

# SPECTRUM ARCHITECTURAL SPECIFICATION

Model 10310-UL2

August 1, 2005

## PART 1 GENERAL

### 1.1 GENERAL

- 1.1.1 Scoreboard(s) shall be UL Listed and be remotely operated via three-wire shielded grounded cable from control point(s). Scoreboard(s) shall display the following information: Home and Visitor Score, 3-Digit Clock, Inning, Ball, Strike, Out, Hit and Error. Time shall be displayed on the top middle section with two sign panels on the right and left of the clock. 3-Digit Time Clock shall display hours and minutes until the last minute when it changes to seconds. Equipment to be solid-state electronic technology.

## PART 2 PRODUCT

### 2.1 SCOREBOARD

- 2.1.1 Shall be Spectrum Model 10310-UL2 or approved equal to this specification by the architect. Provide \_\_\_\_ units of this model.
- 2.1.2 Overall cabinet shall be 8 feet in height by 10 feet in length by 5 inches in depth including mounting brackets, and constructed of .063 aluminum. Cabinet color shall be as selected from the manufacturers standard colors with appropriate trim colors. Two horizontal cabinets to be shipped and constructed for two-column mounting with two top steel mounting brackets built into the cabinet by the factory and one bottom steel mounting bracket supplied by manufacturer. Approximate weight is \_\_\_\_ pounds.
- 2.1.3 Display digits and indicator spots shall be made of 2 inch by 2 inch circuit card mounted pixels. Each pixel shall be individually replaceable and contain four (4) LEDs each. LEDs shall be red or amber in color. Ball, Strike, Out, Hit and Error indicators shall each consist of one pixel in a 3 inch spot. Ball shall be displayed by three indicator spots; Strike and Out by two indicators spots; and Hit and Error by one indicator spot each. All digit sizes shall be 24 inches high. Game clock shall have a display capacity of up to "1:59"; Home and Visitor score up to "99"; and Inning up to "19".
- 2.1.4 Each pixel is conformal-coated front and back to protect the electronics from outside elements and is individually serviceable from the front of the scoreboard cabinet.
- 2.1.5 All pixels are interchangeable throughout the scoreboard and are rated at least 100,000 hours of use.
- 2.1.6 Display configuration shall be 5 x 9 for 24 inches.
- 2.1.7 Digits shall consist of the following number of pixels: 24 inch, 27 pixels (4 LEDs per pixel).
- 2.1.8 LED Digit Brightness: 40,000 MCD (millicandela).
- 2.1.9 Finish in Two-Component Polyurethane coating.
- 2.1.10 Captions shall be adhesive backed vinyl permanently attached to the cabinet and Home, Visitor and Inning shall be 10 inches in height; Ball, Strike, Out, H(hit) and E(error) shall be 8 inches in height.
- 2.1.11 Electronics to be packed in a high voltage plug-in processor accessible from the cabinet back.
- 2.1.12 Power to be 408 watts maximum, 120 VAC, 60 Hz.
- 2.1.13 Provide an electronic standard horn rated at 100 dB @ 10'0".

### 2.2 CONTROL

- 2.2.1 Shall be model MSX housed in a protective, weather resistant carrying case. Construction shall be a plastic case 15 inches long by 3 ¾ inches high by 12 inches deep.
- 2.2.2 Furnished with a 10' low voltage data cable cord to connect to control receptacle junction box and shall unplug and store inside the carrying case. Does NOT require hazardous 120 VAC electrical power.
- 2.2.3 Shall include four lines of 16 large backlit LCD characters showing information as sent to the scoreboard display and allows operator to see LCD in low-light areas.
- 2.2.4 A changeable color coded keypad to allow key identification change to operate multiple scoreboards. Electronic features shall include a program mode allowing change in sport controlled or accommodation of a sport rules change and a memory circuit to retain information if power is interrupted.
- 2.2.5 Red LED indicators to indicate clock-running up or down, auto-horn "on" status for end of period and auto-horn "on" status for substitution of players.
- 2.2.6 Switches have a life of at least 5 million operations. All membrane switches shall be "splash-proof" and environmentally sealed by a combination of layers of a velvet-grain, highly durable, polycarbonate and glossy polyester. All switches are defined by the 0.020 velvet-grain polycarbonate "switch locator" overlay. The numeric keypad, on-off rocker clock and score switches shall give "tactile feedback" to the operator.
- 2.2.7 Operating features include cumulative memory, time-of-day display to allow the scoreboard to display time-of-day for non-sport display, tenth-of-a-second timing to allow more accurate timing during last minute of play and track-timing interface to display track-timing information from automatic timing systems on standard football scoreboard.

### 2.3 REMOTE CONTROL CABLE

- 2.3.1 Furnish one length of three wire-shielded, grounded cable to connect receptacle junction box to the scoreboard cabinet.

### 2.4 LIMITED WARRANTY

- 2.4.1 Spectrum Solid State Scoreboards are guaranteed for a period of five (5) years (LEDs are guaranteed for a period of ten (10) years) against any defects in materials. Urethane Finish is guaranteed for a period of ten (10) years against any defects in materials. First year service includes cost of labor and parts when returned prepaid to Spectrum Corporation. Remaining four (4) years cover parts only, when returned insured, prepaid to Spectrum Corporation. Warranty does not cover unauthorized repairs or modifications, abuse, neglect, acts of God, exceptionally high or low voltage, and/or improper grounding, installation, operation, or shipment to the factory.

### 2.5 OPTIONAL EQUIPMENT

- 2.5.1 Provide wireless radio control operation for above equipment.
- 2.5.2 Provide Spirit/Sponsor sign panels for above equipment.