International Sports Timing
PRODUCT SPECIFICATIONS
SWIMWARE Alpha-Numeric Scoreboards

Introduction

The International Sports Timing SWIMWARE Alpha-Numeric Scoreboards are solid state electronics, providing a low maintenance, durable, and attractive display. When connected to an IBM-compatible computer running TIMEWARE Timing System Software or POLOWARE Water Polo Software, our scoreboards display more information than any other board available. For more information on our software, see the software specification. Like all products from IST, SWIMWARE Alpha-Numeric Scoreboards have a five year warranty.

I. Single-line Score Boards
- A. Physical
  1. One 16 character, alpha-numeric display capable of displaying fixed or alternating messages, or scrolling any message up to 1000 characters in length.
  2. Overall size is 8' 6" in length by 12" in height by 4" deep.
  3. Total weight is 45 pounds.
  4. Case consists of an aluminum extrusion coated with a matte black epoxy finish.
  5. Lens is transparent red, 1/8" shatterproof, non-glare Plexiglas which is easily removed from the front of the board.
- B. Electrical
  1. All SWIMWARE Scoreboards must be connected to GFI (Ground Fault Interrupt) 110V 5 amp (min.) outlets. The outlet should be within 6' of the upper right corner of the board.
  2. Load requirement: .4 Amps.
  3. Connection to Computer Interface is via RS485 communications protocol over 2 wire, twisted pair with 4-conductor RJ11 connectors.
  4. All electronic devices are protected against corrosion
- C. Display
  1. Characters are 6 1/2" high by 4 1/2" wide.
  2. Each character is formed by a matrix of dots, 7 high by 5 wide. Each dot is formed by a cluster of 4 Light Emitting Diodes (LED's).
  3. The color of the LED's is red. The LED's are guaranteed by the manufacturer for 50,000 hours of operation.
- D. Environmental
  1. The operating temperature range is 0 to +55 degrees Celsius.
  2. The storage temperature range is -55 to +85 degrees Celsius.
  3. The operating humidity is <= 90% non-condensing.
- E. Operating Features for Swimming Events
  1. Before a race, the display scrolls the event name and number; heat number and total number of heats. When used with meet management software, it also scrolls the lane number, team code, first initial and last name of each swimmer in the heat. For relays, the full team name is scrolled instead of swimmer names.
  2. When the timing system is armed, the scoreboard will display E# H# for heat and event numbers on the left side of the message line and "QUIET" on the right side of the line, giving the referee a visual confirmation that the race can begin.
  3. During a race, the left side of the board displays the leader's lane and split time to 1/100th of a second. The right side of the board displays a running clock to a second.

4. As the first finisher touches the pad, the board will display the place (preceded by a "P"), the lane (preceded by an "L") and the finish time to 1/100 of a second. This display will remain for 1-9 seconds (user selectable), or until another finish is registered and displayed. This will continue until all finishes have been displayed.

5. If IST's meet management software is used, at the completion of an event the event name, number, and team scores will be scrolled across the board, if that option is selected.

5. When not in use for timing, the scoreboard can be used to display one 16 character fixed message, to alternate two 16 character fixed messages, or to scroll a message up to 1000 characters in length.

F. Operating Features for Diving Events
1. At the beginning of the round, the round number is displayed
2. Next, the diver number (or name if IST's meet managment software is used).
3. When the degree of difficulty is entered, the DD and previous total score are displayed.
4. When the judges' scores are entered, they are displayed, with a "-" indicating a 1/2.
5. Last, the total for that dive and new cumulative score are displayed.

G. Operating Features with IST's POLOWARE Software
1. The line displays "(B)" for the blue team followed by their score on the right, "(W)" for the white team followed by their score on the left, and the game clock in the center.

Multi-line Score Boards

A. Physical
1. Option 1: One 16 character, alpha-numeric display capable of displaying fixed or alternating messages, or scrolling any message up to 1000 characters in length PLUS one 16 character, alpha-numeric display capable of displaying fixed or alternating messages for each lane of the pool (eg. for a six lane pool, the board would have 7 lines: 1 message line plus 6 lane lines).

2. Option 2: A "short" board with 1 message line plus half the number of lane lines, which would alternate lane information (eg. for a six lane pool, the board would have 4 lines: 1 message line plus 3 lane lines that would alternate data for lanes 1-3 and 4-6).

3. Option 3: A "double wide" board with each line displaying 32 characters of data. If meet management software is used, the swimmers' names and team codes remain on the left half of the display throughout the event, while splits, finish times and places are displayed on the right half. This configuration may also be split into two scoreboards for pools with 12+ lanes, so that two meets can be timed simultaneously.

4. Overall size is 10' 2" (single wide) or 18'2" (double wide) in length by 4" deep. Height of boards is as follows:

6 lane board	8' high
8 lane board	10' high
10 lane board	12' high

5. Total weight is approximately 50 pounds x (number of 16 character lines).

6. Case for each line consists of an aluminum extrusion coated with a matte black epoxy finish. Cases are notched to fit together as they stack to form multi-lane boards.

7. Lens for each line is transparent red, non-glare, 1/8" shatterproof, non-glare Plexiglas which is easily removed from the front of the board.

8. Multi-lane boards include fixed lane number panels on either side of the board, which are 13" wide and match the height of the board. These are constructed of 1/8" Citra vinyl with laser cut vinyl lane numbers. Lane number panels are *not* included with "short" boards which alternate lane data. Lane numbers on "short" boards are part of the LED display.

9. Multi-lane boards also include a 13" high by 8' wide 1/8" Citra vinyl panel which may be mounted at either the top or bottom of the scoreboard. Double wide boards include two panels. The IST logo occupies 2' of the length, but the remaining 6' (or 14') is available for team or sponsor logos. IST supplies a two color graphic of customer's design with each multi-lane board. An additional graphic panel may be also be added to the top or bottom (opposite the first panel), to add extra team or sponsor logos.

B. Electrical
1. All SWIMWARE Scoreboards must be connected to GFI (Ground Fault Interrupt) 110V 15 amp (min.) outlets. The outlet should be within 6' of the upper right corner of the board.
2. Load requirement:

	16 Characters Wide	32 Characters Wide
6 lane board	2.8 Amps	5.6 Amps
8 lane board	3.6 Amps	7.2 Amps
10 lane board	4.4 Amps	8.8 Amps

3. Connection to Computer Interface is via RS485 communications protocol over 2 wire, twisted pair with 4-conductor RJ11 connectors.
4. All electronic devices are protected against corrosion

C. Display
1. Characters are 6 1/2" high by 4 1/2" wide.
2. Each character is formed by a matrix of dots, 5 high by 7 wide. Each dot is formed by a cluster of 4 Light Emitting Diodes (LED's).
3. The color of the LED's is red. The LED's are guaranteed by the manufacturer for 100,000 hours of operation.

D. Environmental
1. The operating temperature range is 0 to +55 degrees Celsius.
2. The storage temperature range is -55 to +85 degrees Celsius.
3. The operating humidity is <= 90% non-condensing.

E. Operating Features for Swimming Events
1. Before a race, the display scrolls the event name and number; heat number and total number of heats on the message line. If meet management software is used, the lane lines display the swimmers' team codes, first initials and last names. For relays, the full team name is displayed instead of swimmer names. On "short" boards, the lane number is also included in the display and the first half of the lanes alternate with the second half.
2. When the timing system is armed, the scoreboard will display E# H# for heat and event numbers and "QUIET" on the message line, giving the referee a visual confirmation that the race can begin.
3. At the start of the race, the message line displays the headings "PL" for place at the left end of the line, "SPLT" for split in the center, and a running clock to a second on the right end. If meet management software is used, the swimmers' team codes and names remain on the lane lines until the first pad hit of the race.
4. At the first pad hit in a lane, that lane will display the team code on the left side of the board and the cumulative time on the right side.
5. As subsequent pad hits occur, the subtractive split time to 1/100th of a second will be displayed under the SPLT heading and the cumulative time is incremented.
6. As the first finisher touches the pad, that lane will display the place, the last subtractive split to 1/100th of a second and the finish time to 1/100th of a second. This will continue for each lane until all finishes are displayed. An IST meet management software option allows the finish display to be alternated with the swimmers' team

codes and names, once all finishes are in.

7. After the last lane is finished, the scrolling line will display the order of finish by lane number.

8. If IST's meet management software is used, at the completion of an event the event name and number will be scrolled across the message line while the team scores are displayed on the lane lines, if that option is selected.

9. If IST's meet management software is used in preliminary meets, at the completion of an event the names of the swimmers moving to the championship meet are displayed.

10. If IST's meet management software is used in timed final or championship meets, the operator may elect to display the top finishers as the awards are announced. The message line scrolls the event name and number, the first lane line displays the place preceded by a "P" and the finish time. The swimmer's first name is on the second line, the last name is on the third line and the team code is on the fourth line. For relays, all swimmers' first initials and last names are displayed.

11. When not in use for timing, the scoreboard message line can be used to display one 16 (or 32 for double wide) character fixed message, to alternate two 16 (or 32) character fixed messages, or to scroll a message up to 1000 characters in length. At the same time, each lane line can each be used to display one 16 (or 32) character fixed message or to alternate two 16 (or 32) character fixed messages.

F. Operating Features for Diving Events When IST's Meet Management Software is Used

1. The round number and team code is displayed on the message line.
2. The diver's first and last name is displayed on the first lane line.
3. The diver's place after Round # is displayed on the second lane line.
4. When the degree of difficulty is entered, it is displayed on the third lane line, as "DD".
5. The current score is displayed on the fourth lane line, labeled "CURRENT".
6. When the judges' scores are entered, they are displayed on the second lane line, with a "-" indicating a 1/2. If more than 5 judges are used, the third lane line will also be used, overwriting the DD. Simultaneously, the total score for that dive is displayed on the third lane line, opposite the DD.
7. The new cumulative score is displayed on the fifth lane line, labeled "NEW".
8. The top score so far in the event is displayed on the sixth lane line, labeled "TOP SCORE".
9. If IST's meet management software is not used, a diver number is displayed instead of a name and no team codes are displayed.

G. Operating Features with IST's POLOWARE Software

1. The scoreboard message line can be used to display one 16 character fixed message, to alternate two 16 character fixed messages, or to scroll a message up to 1000 characters in length during the match
2. The first lane line displays the blue team's alphanumeric code on the right, the white team's code on the left, and the running clock in the center.
3. The second lane line displays "(B)" and the blue team's score on the left, "(W)" and the white team's score on the right and the period number preceded by a "P" in the center.
4. The third lane line displays "SPRINT, "GOAL", "PENALTY" or 'EXCLUSION" as each event is recorded by the controlling software. The line also displays the team code and cap number of the player committing the event.
5. The fourth lane line displays the name of the player committing the event displayed above.
6. The fifth lane line displays the headers "SHOT", "CAP" and "EXCL", for data displayed on the next line.

7. The sixth lane line displays the shot clock, the cap number of the excluded player and the exclusion clock for that player (if the Exclusion Clock is active).