

SECTION 114800 – SCOREBOARDS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Interior single sided LED sports scoreboard and control system.

1.3 PERFORMANCE REQUIREMENTS

- A. Provide products that are ETL or ETL-C tested to UL standard.
- B. Standard for Electric Signs, UL 48
- C. Standard for CSA C22.2 #207
- D. Federal Communications Commission Regulation Part 15

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
 - 1. Include preparation instructions and recommendations, storage and handling requirements, and installation methods.
- B. Shop Drawings: For scoreboards and control systems. Include plans, elevations, sections, details, attachments to other work, and the following:
 - 1. Method of field assembly for removable equipment, connections, installation details, mountings, attachments to other work, and operational clearances.
- C. Samples for Verification: For each type of scoreboard indicated, color chips representing materials, colors, and finishes.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.

- B. Product Certificates: For each type of scoreboard and control system, signed by product manufacturer.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For scoreboards and control systems to include in operation and maintenance manuals.
- B. Division 00 and Division 01 Closeout requirements.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Source Limitations: Obtain each type of scoreboard and control system through one source from a single manufacturer.

1.8 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install scoreboards until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Coordinate scoreboard location and height with the Architect. Verify dimensions by field measurements.

1.9 WARRANTY

- A. Provide 5 years of no cost parts exchange including standard shipping on electronics parts and radios due to manufacturing defects.
- B. Provide toll-free service coordination.
- C. Provide technical online and phone support during business hours.

PART 2 - PRODUCTS

2.1 BASKETBALL, VOLLEYBALL, AND WRESTLING SCOREBOARDS

- A. Basis of Design: Daktronics; BB-2103 single-sided basketball scoreboard displays period time to 99:59, HOME and GUEST scores to 199, PERIOD to nine, team FOULS to 19, PLAYER number to 99, player FOUL to nine and indicates possession and bonus. During the last minute of the period, scoreboard displays time to 1/10 of a second. Scoreboard can also score volleyball, wrestling and any sport requiring a clock, score and period function.

- B. Other acceptable manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Basis of Design: Daktronics Inc.
 2. Fair-Play by Trans-Lux Corporation
 3. Nevco, Inc.
- C. General: Provide wall mounted scoreboard with Home/Visitor scoring, period display, and possession and bonus indicators.
1. Dimensions: 6'-0" H x 8'-0" W x 6" D minimums.
 2. Construction: Aluminum frame and cabinet body.
 3. Clock and Score Digit Size: 13" (330 mm) high. T.O.L. digits are 7" (178 mm) high. All other digits are 10" (254 mm) high. Bonus indicators are 4" (102 mm) high and possession arrows are 3" (76 mm) high.
 4. Power Usage: 200 Watts, maximum.
- D. Scoreboard Controls:
1. Daktronics Inc.; All Sport 1600 Control Console with 2.4GHz Radio Control.
 2. Fair-Play by Trans-Lux Corporation; MP-72 Wireless Control.
 3. Nevco, Inc.; MPCW (Wireless).
 4. Power Source: 120V AC.
 5. Carrying Case.
 6. Basketball, Volleyball, and Wrestling keypad inserts.
- E. Scoreboard Options:
1. Scoreboard border striping.
 2. Protective screen:
 - a. Dimensions: Provide screens that are, at minimum, 16 inches by 12 inches (400 mm by 300 mm) width by height larger than the scoreboard overall dimensions and manufacturer's standard depth for mounting method specified.
 - b. Materials: 1 inch by 2 inch (25 mm by 50 mm) width by height wire mesh on tubular aluminum framework.
 - c. Mounting: Wall-mounted.
 - d. Protective screen shall cover the face and all four (4) sides of the scoreboard, with the screen edges being tight against the wall when in the standard closed position.
 - e. Finish: Color to match scoreboard cabinet color.
 - f. Protective screen to swing open to provide scoreboard display maintenance access.
- F. Finishes:
1. Cabinet Color:
 - a. Daktronics Inc.; Red.
 - b. OES Inc.; RAL 3002
 - c. Fair-Play by Trans-Lux Corporation; Light Navy.
 - d. Nevco, Inc.; Navy Blue #141.

2. Vinyl Trim/Border Color: White.

2.2 SCOREBOARD

A. General information

1. Dimensions: 6'-0" (1.83 m) high, 8'-0" (2.44 m) wide, 0'-6" (152 mm) deep
2. Base weight: 180 lb (82 kg) – options may increase weight
3. Base power requirement: 210 W – options may increase wattage
4. Color: provide over 150 colors to choose from

B. Construction

1. All-aluminum construction
2. Scoreboard back, face, and perimeter: 0.063" (1.60 mm) thick
3. Cabinet withstands high-velocity impact from air-filled sports balls without the need for protective screens

C. Digits & Indicators

1. LED digit technology
2. PanaView® (PV) – discrete LEDs protrude through the scoreboard face
3. LED color :
4. Amber clock/colon, PERIOD and PLAYER/FOUL digits and bonus indicators with Red score and FOULS digits and possession indicators
5. Clock and score digits: 13" (330 mm) high
6. PERIOD, FOULS and PLAYER/FOUL digits: 10" (254 mm) high
7. Bonus indicators: 4" (102 mm) high
8. Possession arrows: 3" (76 mm) high
9. Seven bar segments per digit

D. Captions

1. Vinyl applied directly to scoreboard face
2. HOME and GUEST captions: 6" (152 mm) high
3. PERIOD, FOULS/SCORE and PLAYER/FOUL/MATCH captions: 4" (102 mm) high
4. Color: standard white or others available upon request

E. Horn

1. Vibrating horn mounted inside the scoreboard cabinet behind the face
2. Sounds automatically when period clock counts down to zero
3. Sounds manually as directed by operator

F. Power Cord

1. Cord is 11' (3.35 m) long
2. Cord plugs into a standard grounded outlet

G. Accessory Equipment

1. Vinyl striping applied around the clock and scoreboard face
2. Two 17" (432 mm) high, 21" (533 mm) wide aluminum panels in upper corners with vinyl logo decoration: Pioneer Pete Logo

2.3 SCORING CONSOLE

- A. Console is an All Sport® 5000 controller
 - 1. One for the Middle School Gym
- B. Scores multiple sports using changeable keyboard inserts
- C. Controls multiple scoreboards, stats displays and shot clocks, including other All Sport 5000 controlled displays currently owned by customer
- D. Recalls clock, score, and period information if power is lost
- E. Runs Time of Day and Segment Timer modes
- F. Console includes:
 - 1. Rugged aluminum enclosure to house electronics
 - 2. Sealed membrane water-resistant keyboard
 - 3. 32-character backlit LCD to verify entries and recall information currently displayed
 - 4. Power cord that plugs into a standard grounded outlet; 6 watts max
 - 5. Control cable to connect to the control receptacle junction box (wired system only)
 - 6. Hand-held switch for main clock start/stop and horn
 - 7. Soft-sided carrying case
- G. Accessory Equipment
 - 1. 2.4 GHz spread spectrum radio system with frequency hopping technology and 64 non-interfering channels; system includes a transmitter installed inside the console and a receiver installed inside the scoreboard(s)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for alignment of mounting substrates, installation tolerances, operational clearances, accurate locations of connections to building electrical system, and other conditions affecting performance.
 - 1. Verify critical dimensions.
 - 2. Examine supporting structure.
 - 3. Proceed with installation only after unsatisfactory conditions have been corrected.

B. INSTALLATION

- 1. Follow manufacturer's current application requirements for installation under conditions specific to the project.
- 2. Install all electrical equipment in accordance with all state and local building codes.
- 3. Test the operation of the scoreboard, controller, and all control jacks.
- 4. Leave control unit in carrying case and other loose items with owner's designated representative.

C. PROTECTION

1. Protect installed products until completion of the project.
2. Touch-up, repair, or replace damaged products before time of Substantial Completion.

D. DEMONSTRATION

1. Engage a factory-authorized service representative to train Owner's maintenance personnel to operate and maintain scoreboard and control systems. Refer to Division 00 and Division 01 Section 017900 "Demonstration and Training." Include manual and training video.

END OF SECTION 114800