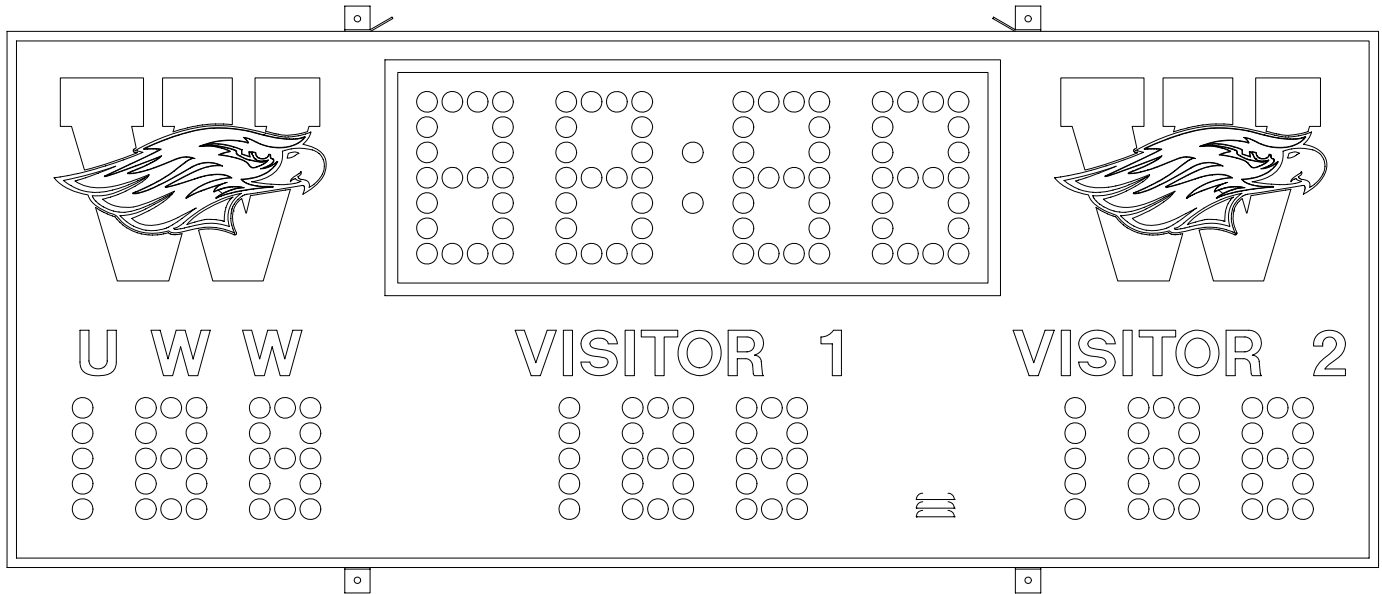




OPERATING INSTRUCTIONS AND SERVICE MANUAL

GYMNASTICS SCOREBOARD

MODEL MP-5922 With MP-5000 Control



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## 1. GENERAL INFORMATION

### 1.1 Description

Your All-American scoreboard has been carefully inspected and tested before leaving the factory. It is possible, however, that components may be loosened or forced out of adjustment in transit. If this occurs, follow the troubleshooting guide (section 4). If equipment then fails to operate, contact immediately:

ALL-AMERICAN Service Department  
EVERBRITE LLC  
P.O. Box 100  
Pardeeville, WI 53954  
Telephone: (608) 429-2121  
Toll Free: 800-356-8146  
E-mail [score@everbrite.com](mailto:score@everbrite.com)

Parts being returned for repair are to be sent to:

ALL-AMERICAN Service Department  
EVERBRITE LLC  
401 S. Main Street  
Pardeeville, WI 53954  
E-mail [score@everbrite.com](mailto:score@everbrite.com)

#### NOTE

If you need to send parts in for repair, please call the ALL AMERICAN service department for a returned goods authorization (RGA) number.

### 1.2 Identification

The serial number tags are located on the back of the control console and the lower right hand corner on the face of the scoreboard display. When contacting the factory for assistance it is important that the model number and serial number are known.

### 1.3 Damage

Upon receipt, check for visible damage. If this occurs, or if damage is found after shipment has been accepted, follow the damage claim procedure.

### 1.4 Damage Claim Procedure

An instruction sheet is enclosed advising the consignee in case of damage in transit.

If damage is noted at the time of delivery, consignee must obtain an 'Inspection of Bad Order' from the delivering carrier. In order to process your claim, this must be properly filled out with a complete statement of all damage and it must be signed by the carrier.

If damage is discovered after delivery, you should call the delivery company. Have them make out a Concealed Damage Report. Fifteen days after delivery are allowed, so this should be done promptly or it is impossible to process this claim.

Advise EVERBRITE corporation of necessary replacement parts, or repairs.

Consignee will be invoiced and then should file a claim with the carrier to recover charges. To file your claim follow this procedure:

(A) Cost of replacement parts or repair charges are invoiced to the carrier by the consignee.  
(B) The following documents, properly filled out, plus invoice, are forwarded to the trucking company in support of your claim:

- (a) Original bill of lading
- (b) Original paid freight bill
- (c) Certified copy of original invoice
- (d) Standard form for presentation of loss and damage claim

## 2. INSTALLATION

### 2.1 General Information

Shipping papers accompany each scoreboard. Check carefully to see that you receive the following:

- 1 ea Basketball Display
- 1 ea Control Console
- 1 ea Service Manual
- 1 ea Wall power Adaptor
- 2 ea Antennas (1 for scoreboard and 1 for control console)

### 2.2 Inspection

Inspect each unit and tighten all screws and fittings that may have loosened in shipment.

### 2.3 Pre-Test

Before installing the scoreboard, pre-test all functions.

- (A) Connect the scoreboard to a 15 AMP, 120 Volt AC circuit.
- (B) Plug the control console into the top of the scoreboard.
- (C) Test operate all functions on the scoreboard according to operating instructions in section 3 of this manual.

(D) When all the functions test out, disconnect the power and the control console before hanging the scoreboard.

## 2.4 Electrical Connections

This scoreboard requires a 120 VAC 15 AMP circuit for the exclusive use of the scoreboard. If you want to be able to turn the scoreboard off when not in use, by means other than turning off the circuit breaker, a disconnect switch ( NOT SUPPLIED ) must be installed by the electrician.

### NOTE

To protect the control from damage, it is advisable that you disconnect the control and store in a dry secure area when not in use.

### NOTE

This equipment is UL approved and complies with the requirements in part 15 of the FCC rules for a class A computing device. Operation of this equipment in a residential area may cause unacceptable interference to radio and television reception, requiring the operator to take whatever steps are necessary to correct the interference.

## 3. CONTROL CONSOLE OPERATION

### 3.1 Scoreboard Power

Turn on the branch circuit to the scoreboard. The scoreboard will blank all figures.

### 3.2 Console Display

The 2 line by 20 character Liquid Crystal Display module displays the scoreboard information entered from the keyboard. The following information is displayed during normal operation: Time Home and Guest scores, Period, Home and Guest Bonus, Ball Possession, Auto Horn Enable, and 1/10 Second Enable.

### 3.3 Console Power

Plug the hand held remote control into the scoreboard control console if you have a hand held time control.

Plug the control console into the wall junction box.

Push **ON/OFF** once to turn the console on.

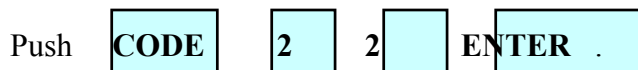
Push **ON/OFF** a second time to shut the console off.

When first turned on; the console display should show as follows.

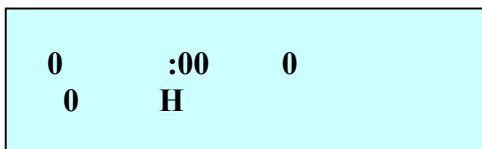


### 3.4 To Use Scoreboard

Enter the two digit code (22) shown in the upper right corner of the keyboard as in the following example:



When the proper code has been entered, the console LCD will show as follows.



Home and Guest scores will now show "0", and the timer will show ":00".

### 3.5 Setup

The **SETUP** key will step through a list of operational settings.

Press **YES/NO** or make Numeric Entries to make changes.

Pushing **ENTER** without any other input skips to the next item.

Pushing **CLEAR** exits setup and all changes are kept.

Select brightness level for the scoreboard digits by pushing 1-8 and **ENTER**.

Select game time period. Example, 800 and press **ENTER** for 8 minutes.

Select time out length. Example, 100 and press **ENTER** for 1 minute.

Select time outs allowed. Example, 3 and press **ENTER** for 3 time outs.

Select automatic horn for end of period. Example, Yes/No and press **ENTER**.

Select 1/10 second timing for the last minute of play. Example, Yes/No and press **ENTER**.

Select set time of day clock. Example: Press **2** **1** **5** **ENTER** for 2:15.

The scoreboard will display the time of day after game time use, if desired.

Accurate time will be kept without power to the scoreboard for up to 2 months.

### 3.6 Timing

The main game time period is set in the "SETUP" Program, however this time Period may be changed or edited using the **EDIT TIME** key.

To change the period time; Push **EDIT TIME**, the desired time period, then **ENTER**.

To reset the period time to the original setting; Push **TIME RESET**.

To change the time period directional mode for counting up or down; Push **UP/DOWN**.

When in the Up mode, an arrow up symbol is displayed next to the time on the LCD display. If in the Down mode, there is no arrow displayed.

### 3.7 Team Scores

The Team Scores can be changed in five different ways.

(A) To add 1 to the existing score: Push **+1**.

(B) To add 2 to the existing score: Push **+2**.

(C) To add 3 to the existing score: Push **+3**.

(D) To directly enter or correct a score: Push UWW, Vis 1, or Vis 2 **SCORE** followed by the desired number, then **ENTER**.

Example: Present UWW Score is 15. Change the score from 15 to 23.

Push: UWW **SCORE** **2** **3** **ENTER**.

(E) To clear the score: Push **SCORE** **CLEAR**.

### 3.8 Horn

The horn will blow each time **HORN** is pressed.

The horn will blow automatically at the end of each period for 2 seconds, if selected in the setup mode.

An 'H' is displayed on the LCD when this function is enabled.

### 3.9 Timeout Period

An automatic timeout period is selected in the setup mode, and is provided for "Time Outs" when the main timer is not running.

Push: **TIME OUT TIMER** to start the 1 minute timer. The LCD will show

"TIME OUT = 1:00" and start to count down. When 1 minute has elapsed the internal beeper sounds, and the display returns to the current game time.

If you want to return to play before the Time Out Timer gets back to zero,

push: **TIME OUT TIMER** **CLEAR** and the console will return to play

## 4. MAINTENANCE AND TROUBLESHOOTING

### 4.1 Introduction

This section gives maintenance and troubleshooting information. Included are troubleshooting guides for typical scoreboard malfunctions. If the cause of a problem cannot be determined, please contact the customer service department.

### 4.2 Test Equipment

A simple analog or digital voltmeter will be sufficient for all user repairable problems. Printed Circuit boards requiring troubleshooting should be returned to the factory.

### 4.3 Troubleshooting

Whenever possible, follow the troubleshooting guides prior to contacting the customer service department. If a problem not described in the guides exists, contact the customer service department immediately. Refer to the diagrams provided for assistance in troubleshooting scoreboard malfunctions.

#### WARNING !!!

120 VAC wires are exposed whenever the cover over the power supply assembly is removed from the scoreboard. Use extreme caution during troubleshooting or repair. To avoid possible damage to equipment or personal injury, always turn off the main power before removing the cover or replacing assemblies.

### 4.4 Troubleshooting Guides



(A) Scoreboard doesn't light

- (a) Check that the main power switch is turned on.
- (b) Replace any defective or blown fuses.
- (c) Check the power connections and voltages at the scoreboard.
- (d) Check to see that the Green LED on the power supply is lit.
- (e) Check for 12 VDC at the power supply terminal.
- (f) Contact the customer service department.

(B) Control console doesn't turn on

- (a) Check that the AC power to the AC adaptor is turned on.
- (b) Replace any defective or blown fuses.
- (c) Check the power connections and voltages in the control.
- (d) Contact the customer service department.

(C) The scoreboard digits light, the console works, but there is no control of the scoreboard.

- (a) With the main power switch "off"; remove the cover over the power supply, and receiver.
- (b) Check all connections.
- (c) Turn the main power on.
- (d) Turn the control console on and enter the code.

If LED D1 on the receiver board is flashing rapidly call the customer service department.

(D) Scoreboard digits don't light, but the console works

- (a) With the main power switch "off"; remove the cover over the power supply, and receiver.
- (b) Check all connections.
- (c) Turn the main power on.
- (d) If the scoreboard still doesn't light, check the voltage between the positive and negative terminal strips on the power supply for 12 VDC with a voltmeter set on the 12 VDC or higher scale.

If the voltage is 12 VDC or greater, go to (e).

If the voltage is less than 12 VDC check the power supply input voltage for 120 VAC and contact the customer service department.

- (e) Check LED D4 on the receiver board. It should be medium brightness. Change the Dim level on the control console. D4 brightness should change.
- (f) Check if LED D5 on the receiver board is on.

If D5 is on, check if D2 and D6 are flashing and call customer service department. The flash will be very fast. The LED's may appear to be on at half brightness.

If D5 is not on, check that the receiver board is plugged into the power supply and call

the customer service department.

- (E) The scoreboard works, but some digits do not change.
- (a) Find the driver board that controls the first digit in the shift order that is not working.
  - (b) Check for 12 VDC at the driver board.
  - (c) Reseat the data in ribbon cable connectors.
  - (d) Swap the driver board with a driver further down the shift order.
  - (e) If the digit still doesn't work call the customer service department.

#### **CLUSTER REMOVAL**

If it becomes necessary to remove a LED cluster: Insert a pointed object, like the end of a ball point pen, into the two holes in the cluster retaining ring, and rotate the cluster until these holes are at 3 o'clock and 9 o'clock. At this position the cluster should be removable from the front of the face of the scoreboard.

Reverse the procedure to install the cluster.

## 5. REPLACEMENT PARTS LIST

## 5.1 Scoreboard Display Parts

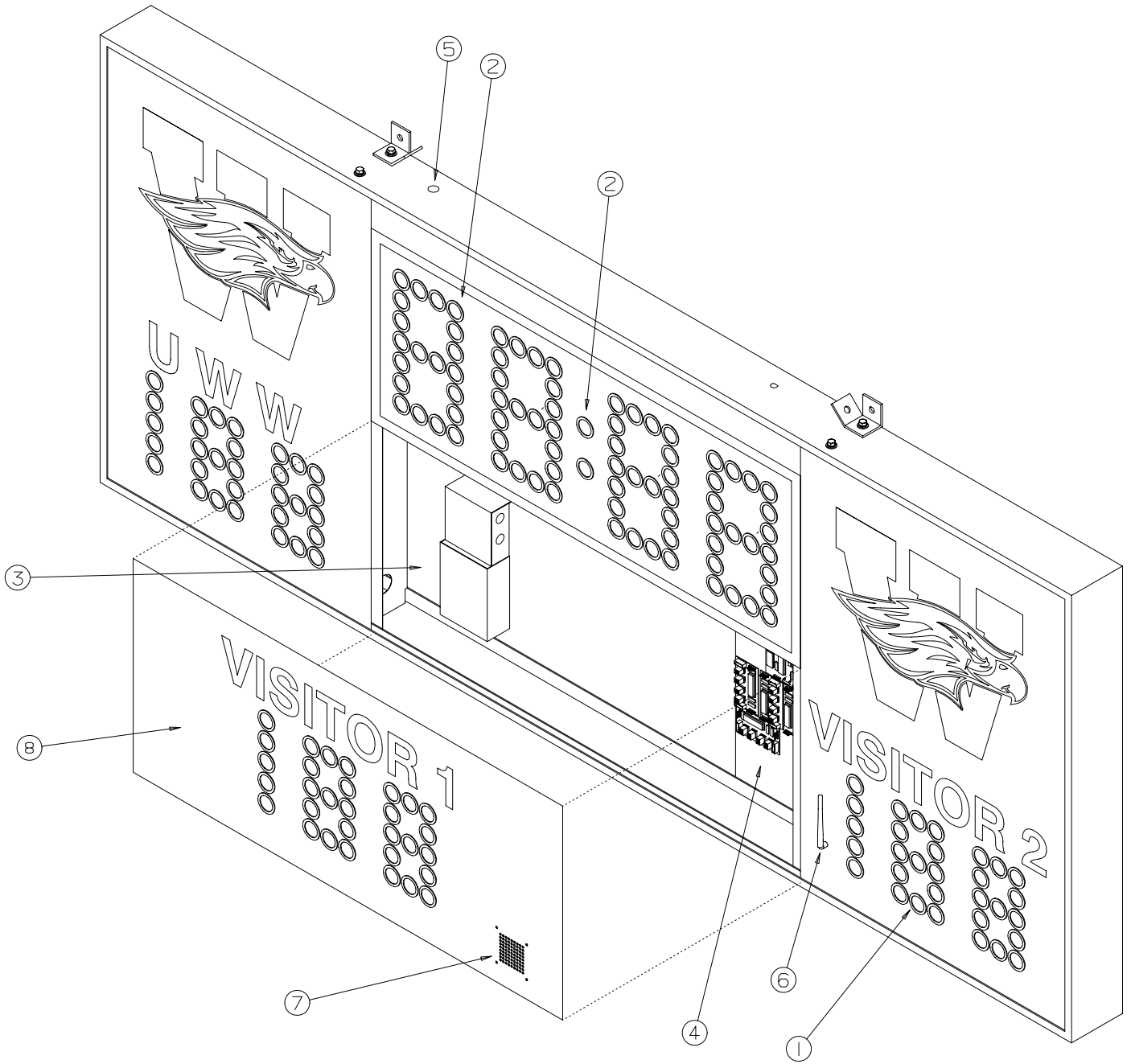


figure 1

DISPLAY ASSEMBLY

## REPLACEMENT PARTS LIST (MP-5922R)

fig.& index	MFG PART NUMBER	DESCRIPTION	REF DES	VENDOR PART #
1-	000000	Display Assembly		000000
1-1	150822	Cluster, Green		150822
1-2	150820	Cluster, Red		150820
1-3	151731	Power Supply Plate Assy SEE FIGURE 3	A9	151731
1-4	151036	Controller Assembly SEE FIGURE 2	A2	151036
1-5	930895	Connector, 6C Female	J1	RM12BRD-6S
1-6	EL00770P	Antenna, 2.4 GHZ External		EL00770P
1-6A	WI00062P	Antenna Cable, 3' Coaxial		WI00062P
1-7	703609	Horn, 350N		703609
1-8	000000	Service Panel,		000000
	151742 151684 151692	Control Console, 5000R Slipsheet Pair Transmitter PCB Assembly ***** PROGRAM MP5000 V2.29 *****	A1	151742 151684 151681
	SW005100 EL00771P EL00769P EL057700 151682 WH009100 MP00468P	Toggle Switch, Transceiver, 2.4 GHZ AeroComm Antenna, 2.4 GHZ Internal LCD Display, 2 Line 20 Character Keyboard Assembly, Ribbon Cable Assembly, 14C 8" Enclosure, shielded	S1 A17	SW005100 EL00771P EL00769P  151682 WH009100 MP00468P
	EL00478P	Power Adaptor, 9 VDC 1 Amp		DPD090100-P5-TC
	151733	Cable Assy, 6' Dual		151733

## 5.2 Controller Assembly Parts

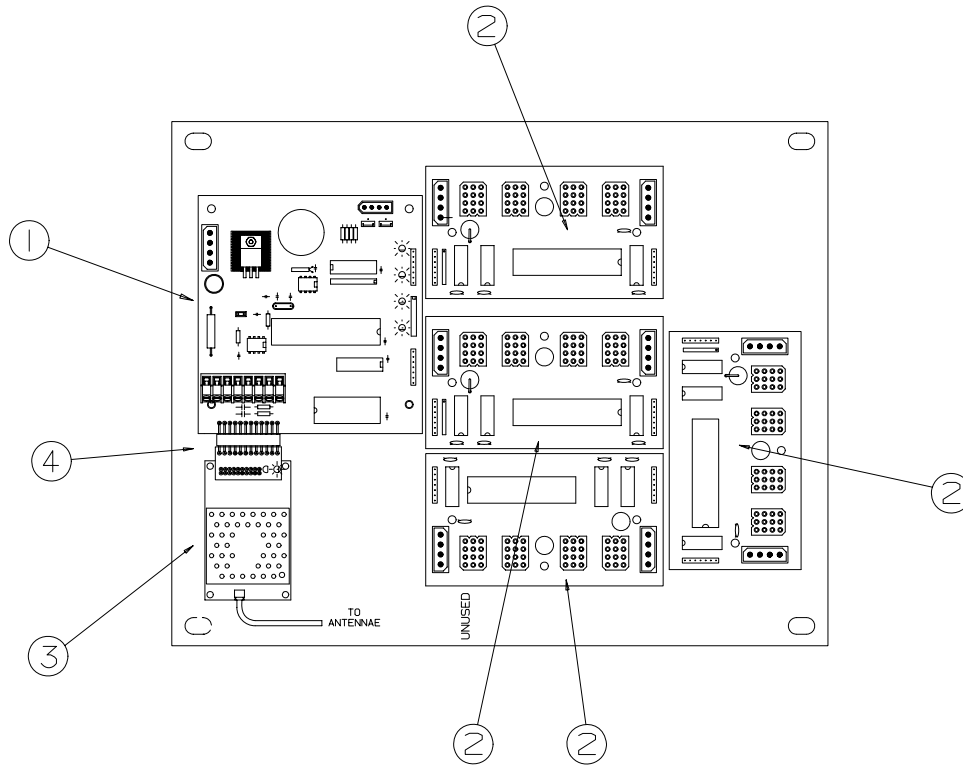


figure 2

### CONTROLLER ASSEMBLY

REPLACEMENT PARTS LIST (MP-5922R) Controller Assembly				
fig. & index	MFG PART NUMBER	DESCRIPTION	REF DES	VENDOR PART #
2-	151032	Controller Assembly	A2	151032
2-1	150635	PC Board Assy, 5000 Series Receiver ***** PROGRAM RX7 V1.03 *****	A3	150635
2-2	150634	PC Board Assy, 4 Pos. Driver	A4-A8	150634
2-3	EL00771P	Transceiver, AeroComm 2.4 GHZ	A17	EL00771P
2-4	151967	PC Board Assy, AeroComm Adaptor	A-14	151967
2-5	151718	Cable Set, DC Power 4"		151718
2-6	705723	Spacer, Amerlock		SPC# PCS-6
2-7	922450	Spacer, Alum.		93N2130
2-8	930674	Cable Assy, 3" Ribbon 7C Fem.		CE 100F22-7 Pand

### 5.3 Power Supply Assembly Parts

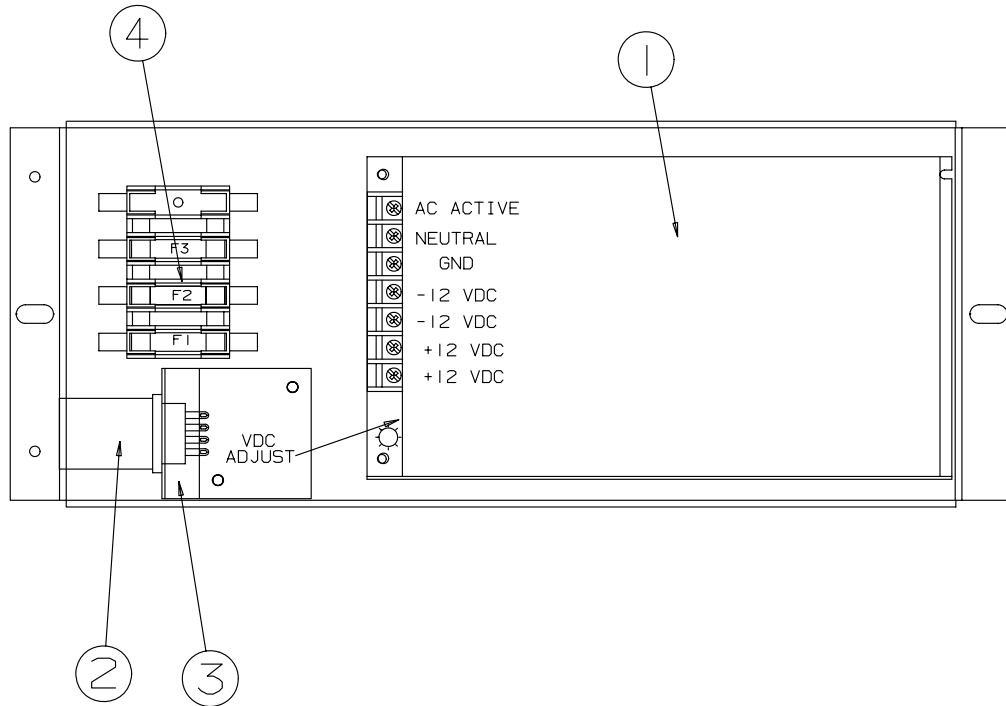


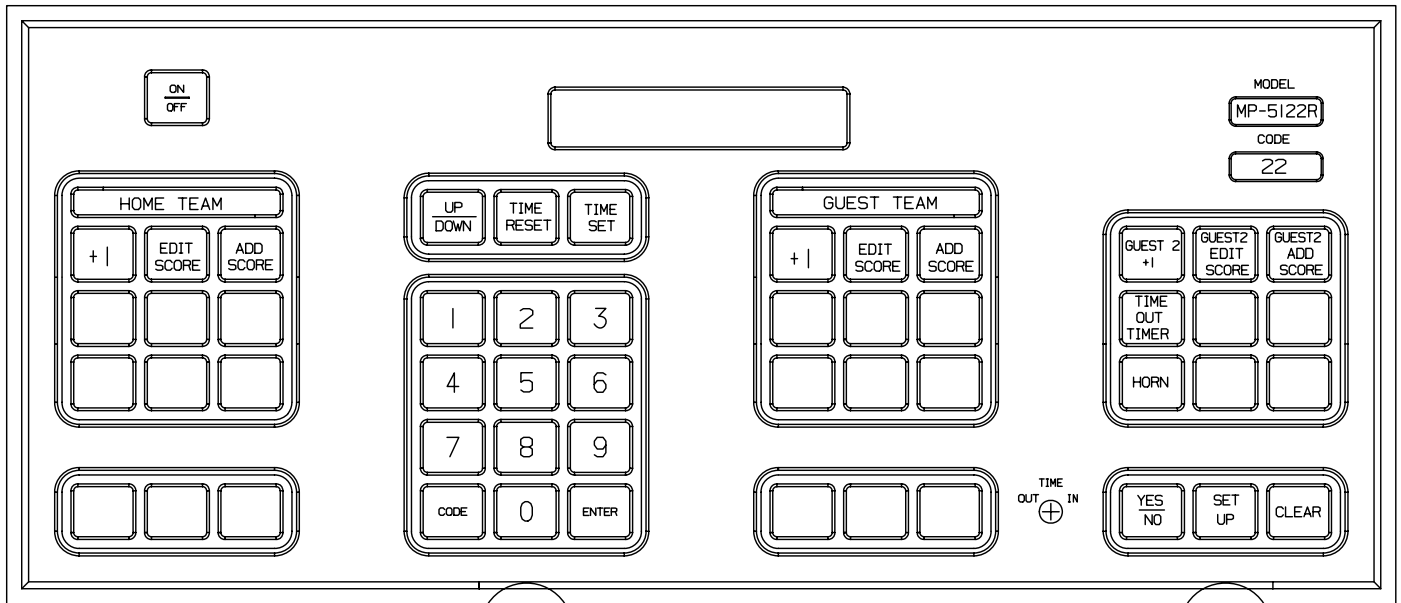
figure 3

#### POWER SUPPLY PLATE ASSEMBLY

REPLACEMENT PARTS LIST (MP-5922R) Power Supply Plate Assy				
fig.& index	MFG PART NUMBER	DESCRIPTION	REF DES	VENDOR PART #
3-	151731	Power Supply Plate Assembly		A6 151731
3-1	BL00054P	Power Supply, 12V 150 Watt		S-150-13-5
3-2	EL00525P	Relay, 12 VDC		K1 MY2DC12(S)
3-3	703118	Socket, Relay		A7 27E008
3-4	701011	Fuse, 5A 250 V		F1 MTH-5
3-5	701037	Fuse holder,		
3-6	151716	Cable Assy, 3' Power		151716

## 6. DIAGRAMS

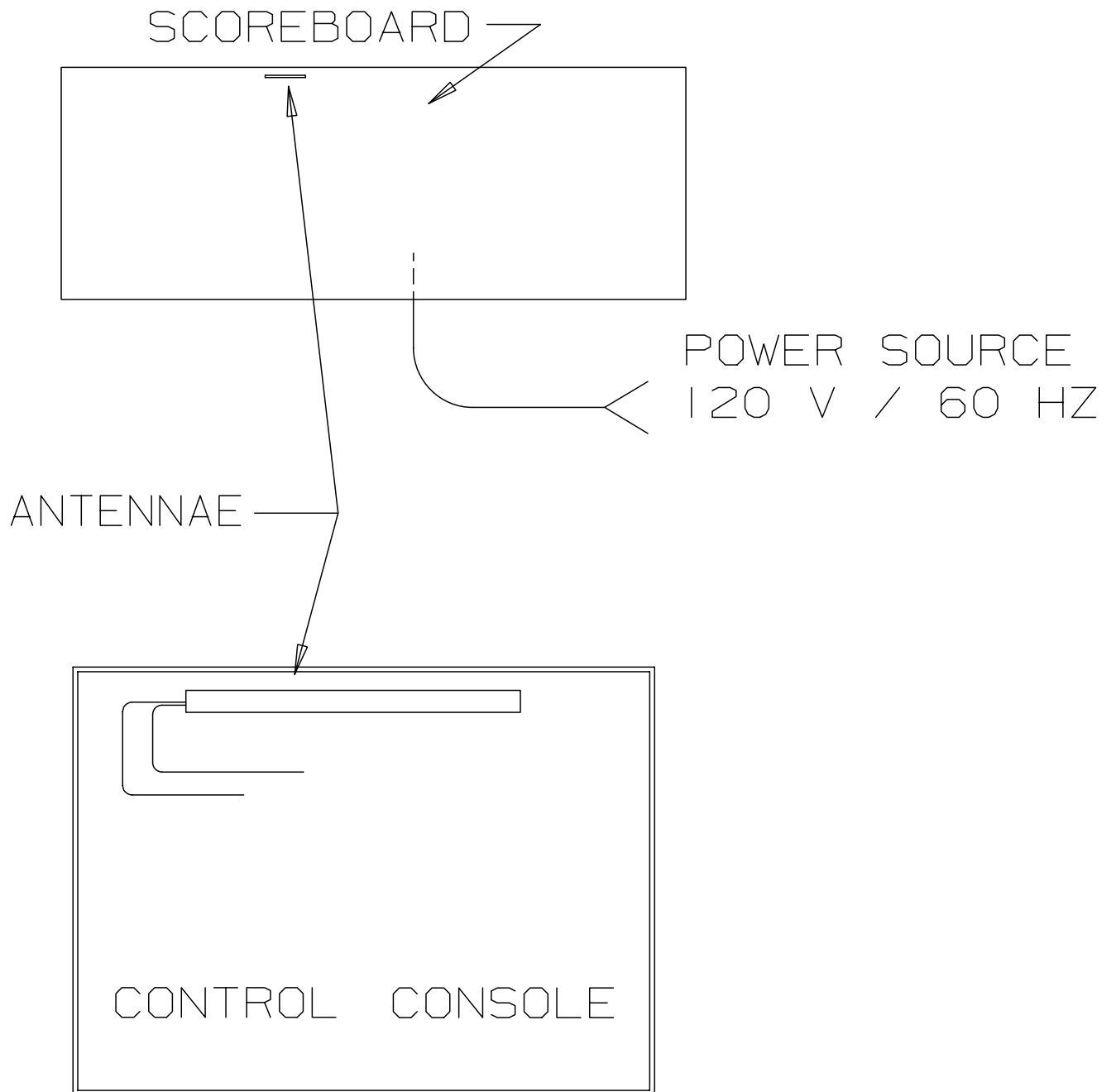
### 6.1 Control Console Keyboard and Slipsheet Layout



for Gymnastics Operation

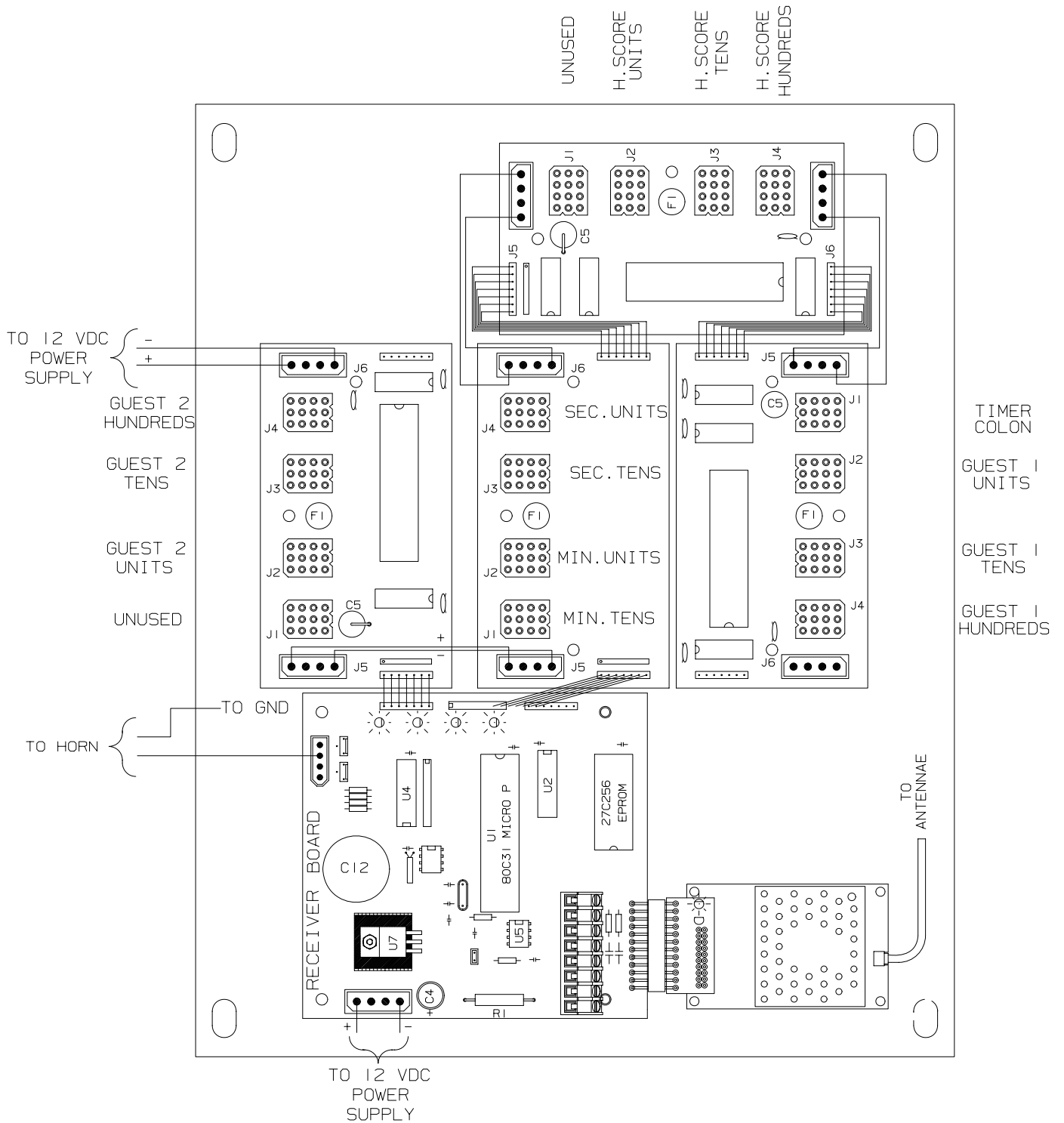
CONTROL CONSOLE LAYOUT

## 6.2 Scoreboard System Layout



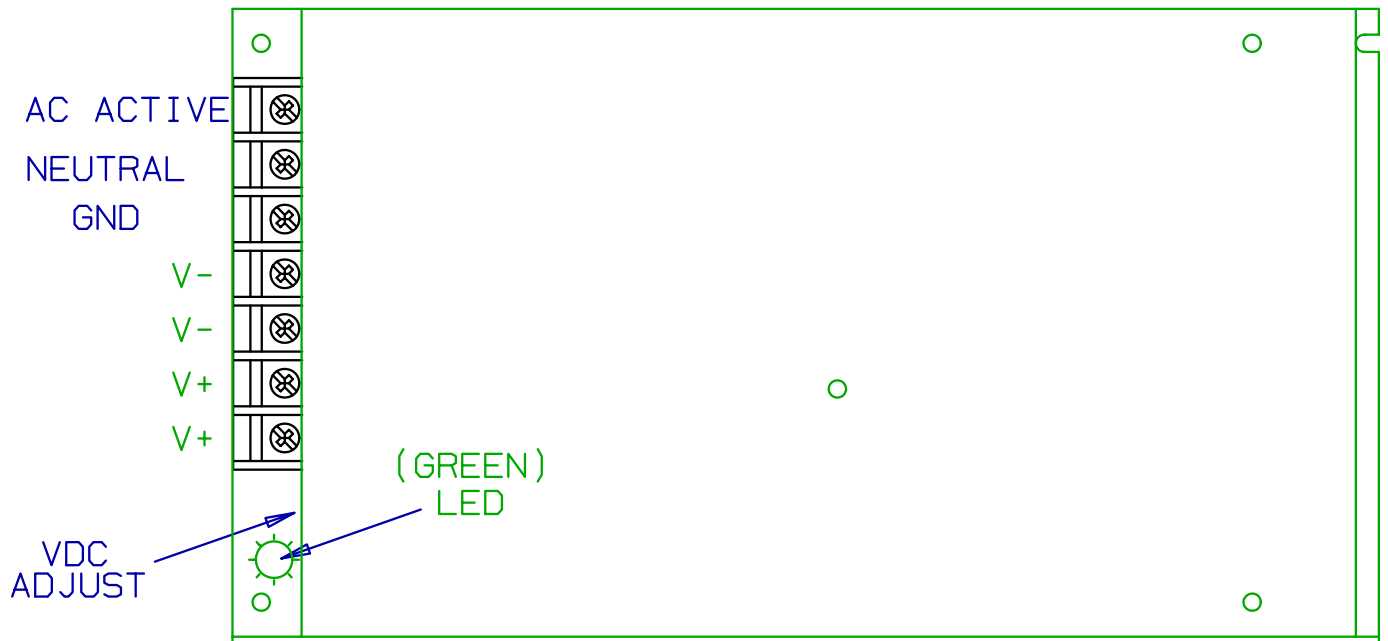


# 6.5 Controller Wiring Diagram



CONTROLLER ASSEMBLY

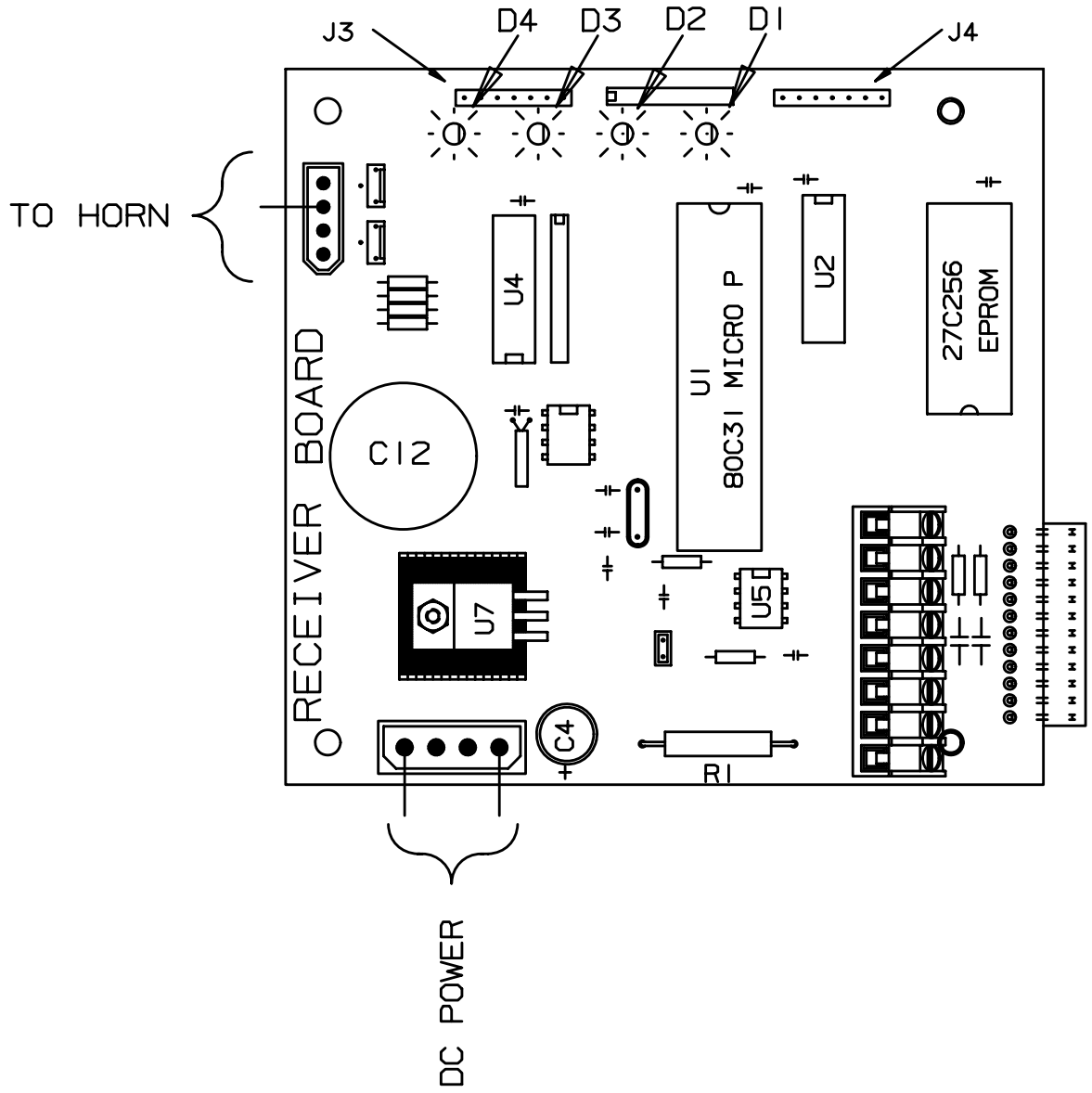
## 6.6 Power Supply Diagram



POWER SUPPLY

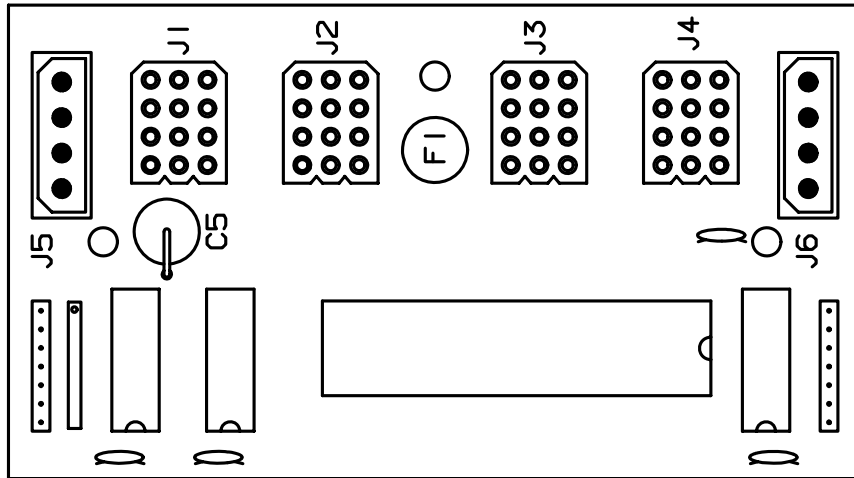
### 6.5 Receiver Board Diagram

D1 = +5 VOLT  
 D2 = DATA IN  
 D3 = CH.1 DATA OUT  
 D4 = CH.2 DATA OUT



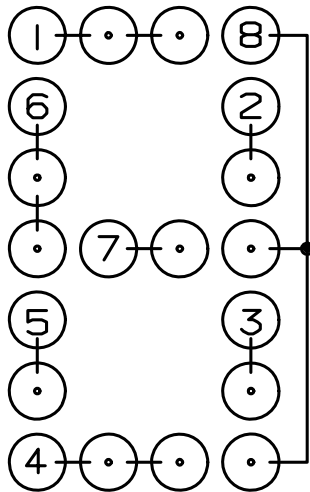
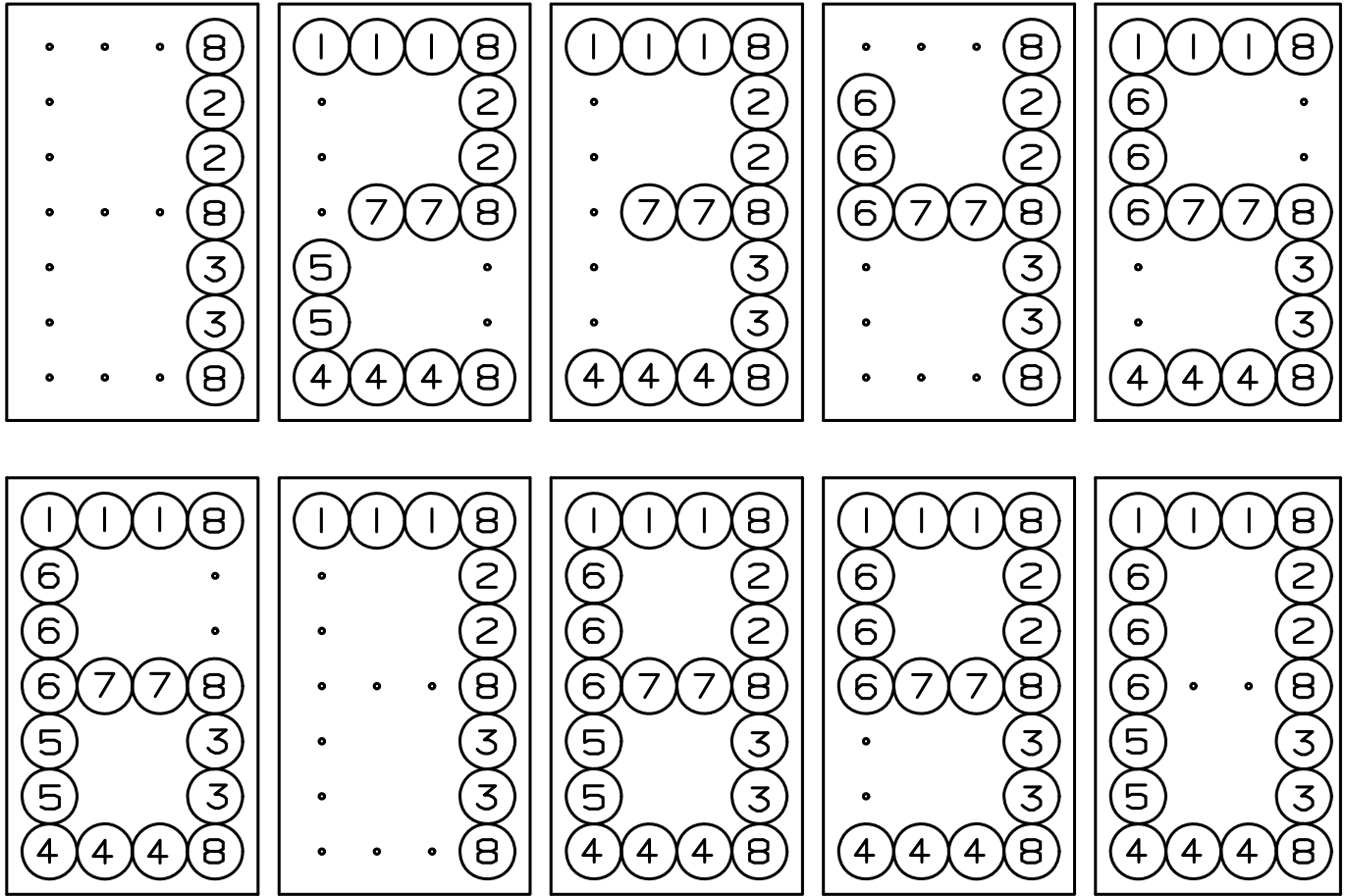
RECEIVER BOARD

## 6.6 Driver Board Diagram



DRIVER BOARD

6.7 Microprocessor 4 X 7 LED Pattern (8 Bit)

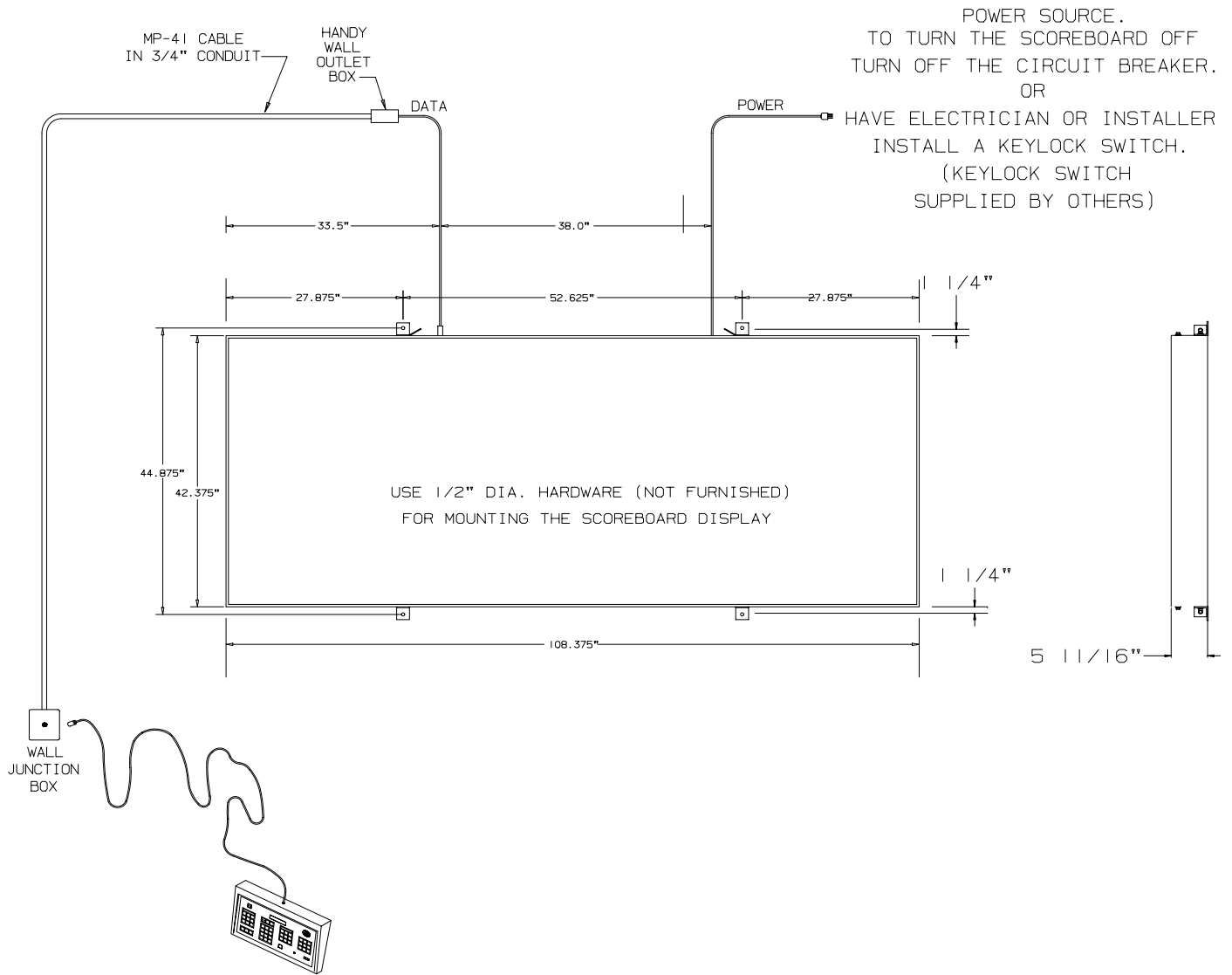


NUMERALS

	0	1	2	3	4	5	6	7	8	9
1	0	.	2	3	.	5	6	7	8	9
2	0	1	2	3	4	.	.	7	8	9
3	0	1	.	3	4	5	6	7	8	9
4	0	.	2	3	.	5	6	.	8	9
5	0	.	2	.	.	.	6	.	8	.
6	0	.	.	.	4	5	6	.	8	9
7	.	.	2	3	4	5	6	.	8	9
8	0	1	2	3	4	5	6	7	8	9

MICROPROCESSOR 4 X 7 (8 BIT) LED PATTERN

# 6.8 Installation Drawing



INSTALLATION DRAWING