

Daktronics OmniSport[®] 2000

Electronic Timing System



OmniSport[®] 2000

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Daktronics OmniSport 2000

Introduction

This document is an operations guide to operating the Daktronics Omni-Sport 2000 electronic timing system (ETS) at the Prince George's Sports and Learning Complex. It is not a tutorial on operating an ETS, and is meant for those ETS operators familiar with other timing systems.



Since all the electronic timing systems operate basically the same, anyone with experience operating the Colorado 5, Colorado 6, or Daktronics OmniSport 6000 should not have a problem becoming quickly familiar with the OmniSport 2000.

Quick Start Guide

The timing system consists of the OmniSport 2000 timing console, the starting unit, and for each lane, a touch pad and up to three buttons. The in-deck cabling, the touchpads, buttons and the starting unit at the PGS&LC have not changed when they upgraded from the OmniSport 6000 to the OmniSport 2000.

The interface to the results (Hy-Tek) computer is an RS-232 serial interface. The connector on the rear of the unit is a 9-pin D connector (labeled RESULTS). The cable is a standard straight-through serial cable (supplied by the PGS&LC).

The events list is downloaded from the computer like with the other ETS units. Unlike the former Daktronics 6000 unit at the PGS&LC, the OmniSport 2000 does not need to be in a special mode to be downloaded. It simply needs to be in reset mode. The Hy-Tek Meet Manager program setting for Timing Console INTERFACE must be set to Daktronics OnmiSport 6000 (not the OnmiSport 2000). And the Alpha Scoreboard Interface must be set to Daktronics.

WARNING

The Timing System Interface in Hy-Tek Meet Manager must be set to Daktronics OnmiSport 6000, event though the unit is an OnmiSport 2000. If it is not set up this way, the system WILL NOT work.

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The basic sequence for storing a race and preparing for the next one is like all the other timing systems:

1. STORE PRINT – the yellow button
2. RESET – the red button
3. ENTER – in response to the prompt “RESET RUNNING TIME?”
4. NEXT EVENT, or + HEAT (next heat)

NOTE, unlike the Colorado Timing System units, the running time does NOT stop when all lanes are finished.

The OmniSport 2000 assigns a race number to each start of the unit. This is output to the printer, but not shown on the display. The Hy-Tek operator can get race results by either event/heat or race # (no different than before). You can also reprint race results by race number (to be described later).

The printer on the OmniSport 2000 uses thermal paper (supplied by the PGS&LC). It prints on the shiny side of the paper. Standard adding machine or cash register paper will not work in the unit.

OmniSport Display

The OmniSport 2000 has a very simple, easy to understand display. The left two windows (highlighted below) are the lane status.



OmniSport® 2000 timing console

There are two rows of status for each lane. The bottom row is the number of lengths completed for that lane. The upper row is the current state of that lane as follows:

- | | |
|----------|---|
| - | Reset |
| + | Armed |
| a number | # seconds until the pad becomes armed (delay countdown) |
| * | Finish Armed |
| o | Finished |

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The right window (highlighted below) is used for operator prompts, messages, and system status. During normal operations the top line shows the running time (RT:). The bottom row shows the event number (E:), the current heat (H:) and the number of lengths for the current race (L:).



Startup Procedure

The power switch for the OnmiSport 2000 is on the rear of the unit. When you first turn it on, the displays will light up and the unit will perform a self-test.

The unit will then prompt you to enter the date. Enter it as MMDDYY. Press the ENTER key.

The unit will then prompt you to enter the time. Enter it as HHMMSS. Press the ENTER key. Each printout will be tagged with the current date and time.

The unit will then prompt you to select the sport, with the default being SWIMMING. Press the ENTER key to select swimming.

Keyboard Layout

The keyboard layout on the OnmiSport 2000 is very similar to the keyboard layout of the OnmiSport 6000, the Colorado 5 and Colorado 6 units. The primary operational keys (START, STORE PRINT, NEXT EVENT, HEAT +, HEAT -, EVENT/HEAT, RESET and ENTER) are on the bottom row.

The other three rows of keys on the left side of the keyboard (highlighted below) are controls for each lane. The top row of keys toggles the lane displayed directly above it OFF and ON. Note that when you RESET the unit, the lanes are automatically turned back ON.

The other two keys are SPLIT ARM and FINISH ARM for the lane displayed above it. These operate like the same keys on the other ETS units.

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The right side of the keyboard (highlighted below) contains a numeric keypad, the ENTER (YES) and CLEAR (NO) buttons and some other menu navigation buttons that are less frequently used. Experienced timing system operators should recognize most of these functions.



Menus

The OmniSport 2000 retains all settings on power down and since the PGS&LC personnel set up the units, there is no need for most of the menu/settings items.

However, there are a few cases where you will need to access the menu system, so I will give you a brief map and description of the menu system.

The menu system is a multi-level, hierarchical system accessed by pressing the MENU key. Pressing the MENU key while in any level of the menu system will return you to the main operational display. Menu items that you may need are highlighted in bold print.

- 1 – SCBD Menu
 - DO NOT change any settings in this menu
- 2 – EDIT Menu
 - 1 – Team Score (we don't use this)

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- 2 – Event Order (would only be needed to manually enter an event order)
 - 1 – Order
 - 2 – Insert Event
 - 3 – Delete Event
 - 4 – Clear Order

3 – PRINT Menu

- 1 – Race Results (to reprint results by race #)
- 2 – Event Order (print the order of events)
- 3 – Settings (to print settings)
 - an example printout of settings is shown here

4 – SETUP Menu (some of the standard settings are shown)

- 1 – Pool
 - 1 – No.Lanes **8**
 - 2 – Lane Order **NRM**
 - 3 – Length **25Y**
 - 4 – Lane Label **1-10**
- 2 – Timer
 - 1 – Start Input **N.O.**
 - 2 – LM Output **NEAR**
 - 3 – Primary Time **Touchpad**
 - 4 – Flag Time **0.3**
 - 5 – Arming Delay **15**
 - 6 – Precision **1/100**
 - 7 – Relay Take-Off **NONE**
- 3 – Scoreboard
 - 1 – Numeric
 - 2 – RTD/MATRIX
- 4 – COMM Ports
 - 1 – SCBD Outputs **MULTILINE**
 - 2 – RTD Port **RTD**
 - 3 – Results Port **OMNI 6000 (DO NOT change)**
- 5 – Printer
 - 1 – Race Log **ON**
 - 2 – Results **BY LANE**
 - 3 – Backups **YES**
 - 4 – Splits **NONE**
 - 5 – Intensity **4**
- 6 – Time of Date (can use this to reset the date and/or time)

```
--SYSTEM SETTINGS--  
- VERSION 5.1.4 -  
  
POOL CONFIGURATIONS:  
1.Number Lanes- 8  
2.Order Lanes- NRM  
3.Pool Length- 25Y  
4.Lane Label- 1-10  
  
TIMER CONFIGURATIONS:  
1.Start Input- N.O.  
2.Touchpads- NEAR  
3.Timing Input- TPA  
4.Flag Time- .3 SEC  
5.Arming Delay- 15  
6.Precision- 1/100  
7.Takeoff- NONE  
  
SCOREBOARD CONFIGS:  
1.Num of Lines- 10  
2.Split Hold- 15  
3.Finish Hold- 5  
4.Results by- LANE  
5.Subtractive- NO  
  
RTD CONFIGURATIONS:  
1.Num of Lines- 8  
2.Split Hold- 15  
3.Finish Hold- 5  
4.Results by- LANE  
5.Subtractive- NO  
6.Show Place- YES  
  
PORT CONFIGURATIONS:  
1.Scbrd Port- M-LINE  
2.RTD Port- RTD  
3.Results- OMNI6000  
  
PRINTER CONFIGS:  
1.Printer Log- ON  
2.Results by- LANE  
3.Splits Type- NONE
```

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Operations

The timing system can be started by either an external signal (from the starting unit) or manually (using the green START key on the keyboard). As you can see on the top of the printout below, the printer will immediately print the time and date of the start and whether it was started automatically (SOURCE: EXTERNAL) or started manually (SOURCE: KEYBOARD) [1].

DAKTRONICS OMNISPORT 2000 START AT 17:57:03.367 DATE: 02-17-06 SOURCE: EXTERNAL			
P	L	RACE:617	
L	E	EVENT:099	
L	N	HEAT/R:01	
A	G	LENGTH:02	
C	M		
E	H	-TIME-	
8	2	28.64	
7	2	30.79	
6	2	38.55	
1	2	42.50	
2	2	42.51	
3	2	1:07.50	
4	2	1:14.54	
5	2	1:22.10	
DAKTRONICS OMNISPORT 2000 START AT 17:57:03.367 DATE: 02-17-06 SOURCE: EXTERNAL			
P	L	RACE:617	
L	E	EVENT:099	
L	N	HEAT/R:01	
A	G	LENGTH:02	
C	M		
E	H	-RESULTS-	
4	1	2 *	42.50
		B1	58.50
5	2	2 *	42.51
		BK	54.90
		B1	55.02
		B2	54.78
6	3	2 *	1:07.50
		BK	1:05.62
		B2	1:05.62
		B3	1:05.62
7	4	2 *	1:14.54
		BK	54.12
		B2	54.12
		B3	54.11
8	5	2 *	1:33.10
		BK	46.02
		B1	46.02
		B2	46.01
3	6	2 *	38.55
		BK	36.01
		B1	35.99
		B2	36.02
2	7	2 *	30.79
		BK	24.99
		B1	24.90
		B2	24.99
1	8	2 *	28.64
		BK	18.51
		B1	18.52
		B2	18.50

1

2

3

4

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Then the race number, event number, heat number and number of lengths in the race will be printed [2].

During the race, every touch of a pad will be recorded on the printout showing the lane number, the number of lengths completed and the time [3]. Also recorded on the printout will be lanes turned ON or OFF, +Touches, -Touches, SPLIT Arming and FINISH Arming.

As the touches are made the display will show the current status of the lane. You can add a missed touch using the + TOUCH key. You can subtract an extra touch (e.g. a late exiting swimmer after a relay exchange or a dive-over start using the -TOUCH key. These functions, as well as the SPLIT ARM and FINISH ARM functions work exactly as they do on the other timing system units.

After all swimmers have finished, press the STORE PRINT key (the yellow key). The race summary will then be printed [4] showing the lane, place, pad time and any button times for that lane. An "*" will be displayed next to any pad time that differs from the backup (buttons) time by more than the programmed interval (usually 0.3 sec). In the example shown above, all eight lanes have been flagged for this pad-backup difference.

Even though all the active lanes are finished, the running time is still going. Press the RESET key. The display will show the prompt: RESET RUNNING TIME, Y/N. Press the ENTER (YES) key.

Then press the NEXT EVENT key, HEAT + 1 key, or EVENT/HEAT key to be ready for the next start. When the referee observes the running time on the scoreboard return to 0.0, he/she knows that the timing system is reset and ready for the next start.

If the unit is not reset before the next start, you can still recover. The OmniSport 2000 records the start time and then prompts you to see if you want to use it. Just follow the prompts on the display to use this recorded start. Just be aware that the arming delay does not begin until you tell the system to use the recorded start, so there is a potential for missing the first pad touches (learned from personal experience!).

Notes for the Hy-Tek Operator

From the computer operator's perspective, interfacing to the OmniSport 2000 is no different than any of the other timing systems. Remember to select the **OmniSport 6000** as the Timing System in the Set-Up. Meet Manager can download the events to the unit, and retrieve results by event/heat or race number.

Notes for the Referee and Timing Judge

There are a couple of differences in the OmniSport 2000 that referees and timing judges need to be aware of. First, when the ETS averages two button times for a backup time it averages up. This is in contrast to the USA Swimming rules to truncate the average to two decimal places. You can see an example of this averaging on the printout on page 8. Look at the results from lane 4.

The other difference is that the Colorado units “correct” the button times by subtracting 0.15 seconds from them. The Daktronics units report button times with no correction. This must be taken into account when calculating a time for the case of a missed or malfunctioning touchpad.

Scoreboard

The scoreboard at the PGS&LC is controlled by a computer in the office. The staff will set it for the proper display at your request before the start of the session. If a single course is being swum, the swimmer’s names will be read by the OmniSport 2000 from the Hy-Tek computer at the start of the race (assuming that the Meet Manager program is running and port has been initialized) and sent to the scoreboard controller. Thus, any reseeds made prior to the start of the heat will be reflected on the scoreboard names (unlike the Colorado system at UMD and GMU).

The connection between the OmniSport 2000 and the control computer is a serial cable connected to the RTD port on the back of the unit to a phone jack on the wall panel.

DO NOT change any of the scoreboard-related settings in the OmniSport 2000. There are no SCOREBOARD ON, OFF and BLANK functions like with the Colorado system.

Troubleshooting

If the scoreboard stops updating and the OmniSport 2000 is still functioning normally, first check that the cable from the unit to the scoreboard computer is still connected. If the problem still exists, ask the PGS&LC staff to check the control computer. NOTE that the system can still be run without the scoreboard.

If the unit fails to recognize the start signal from the starting unit, check the cable from the starting unit to the ETS. The connector is a two-prong banana plug that is very easy to jar or pull loose from the connection. If the connector is tight, contact the PGS&LC staff for assistance for further troubleshooting.

The other connector that can come loose easily from the back of the ETS unit is the connector to the touchpads/buttons. The symptom of this would be no touches or times

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from an entire heat. Check both ends of the connection, the rear of the ETS unit and the wall connection.

Rear Panel Interface Connections

