

# Nevco Scoreboard Company

## Installation Manual

Serial No. \_\_\_\_\_

### Model 2545

- Size: 20 ft. x 5 ft. x 8 in. (6.10 x 1.52 x 0.2 meters)
- Approximate hanging weight: 300 lbs. (136 kg.)
  - Power requirements 120V, 7 Amps
  - UL Listed/c-UL Listed



Scoreboards · Message Centers  
Video Displays

Since 1934

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## Thank You

Thank you for purchasing from Nevco Scoreboard Company. Below are some important tips to remember when installing your new equipment.

- Pre-test the equipment before installation.
- Consult National Electrical Code and local codes before installation.

## Installation Instructions

### Unpacking the Equipment

To protect your new scoreboard system from accidental damage, follow the steps below:

- Carefully remove all equipment from its packing carton. **Do not** pry against the scoreboard in any way. Inspect for damage.

**Note:** If damage to any equipment contact carrier immediately.

- Scoreboard electronics are located behind period caption plate.
- Make sure all plugs are firmly seated in their proper sockets. If some cables are loose or disconnected, refer to **Module Illustration**. This print identifies the function of each module plug and shows where to connect the cables.

### Pre-Test Your Equipment

#### (Indoor Scoreboard Pre-Mounting Test)

- Connect a length of 2-WIRE cable from the BNC connector on top of the scoreboard to the signal source. (control or receiver)
- Connect the scoreboard to a temporary power service. (See installation print for power service requirements.)
- Follow the Control Hookup & Testing Guide to make sure the system operates properly before installing the scoreboard.

## Scoreboard Mounting

The installation print shows the mounting centers and location of power. The mounting clips have a slot 1 ½ in. by ½ in. wide for easier mounting.

Secure at all mounting clips provided.

If the scoreboard is to be mounted on a wall that can support a lag shield, use 3/8 in. or larger lag bolts to secure the scoreboard.

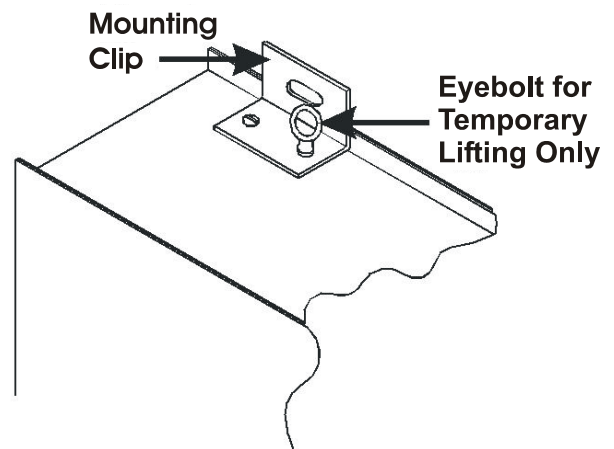
Always use good mechanical practices when mounting the scoreboard:

- Use a flat washer and lock washer with a lag bolt or fastening device to prevent vibration from loosening the fastening device.
- Use only plated fastening devices to prevent rust or corrosion.

### Important Note

Temporary lifting eyebolts have been supplied to assist in raising the scoreboard into place.

- **Do not** use these eyebolts for permanent installation.
- To prevent severe damage, supply even, vertical lifting motion to each eyebolt.
- **Do not** tie the eyebolts together and lift from the center of the cable.



## Power Service Connections

Nevco suggests installation of a dedicated service or circuit for the scoreboard. This

eliminates the possibility of overloading the circuit breaker, and guards against service problems in the future. The power requirements will provide a 20% safety factor to guard against nuisance tripping of the circuit breaker.

The contractor or installation personnel will determine the wire length and size required to maintain the voltage necessary to support the circuit load. Nevco recommends the power service maintain 120V at the scoreboard under maximum load.

Located on top of the scoreboard is a junction box for power connection. Consult the National Electrical Code and local codes before installation.

### WIRED INSTALLATION

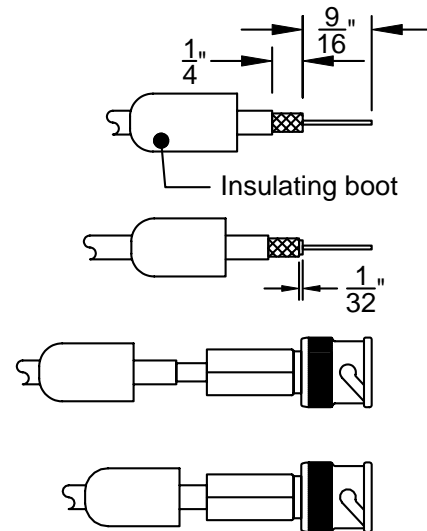
Make connection from scoreboard to control point. (junction boxes provided)

### WIRELESS INSTALLATION

Run coaxial cable provided from BNC connector on top of scoreboard to receiver location.

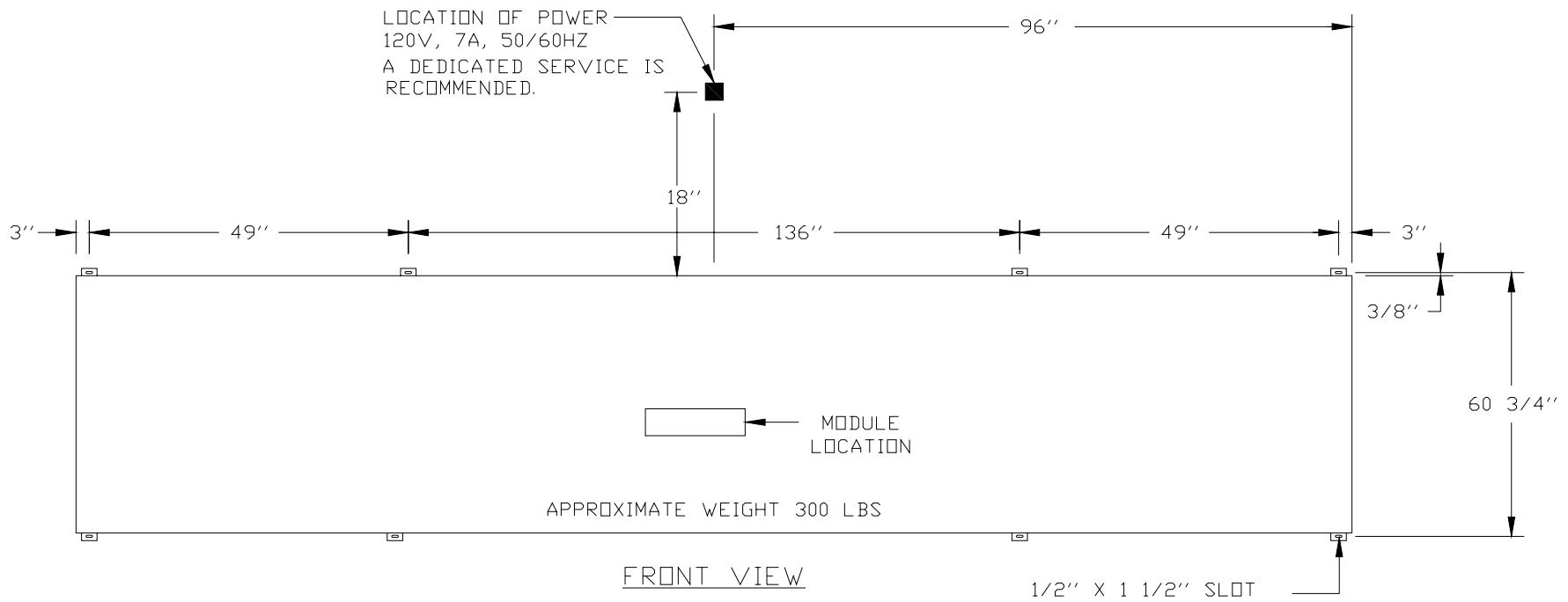
### Installing Cable Connectors

The 2-WIRE cable that comes with your scoreboard does not have connectors attached.



To install connectors on each end of the cable:

- ❑ Slide the insulating boot onto the cable and trim the cable as shown.
- ❑ Twist the outer braid in a **clockwise** direction so that at least 1/32 in. of the inner dielectric is bared and the braid is left flat. Be sure no strands of the outer braid are touching the center conductor.
- ❑ Insert the center conductor into the back of the connector, feeding it into the guide hole.
- ❑ Push the cable as far as possible into the connector.
- ❑ Screw the connector onto the cable in a clockwise direction until the connector stops turning.
- ❑ Slip the insulating boot over the back of the connector.



THIS SCOREBOARD IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SCOREBOARD.

1. IF THE SCOREBOARD IS TO BE USED FOR 2-WIRE OPERATION REFER TO POWER HOOK UP PRINT.
2. IF THE SCOREBOARD IS TO BE USED FOR WIRELESS OPERATION REFER TO RECEIVER INSTALLATION PRINT FOR SPECIFIC CONTROL.

INSTALLATION  
2545



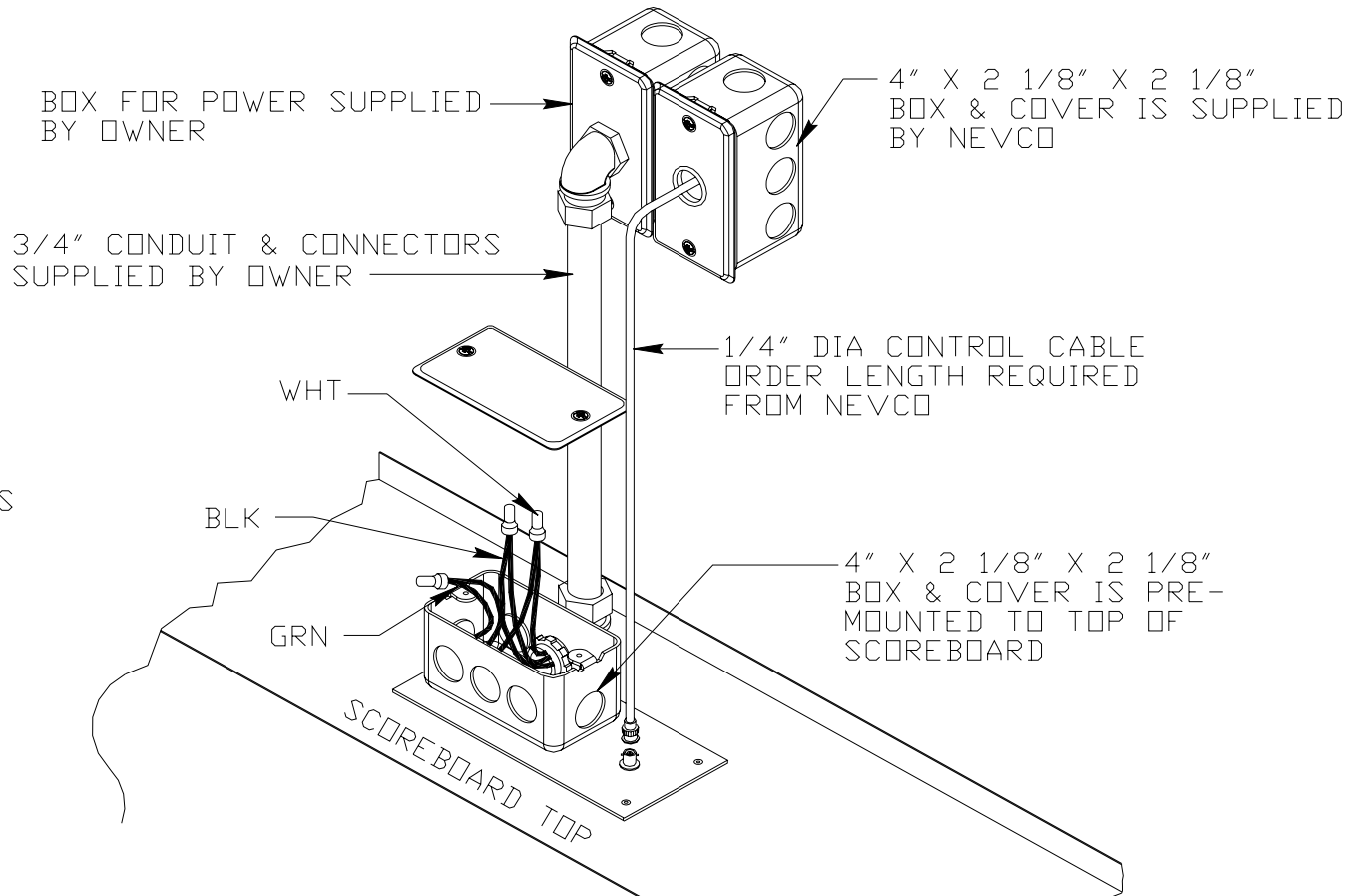
NEVCO SCOREBOARD CO.  
GREENVILLE, ILLINOIS 62246

DRAWING NO. C10074

DRAWN HW

DATE 10/25/04

SHEET 1 OF 1




120V, 50/60Hz

- 1 BLK - HOT
- 1 WHT - NEUTRAL
- 1 GRN - GROUND

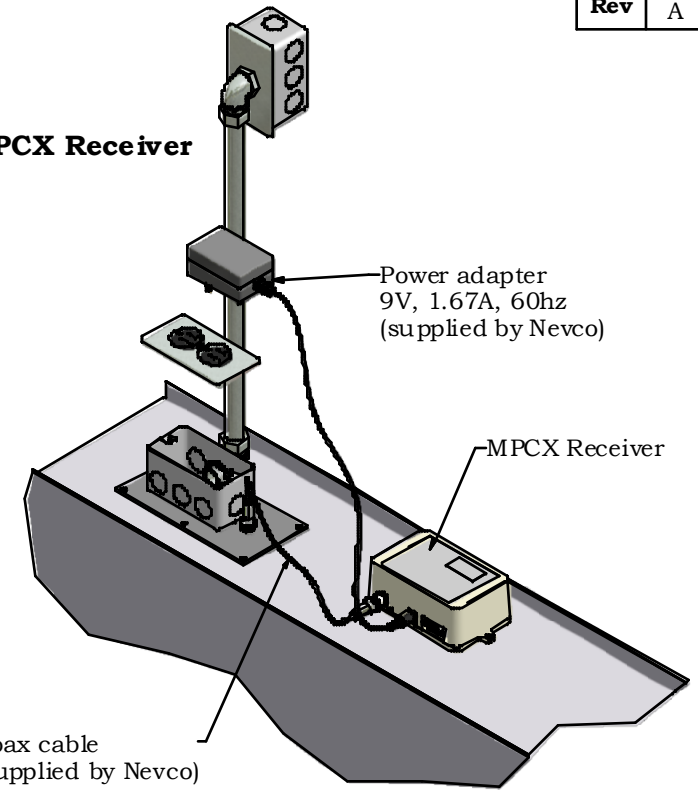
FOR POWER REQUIREMENTS  
SEE INSTALLATION PRINT

**NOTE:**

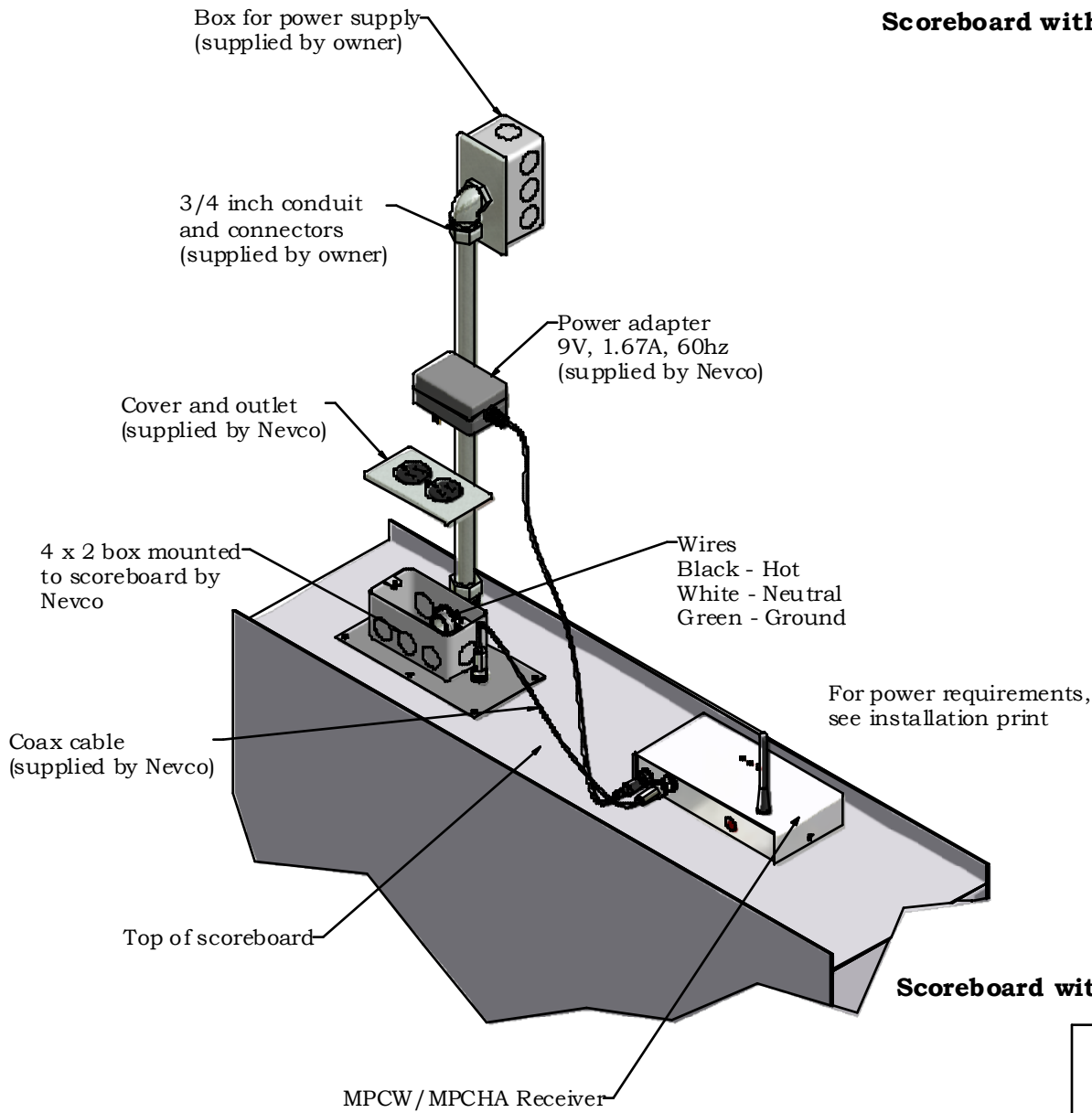
THIS SCOREBOARD IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SCOREBOARD.

POWER HOOK UP SINGLE MODULE SCOREBOARD FOR 2-WIRE OPERATION			
		NEVCO SCOREBOARD CO. GREENVILLE, ILLINOIS 62246	
		DRAWING NO. C10054	
DRAWN HW	DATE 10/18/04	SHEET 1	OF 1


### Scoreboard with MPCX Receiver

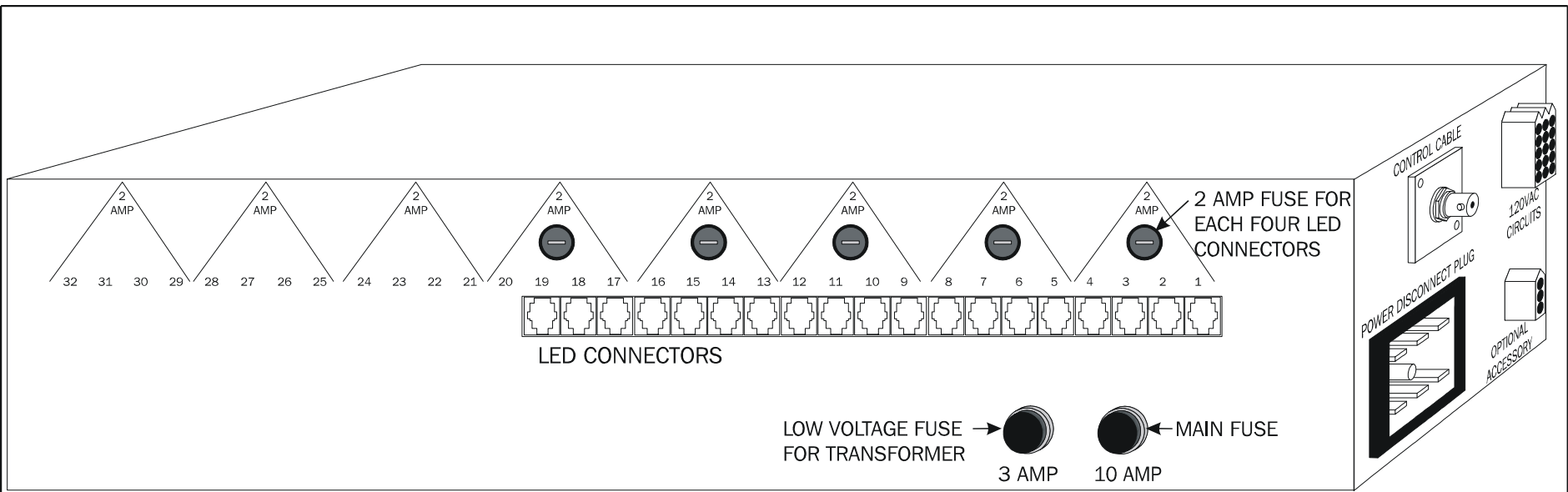


### Scoreboard with MPCW/MPCHA Receiver



Note:  
 This scoreboard is intended to be installed in accordance with the requirements of Article 600 of the National Electrical Code and/or other applicable local codes. This includes proper grounding and bonding of the scoreboard.

Installation of MPCW/MPCHA/MPCX Top Mount Receiver		 <b>Nevco Scoreboard Company</b> Greenville, Illinois 62246			
Drawn	BRS		Date	9/14/07	Drawing No.
				Sheet	1 of 1



"E" and Error Counter Locations  
 Plug 6 = E  
 Plug 13 = Counter

LED Connector Functions


- |                               |                            |
|-------------------------------|----------------------------|
| 1 Guest Team Fouls & Tens     | 17 Home Player Number Tens |
| 2 Guest Time Outs Left        | 18 Home Team Fouls & Tens  |
| 3 Guest Player Fouls          | 19 Home Time Outs Left     |
| 4 Guest Player Number Ones    | 20 N / A                   |
| 5 Guest Player Number Tens    | 21 N / A                   |
| 6 Guest Score Ones            | 22 N / A                   |
| 7 Guest Score Tens & Hundreds | 23 N / A                   |
| 8 Digital Period              | 24 N / A                   |
| 9 Time Second Ones            | 25 N / A                   |
| 10 Time Second Tens & Decimal | 26 N / A                   |
| 11 Time Minute Ones & Colon   | 27 N / A                   |
| 12 Time Minute Tens           | 28 N / A                   |
| 13 Home Score Ones            | 29 N / A                   |
| 14 Home Score Tens & Hundreds | 30 N / A                   |
| 15 Home Player Fouls          | 31 N / A                   |
| 16 Home Player Number Ones    | 32 N / A                   |

120VAC Circuits

- |                          |
|--------------------------|
| 1 Home Poss.             |
| 2 Guest Bonus            |
| 3 H & G General Lights   |
| 4 Guest Poss.            |
| 5 Home Bonus             |
| 6 Guest Information G.L. |
| 7 Horn Guest             |
| 8 Horn Home              |
| 9 Home Information G.L.  |
| 10 N / A                 |
| 11 N / A                 |
| 12 N / A                 |
| 13 N / A                 |
| 14 Ground                |
| 15 Ground                |



120VAC Circuits

MODULE ILLUSTRATION FOR M19-50		 NEVCO SCOREBOARD CO. GREENVILLE, ILLINOIS 62246
		DRAWING NO. <b>C6843</b>
DRAWN	DATE	SHEET
PEF	4-14-97	1 OF 1

# **Nevco Scoreboard Company**

**Scoreboard Testing and Troubleshooting Guide**

**Indoor LED Models**



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## **Scoreboard Module and Operation Testing**

Because the microcomputer is capable of “masking” weaknesses in the scoreboard system, it is important that it reveal problems so corrections can be made before they get worse. A special command can be sent from the control to start the **scoreboard self-test** program. Please consult the **Control Hookup and Troubleshooting Guide** for instructions on initiating and terminating the following tests.

### **Control Signal Test**

Consult the **Control Hookup and Troubleshooting Guide** for availability and instructions.

### **Scoreboard Self-test**

Consult the **Control Hookup and Troubleshooting Guide** for instructions on initiating this test.

### **Light Circuit Test**

When the **Scoreboard Self-test** is started, an “E” will appear in the Guest Score Unit’s section of the scoreboard for about a second before the **Light Circuit Test** starts. One LED segment will illuminate in all digits in succession for two rotations. An eight will then display in one digit at a time, starting with plug one of the module for two rotations. Next the captions will rotate twice, (some models do not have rear lit captions) starting with pin one of the circuit plug. You may check the eight and caption rotation pattern by looking at the module illustration print to ensure the cables are plugged in correctly. This pattern will continue until you either reestablish communications from the control or turn off the power to the scoreboard.

Make careful note of the caption lamps or LED segments that are not illuminating. Turn the power to the scoreboard off by turning the breaker off. Replace all lamps or LED segments that did not light and restore power to the scoreboard. Repeat the procedure above to restart the light circuit test. Contact Nevco Service Department for help.

## **Troubleshooting Guide**

A scoreboard malfunction normally results from a component failure or a bad mechanical connection. This troubleshooting guide helps to locate the failure. This information can then be reported to the Nevco Service Department.

### **PROBLEM:**

The scoreboard does not illuminate even though the control seems to operate correctly.

### **SOLUTION:**

- ❑ Check the circuit breakers associated with the scoreboard.
- ❑ Check all 2-WIRE cables and connections.
- ❑ With the power turned off, check all fuses on the module located inside the scoreboard cabinet. Refer to the installation print for module location.
- ❑ Consult the **Control Hookup and Troubleshooting Guide** for more help.

### **PROBLEM:**

Control does not respond when turned on and the scoreboard does not illuminate.

### **SOLUTION:**

- ❑ See **Control Hookup and Troubleshooting Guide**.

### **PROBLEM:**

A single segment in a particular numeral does not light.

### **SOLUTION:**

- ❑ Turn the power service to the scoreboard off.

NOTE: Power is still applied to the scoreboard module(s) even with the control turned off.

- ❑ Remove the cover from the LED unit and check all wire connections. Turn the power on. If the segment is still unlit, continue with next step.
- ❑ Turn power service to the scoreboard off. Refer to module illustration print, which shows module plug numbers and their use. Locate the plug that is not working properly. Check the plug for firm connection.
- ❑ Interchange the plug in question with a plug that is known to work:

If the LED segment lights after exchanging plugs, a problem exists in the module. Return the module to the Nevco Service Department for repair.

If the segment remains unlit, the problem is in the LED unit or the segment itself. Turn the power service to the scoreboard off and replace the segment. If the problem persists, contact the Nevco Service Department.

**PROBLEM:**

Two segments in the same numeral do not turn off when the control is turned off.

**SOLUTION:**

A problem exists in the module. Carefully document the location of the segments and return the defective module to the Nevco Service Department.

**If the problem persists please contact the Nevco Service Department.**

**800-851-4040**

## **Nevco Guarantee**

Nevco 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 (which includes LED segments) are returned postage-paid to the Nevco factory. Shipping back to the owner will be surface postage prepaid except if air or special method of return is specified; then shipping will be freight collect. Lamp bulbs are excluded from this guarantee. Nevco Scoreboard Company will pay no charges for time or material used by others in making repairs or corrections. Guarantee shall be void if: any alteration or service, other than unplugging modules or controls, is performed without Nevco factory authorization; or if the equipment has been connected to incorrect power, or is improperly grounded or improperly installed. Equipment which is subjected to accident, neglect, abuse, misuse or other natural disasters, including but not limited to: fire, wind, lightning, flood, is not covered by this guarantee.

\*\* Nevco wireless equipment is guaranteed for a period of two (2) years from the date of invoice. . All other terms and conditions of this guarantee remain the same.

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From all 50 states and Puerto Rico

— **IN CANADA** —

### **NEVCO SCOREBOARD COMPANY ULC**

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Orillia, ON L3V 7C1 Canada

Toll Free: 800-461-8550

Fax: 705-325-8891

Website: [www.nevco.com](http://www.nevco.com)

Email: [info@nevco.com](mailto:info@nevco.com)



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NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This class A digital apparatus meets all requirements of the Canadian Interference- Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouleur du Canada.

# Service Request

Scoreboard Serial # \_\_\_\_\_

Service: Module(s) Serial # \_\_\_\_\_

Service: Control(s) Serial # \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Parts Request

	Quantity	Part No.	Description
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

# Contact, Shipping, and Billing Information

Person to Contact: \_\_\_\_\_ Phone # \_\_\_\_\_

E-Mail: \_\_\_\_\_

Ship To: \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Ship Via \_\_\_\_\_

Bill To: \_\_\_\_\_ Purchase Order # \_\_\_\_\_

P.O. Box # \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

We will contact you with the amount of your purchase before charging your account.

Charge To: \_\_\_\_\_

Name exactly as it appears on credit card

Signature

Credit Card:  American Express  MasterCard  VISA

\_\_\_\_\_-\_\_\_\_\_-\_\_\_\_\_  
Credit Card Account Number

Expiration Date: \_\_\_\_/\_\_\_\_  
Month Year

Make a copy of this form to order parts needed and/or to return with item to be serviced.

