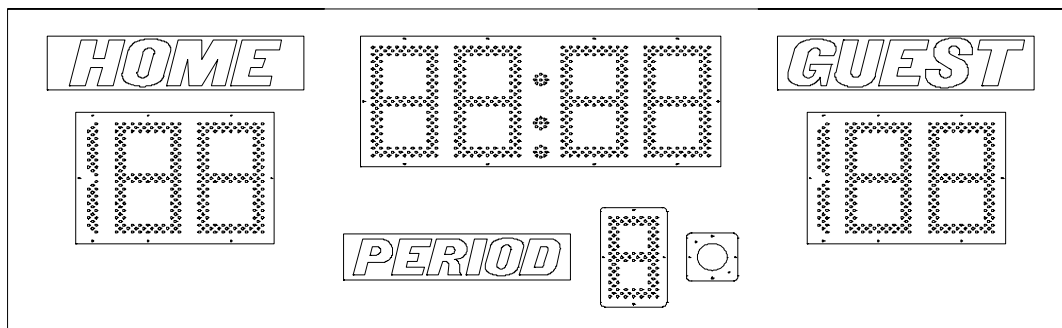


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## ELECTRO-MECH SCOREBOARD CO.



## MODEL 8350 HOCKEY SCOREBOARD

### OWNER'S HANDBOOK

Thank you for choosing an Electro-Mech Scoreboard for your athletic complex. We are confident that your new scoreboard will give many years of reliable service.

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## 8350 HOCKEY SCOREBOARD SPECIFICATIONS

**GENERAL:** This ETL listed scoreboard includes the scoreboard cabinet, mounting hardware, control console, control cable (sold separately), 10 ft. extension cable, and junction box.

**DIMENSIONS:** 108" L x 36" H x 6" D (8350 with side sponsor panel measures 144" L x 36" H x 6" D)

**WEIGHT:** Approximately 85 lbs (8350 with side sponsor panel weighs 100 lbs)

**SCOREBOARD CONSTRUCTION:** The outer frame is made from extruded aluminum. Internal structural parts may be extruded aluminum or formed from aluminum sheet. The face and back are made from aluminum sheet. The face is finished with enamel paint. Black is the standard face color. White is the standard color for the sponsor panel and captions.

**DISPLAY:** The 8350 HOCKEY scoreboard displays HOME and GUEST scores to 199, a 99:00 clock with 1/10<sup>th</sup> of a second timing, PERIODS to 4. It has an internal horn.

**DIGITS AND SYMBOLS:** Light emitting diodes mounted on printed circuit boards form the digits and symbols. The clock is formed with 12" red digits, the HOME and GUEST scores are formed with 12" yellow digits, the PERIOD is formed with a 9" green digit, and the colon / decimal symbols are red.

**POWER REQUIREMENTS: Scoreboard** - 120 VAC, 1 A, 60 Hz, 120 watts maximum. The scoreboard has an attached 6 foot power cord. **Control Console** - 120 VAC, 0.5 A, 60 Hz

**SCOREBOARD ELECTRONICS:** 100% solid state fully enclosed.

**CONTROL CONSOLE:** The microprocessor control console is constructed of a rugged plastic housing with a metal back plate. It features a 37 key sealed membrane keypad, a LCD display of game information, an attached 6 foot power cord, and a lithium cell battery backup to retain game information.

**CONTROL CABLE:** The cable has two 22 AWG stranded copper conductors with semi-rigid PVC insulation. It also has a braided shield and a foil shield. The polyethylene jacket is rated at 300 volts. The cable measures approximately 1/4" in diameter. One length is required to run from the scoreboard to the point of operation.

**JUNCTION BOX AND EXTENSION CABLE:** A 4 1/4" x 2 1/4" x 2" junction box with a stereo jack mounted on the face is attached to the control cable at the point of operation. A ten foot extension cable connects the control console to the junction box.

**WARRANTY:** Five year limited warranty.

## SCOREBOARD INSTALLATION

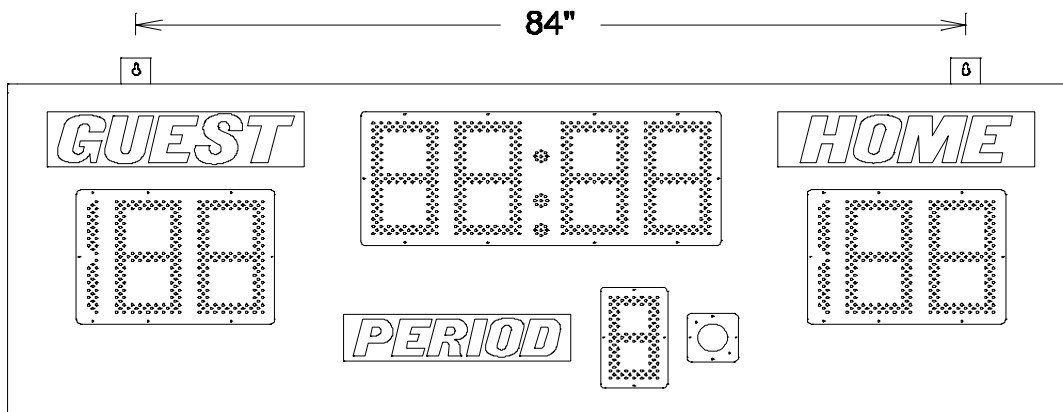
This scoreboard is designed for indoor use only. Installation of the scoreboard consists of mounting the scoreboard cabinet to the wall and making the proper electrical connections.

### ATTACHING THE OPTIONAL BOTTOM SPONSOR PANEL

Remove the front panel from the sponsor panel. Align the holes in the top of the sponsor panel with the tapped holes in the bottom of the scoreboard. Fasten the sponsor panel in place using the provided bolts. Note: Tapped holes are only installed in scoreboards that included a bottom sponsor panel as part of the order.

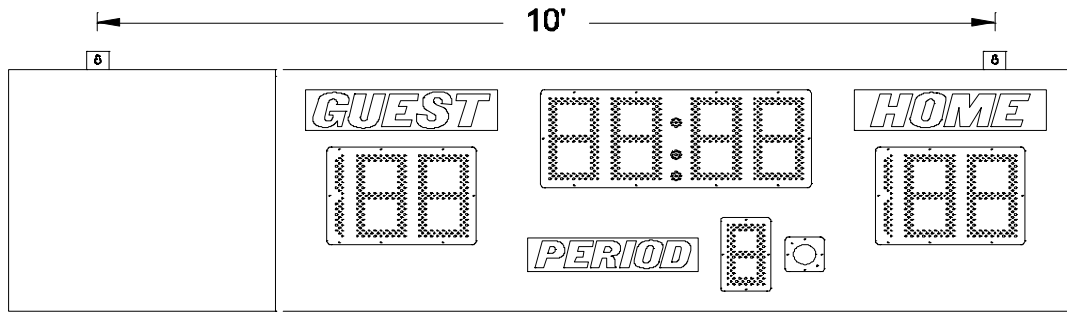
### MOUNTING THE SCOREBOARD

**Be sure to mount the scoreboard close enough to the wall receptacle so that you can plug in the 6 foot power cord.** There are two eyebolts mounted at the top of the cabinet which can be used to lift the scoreboard into place. Once the scoreboard is in the desired location, it can be fastened to the wall using lag bolts or other suitable hardware. Hanger brackets at the top of the scoreboard provide convenient mounting points. Figure 1 shows the mounting point locations for MODEL 8350.



**Figure 1 Model 8350 Mounting Points**

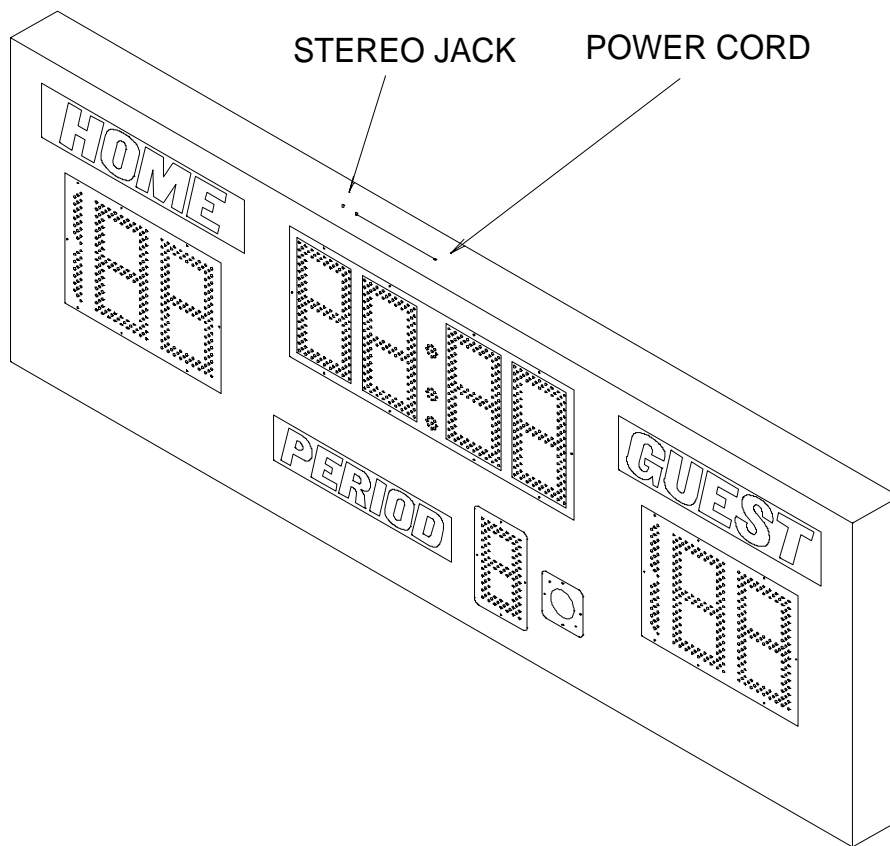
Figure 2 shows the mounting point locations for MODEL 8350 with sponsor panel.



**Figure 2 Model 8350 with Sponsor Panel Mounting Points**

**ELECTRICAL CONNECTIONS**

This scoreboard was designed to make the electrical connections as easy as possible. These connections include connecting the scoreboard to a power source, installing the control cable, and connecting the control console. Figure 3 shows the electrical connection points on the scoreboard. We recommend a qualified electrician perform the needed electrical connections to ensure proper operation of your scoreboard.



**Figure 3 Electrical Connection Points**

**Connecting The Scoreboard To Your Power Source**

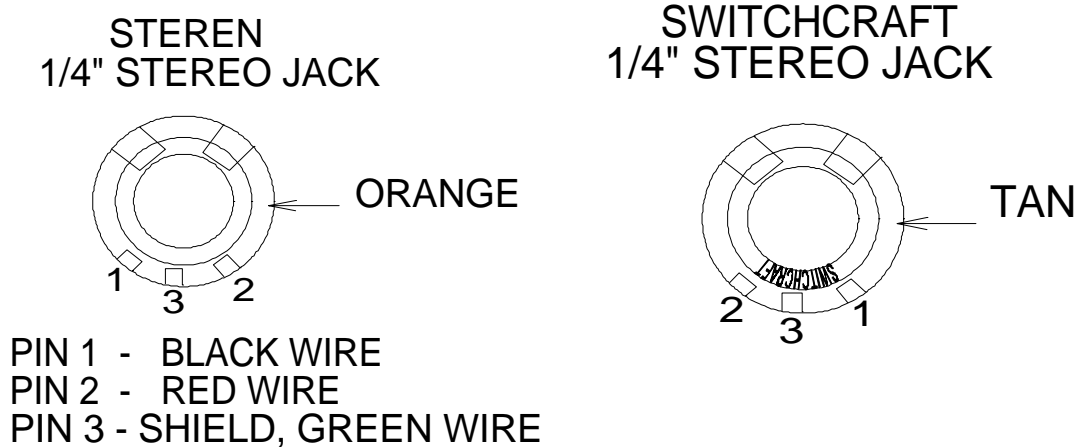
The scoreboard requires 120 VAC 1 amp service. The scoreboard has an 6 foot attached power cord which can be plugged into a NEMA 5-15R receptacle.

**ScoreLink 200**

The SCORELINK 200 RF MODEM SET is intended to eliminate the control cable between the scoreboard and the control console on Electro-Mech Scoreboard MM and MP series scoreboards. If you have purchased this option, disregard the next section of this manual. Refer to the SCORELINK 200 RF MODEM SET OWNER'S HANDBOOK for installation instructions.

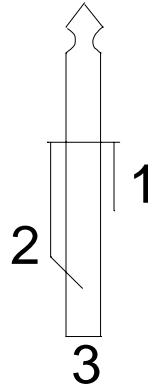
### Installing The Control Cable

The control cable connects the scoreboard to the control console. A small junction box with a stereo jack mounted on the face plate is attached to the control cable at the point of operation of the scoreboard. A stereo plug is attached to the scoreboard end of the control cable. The junction box should be securely mounted within ten feet of the rear of the control console. Most customers order the control cable with the junction box and stereo plug attached to the control cable. Some customers prefer to attach them after the cable is installed. Those customers must match their stereo jack to one of the stereo jacks in figure 4 in order to make the proper connections. These connections should be soldered.



**Figure 4 Stereo Jack Wiring Diagram**

Attach a stereo plug to the scoreboard end of the cable according to the figure 5. Insert the stereo plug into the stereo jack mounted on top of the scoreboard.



PIN 1 - BLACK WIRE  
PIN 2 - RED WIRE  
PIN 3 - SHIELD WIRE

**Figure 5 Stereo Plug Wiring Diagram**

#### **Connecting The Control Console**

The control console is connected to the junction box via the extension cable. This extra length of cable allows the scoreboard operator some mobility and the ability to store the control console after the game. The control console requires a 120 VAC 1/2 A power source. The power cord can be plugged into a NEMA 5-15R receptacle.

1. Connect one end of the extension cable to the jack on the junction box.
2. Connect the other end of the extension cable to the jack on the rear of the control console.
3. Plug the control console power cord into a 120 VAC outlet.

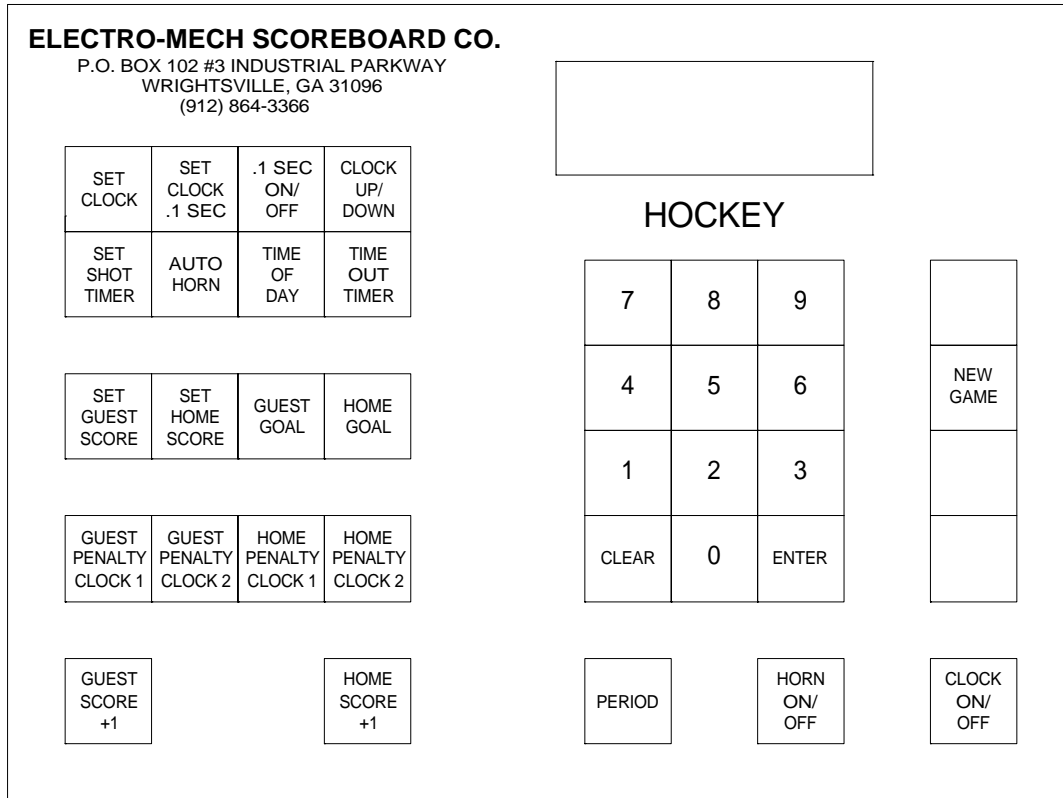
#### **Installation of Two or More Scoreboards at the Same Site**

It is possible to operate up to four scoreboards from the same console. Install a control cable line in the same manner as described previously for each additional scoreboard. Connect the additional control cable lines with extension cables to the control console. **Never splice the control cables together or connect them to the same junction box.**



## SCOREBOARD OPERATION

The 8350 Scoreboard is operated by the control console. **No scoreboard functions will operate without connecting the control console.** Figure 6 shows the keypad layout on your control console. The various keypad functions are described in the text below the figure.



**Figure 6 Keypad Layout**

### Control Console Key Functions

1. **SET CLOCK** – This key sets the time displayed on the scoreboard clock. Press [SET CLOCK], the keypad numbers for the time, [ENTER]. Example: Press [SET CLOCK], [6], [0], [0], [0], [ENTER] on the control console. 60:00 will be displayed on the clock section of the scoreboard.
2. **SET CLOCK .1 SEC** – This key is used when the clock is in the 1/10<sup>th</sup> second mode. Press [SET CLOCK .1 SEC], the keypad numbers for the time, [ENTER]. Example: Press [SET CLOCK .1 SEC], [5], [3], [8], [ENTER] on the control console. 53.8 will be displayed on the clock section of the scoreboard.

3. **.1 SEC ON OFF** – This key is used to enable or disable the 1/10<sup>th</sup> second mode on the scoreboard. This mode is enabled when the control console is turned on. If it is disabled, the LCD display on the control console will still show 1/10<sup>th</sup> second timing, but the scoreboard will not display it. To turn this function off, press [.1 SEC ON/OFF]. The console LCD display will read:

CLOCK ON - 1
.1 SEC OFF - 0

Press [0], [ENTER] on the control console.

4. **CLOCK UP / DOWN** – The clock can be set up to either count up or count down. The control console will reset to the clock down mode when it is turned on. To make the clock count up, press [CLOCK UP / DOWN]. The console LCD display will read:

GAME UP - 1
CLOCK DOWN - 0

Press [0], [ENTER] on the control console. To reset the clock to count down mode, press [CLOCK UP / DOWN], [1], [ENTER] on the control console.

5. **AUTO HORN** – This key allows the operator to control the end of period horn and / or the time out horn. The horn normally sounds for two seconds when the clock reaches 0:00. The end of period horn can be disabled by pressing [AUTO HORN]. The console LCD display will read:

GAME PRESS <1> ON
HORN PRESS <0> OFF

Press [0], [ENTER] to disable the horn. The console LCD display will then read:

T-O PRESS <1> ON
HORN PRESS <0> OFF

The time out horn is normally disabled. To enable the horn to sound at the end of the time out, press [1], [ENTER] on the control console.

6. **TIME OF DAY** – The time of day can be displayed on the clock section of the scoreboard. **THE GAME CLOCK WILL BE INOPERABLE UNTIL THE TIME OF DAY FUNCTION IS TURNED OFF.** To turn the time of day clock on, press [TIME OF DAY]. The console LCD display will read:

TIME OF	ON	<1>
DAY CLOCK	OFF	<0>

Press [1], [ENTER] on the control console. The console LCD display will then read:

SET CLK	<__:__>
---------	---------

Press the keypad numbers for the time, [ENTER]. The scoreboard will display the time of day.

7. **SET GUEST SCORE** – To set the guest score, press [SET GUEST SCORE], the keypad numbers for the time, [ENTER]. **EXAMPLE:** To set the guest score to 53, press [SET GUEST SCORE], [5], [3], [ENTER].
8. **SET HOME SCORE** – To set the home score, press [SET HOME SCORE], the keypad numbers for the time, [ENTER]. **EXAMPLE:** To set the home score to 75, press [SET HOME SCORE], [7], [5], [ENTER].
9. **GUEST SCORE +1** – This key increments the guest score by one point.
10. **HOME SCORE +1** – This key increments the home score by one point.
11. **HORN ON/OFF** – This key is used to sound the horn for ½ second.
12. **CLOCK ON/OFF** – This key is used to start and stop the clock.
13. **NEW GAME** – This key is used to reset all the scoreboard functions to their default settings. To reset the scoreboard, press [NEW GAME]. The console LCD display will read:

RESET	YES	<1>
SCOREBOARD	NO	<0>

Press [1], [ENTER] on the control console. The scoreboard will reset its functions.

14. **PERIOD** – This key increments the period digit by 1.
15. **CLEAR** – This key clears the information being entered into the control console.

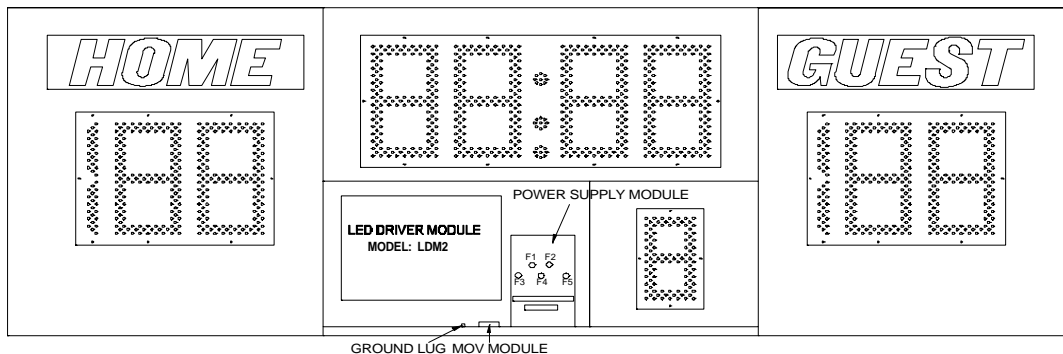
The SET SHOT TIMER, TIME OUT TIMER, GUEST GOAL, HOME GOAL, GUEST PENALTY CLOCK 1, GUEST PENALTY CLOCK 2, HOME PENALTY CLOCK 1, and HOME PENALTY CLOCK 2 keys are not used with model 8350.

You should reset the scoreboard each time that it is turned on. Test out all the functions to ensure that the scoreboard is operating properly. **Electro-Mech Scoreboard Company strongly advises that you unplug the control console, disconnect the extension cable at the control console, and turn the power to the scoreboard off when the scoreboard is not in use. The control console can not turn the scoreboard off.** This action will help protect the scoreboard and control console from power surges and lightning strikes.

## SERVICING THE SCOREBOARD

While your scoreboard was designed for years of trouble-free operation, some problems may occasionally occur. Our trained personnel at Electro-Mech Scoreboard Company are available to answer your questions from Monday to Friday during the hours of 8 AM to 5 PM Eastern Standard Time. Be sure to know your scoreboard model number when calling. Replacement parts are always available. Parts can be repaired at significant savings when compared to the price of new units. Our convenient toll free number is listed at the bottom of every page in this manual. Be sure to make note of the specific problems that your scoreboard is experiencing.

The scoreboard electronics can be accessed by removing the PERIOD panel. Figure 7 shows a scoreboard cabinet with the PERIOD panel removed. The POWER SUPPLY MODULE model LPS-130VA, the LED DRIVER MODULE model LDM2, and the MOV MODULE are located behind the PERIOD panel.



**Figure 7 SCOREBOARD ELECTRONICS**

The LDM2 LED DRIVER MODULE performs all scoreboard functions. The LPS-130VA POWER SUPPLY MODULE provides the power to all the scoreboard electronics. The MOV MODULE is used for surge protection.

The table below lists the fuses, the fuse ratings, and their functions.

FUSE NUMBER	FUSE RATING	FUNCTION
F1	5A 250V	DC POWER INPUT #1
F2	5A 250V	DC POWER INPUT #2
F3	1A 250V	NOT USED
F4	1A 250V	HORN
F5	3A 250V	MAIN AC LINE

## ELECTRO-MECH SCOREBOARD CO. FIVE YEAR LIMITED WARRANTY

THE ELECTRICAL COMPONENTS OF ALL ELECTRO-MECH SCOREBOARDS ARE GUARANTEED FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF INVOICE AGAINST DEFECTS IN WORKMANSHIP OR MATERIAL AND WILL BE REPLACED OR REPAIRED WITHOUT COST TO THE OWNER PROVIDED THE EQUIPMENT OR PARTS ARE RETURNED POSTAGE-PAID TO THE FACTORY IN WRIGHTSVILLE, GA. SHIPPING BACK TO THE OWNER WILL BE VIA UPS GROUND SERVICE EXCEPT WHEN AIR OR SPECIAL METHOD OF RETURN IS SPECIFIED BY THE OWNER, IN WHICH CASE SHIPPING WILL BE FREIGHT COLLECT.

EXCLUDED FROM THIS WARRANTY ARE FUSES.

THIS WARRANTY DOES NOT INCLUDE LABOR CHARGES INCURRED IN THE REMOVAL OF COMPONENT PARTS, SERVICE CALLS, OR DAMAGES RESULTING FROM IMPROPER INSTALLATION, IMPROPER OPERATION, OR PROBLEMS CAUSED BY ANY REPAIR, ALTERATION OR MODIFICATION OF THE SCOREBOARD NOT PERFORMED BY ELECTRO-MECH.

EQUIPMENT WHICH IS SUBJECTED TO ACCIDENT, NEGLIGENCE, ABUSE, MISUSE OR OTHER NATURAL DISASTERS, INCLUDING BUT NOT LIMITED TO FIRE, WIND, LIGHTNING, OR FLOOD, IS NOT COVERED BY THIS GUARANTEE.