



## OPERATING INSTRUCTIONS AND SERVICE MANUAL

### BASKETBALL PLAYER FOULS POINTS PANELS

#### MODEL MP-5225R With MP-5000R Control

PLAYER	FOULS	POINTS	SCOREBOARD		PLAYER	FOULS	POINTS
00 00	00	00 00			00 00	00	00 00
00 00	00	00 00			00 00	00	00 00
00 00	00	00 00			00 00	00	00 00
00 00	00	00 00			00 00	00	00 00
00 00	00	00 00			00 00	00	00 00
00 00	00	00 00			00 00	00	00 00

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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 Corporation  
P.O. Box 100  
Pardeeville, WI 53954  
Telephone: (608) 429-2121  
Toll Free: 800-356-8146

Parts being returned for repair are to be sent to:

ALL-AMERICAN Service Department  
EVERBRITE Corporation  
401 S. Main Street  
Pardeeville, WI 53954

#### 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

ALL-AMERICAN uses a 5 digit serial number for scoreboard identification. The serial number tags are located on the back of the control console and on the top of the 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:

- 2 ea Stats Displays
- 1 ea Control Console
- 1 ea AC Adaptor
- 1 ea Service Manual
- 1 ea Mounting Hardware Package
- 1 ea Splitter Cable

### 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 displays, pre-test all functions.

- (A) Connect the displays to a 15 AMP, 120 Volt AC circuit.
- (B) Plug the AC adaptor into a wall outlet and into the control console.
- (C) Test operate all functions on each display according to the 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 fouls panels.

## 2.5 Electrical connections

The stat panel set requires a 120 VAC 20 AMP AC circuit for the exclusive use of the Stat Panel Set.

### NOTE

To protect the MP-5000R 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 not yet UL approved, but 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 Stats Panel Display Power

Turn on the branch circuit to the displays. The top player number on both panels will show zero. The rest of the board will be blank.

### 3.2 Console Display

The 2 line by 20 character Liquid Crystal Display module displays the scoreboard information entered from the keyboard. Home and Guest Team Score and fouls. Individual Player information can be seen at the press of a button.

### 3.3 Console Power

Plug the AC adaptor into the control console and into a power outlet.

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:

**PLAYER STAT CONTROL**  
**MP5000 VER 1.00 2001**

### 3.4 To Use Scoreboard

Enter the two digit code (25) shown in the upper right corner of the keyboard as in the following example:

Push **CODE** **2** **5** **ENTER** .

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

<b>0</b>	<b>score</b>	<b>0</b>
<b>0</b>	<b>fouls</b>	<b>0</b>

### 3.5 Data Entry

Every player data entry; points, fouls, and sub status, always begins with the Home or

Guest **PLAYER NO.** key. This is done to make it more difficult to accidentally

credit an incorrect player with points or fouls. To be seen on the scoreboard, a player must be selected as active (in the game). Team totals automatically update as player data changes.

### 3.6 Setting the lineups

To enter a player number for the Home team, enter the following:

Home **PLAYER NO.** The LCD Display will now show:

**H PLAYER NUMBER=**

To proceed with the player number entry for player number 12,

you would push: **1** **2** **ENTER** . Now the Display shows:

**HOME PLAYER 12**  
**FOULS POINTS 0**

For the next player, Press Home

**PLAYER NO.** again.

Display will show:

**H PLAYER NUMBER=**

For Player number 15, Push: **1** **5** **ENTER** . And so on, for as many players as you need.

The scoreboard will keep track of up to 20 players per team. Players will always be shown in the order they were entered into the console.

Repeat the procedure for the guest side.

### 3.7 Player In Game Entry/Substitution

A \* after a player number on the console display indicates the players that are currently in the game. Only those players that are in the game will be shown on the scoreboard.

To add or remove a player from the game:

Push Home or Guest **PLAYER NO.** **ENTER** .

Then push the **IN/OUT** key.

A player that was in the game is now out, and vice-versa. If more than 5 players are selected as being active, only the first 5 entries will be shown on the scoreboard.

### 3.8 Player Foul and Score Entry

Once the player numbers have been entered it is very simple to enter the foul and point information.

Example: Player number 14 scores a basket or receives his/her first foul.



Push: Home **PLAYER NO.** **1** **4** **ENTER** .

The LCD display reads:

**HOME PLAYER 14**  
**FOULS 0 POINTS 0**

Push: **FOUL +1** . The foul has been added to both player 14 and the team foul totals.

Scoring is done the same way, with the **POINTS +1, +2, or +3** keys.  
To edit a player's foul or score data, after entering the player number,

Push: **EDIT SCORE** or **EDIT FOULS** , then enter the new total number of points or fouls for that player, or press **CLEAR** to reset the total to zero.

### 3.9 Team Totals

The total points and fouls for the team are automatically updated with any change made to an individual's total. If you need to change the team totals independently, (e.g. clearing team fouls at halftime) you can use the **TEAM SCORE** or **TEAM FOULS** keys to do that. Simply Push the key for the information you want to change, enter the new total score or team foul total, then push **ENTER**.

### 3.10 Checking Player Stat Totals

The Home or Guest **STATS DISPLAY** key shows the totals for all players. The console LCD shows H or G in the upper left corner and 4 player numbers across the top line of the display. Player numbers followed by a \* are in the game. The second line of the display shows each player's foul and point totals, with fouls on the left. Pressing the **STATS DISPLAY** key again will bring up the next 4 players, until all players that have been entered have been displayed. The next time the **STATS DISPLAY** key is pressed, the display will go back to showing the team totals.

### 3.11 Dimming the Scoreboard

The scoreboard has 8 brightness levels, and starts at level 5 when power is turned on. Pressing the **DIM** key increases the brightness one level each time, until it reaches maximum. The next time **DIM** is pressed, the scoreboard will go to minimum brightness.

### 3.12 Clearing the Scoreboard

The entire scoreboard is cleared by turning it off.

A new set of player numbers may be entered by turning the console off and back on. You will need to re-enter the code as in section 3.4.

To remove a single player from the system, Push: **PLAYER NO.** type the 1 or 2 digit player number, then press **ENTER**.

The console will display the usual player information.

Pressing the **CLEAR** key at this point will remove the player and any points/fouls they may have accumulated from the system.

#### NOTE

This equipment is not yet UL approved, but 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.

## 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.

#### 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.

## 4.2 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.

## 4.4 Troubleshooting Guides

### (A) Scoreboard doesn't light and console doesn't work

- (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) The scoreboard digits light but the console doesn't work

- (a) Check for continuity between the scoreboard and the junction box.
- (b) If an open circuit is found, the problem is either the cable or a cable connection.
- (c) If the continuity test checks good, check the voltage between the red wire and the black wire in the junction box, using a voltmeter set on the 12 VDC or higher scale.

If the voltage is 10 VDC or greater contact the customer service department.

If the voltage is 0 VDC, plug the control console directly into the top of the scoreboard.

If the control works from the top of the scoreboard, recheck all cable connections and check continuity again.

If the control still does not work, check the cable connections to the receiver board (red and black wires).

If the voltage is less than 10 VDC consult the wiring instructions for long cable compensation.

If the voltage is 10 VDC or higher 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.

If LED D1 on the receiver board is not flashing, plug the control console directly into the top of the scoreboard.

If LED D1 on the receiver board flashes now check the junction box and data cable for continuity. (green and white wires)

If LED D1 on the receiver board still does not flash, 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.

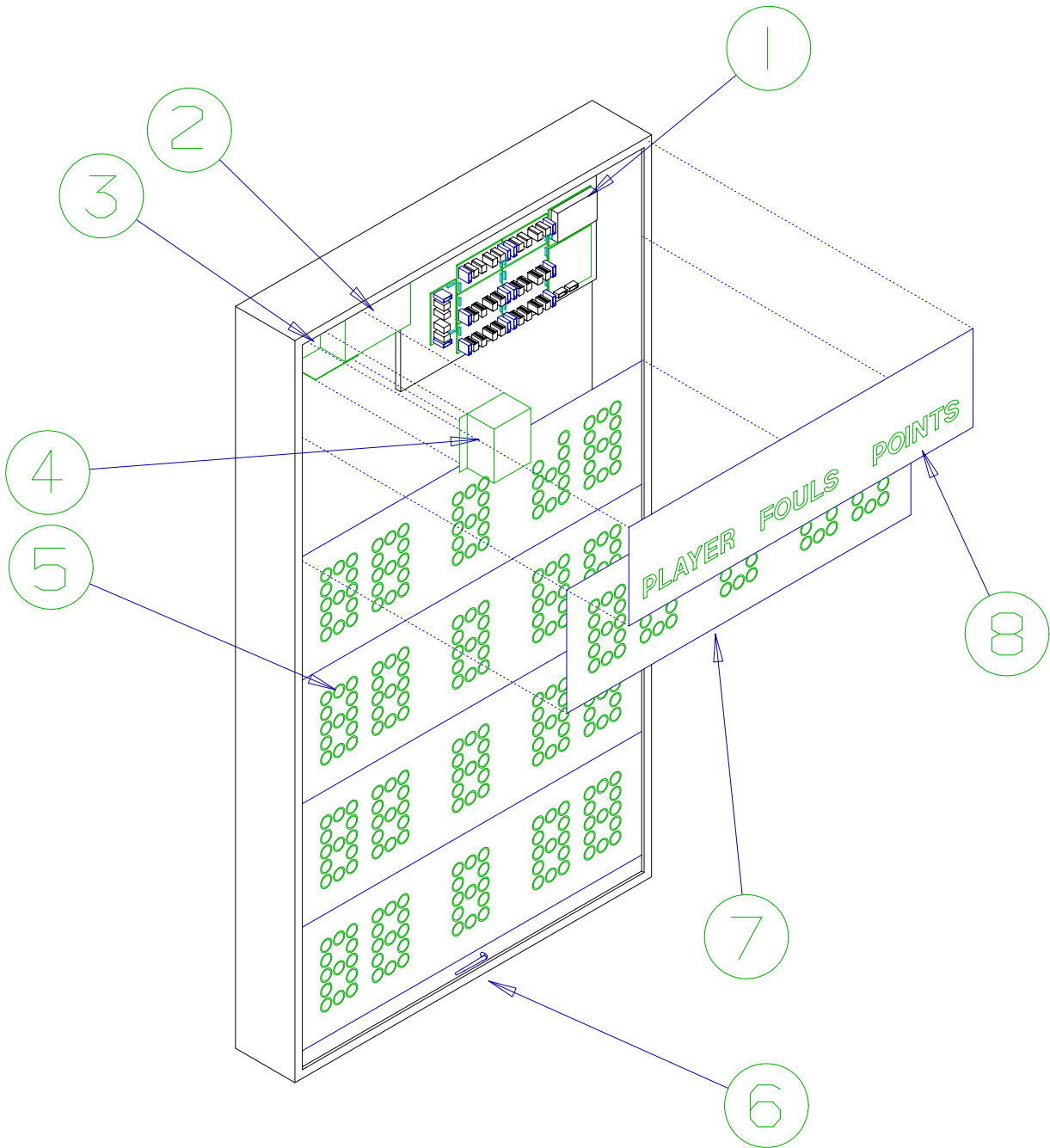
If D5 is not on, check that the receiver board is plugged into the power supply and call the customer service department.

(E) The scoreboard works, but some digits do not change.

- (a) Find the first digit in the shift order that is not working.
- (b) Check for 12 VDC at the digit.
- (c) Reseat the data in and data out 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.

5. REPLACEMENT PARTS LIST

5.1 Scoreboard Display Parts



1

figure 1  
DISPLAY ASSEMBLY

## REPLACEMENT PARTS LIST (MP-5225R Stats Panel)

fig.& index	MFG PART NUMBER	DESCRIPTION	REF DES	VENDOR PART #
1-	151777	Display Assembly, MP-5225R		151777
1-1	151779	Controller Assembly SEE FIGURE 2	A2	151779
1-2	151731	Power Supply Plate Assy SEE FIGURE 3	A9	151731
1-3	XXXXXX	Relay, 12 VDC	K1	XXXXXX
1-4	151727	Power Supply Cover		151727
1-5	xxxxxx	Caption Panel,		xxxxxx
1-6	151763	Digit, 6" Red		151763
1-7	xxxxxx	Player Face Panel,		xxxxxx
	151776 151684 151681  SW005100 151740 930894 EL057700 151682 WH009100 122763	Control Console, MP-5225 Slipsheet Pair Transmitter PCB Assembly ***** PROGRAM MP5.104 ***** Toggle Switch, Cable Assy, 25' Connector, 6 Pin Male Cable LCD Display, 2 Line 20 Character Keyboard Assembly, Ribbon Cable Assembly, 14C 8" Enclosure,	A1  S1 P1	151776 151684 151681  SW005100 151740 RM12BPG6P  151682 WH009100
	151775 930895 150500	Cable Assy, H. to G. Jumper Connector, 6 Pin Female Cable, MP-41 Control	J1	151739 RM12BRD6S 8723
	EL00478P	A C Adaptor, 9 VDC 1 Amp		xxxxxx

## 5.2 Controller Assembly Parts

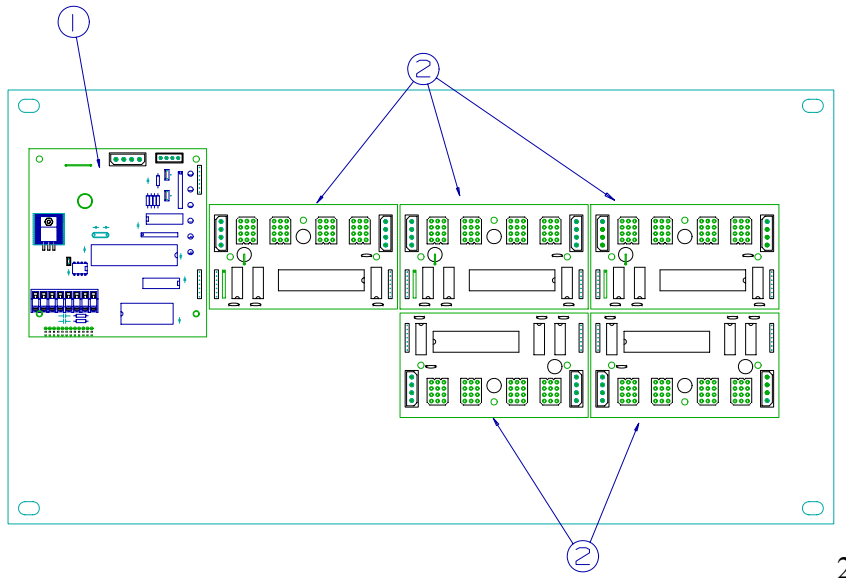


figure 2

### CONTROLLER ASSEMBLY

REPLACEMENT PARTS LIST (MP-5225) Controller Assembly				
fig.& index	MFG PART NUMBER	DESCRIPTION	REF DES	VENDOR PART #
2-	151758	Controller Assembly	A2	151758
2-1H	151774	Receiver Board Assy, 5225 (HOME MODIFIED) ***** PROGRAM RX5.V102 *****	A3	151774
2-1G	150635	Receiver Board Assy, 5225 (GUEST) ***** PROGRAM RX5.V102 *****	A3	150635
2-2	150634	PC Board Assy, 4 Pos. Driver	A4-A8	150634
2-3	151718	Cable Set, DC Power 4"		151718
2-4	705723	Spacer, Amerlock		SPC# PCS-6
2-5	930674	Cable Assy, 3" Ribbon 7C Fem.		CE 100F22-7 Pand



### 5.3 Power Supply Assembly Parts

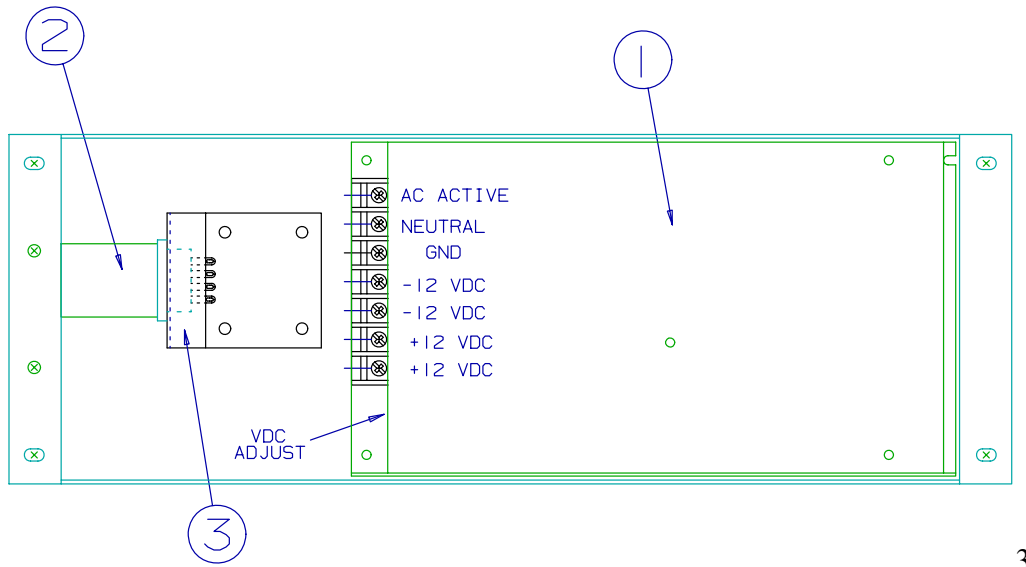


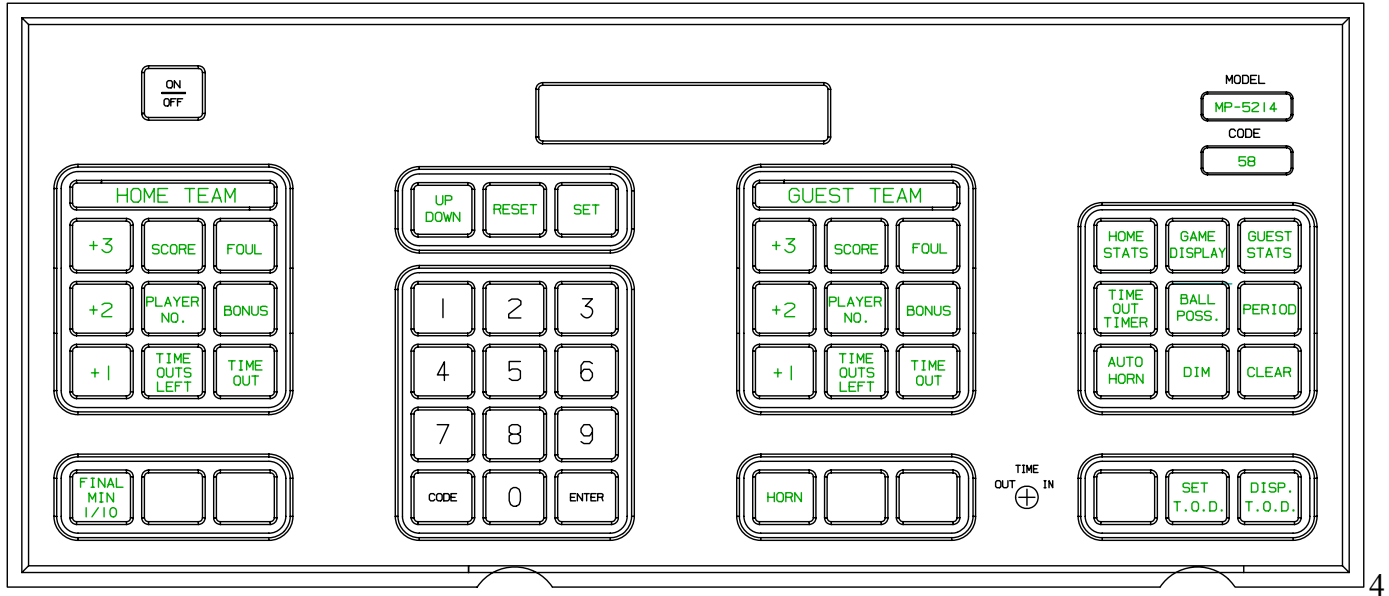
figure 3

### POWER SUPPLY PLATE ASSEMBLY

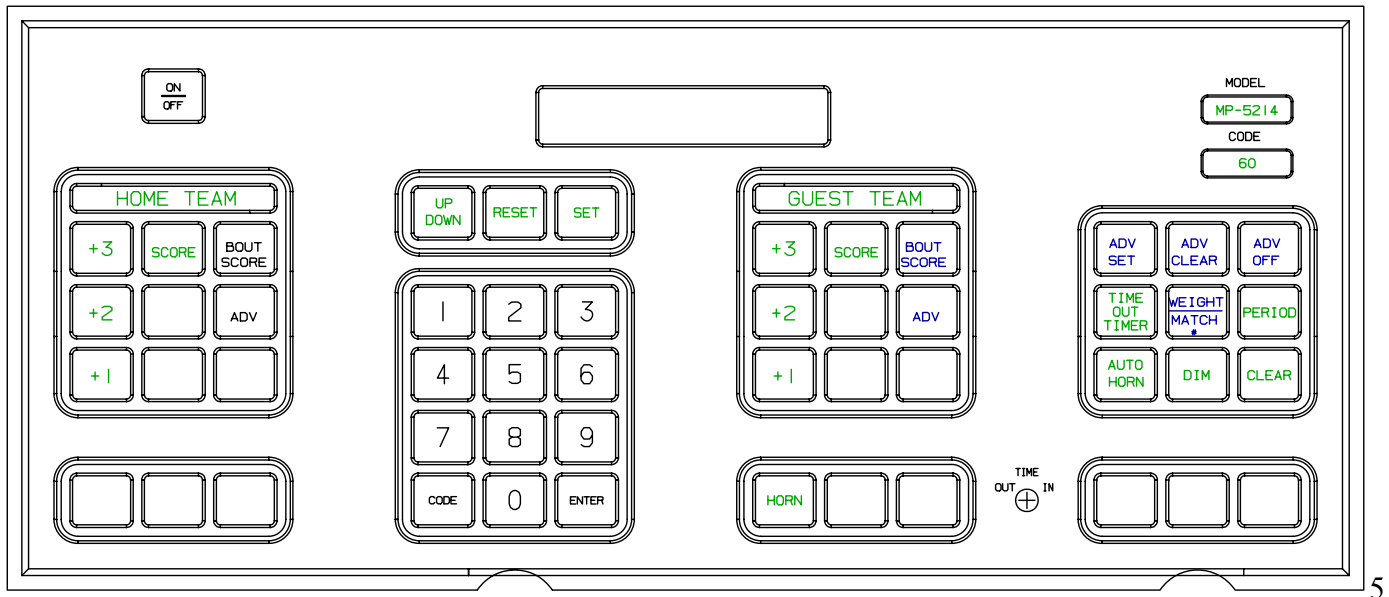
REPLACEMENT PARTS LIST (MP-5225) Power Supply Plate Assembly				
fig.& index	MFG PART NUMBER	DESCRIPTION	REF DES	VENDOR PART #
3-	151731	Power Supply Plate Assembly	A6	151731
3-1	BL00054P	Power Supply, 12V 150 Watt		S-150-13-5
3-2	XXXXXX	Relay, 12 VDC	K1	XXXXXX
3-3	703118	Socket, Relay	A7	27E008
3-4	151716	Cable Assy, 3' Power		151716

6. DIAGRAMS

6.1 Control Console Keyboard and Slipsheet Layout

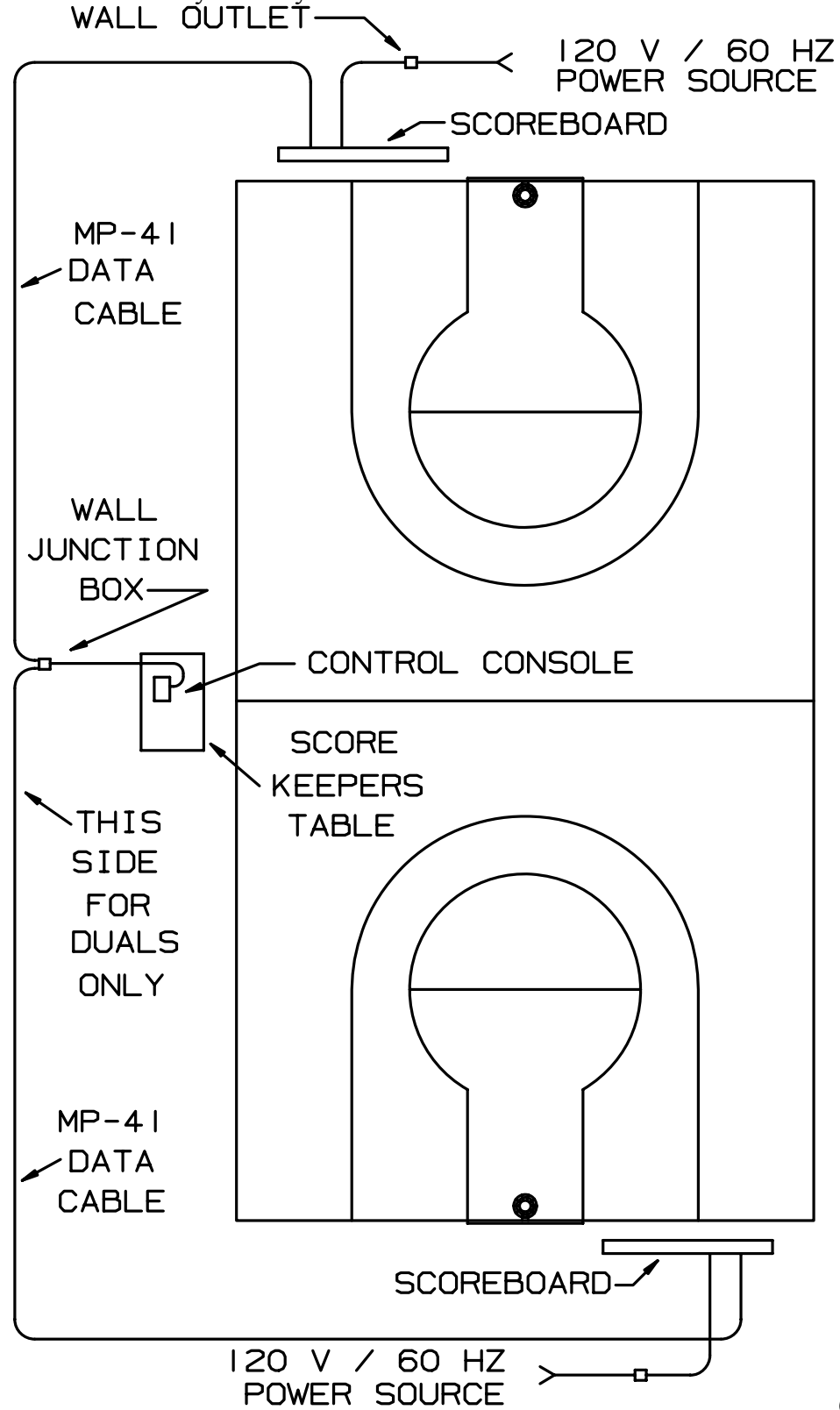


for Basketball Operation



for Wrestling Operation

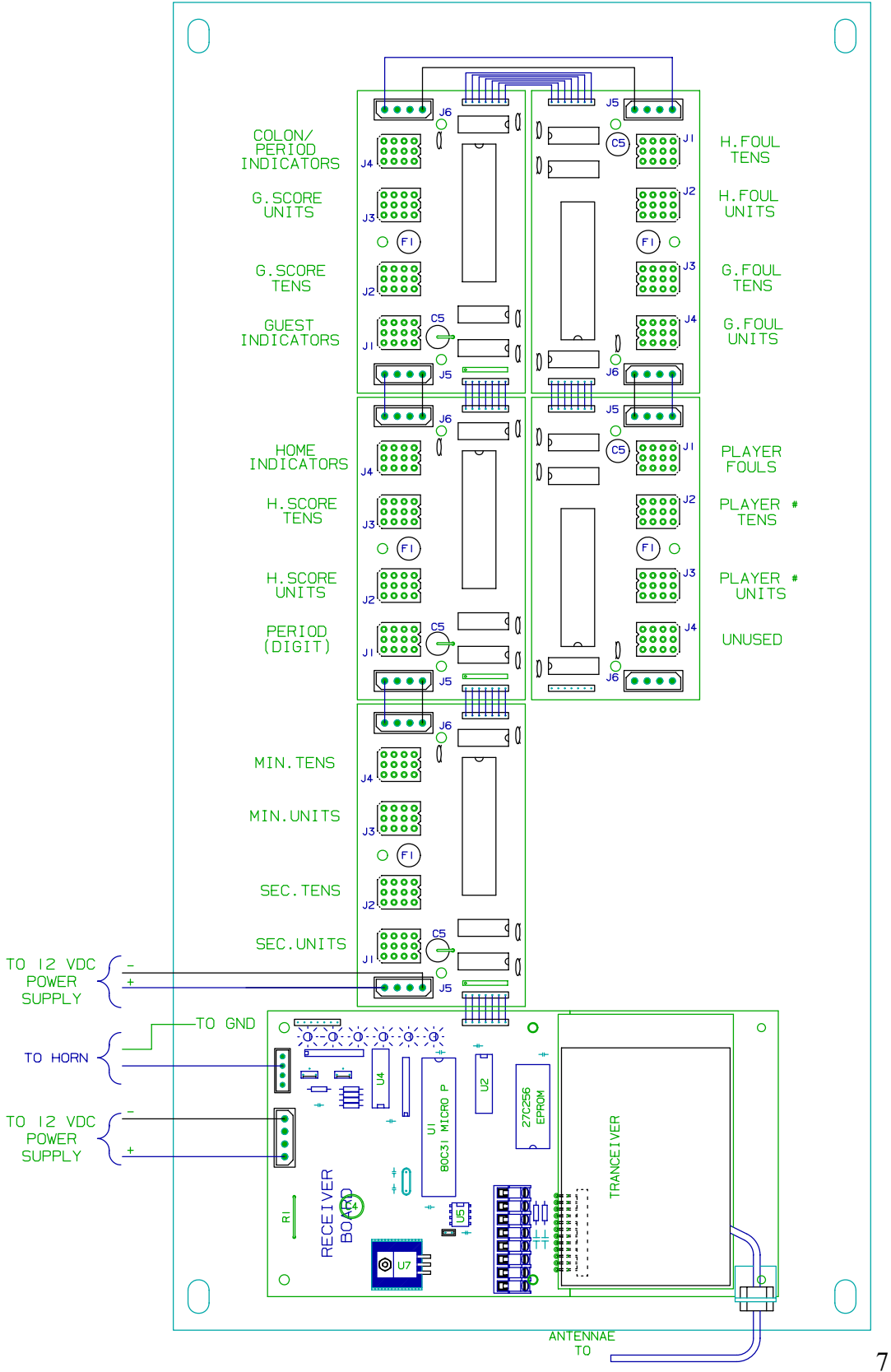
## 6.2 Scoreboard System Layout



6

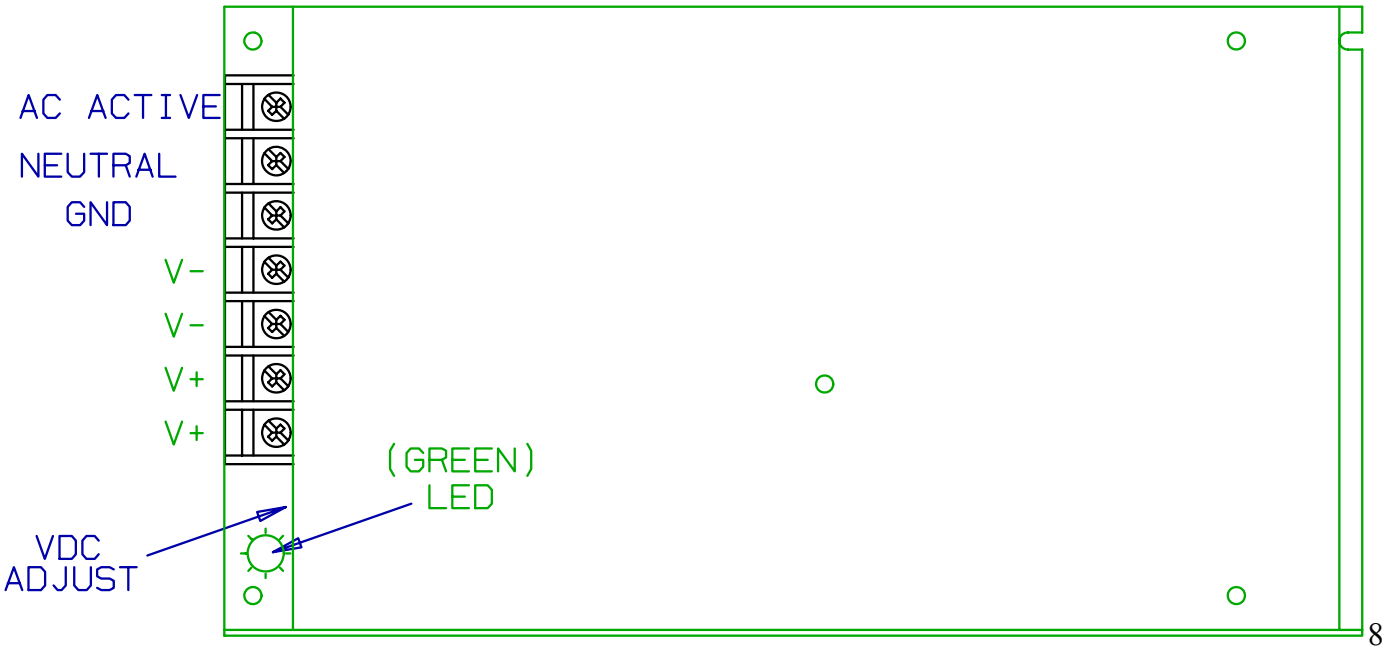
SYSTEM LAYOUT

6.5 Controller Wiring Diagram



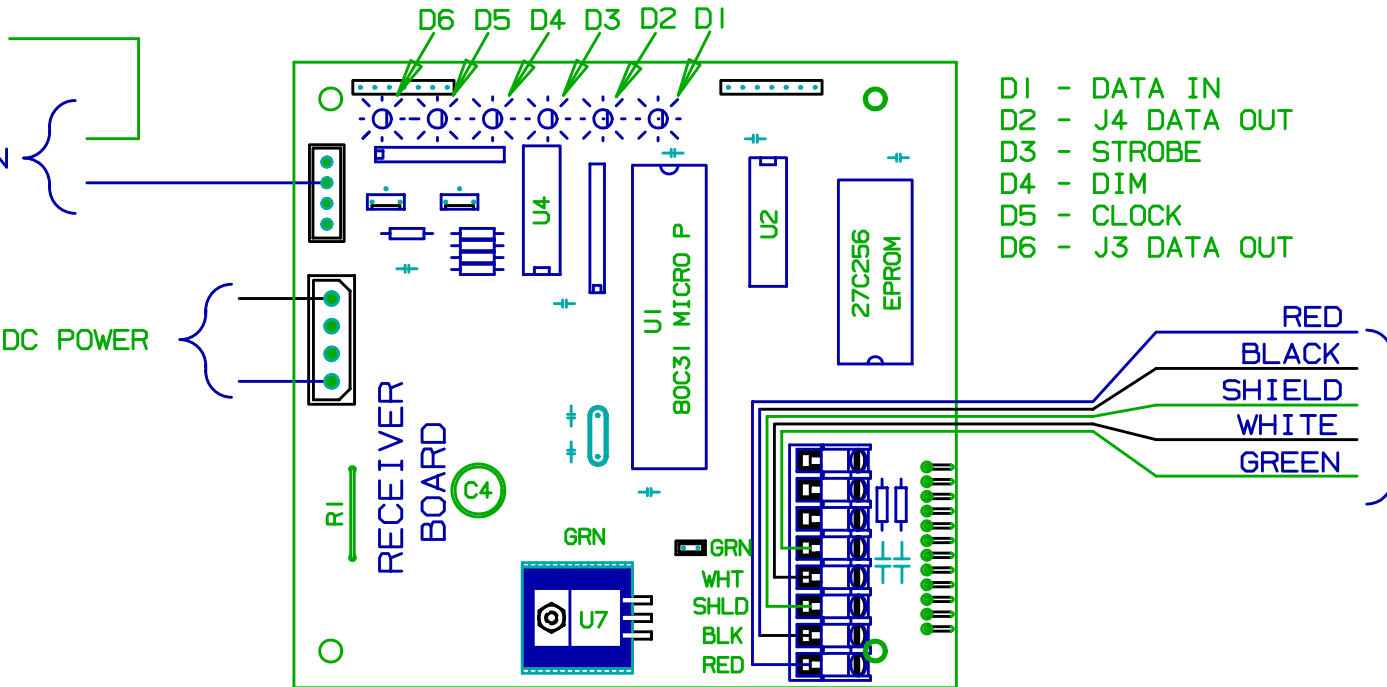
WIRING ORDER

6.6 Power Supply Diagram



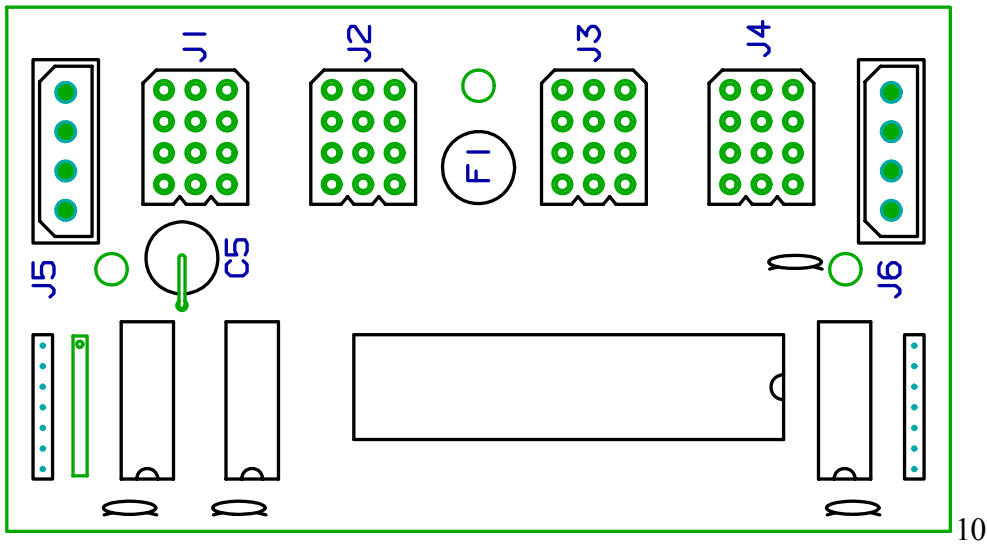
POWER SUPPLY

6.7 Receiver Board Diagram



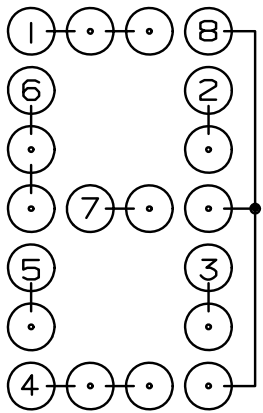
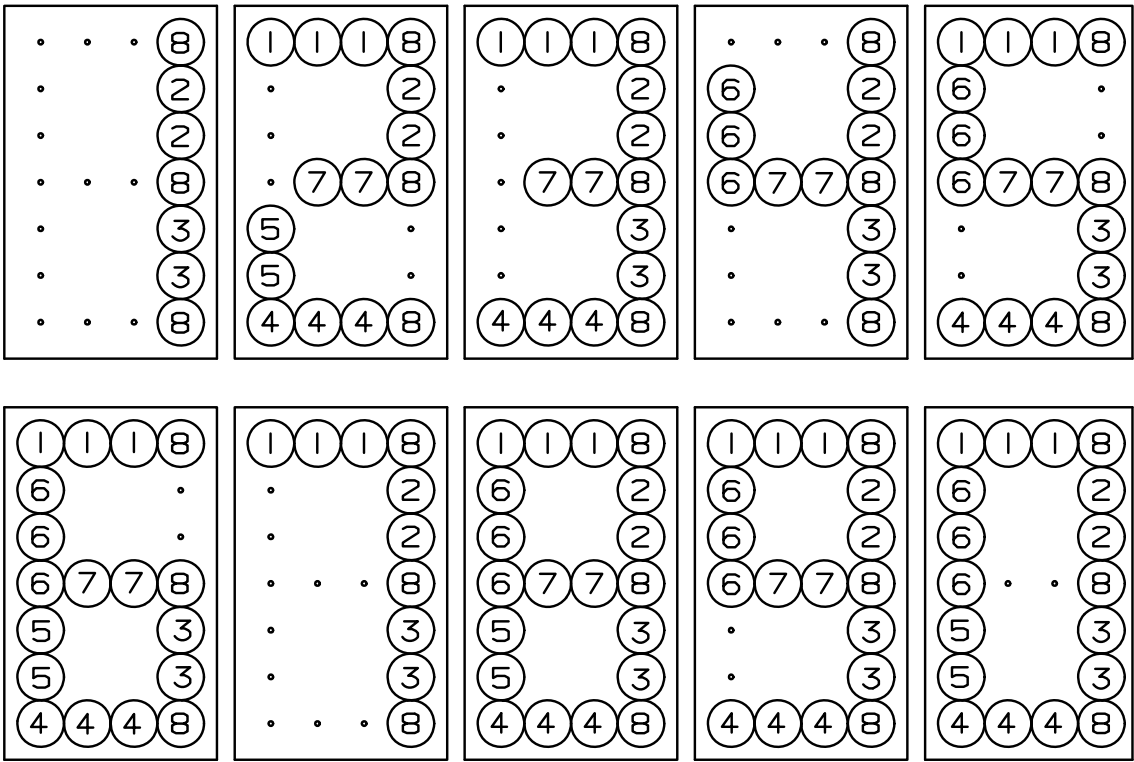
RECEIVER BOARD

6.8 Driver Board Diagram



RECEIVER BOARD

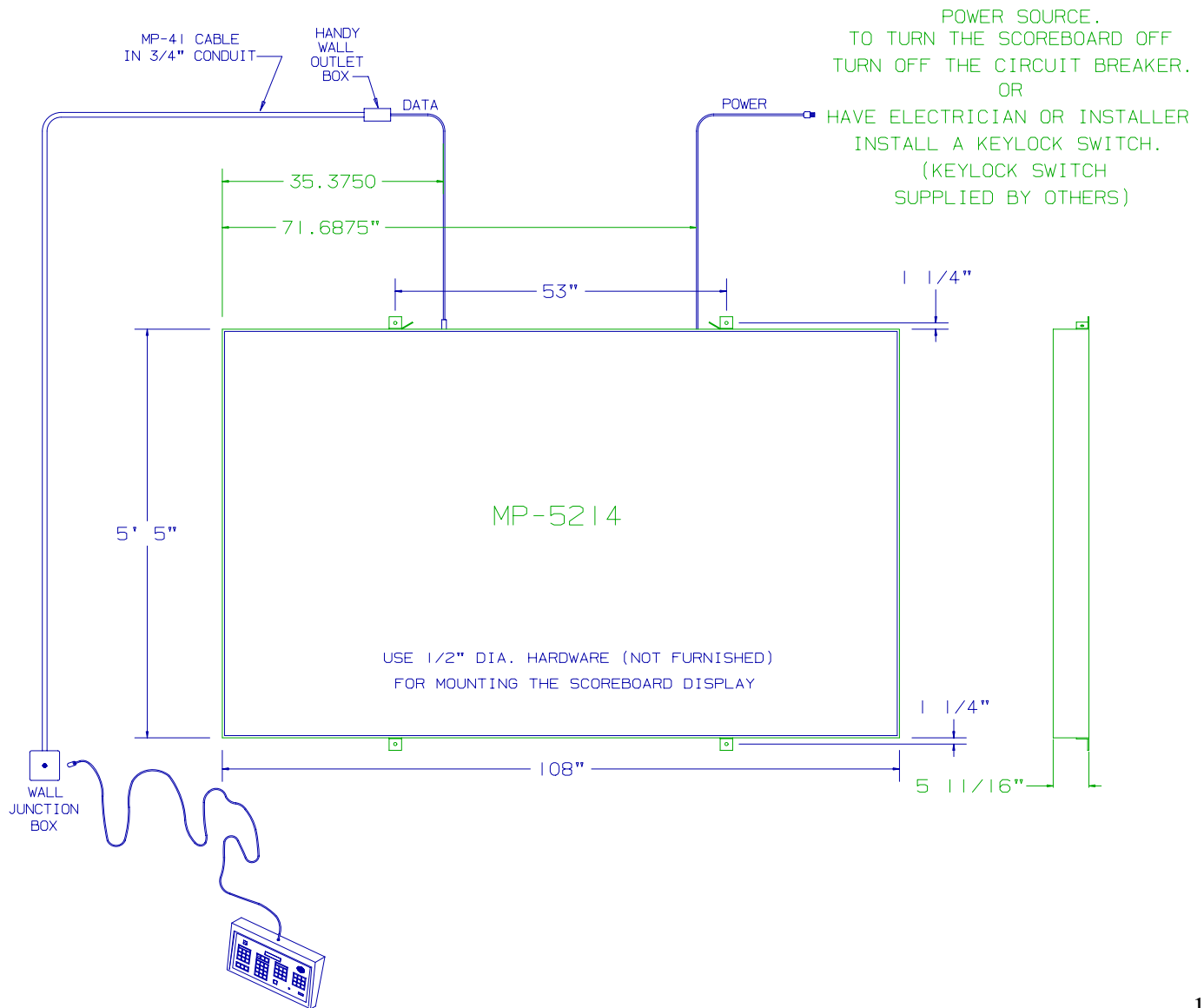
6.9 Microprocessor 3 X 5 LED Pattern (8 Bit)



		NUMERALS									
BIT ↑ NUMBERS		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 3 X 5 (8 BIT) LED PATTERN

## 6.10 Installation Drawing



2

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INSTALLATION DRAWING

1