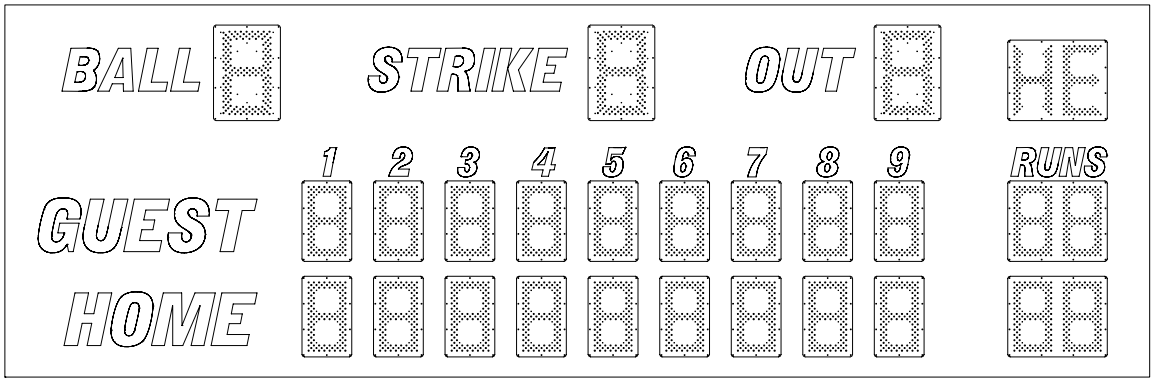
ELECTRO-MECH SCOREBOARD CO.



1530 BASEBALL 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.

Rev. 7 Revised: 02/09/2007

Electro-Mech Scoreboard Co. • 120 Industrial Parkway • Wrightsville, GA 31096
Phone: (800) 445-7846 • Fax (478) 864-0212 • Email: score@electro-mech.com

TABLE OF CONTENTS

SCOREBOARD SPECIFICATIONS

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

DIMENSIONS: 20' L x 6.5' H x 6" D

WEIGHT: 437 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 and masks are finished with enamel paint. Black is the standard color. The captions are white.

DISPLAY: The 1530 baseball scoreboard displays the runs scored (0 to 9) for innings 1 to 9 and the total runs scored (0 to 99) for the HOME and GUEST teams, BALLS, STRIKES, OUTS, HIT, and ERROR.

DIGITS AND INDICATORS: Red light emitting diodes mounted on printed circuit boards form the digits and indicators. The BALLS, STRIKES, and OUTS digits are 18" tall. The runs digits and HIT and ERROR indicators are 15" tall.

POWER REQUIREMENTS: Scoreboard - 120 VAC, 2.6 A, 60 Hz **Control Console -** 120 VAC, 0.5 A, 60 Hz

SCOREBOARD ELECTRONICS: 100% solid state fully enclosed.

CONTROL CONSOLE: The control console features a microprocessor, 37 key sealed membrane keypad, a LCD display and an attached 6 foot power cord. The console housing consists of ABS plastic base and top pieces with a steel back plate.

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 is direct burial rated and measures approximately ¼" in diameter. This item is sold separately from the scoreboard.

JUNCTION BOX AND EXTENSION CABLE: A 4 ¼" x 2 ¼" x 2" junction box with a ¼" stereo jack mounted on the face plate is attached to the control cable at the point of operation. A 10 ft. extension cable connects the control console to the junction box.

SCORELINK 300 RF MODEM SYSTEM: This accessory can be used in place of control cable and junction box for this scoreboard without internal modifications to the scoreboard or the control console. Refer to the SCORELINK 300 RF MODEM SYSTEM OWNER'S HANDBOOK for more information.

WARRANTY: Five year limited warranty.

SCOREBOARD INSTALLATION

This part of the manual describes the mechanical and electrical installation of the scoreboard.

One of the items listed below must be purchased in order to complete the installation:

- Control cable (length dependent upon installation site layout)
- ScoreLink 300 RF Modem System

Items not provided by Electro-Mech Scoreboard Company that are necessary for installation:

- Two posts
- Power cable to connect the scoreboard to the power source
- Grounding hardware
- A grounded NEMA 5-15R 120 VAC receptacle for the control console at the scorekeeper's table.

Items not provided that are recommended by Electro-Mech Scoreboard Company for installation:

- A weatherproof power disconnect at the scoreboard

Electro-Mech Scoreboard Company performs installations in some areas. In other areas, we can help you contact an independent installer. In areas in which installation service is not available from Electro-Mech Scoreboard Company, we will make every effort to answer your installation questions. Qualified personnel should perform the scoreboard installation. Consult national and local codes before installation.

MECHANICAL INSTALLATION

The mechanical installation includes installing the posts and mounting the scoreboard and the optional top sponsor panels (if purchased) to the posts.

Post Installation

The scoreboard mounts on two posts. Typically installers will use steel pipes or I-beams. In order to reduce the glare from the sun on the front of the scoreboard, position the posts so that the front of the scoreboard is angled away from the afternoon sun, if possible. The mounting hardware will accommodate posts up to 7 inches outer diameter. Sink the posts in reinforced concrete footings. Figure 1 shows the spacing of the posts for a 1530 scoreboard. The specifications for the posts and concrete footings are dependent upon the expected local wind and soil conditions, the height of the scoreboard from the ground, and the local building codes. Electro-Mech Scoreboard Company assumes no responsibility for the installation of scoreboards by others.

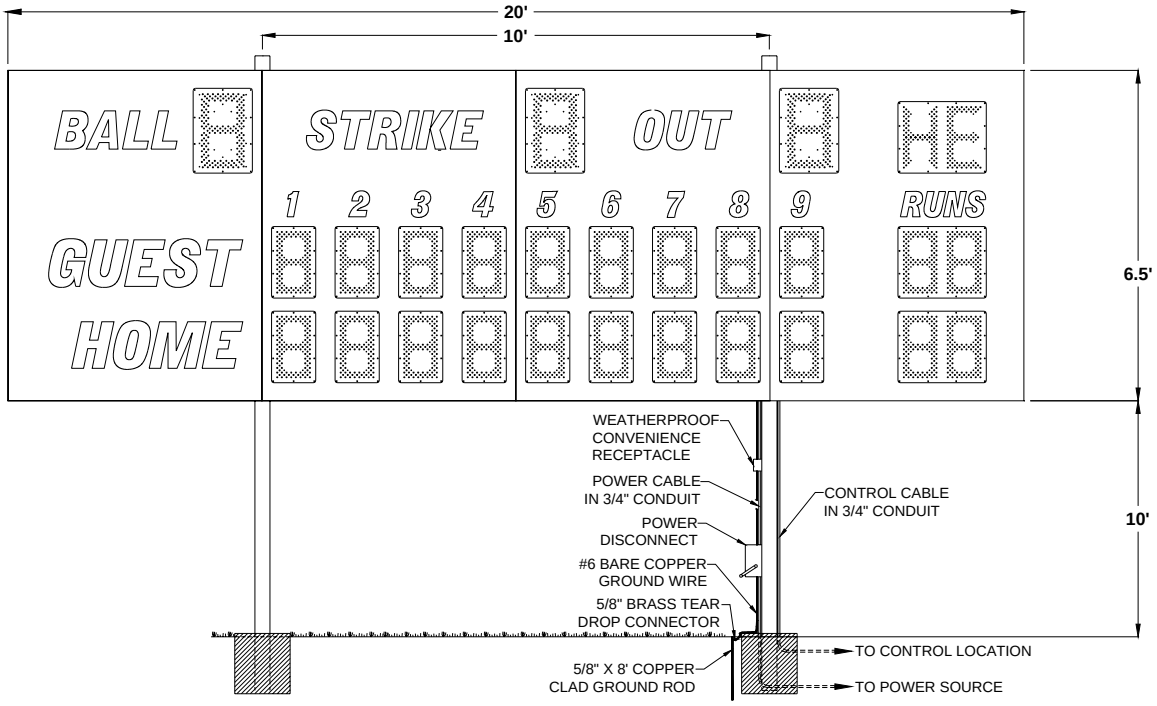


Figure 1 1530 Post Spacing

Figure 2 shows the spacing of the posts for a 1530 scoreboard with an optional top sponsor panel. This panel is a separate unit that mounts on the same posts as the scoreboard.

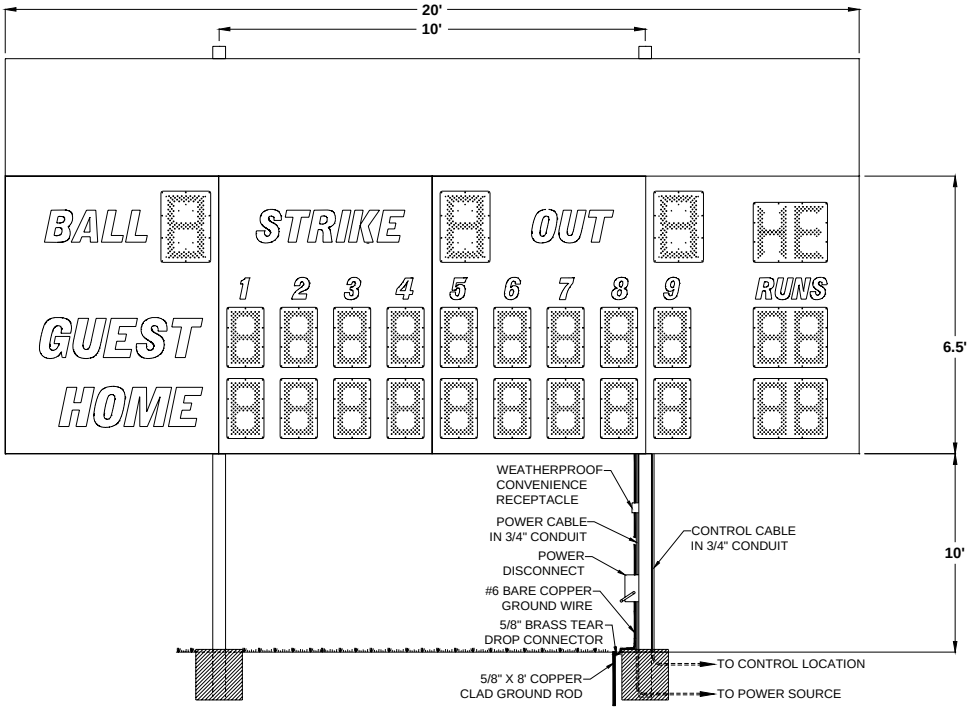


Figure 2 1530 with Top Sponsor Panel Post Spacing

Mounting The Scoreboard

The scoreboard is attached to the posts at four points. Figure 3 shows the location of the mounting points on the rear of the scoreboard.

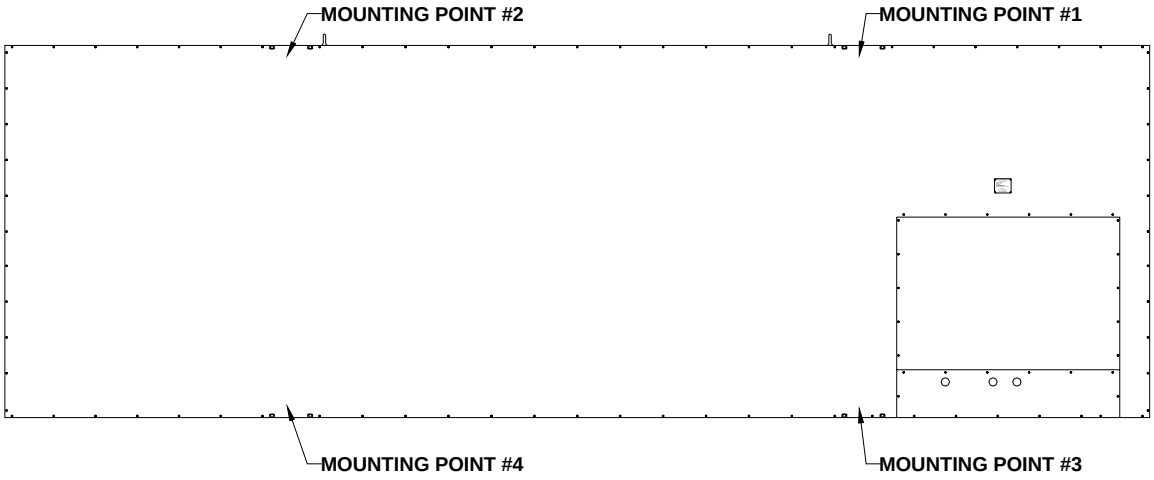


Figure 3 Mounting Points

MOUNTING HARDWARE

Four sets of mounting hardware are provided to attach the scoreboard at these points. Additional hardware sets are provided to attach the optional sponsor panels, if ordered. A single set of mounting hardware consists of a steel angle bracket, two threaded rods, two washers, and two nuts. Figure 4 shows an overhead cross section view and a side cross section view of the scoreboard attached to a post at a mounting point. A steel bar is riveted inside the scoreboard's aluminum extrusion frame. The bar has two tapped holes. The threaded rods screw into these tapped holes. The washers and nuts are used to clamp the steel angle bracket against the steel post and hold the scoreboard in place.

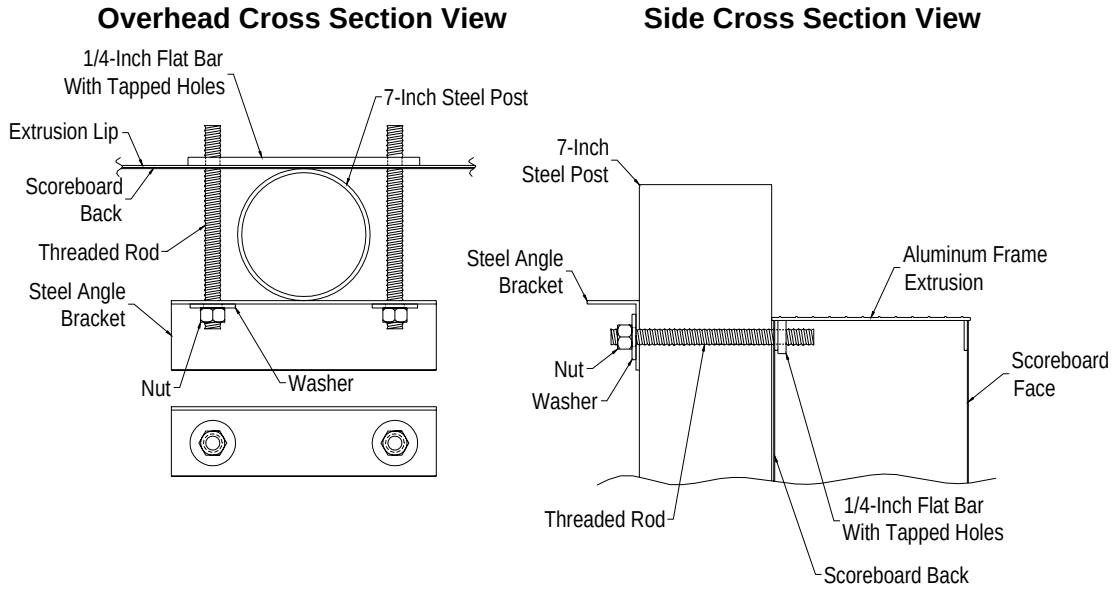


Figure 4 Standard Mounting Method

The following steps describe how to mount the scoreboard on the posts:

1. Place the scoreboard cabinet against the posts on the ground. Make sure the mounting points are aligned with the posts.
2. Screw the threaded rods into the tapped holes in the scoreboard.
3. Place a steel angle bracket over the threaded rods at a mounting point.
4. Place a washer over each threaded rod.
5. Screw the nuts onto the threaded rods so that the bracket is loosely held in place.
6. Repeat steps 4 -6 at the other mounting points.
7. Raise the scoreboard into place and tighten the nuts to clamp the scoreboard in place on the posts.

Note: Be sure to leave enough space on the posts above the scoreboard for the optional top sponsor panel, if purchased.

Mounting The Optional Top Sponsor Panel

Additional hardware sets are provided to attach the optional top sponsor panels, if purchased. The following steps describe how to mount the top sponsor panel on the posts:

1. Raise the top sponsor panel in place above the scoreboard. Make sure the mounting points are aligned with the posts.
2. Screw the threaded rods into the tapped holes in the top sponsor panel.
3. Place a steel angle bracket over the threaded rods at a mounting point.
4. Place a washer over each threaded rod.
5. Screw a nut onto each threaded rod so that the bracket is loosely held in place.
6. Repeat steps 3 - 5 at the other mounting points.
7. Tighten the nuts to clamp it in place on the posts.

ELECTRICAL INSTALLATION

We recommend a qualified electrician perform the needed electrical connections to ensure proper operation of the scoreboard. These connections include grounding the scoreboard, connecting the scoreboard to a power source, installing the ScoreLink 300 or the control cable, and connecting the control console.

Ground Connection

The National Electrical Code **requires** a scoreboard (electric sign) to be grounded. Grounding the scoreboard helps the scoreboard electronics operate properly and helps minimize damage if it is struck by lightning. Metal posts do **not** provide an adequate ground path. The following steps describe how to ground the scoreboard:

1. Drive one or more 5/8” x 8’ copper clad ground rods in the soil near the scoreboard.
2. Connect #6 bare copper wire to the ground rods using 5/8” brass tear drop connectors.
3. Remove the rear access panel and the dome plugs on the plate below the access panel. Figure 5 shows the location of the access panel and the dome plugs.

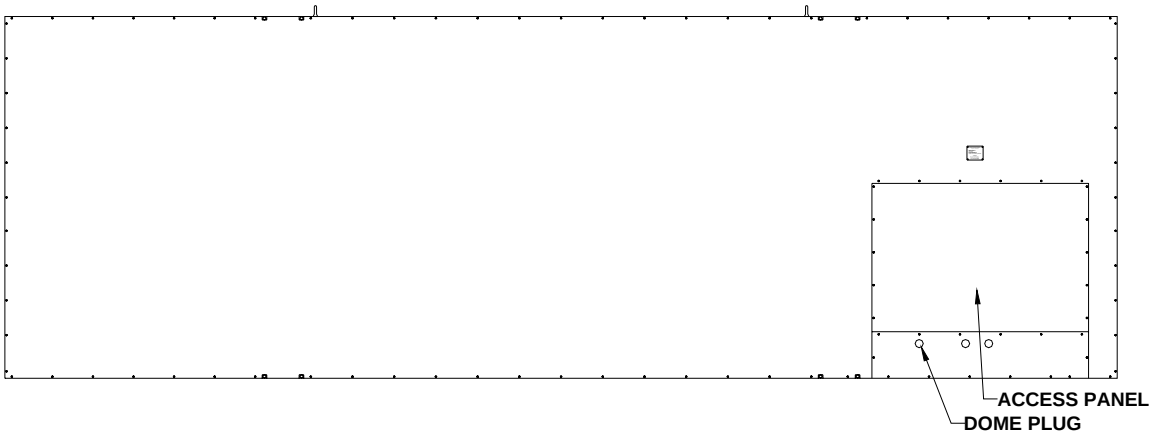


Figure 5 Rear Access Panel

4. Figure 6 shows the view behind the access panel.

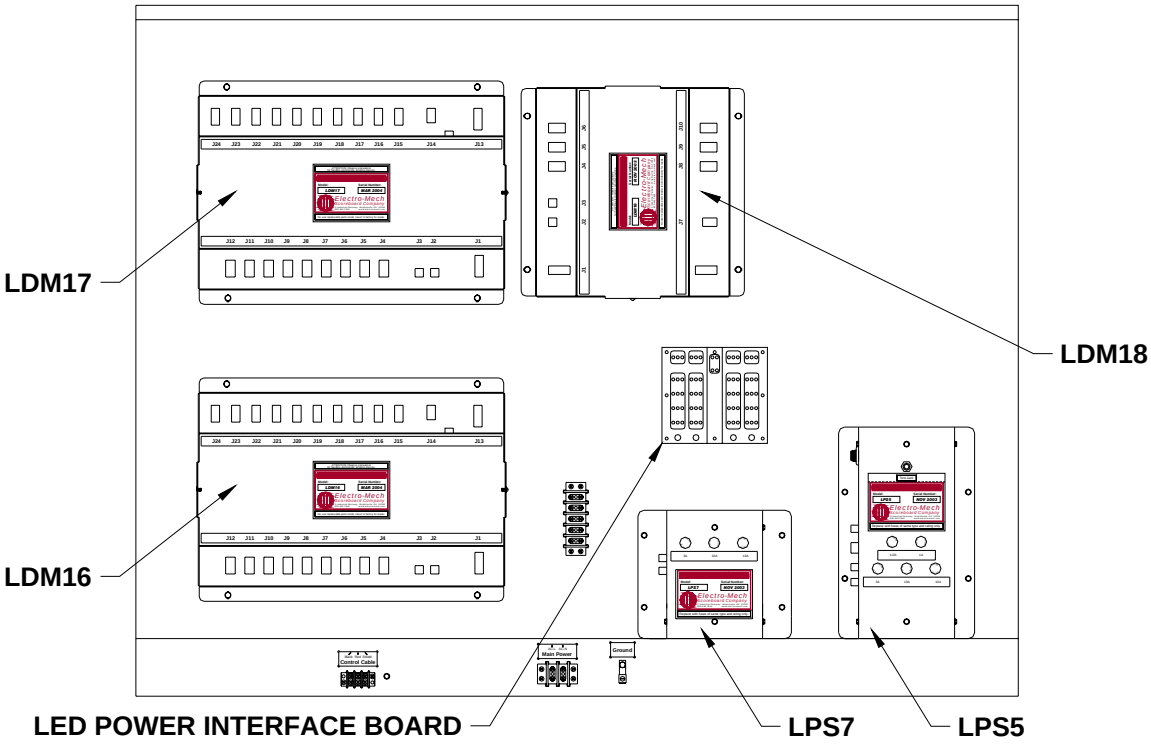


Figure 6 Access Panel Removed

5. Pass the ground conductor through the right hand hole in the plate below the access panel and connect it to the ground lug (**Ground**) on the junction chassis.

Power Connections

The scoreboard requires 120 VAC service at the scoreboard to operate properly. **Maximum power consumption of Model 1530: 312 Watts.** Make sure that power cable is rated for this electrical load. Install the power cable in conduit. **Avoid** running the power cable in close proximity to the control cable. The following steps describe how to connect the scoreboard to the power source:

1. Feed the power cable through the middle hole in the plate below the access panel.
2. Crimp fork terminals to the power cable wires.
3. Connect the AC line wire and AC neutral wire to the **Main Power** terminal block on the junction chassis according to figure 7.

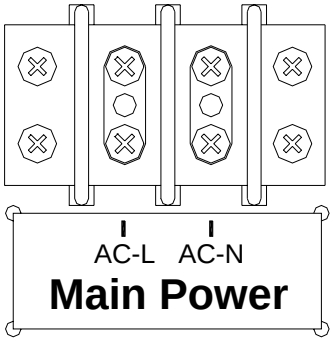


Figure 7 Power Connections

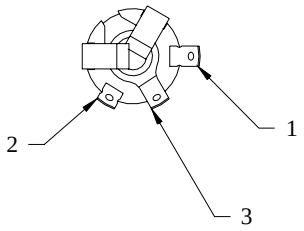
Install a power disconnect that isolates all current carrying conductors on one of the posts below the scoreboard (not the ground conductor). If a secondary switch is installed near the scorekeeper's table, it should also isolate these conductors. Place the power disconnect in the **OFF** position between games to help protect the scoreboard from lightning damage. A power disconnect on the scoreboard post also provides a convenient way of turning the scoreboard off during maintenance or repairs.

ScoreLink 300

The ScoreLink 300 RF MODEM SYSTEM is designed to eliminate the control cable between the scoreboard and the control console on Electro-Mech Scoreboard MM and MP series scoreboards as well as all LED scoreboards. If you have purchased this accessory, disregard the section of this manual titled **Control Cable Installation**. Refer to the ScoreLink 300 RF MODEM SYSTEM OWNER'S HANDBOOK for installation instructions.

Control Cable Installation

The control cable connects the scoreboard to the control console. Install the control cable in conduit. If the cable is ever damaged, it is easier and less expensive to replace a cable in conduit. A small junction box with a ¼" stereo jack mounted on the face plate is attached to the control cable at the point of operation of the scoreboard. This junction box should be securely mounted in a clean, dry area within ten feet of the rear of the control console. Most customers order the control cable with the junction box attached. Some customers prefer to attach the junction box after the cable is installed. Those customers must solder the control cable to the ¼" stereo jack. Figure 8 shows the control cable wire connection points on the rear of the ¼" stereo jack.



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

Figure 8 ¼" Stereo Jack Wiring Diagram

The following steps describe how to connect the control cable to the scoreboard:

1. At the rear of the scoreboard feed the control cable the left hole in the plate below the access panel.
2. Crimp fork terminals to the control cable wires and the shield.
3. Connect the control cable to the **Control Cable** terminal block on the junction chassis according to figure 9.

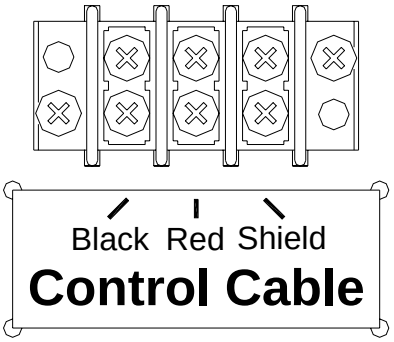


Figure 9 Control Cable Wiring Diagram

4. Reinstall the access panel.

Control Console Connections

The 10 ft. extension cable has two molded ¼" stereo plugs attached to it. It is used to connect the control console to the junction box. The following steps describe how to connect the control console:

1. Plug one end of the extension cable into ¼" stereo jack on the junction box or the ScoreLink 300 Transmitter, if purchased.
2. Plug the other end into the ¼" stereo jack mounted on the control console back plate.
3. Plug the control console power cord into a grounded NEMA 5-15R 120 VAC receptacle.

Control Console Safety Warning

This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact a qualified electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.

SCOREBOARD OPERATION

SCOREBOARD STARTUP

1. Place the power disconnect for the scoreboard in the **ON** position.
2. Plug one end of the extension cable into ¼" stereo jack on the junction box or the ScoreLink 300 Transmitter, if purchased.
3. Plug the other end into the ¼" stereo jack mounted on the control console back plate.
4. Plug the control console power cord into a grounded NEMA 5-15R 120 VAC receptacle.
5. If a ScoreLink 300 RF MODEM SYSTEM is installed with this scoreboard, plug the wall mount DC power supply into a grounded NEMA 5-15R 120 VAC receptacle and the male plug on the end of the attached cable into the Power jack on the Transmitter.

GAME TIME OPERATION

This scoreboard is operated with a 37-key control console. Figure 10 shows the keypad layout on the control console.

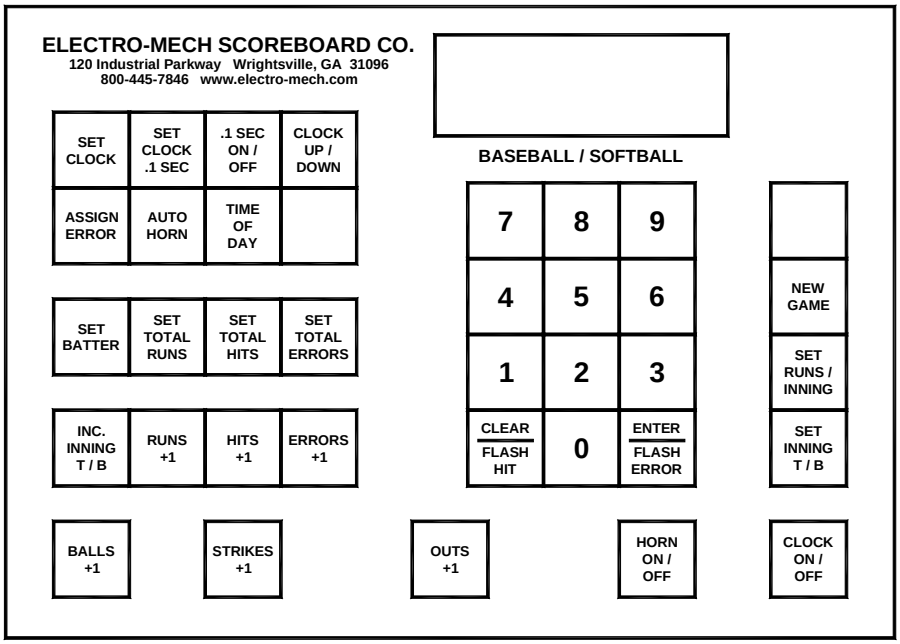


Figure 10 Keypad Layout

Immediately after the control console power cord is plugged into a 120 VAC source, the console LCD display will read:

```
ELECTRO-MECH 276
SCOREBOARD MPB15
```

After a few seconds the display will read:

```
 00  D15:00  00
INNING  -
```

The scoreboard will display:

GUEST RUNS – 0
HOME RUNS – 0

The control console LCD display shows the total runs for the HOME and GUEST teams. It also provides instructions to help the operator use some of the console functions. Note: The runs scored for each inning, BALLS, STRIKES, OUTS, HITS, and ERRORS will be displayed on the scoreboard, but not on the console. There is a clock function displayed on the control console, not on the scoreboard. Figure 11 explains the LCD display layout.

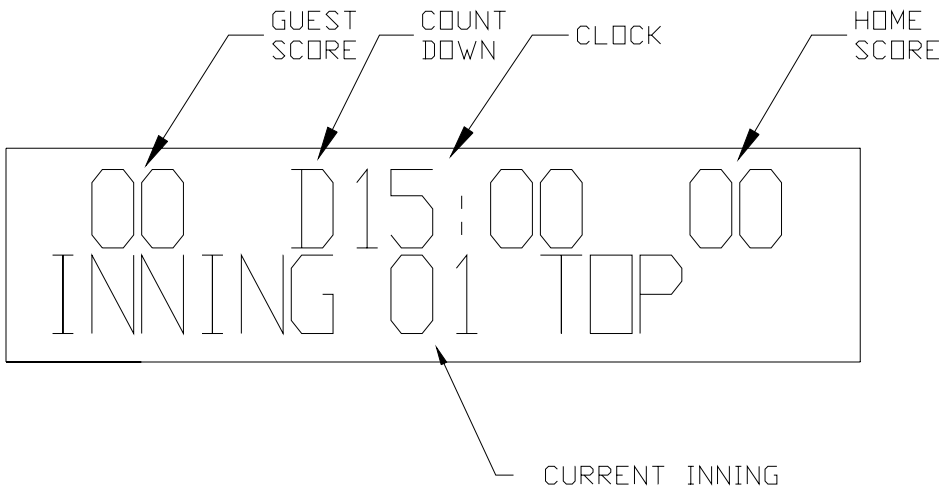


Figure 11 Control Console LCD Display

Control Console Key Functions

1. **INC INNING T / B** – This key increments the inning to the next half inning. When the console is turned on, the LCD display will read:

Press [INC INNING T / B]. The LCD display will then read:

The console is set to the top of the first inning. Pressing the key again increments the console to the bottom of the first inning.

2. **SET TOTAL RUNS** – Press [SET TOTAL RUNS]. The LCD display will read:

Press [3][ENTER] to set the GUEST runs to 3. The LCD display will then read:

Press [2][ENTER] to set the Home runs to 2.

3. **RUNS +1** – This key will increment the total runs by 1.
4. **BALLS +1** – This key will increment the Balls by 1.
5. **STRIKES +1** – This key will increment the Strikes by 1.
6. **OUTS +1** – This key will increment the Outs by 1.
7. **SET INNING T / B** – This key is used to change the current inning. Press [SET INNING T / B] and the LCD display will read:

Press [5], [ENTER] to change to the fifth inning. The LCD display will read:

Press [1], [ENTER] to select the bottom of the inning. The LCD display will read:

8. **CLEAR / FLASH HITS** – This key has two purposes. It can be used to clear incorrect keypad entries. It can also be used to flash the hit symbol (H) on the scoreboard.
9. **ENTER / FLASH ERRORS** – This key has two purposes. It is used when entering game information. It can also be used to flash the error symbol (E) on the scoreboard.
10. **SET RUNS / INNING –** This key is used to change the score in a previous inning. Press [SET RUNS / INNING] and the LCD display will read:

    ```
     00  D15: 00  00
    RUNS-INNING <05>
    ```

    Press [3], [ENTER] to set the runs in the third inning. The LCD display will read:

    ```
     00  D15: 00  00
    RUNS-TOP    <02>
    ```

    Press [1], [ENTER] to change the score for the top of the third inning. The LCD display will read:

    ```
     00  D15: 00  00
    RUNS-BOTTOM <02>
    ```

    Press [2], [ENTER] to change the score for the bottom of the third inning. **Note**: The total runs will not be updated automatically on the scoreboard or the control console. You must use the SET TOTAL RUNS key to update this information.
11. **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.

The SET CLOCK, SET CLOCK .1 SEC, .1 SEC ON / OFF, CLOCK UP / DOWN, ASSIGN ERROR, AUTO HORN, TIME OF DAY, SET BATTER, SET TOTAL HITS, SET TOTAL ERRORS, HITS +1, ERRORS +1, HORN ON / OFF, and CLOCK ON/OFF keys are not used with the 1530 scoreboard.

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.

SCOREBOARD SHUTDOWN

1. Place the power disconnect for the scoreboard in the **OFF** position.
2. Unplug the control console power cord.
3. Unplug the extension cable.
4. If a ScoreLink 300 RF MODEM SYSTEM is installed with this scoreboard, unplug the Transmitter's wall mount power supply.
5. Store the control console and ScoreLink 300 Transmitter in a dry location. These units are not waterproof.

Proper scoreboard shutdown 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. Electro-Mech Scoreboard Company offers onsite service in some areas. In other areas, we can help you contact an independent service technician. In areas in which service is not available from Electro-Mech Scoreboard Company, we will make every effort to answer your questions. Our trained personnel at Electro-Mech Scoreboard Company are ready 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. Scoreboard replacement parts are always available. Damaged parts can usually be repaired at a significant cost savings. Our convenient toll free number is listed at the bottom of every page in this manual.

If the scoreboard turns on LEDs, but does not operate normally, make note of which functions are affected. If some LEDs either never turn on or always stay on, make note of their specific locations on the scoreboard. Refer to the COMPONENT REPLACEMENT section of this manual before changing parts.

COMPONENT REPLACEMENT

LED digits and indicators are serviced from the front of the scoreboard.

LED Digits And Indicators Replacement

The LEDs that form digits and indicators are soldered on circuit boards mounted behind metal masks. Do not attempt to replace individual LEDs. In case of a malfunction, the entire LED circuit board must be removed. **To avoid damage to the LED driver module, always turn off the power to the scoreboard when removing or replacing LED digits and indicators**. Figure 12 shows the components of a LED digit assembly. LED indicator assemblies are similar in construction.

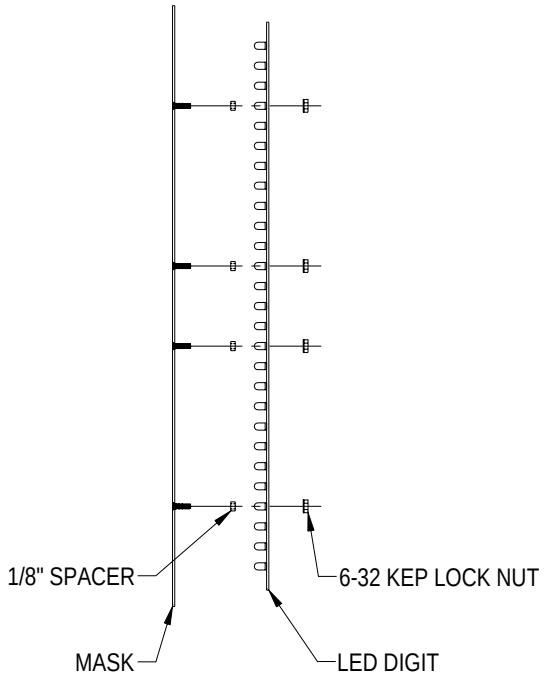


Figure 12 LED Digit Assembly

The following steps describe how to replace a defective LED digit:

1. Remove the sheet metal screws that fasten the mask to the face of the scoreboard. **Caution: Support the mask with before removing the last screw. The ribbon cable that connects to the rear of the circuit board is not designed to support the weight of the assembly.**
2. Disconnect the ribbon cable from the rear of the circuit board. For assemblies with two LED digits, it will be necessary to disconnect the ribbon cables from both circuit boards. The cables are labeled to indicate the proper circuit board connection. **Caution: Do not let the cable hang outside of the scoreboard. It is easily cut by sharp metal edges. Damage to the ribbon cable may create short circuit paths that will damage the LED driver module.**
3. Place the assembly on a flat surface and remove the 6-32 kep lock nuts that hold the defective circuit board in place.
4. Remove the circuit board from the assembly.
5. Align the mounting holes in the replacement LED digit circuit board with the threaded studs on the mask and install it on the mask using the 6-32 kep lock nuts.
6. Plug the ribbon cable onto the header on the back of the circuit board. Refer to figure 13 in order to plug the ribbon cable IDC connector onto the circuit board in the proper orientation.

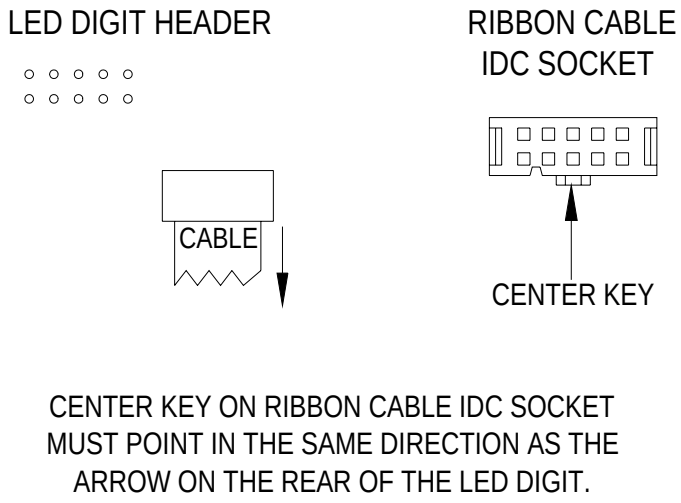


Figure 13 LED Digit Ribbon Cable Connection Diagram

7. Reinstall the assembly using the sheet metal screws.

Single Segment Driver Boards are used in some scoreboards to control a second function from an output jack of the LED control board. These circuit board assemblies are mounted on standoffs behind LED digits, as needed. In case of a malfunction, the entire circuit board must be removed. **To avoid damage to the scoreboard electronics, always turn off the power to the scoreboard when removing or replacing Single Segment Driver Boards. Observe proper handling procedures to prevent static damage to these circuit boards.** The table below lists the Single Segment Driver Boards in this scoreboard and their functions.

SINGLE SEGMENT DRIVER BOARD LOCATION	FUNCTION
BALL DIGIT	ERROR INDICATOR
HIT INDICATOR	HIT INDICATOR

Figure 14 shows a Single Segment Driver Board mounted behind a LED digit.

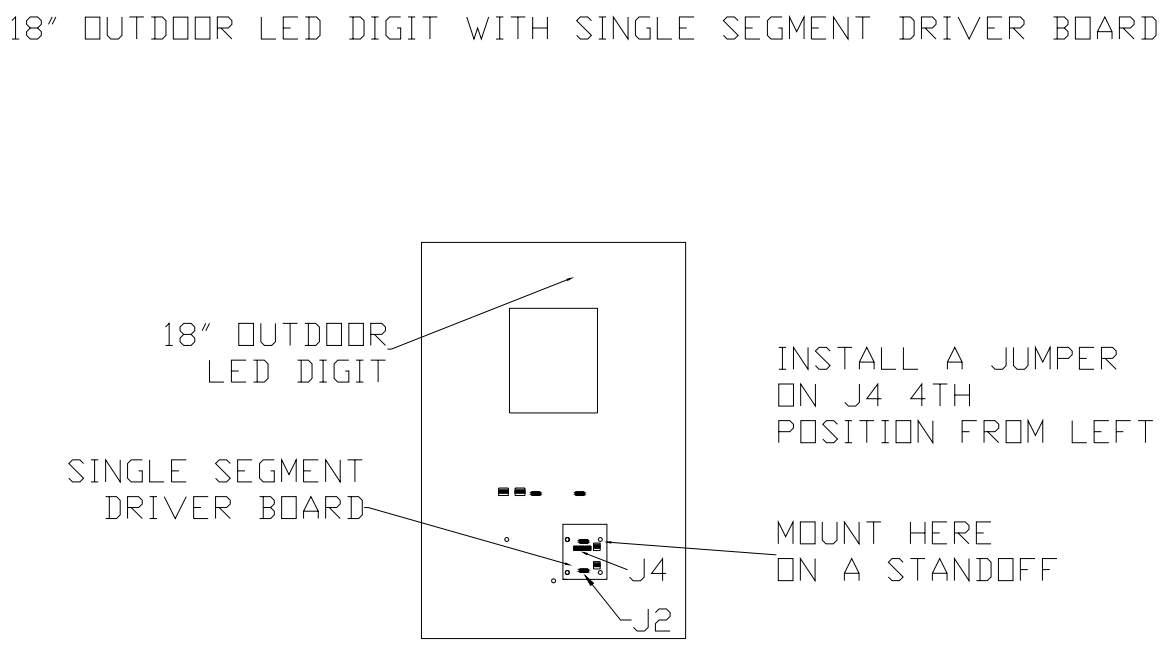


Figure 14 Single Segment Driver Board

Single Segment Driver Board Replacement

1. Remove the sheet metal screws that fasten the mask to the face of the scoreboard. **Caution: Support the mask before removing the last screw. The wires and cables that connect to the rear of the LED digit and Single Segment Driver Board are not designed to support the weight of the assembly.**
2. Disconnect the ribbon cables from the rear of the LED digit and Single Segment Driver Board. **Caution: Do not let the cables hang outside of the scoreboard. Ribbon cables easily cut by sharp metal edges. Damage to a ribbon cable may create short circuit paths that will damage the LED driver module.**
3. Disconnect the wire assembly from the Single Segment Driver Board J3 jack.
4. Place the assembly on a flat surface and remove the 6-32 kep lock nut that holds the Single Segment Driver in place.
5. Remove the old circuit board.
6. Install the replacement circuit board.
7. Fasten the circuit board in place with the 6-32 kep lock nut.

All other components are located behind the rear access panel. Figure 15 shows the view behind the access panel.

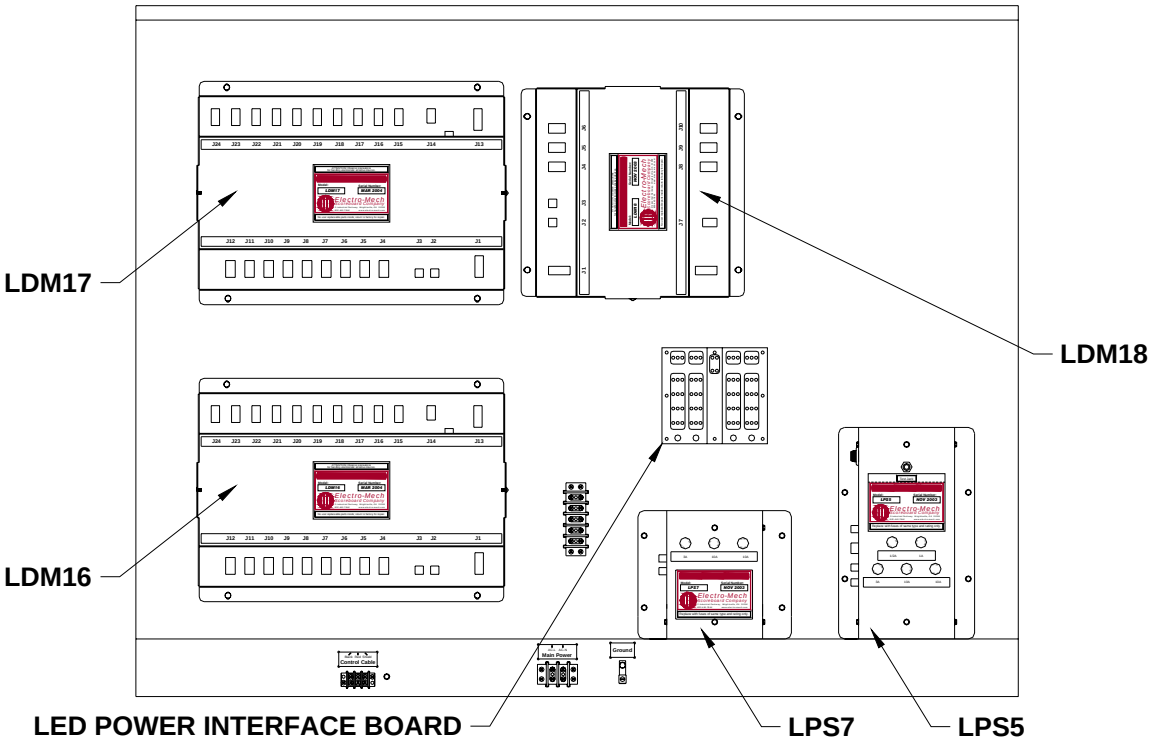


Figure 15 Access Panel Components

LDM16 LED DRIVER MODULE FUNCTIONS

DRIVER MODULE JACK	FUNCTION
J1	DRIVER MODULE DC POWER INPUT
J2	SERIAL DATA INPUT
J3	SERIAL DATA OUTPUT
J4	HOME RUNS UNITS DIGIT
J5	HOME RUNS TENS DIGIT
J7	HOME INNING 1 DIGIT
J8	HOME INNING 2 DIGIT
J9	HOME INNING 3 DIGIT
J10	HOME INNING 7 DIGIT
J11	HOME INNING 8 DIGIT
J12	HOME INNING 9 DIGIT
J13	DRIVER MODULE DC POWER INPUT #2
J19	HOME INNING 5 DIGIT
J20	HOME INNING 4 DIGIT
J21	HOME INNING 6 DIGIT

Note: All other LDM16 jacks are unused.

LDM17 LED DRIVER MODULE FUNCTIONS

DRIVER MODULE JACK	FUNCTION
J1	DRIVER MODULE DC POWER INPUT
J2	SERIAL DATA INPUT
J3	SERIAL DATA OUTPUT
J4	GUEST RUNS UNITS DIGIT
J5	GUEST RUNS TENS DIGIT
J7	GUEST INNING 1 DIGIT
J8	GUEST INNING 2 DIGIT
J9	GUEST INNING 3 DIGIT
J10	GUEST INNING 7 DIGIT
J11	GUEST INNING 8 DIGIT
J12	GUEST INNING 9 DIGIT
J13	DRIVER MODULE DC POWER INPUT #2
J19	GUEST INNING 5 DIGIT
J20	GUEST INNING 4 DIGIT
J21	GUEST INNING 6 DIGIT

Note: All other LDM17 jacks are unused.

LDM18 LED DRIVER MODULE FUNCTIONS

DRIVER MODULE JACK	FUNCTION
J1	DRIVER MODULE DC POWER INPUT
J2	SERIAL DATA INPUT
J4	H INDICATOR (seg h)
J6	BALL DIGIT, E INDICATOR (seg h)
J8	OUT DIGIT
J9	STRIKE DIGIT

Note: All other LDM18 jacks are unused.

LED Driver Module Replacement

Electrical connections to the LED driver modules are made with ribbon cable polarized IDC sockets and locking ramp crimp terminal housings that mate with jacks on the module. Four machine screws are used to secure a LED driver module inside the scoreboard.

1. Unplug the electrical connections from the module. Do not cut the plastic tie wraps around the ribbon cables.
2. Remove the four screws.
3. Remove the module from the scoreboard.
4. Insert the replacement module in the scoreboard.
5. Secure the module with the four screws.
6. Insert the plugs into the jacks on the module.

To avoid damage to the module, always turn off the power to the scoreboard when removing or replacing it.

LPS5 LED POWER SUPPLY MODULE FUNCTIONS

JACK	FUNCTION
J1	120 VAC INPUT
J2	20 VDC OUTPUT TO LED POWER INTERFACE BOARD
J3	SERIAL DATA INPUT / OUTPUT
J4	NOT USED
J5	SERIAL DATA TEST JACK

A relay inside the LPS5 Power Supply Module isolates the LDM16 LED Driver Module from the control cable when the scoreboard is shut down. Connecting the control console to the test jack on the LPS5 Power Supply Module (J5) with the 10 ft. extension cable bypasses this relay. Figure 16 shows the location of the fuses in the LPS5 LED Power Supply Module. The table following the figure lists the fuse ratings, functions, and part numbers.

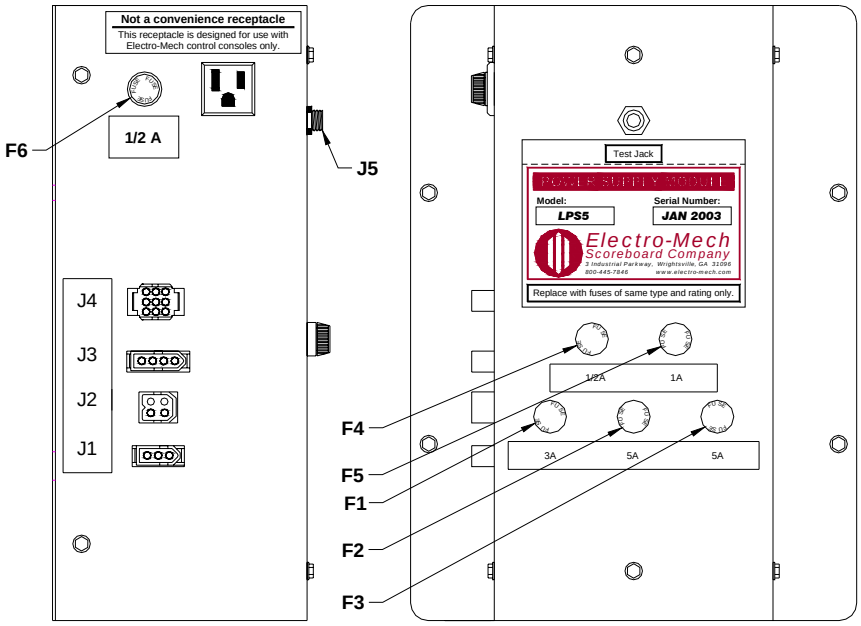


Figure 16 LPS5 Fuse Locations

LPS5 FUSES

FUSE	RATING	FUNCTION	BUSSMAN PART #
F1	3A 250V	TRANSFORMER PRIMARY	AGC-3
F2	10A 250V	DC POWER OUTPUT #1	AGC-10
F3	10A 250V	DC POWER OUTPUT #2	AGC-10
F4	1/2A 250V	SERIAL DATA ISOLATION RELAY	AGC-1/2
F5	1A 250V	NOT USED	AGC-1
F6	1/2A 250V	120 VAC ELECTRICAL RECEPTACLE	AGC-1/2

Note: Other manufacturers' fuses may be substituted for the Bussmann fuses.

LPS7 LED POWER SUPPLY MODULE FUNCTIONS

JACK	FUNCTION
J1	120 VAC INPUT
J2	20 VDC OUTPUT TO LED POWER INTERFACE BOARD

Figure 17 shows the location of the fuses in the LPS7 LED Power Supply Module. The table following the figure lists the fuse ratings, functions, and part numbers.

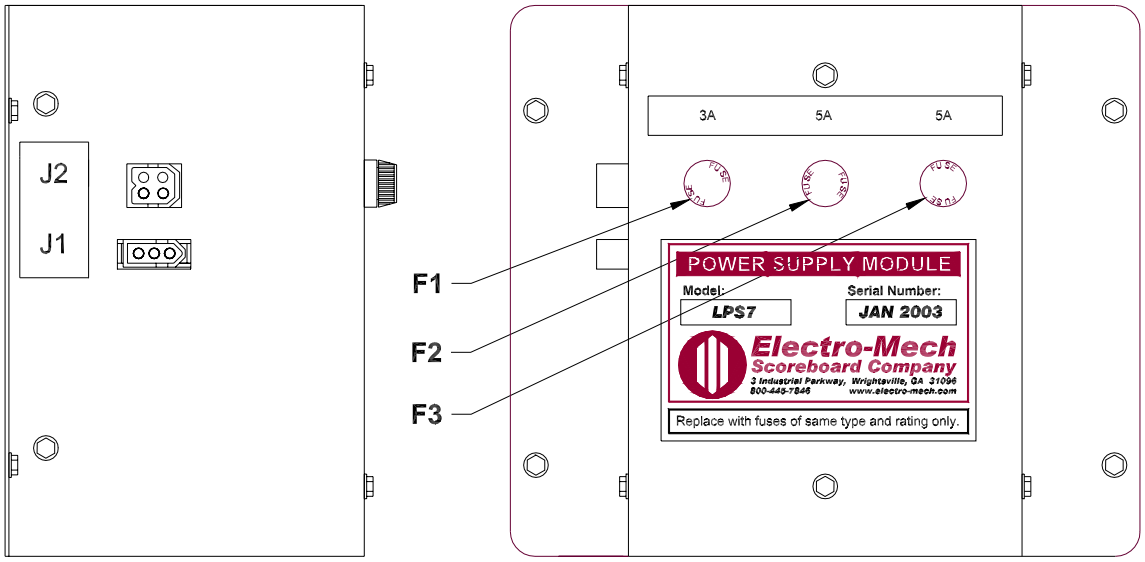


Figure 17 LPS7 Fuse Locations

LPS7 FUSES

FUSE	RATING	FUNCTION	BUSSMAN PART #
F1	3A 250V	TRANSFORMER PRIMARY	AGC-3
F2	10A 250V	DC POWER OUTPUT #1	AGC-10
F3	10A 250V	DC POWER OUTPUT #2	AGC-10

Note: Other manufacturer's fuses may be substituted for the Bussmann fuses.

LED Power Supply Module Replacement

Electrical connections to the LED power supply modules are made with keyed plugs that mate with jacks on the left side of the module. Four machine screws are used to secure a LED power supply module inside the scoreboard.

1. Disconnect the plugs from the jacks on the left side of the module.
2. Remove the four screws.
3. Remove the module from the scoreboard.
4. Insert the replacement module in the scoreboard.
5. Secure the module with the four screws.
6. Insert the plugs into the jacks on the side of the module.

To avoid damage to the module, always turn off the power to the scoreboard when removing or replacing it.

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, NEGLECT, ABUSE, MISUSE OR OTHER NATURAL DISASTERS, INCLUDING BUT NOT LIMITED TO FIRE, WIND, LIGHTNING, OR FLOOD, IS NOT COVERED BY THIS GUARANTEE.