBDS Radio Receiver Installation ..... **Drawing A-135163**
Connector Designations, OmniSport 2000 ..... **Drawing A-154282**
Channel Selection; Single Control Console, Gen IV ..... **Drawing A-180566**
Channel Selection; Single Broadcast Group; Gen IV ..... **Drawing A-180922**
Channel Selection; Multiple Broadcast Group, Gen IV ..... **Drawing A-180923**
System Riser; FB/Track SCBD w/ Omni 2000, in Field ..... **Drawing A-186535**
System Riser; Track SCBD w/ Omni 2000, in Field ..... **Drawing A-186548**
OmniSport 2000 Judging Equipment, Wiring Diagram ..... **Drawing A-191692**

B Drawings

System Riser Diagram, OmniSport 2000 ..... **Drawing B-220003**

Section 17: Appendix B: Sport Inserts

Insert (LL-2549); OmniSport 2000 Swimming.....**Drawing B-163808**
Insert (LL-2566); Diving Console.....**Drawing B-180044**
Insert, LL-2569; Water Polo, Omni200.....**Drawing B-182350**
Insert, LL-2573; Omni2000 Track Timing.....**Drawing B-184685**
Insert, LL–2581: Pace Clock, Omni2000 .....**Drawing B-188395**

B Drawings

Insert, Drawing; Omni 2000.....**Drawing B-180044**
Insert; Water Polo Omni 2000 .....**Drawing B-182350**
Insert; Omni 2000; Track Timing .....**Drawing B-184685**
Insert; Omni 2000; Pace Clock.....**Drawing B-188395**

Section 18: Appendix C: Scoreboard Addresses

DAKTRONICS OMNISPORT 2000		
Protocol = Multidrop protocol does not require a protocol	**ADDRESS**	
Function	***Dec.***	***Binary***
Single Line	40	101000
Lines 1&2	41	101001
Lines 2&3	42	101010
Lines 3&4	43	101011
Lines 4&5	44	101100
Lines 5&6	45	101101
Lines 6&7	46	101110
Lines 7&8	47	101111
Lines 8&9	48	110000
Lines 9&10	49	110001
Line 10	50	110010
Home, Guest, Guest, Guest	31	11111
Event/Heat, Lengths, Record Time	32	100000

Section 19: Appendix D: Quick Reference (ED13584)