

# SPECTRUM ARCHITECTURAL SPECIFICATION

## Model 5241-UL4

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: Minutes, Seconds, Home and Visitor Score, Period, Bonus, Double Bonus and Possession Indicator for each team and Team Fouls.
- 1.1.2 Game Clock shall have a lit colon or decimal to indicate display of either minutes and seconds or seconds and tenths and hundredths of seconds.
- 1.1.3 Equipment to be solid-state electronic technology.

### PART 2 PRODUCT

#### 2.1 SCOREBOARD

- 2.1.1 Shall be Spectrum Model 5241-UL4 or approved equal to this specification by the architect. Provide \_\_\_\_ units of this model.
- 2.1.2 Overall cabinet shall be 5 feet in height by 10 feet in length by 5 inches in depth including mounting brackets, and constructed of 22 gauge steel. Cabinet color shall be as selected from the manufacturers standard colors with appropriate trim colors. Cabinet to be shipped assembled and constructed for wall mounting. Approximate weight is \_\_\_\_ pounds.
- 2.1.3 Display digits shall be made up of eight segments and contains sixteen (16) SpectraLite LEDs per pixel. SpectraLite LED Digits shall be colored Red for Clock and Bonus; and colored Amber for Team Score, Home and Visitor Possession Indicator, Period and Team Fouls.
- 2.1.4 Digit height to be 14 inches for Clock, Team Score and Team Fouls; and 10 inches for Period. Clock shall have a display capacity up to "99:59"; team scores to "199"; period to "9"; and team fouls to "99". Bonus shall be indicated by "B"; Double Bonus by "B B"; and Possession Indicators by arrows for each team.
- 2.1.5 All LED digits are covered with 1/8 inch Lexan Spectrasheilds to protect and absorb impacts.
- 2.1.6 All pixels are rated at least 100,000 hours of use.
- 2.1.7 Display configuration shall be 4 x 7 for 14 inches; 3 x 5 for 10 inches.
- 2.1.8 Digits shall consist of the following number of pixels: 14 inches, 20 pixels; 10 inches, 13 pixels (16 LEDs per pixel).
- 2.1.9 LED Digit Brightness: 40,000 MCD (millicandela).
- 2.1.10 Finish in Two-Component Polyurethane coating.
- 2.1.11 Captions shall be adhesive backed vinyl permanently attached to the cabinet and Home and Visitor shall be 6 inches in height; team Fouls shall be 4 inches in height; and Period shall be 3 inches in height.
- 2.1.12 Electronics to be packed in a low voltage plug-in processor accessible from the cabinet front.
- 2.1.13 Power to be 600 watts maximum, 120 VAC, 60 Hz.
- 2.1.14 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.
- 2.2.8 Automatic substitution feature shall allow the operator to program the horn to sound automatically the next time the clock is turned off thus altering officials of substitution.

#### 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.
- 2.5.3 Provide one MSX Clock Handswitch for second operator.
- 2.5.4 Provide electronic team names for above equipment.
- 2.5.5 Provide electronic message display for above equipment.