ALL AMERICAN SCOREBOARDS

a division of general indicator corporation

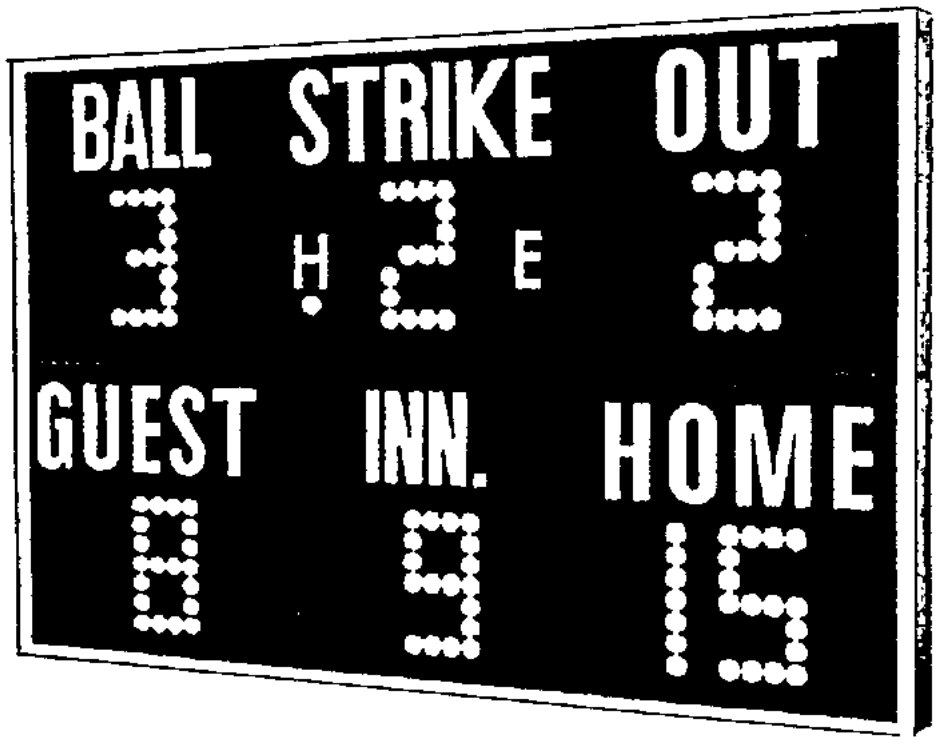
GIC
general indicator corporation

P.O. BOX 97
PARDEEVILLE, WI 53954
Area 608/ 429-2121 Outside Wisconsin 800-356-8146

OPERATING INSTRUCTIONS AND SERVICE MANUAL

BASEBALL SCOREBOARDS

Models MP-2375 / MP-2376



EFFECTIVE S.N.1180, APRIL 1987

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1. GENERAL INFORMATION

1.1 Description

Your All-American Player Name Panel has been carefully inspected before leaving the factory. It is possible, however, that components may be loosened or forced out of adjustment in transit. If this occurs, use the enclosed diagrams to correct the problem or contact the following:

ALL-AMERICAN Service Department
EVERBRITE Corporation
P. O. Box 97
Pardeeville, WI 53954
Telephone: (608) 429-2121
Toll Free: 800-356-8146 (outside Wisconsin)

Parts being returned for repair are to be sent to:

ALL-AMERICAN Service Department
EVERBRITE Corporation
413 South Main Street
Pardeeville, WI 53954

1.2 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.

1.3 Damage Claim Procedure

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

If damage is noted at 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 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, 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, properly filled out.

2. INSTALLATION

2.1 General Information

Check shipment and if damaged file damage claim.

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

1 ea	Baseball Display
1 ea	Control Console
1 ea	Service Manual
1 ea	Mounting Hardware Package
1 ea	Junction Box
? ft	Control Cable (if ordered)

2.2 Mounting

For permanent mounting to uprights, see the enclosed installation drawing in section 6.

2.3 Data Cable Installation

The MP-40 data cable is approved for direct burial and therefore can be installed with or without conduit. Consult section 6 for junction box and scoreboard wiring.

2.4 Electrical Connections

The MP-2375 requires the following:

(15 Watt Lamps)	110 V./ 60 HZ, 20 A. Service
(25 Watt Lamps)	110 V./ 60 HZ, 30 A. Service

The MP-2376 requires the following:

(15 Watt Lamps)	110 V./ 60 HZ, 30 A. Service
(25 Watt Lamps)	110 V./ 60 HZ, 40 A. Service

NOTE

This equipment complies with the requirements in Part 15 of the FCC rules for a Class A computing devise. Operation of this equipment in a residential area may cause unacceptable interference to radio and TV 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(s) to scoreboard(s). The Home and Guest scores will show "0".

3.2 Console Power

IMPORTANT

To protect the MP-2002 Control Console Electronics from lightning and other transient voltage spikes, it is advisable to disconnect the Control Console and store in a dry secure area, when it is not in use.

Plug the control console cable into the press junction box.

Push ON/OFF once to turn the console ON.

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

The console display should show CODE when first on.

Enter the four digit code (2375 or 2376) shown in the lower center of the keyboard as in the following example:

Push CODE 2 3 7 5 ENTER

When the proper code has been entered the console display

will show: 0000

3.3 Console Display

The 4 digit Liquid Crystal Display shows the information entered from the keyboard.

3.4 Team Scores

The Home and Guest Scores can be changed in three different ways.

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

(B) To directly enter or correct a score:

Push HOME or GUEST followed by desired number,

then ENTER .

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

Push HOME 2 3 ENTER .

(C) To clear the score:

Push HOME or GUEST then 0 .

3.5 Inning

The inning is changed in the same way as the direct entry of team scores.

3.6 Ball, Strike, Out

Push BALL , STRIKE , or OUT once for each progressive illumination of the respective indicators.

3.7 Hit And Error

Push HIT or ERROR to illuminate the appropriate indicator.

3.8 Dimmer

Push NIGHT/DAY to either brighten or dim the lamps in the scoreboard display.

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.

WARNING

110 VAC wires are exposed whenever the cover over the controller is removed from the scoreboard. Use extreme caution during troubleshooting or repair. To avoid possible damage always remove power before removing the cover or replacing assemblies.

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 Guide

(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) Contact the customer service department.

(B) Scoreboard Digits Don't Light But the Console Works

(a) With the main power "off" remove the cover over the controller assembly.

(b) Check all connections.

(c) Turn main power "on".

(d) If board still doesn't light check the transformer voltage going to the Reciever PCB assembly (blue wires)using a voltmeter set on the 12 VAC or higher scale.

If the voltage is less than 8 VAC contact the customer service department.

If the voltage is between 8-12 VAC see the replacement parts list for a Receiver PCB assembly, and contact the service department.

(C) 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 then check the voltage between the green wire and the white wire in the junction box using a voltmeter set on the 12 VAC or higher scale.

If the voltage is 0 V see the Controller parts list for a transformer assembly.

If the voltage is less than 8 VAC consult the controller wiring diagram for instructions on long cable compensation.

If the voltage is between 8 VAC and 12 VAC contact the customer service department.

(D) The Scoreboard Digits Light the Console Works but there Is No Control Of The Scoreboard.

(a) Check the voltage between the black and red wires in the junction box with a voltmeter set on the 3 VDC or higher scale. (2-3 VDC when working properly)

If the voltage is 0 V contact the service department for assistance.

If the voltage is correct (2-3 V) check that this reading also appears at the scoreboard.

If the correct voltage also appears at the scoreboard see the replacement parts list for a Receiver PCB Assembly.

(E) The Scoreboard Works But Some Lights Stay On All The Time

(a) With the Main Power OFF, switch the plug from the bad digit with the plug for a known good digit.

Example: Plug "C" in "D" and "D" in "C" locations.

(b) Turn the power back on. If the same lights remain lit, the problem is a shorted lamp socket. If the lights now stay on in a different digit the problem is the driver board. See the replacement parts list for the proper replacement driver board.

(F) The Scoreboard Works But Some Lights Do Not Come On

(a) Check for burned out lamps.

(b) Check for broken wire or bad connection on 12 pin connector.

(c) See the replacement parts list for the proper replacement driver board.

5. REPLACEMENT PARTS LIST

5.1 Scoreboard Display Parts

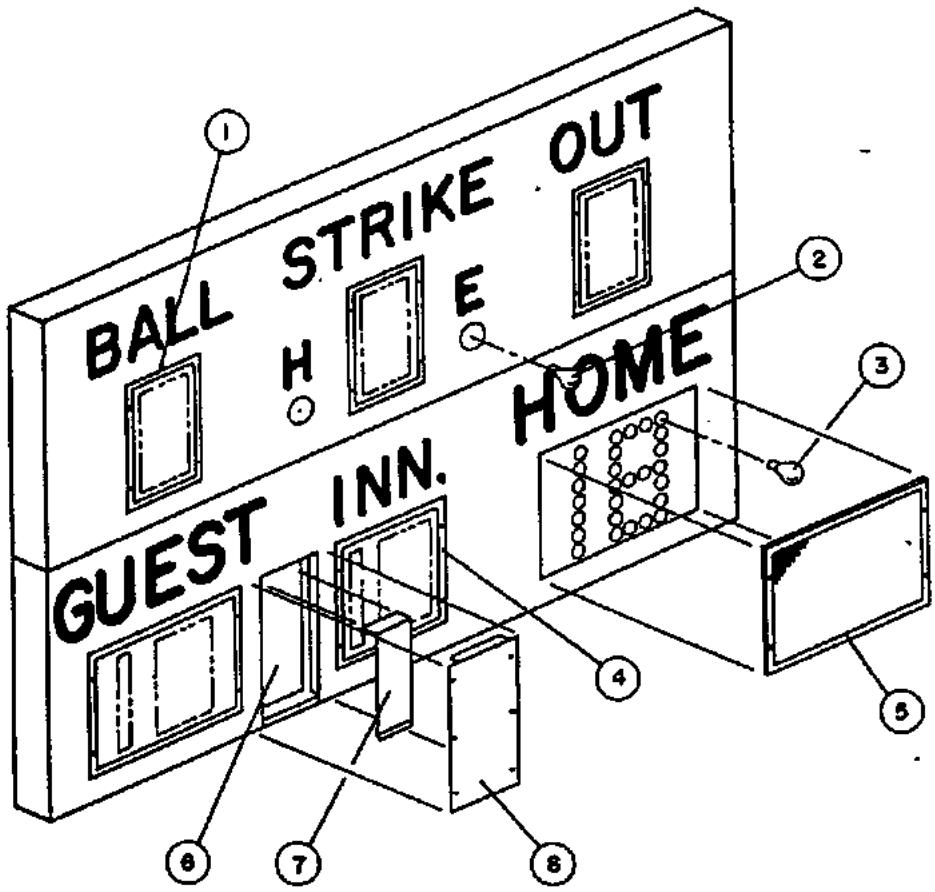


figure 1

DISPLAY ASSEMBLY

REPLACEMENT PARTS LIST (MP-2375/MP-2376)

fig.& index	MFG PART NUMBER	DESCRIPTION	REF DES	VENDOR PART #
1-	150132	Display Set (MP-2375)		150132
1-	121217	Display Set (MP-2376)		121217
1-1	117457	Face Screen, B. S. & Out		117457
1-2	850032	Lamp, 40W/130V Clear (H.& E.)		40A19 CL
1-3	850022	Lamp, 15W/130V Clear		15A15 CL
1-4	117460	Face Screen, Inning		117460
1-5	117456	Face Screen, H & G Score		117456
1-6	150053	Controller Assembly (SEE FIGURE 5.2)	A2	150053
1-7	170253	Rainshield		170253
1-8	150785	Service Door		150785
---	120387	MP-2002 Control Console		120387
	150184	Transmitter PCB Assembly	A1	150184
	702785	Connector, 5 Pin Male CCT	P1	RM12BPG-5P
---	151002	Press Box Junction Box		151002
	702786	Connector, 5 Pin Female	J1	RM12BRD-5S
	150508	Cable, MP-40 Control		YR21233

5.2 Controller Assembly Parts

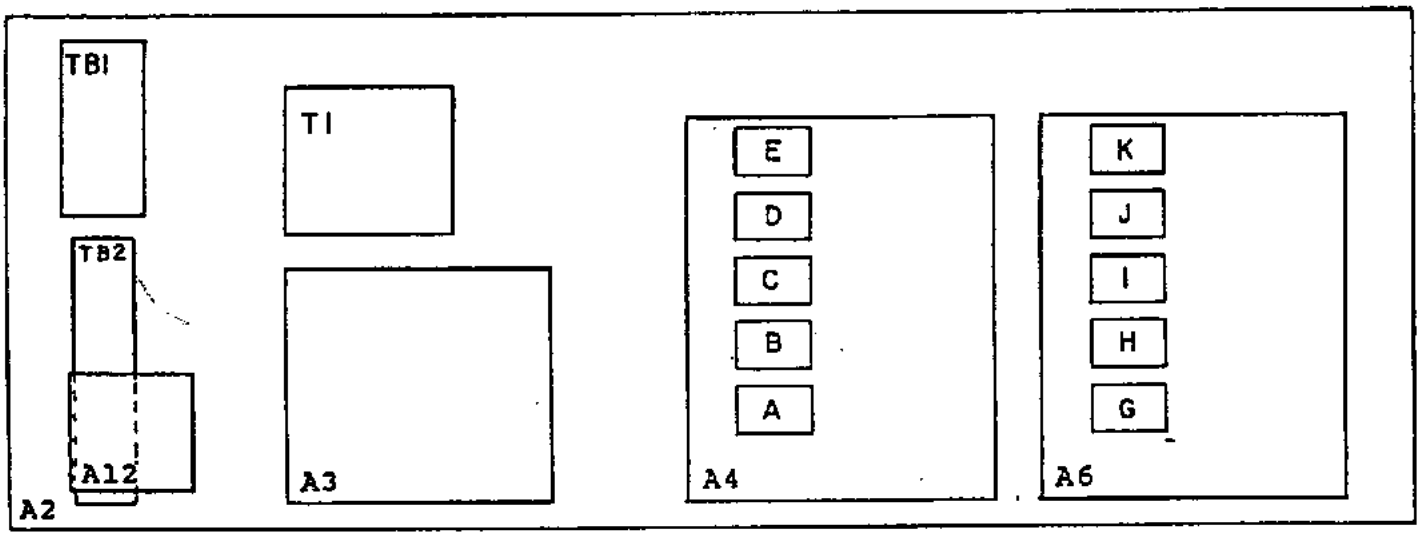


FIGURE 2

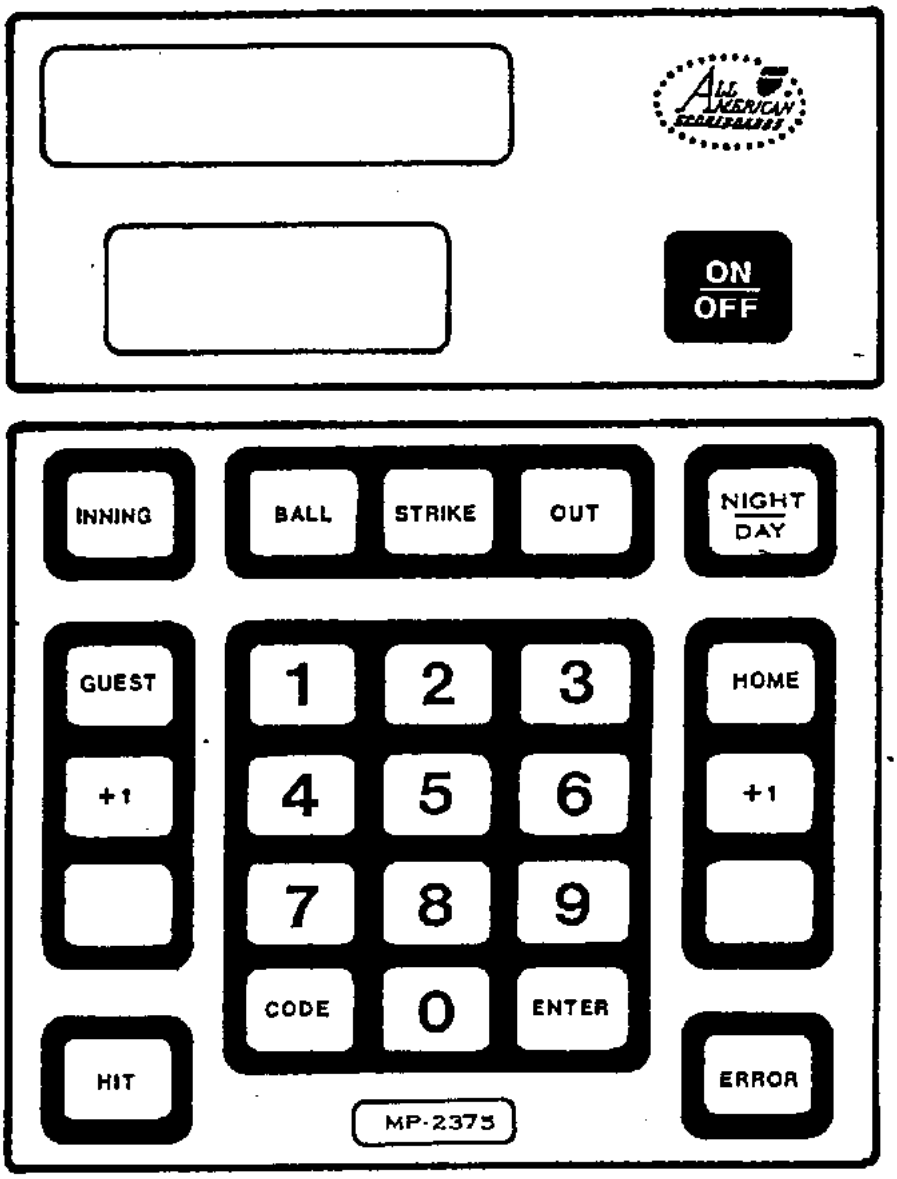
CONTROLLER ASSEMBLY

REPLACEMENT PARTS LIST (MP-2375/MP-2376)

fig.& index	MFG PART NUMBER	DESCRIPTION	REF DES	VENDOR PART #
2-	150053	Controller Assembly	A2	150053
	150366	Receiver PCB Assembly	A3	150366
	150368	5 Pos. Driver PCB Assembly	A4/A6	150368
	118522	PC BD Assy,Lightning Protect.	A12	118522
	701134	6 Pin Terminal Block	TB1	1106
	701103	12 Pin Terminal Block	TB2	671-12
	151301	8V/18V Transformer Assembly	T1	CS-697
	705075	Ribbon Cable Assy,20C W/2F Con		AS-1053
	151300	Horn Suppressor Assy.		151300
	700520	Varistor		ERZ-C20DK201U
	700850	Capacitor, .02 MFD 400V.		

6. DIAGRAMS

6.1 Control Console Keyboard and Slipsheet Layout

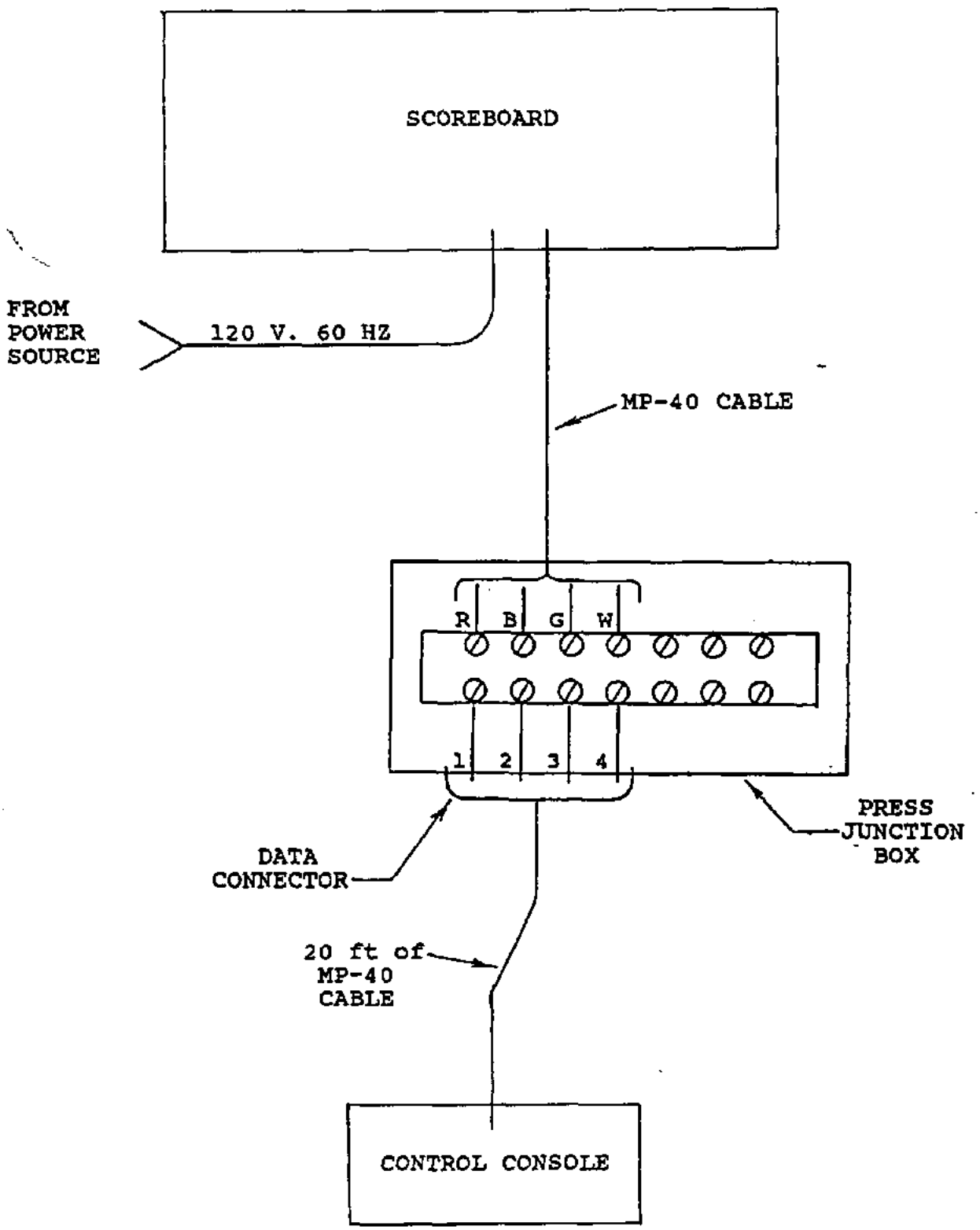


Console Keyboard (MP-2375/MP-2376)

NOTE:

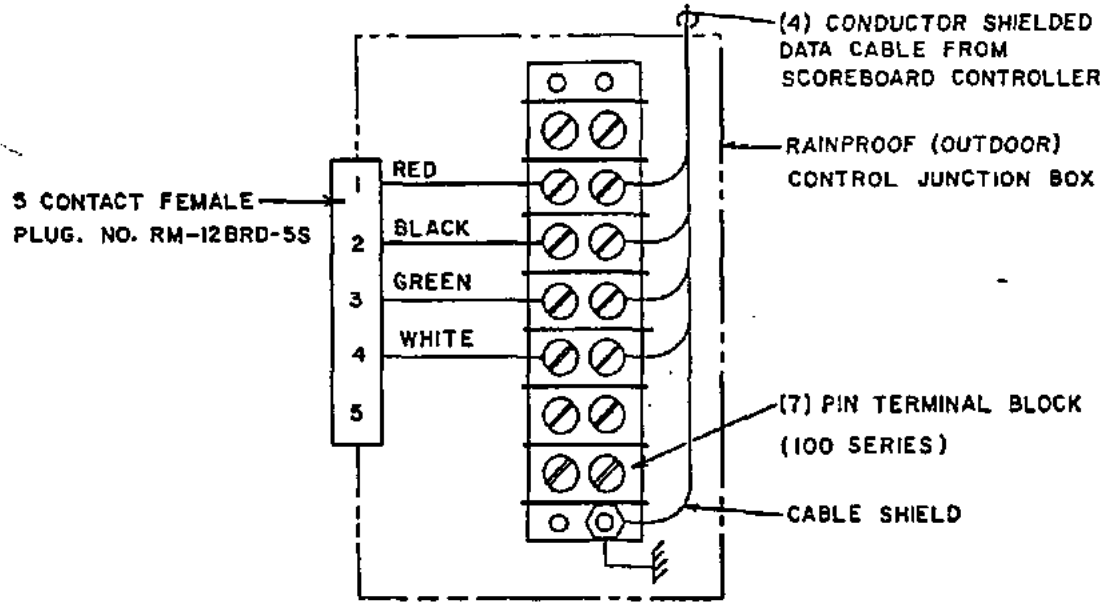
The only difference between the MP-2375 and the MP-2376 keyboard is the code (same as model number) in the lower center of the keyboard.

6.2 Scoreboard System Layout



SCOREBOARD SYSTEM LAYOUT

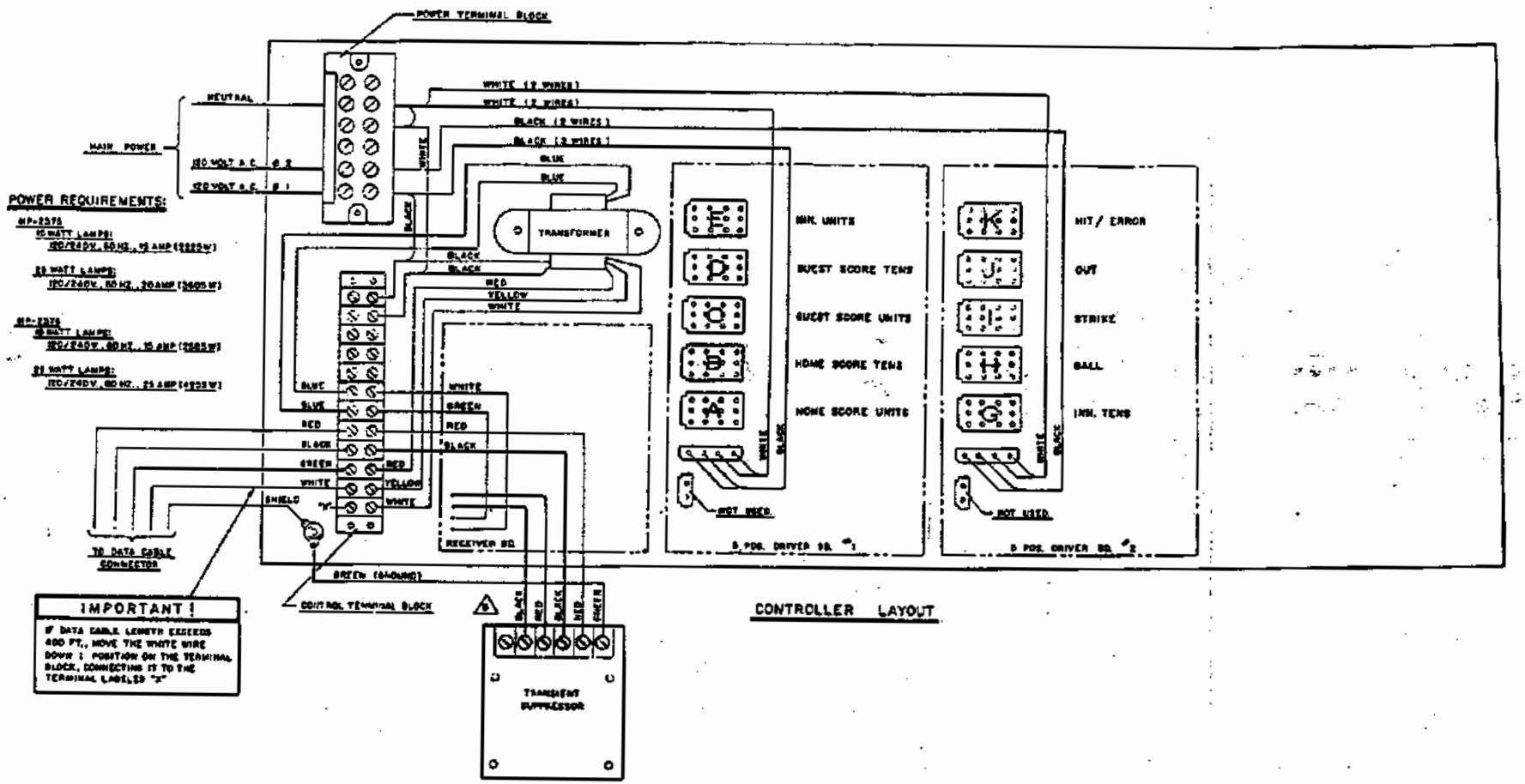
6.3 Press Box Junction Box Wiring



NOTE:
USED FOR ALL OUTDOOR FOOTBALL & BASEBALL SCOREBOARDS WITH MICRO-PROCESSOR CONTROL EXCEPT THE MODEL MP-2310 BASEBALL.

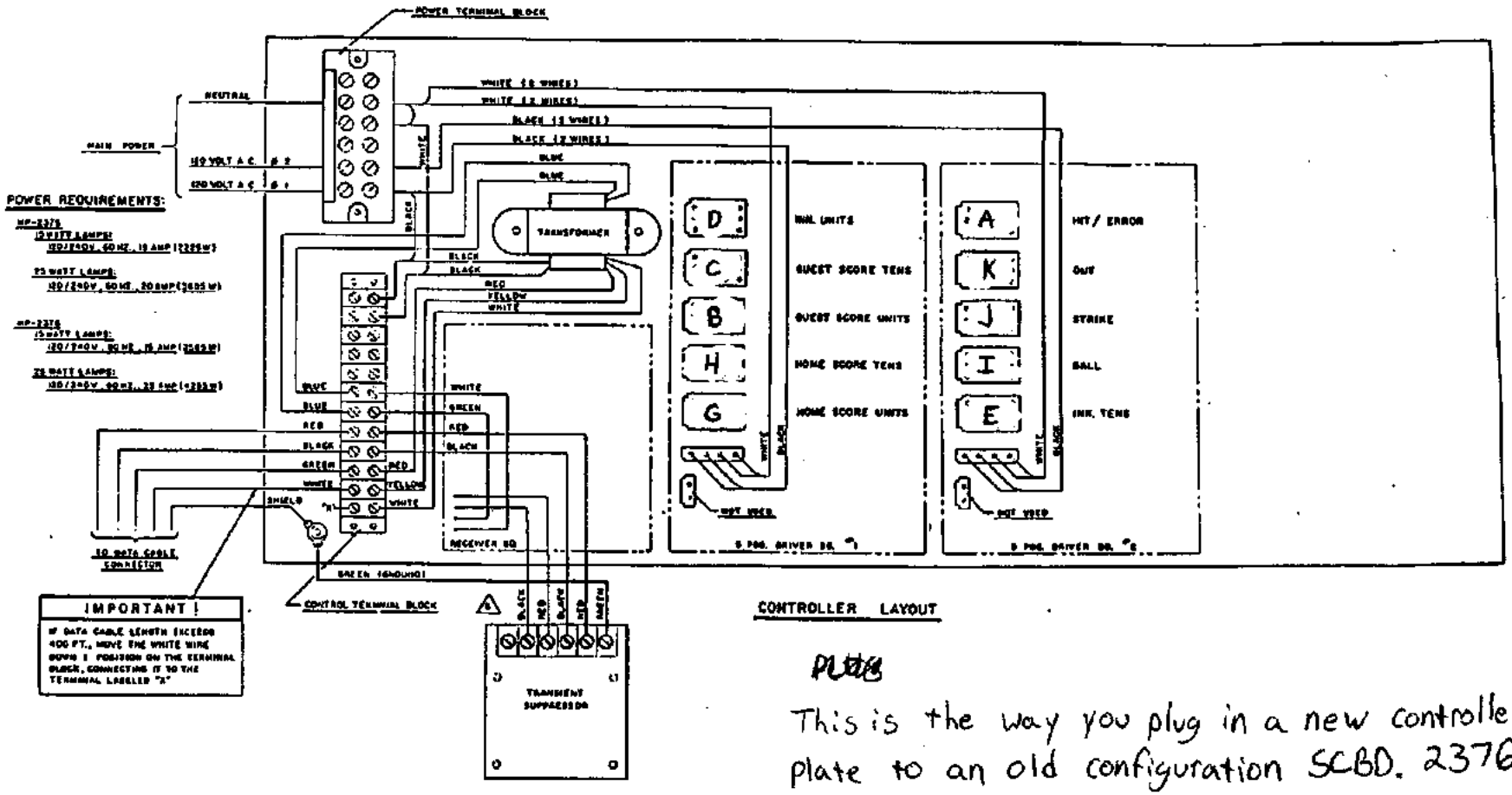
JUNCTION BOX WIRING

6.4 Controller Wiring and Layout



CONTROLLER LAYOUT

6.4 Controller Wiring and Layout



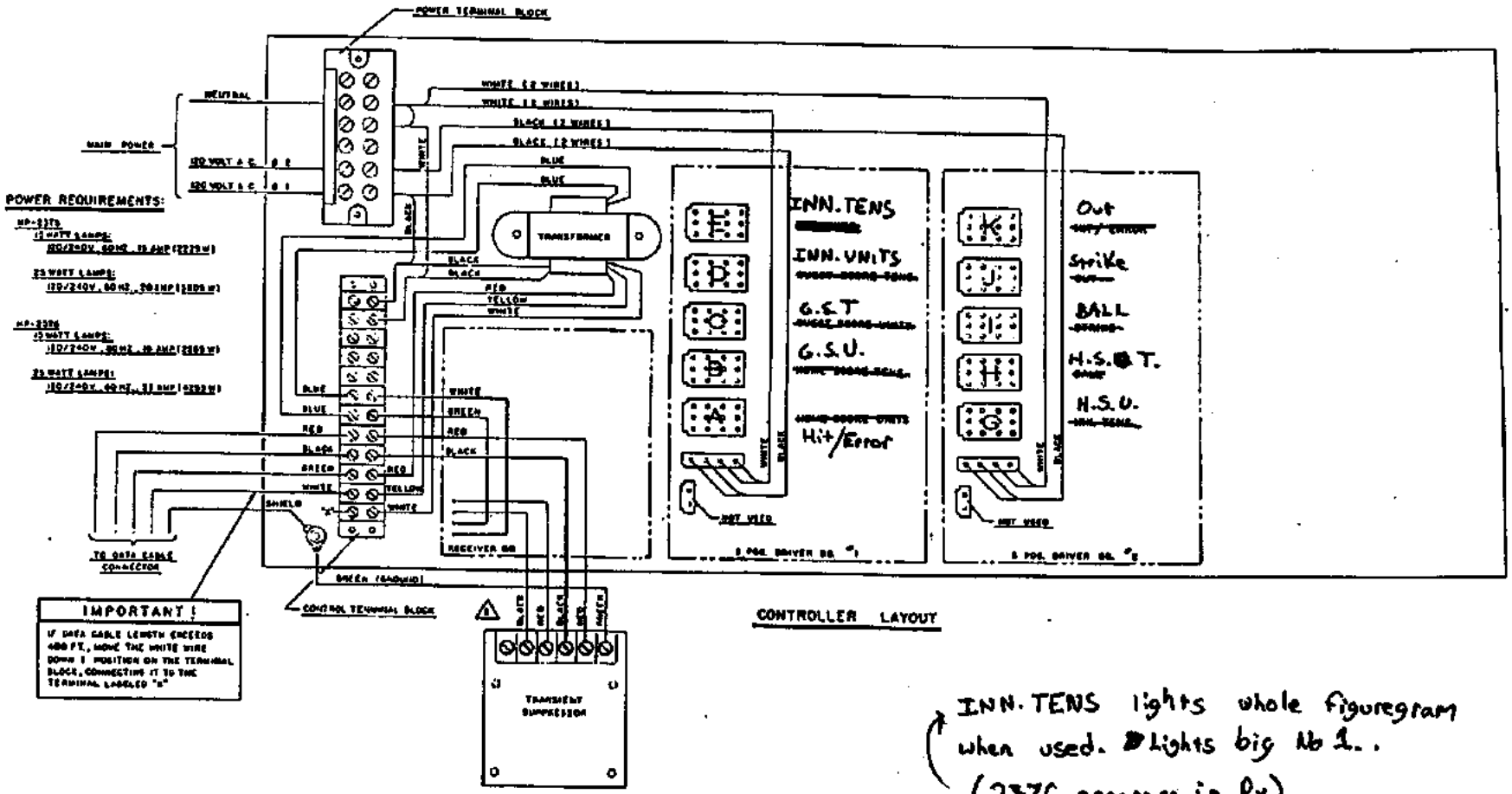
CONTROLLER LAYOUT

PLUGS

This is the way you plug in a new controller plate to an old configuration SCBD. 2376

CONTROLLER LAYOUT

Old config.



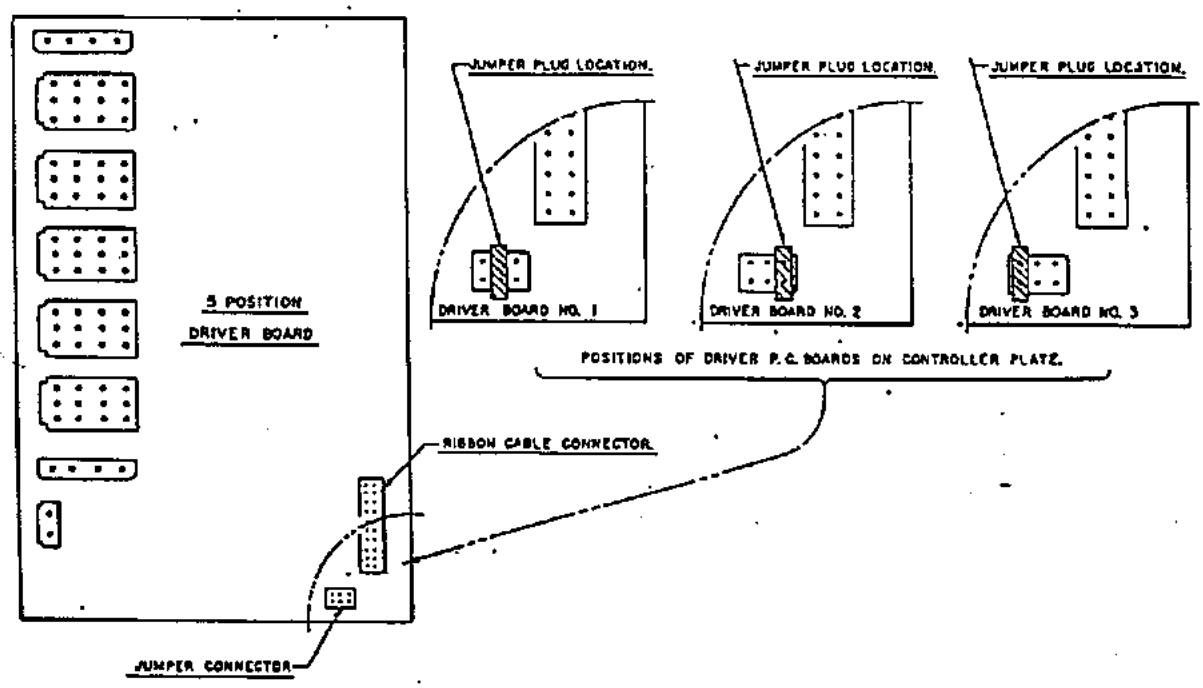
CONTROLLER LAYOUT

2376 program configuation

INN. TENS lights whole figuregram when used. Lights big Nb 1..
(2376 program in Rx)

Hit = bit 6
Error = bit 8 and Horn circuit

6.5 Jumper Location on 5 Position Driver Board

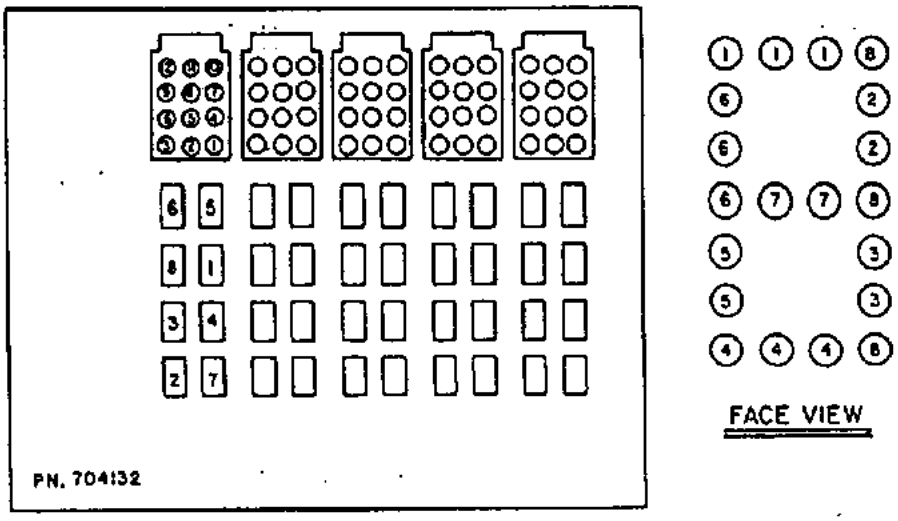


JUMPER LOCATION

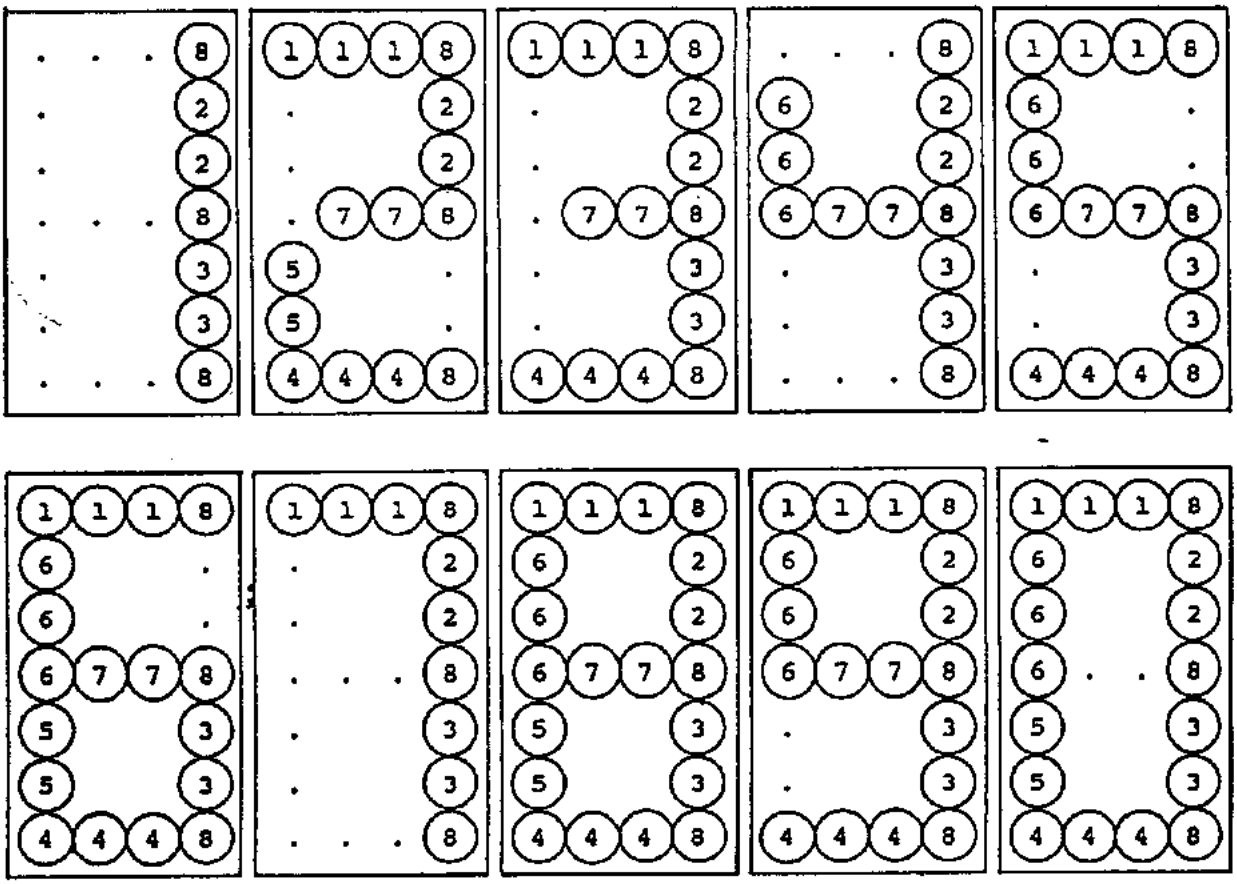
6.6 Triac Placement

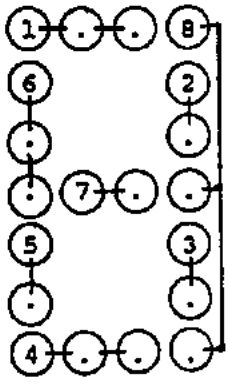
The triac is the switch that controls the figuregram lamps. The triacs for any given figuregram are adjacent to the twelve pin connector on the driver board that controls that figuregram.

Shown below is the triac placement and bit designation relative to the figuregram bit pattern.



6.7 Microprocessor 4X7 Lamp Pattern (8 Bit)





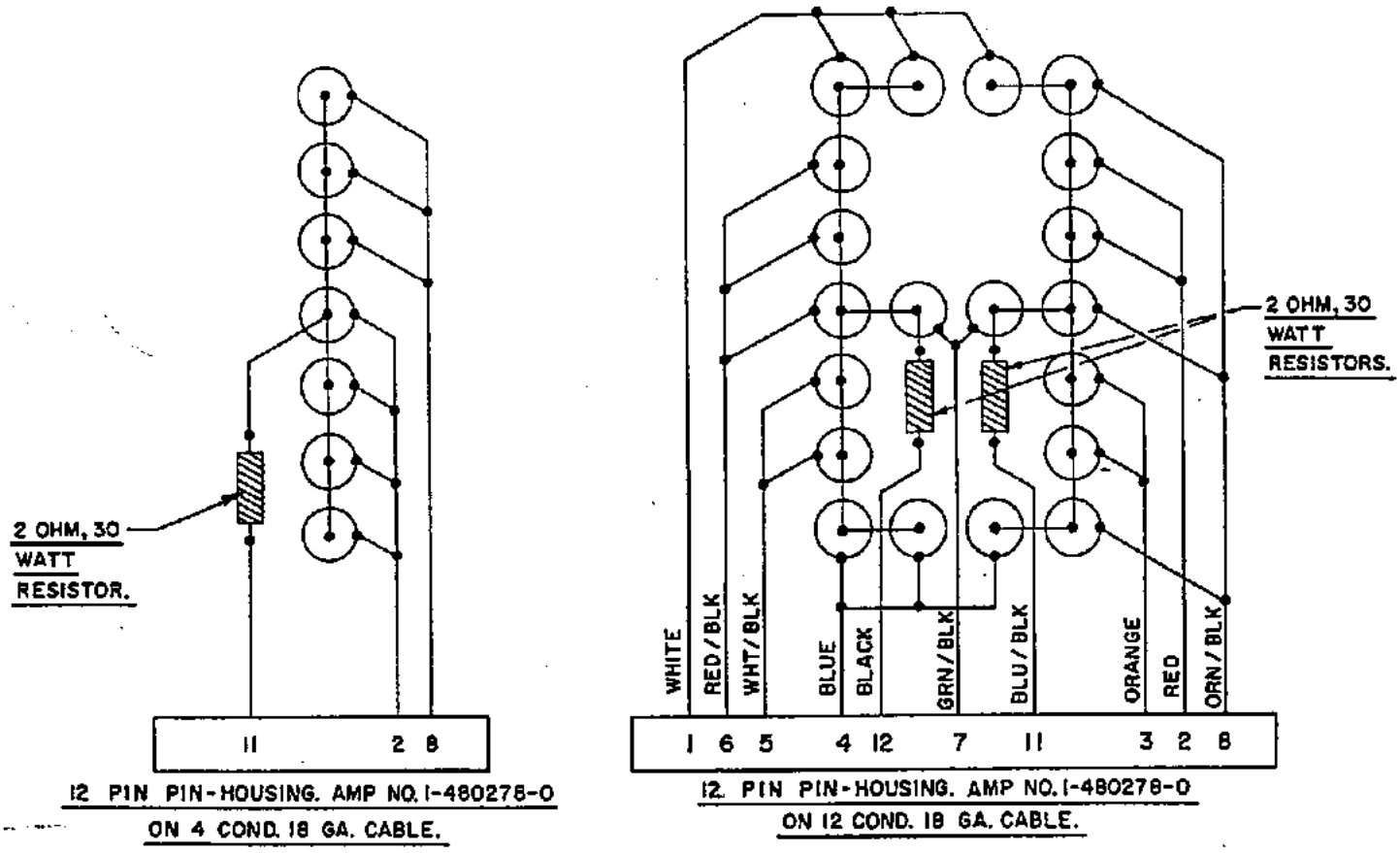
8 BITS

NUMERALS

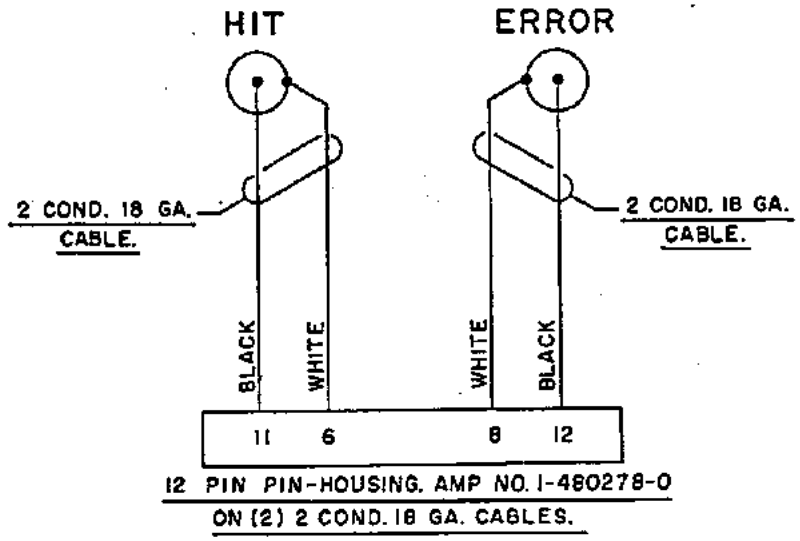
BIT NUMBERS	0	1	2	3	4	5	6	7	8	9
1	0	.	2	3	.	5	6	7	8	9
2	0	1	2	3	4	.	.	7	8	9
3	0	1	.	3	4	5	6	7	8	9
4	0	.	2	3	.	5	6	.	8	9
5	0	.	2	.	.	.	6	.	8	.
6	0	.	.	.	4	5	6	.	8	9
7	.	.	2	3	4	5	6	.	8	9
8	0	1	2	3	4	5	6	7	8	9

LAMP PATTERN

6.8 Figuregram Wiring

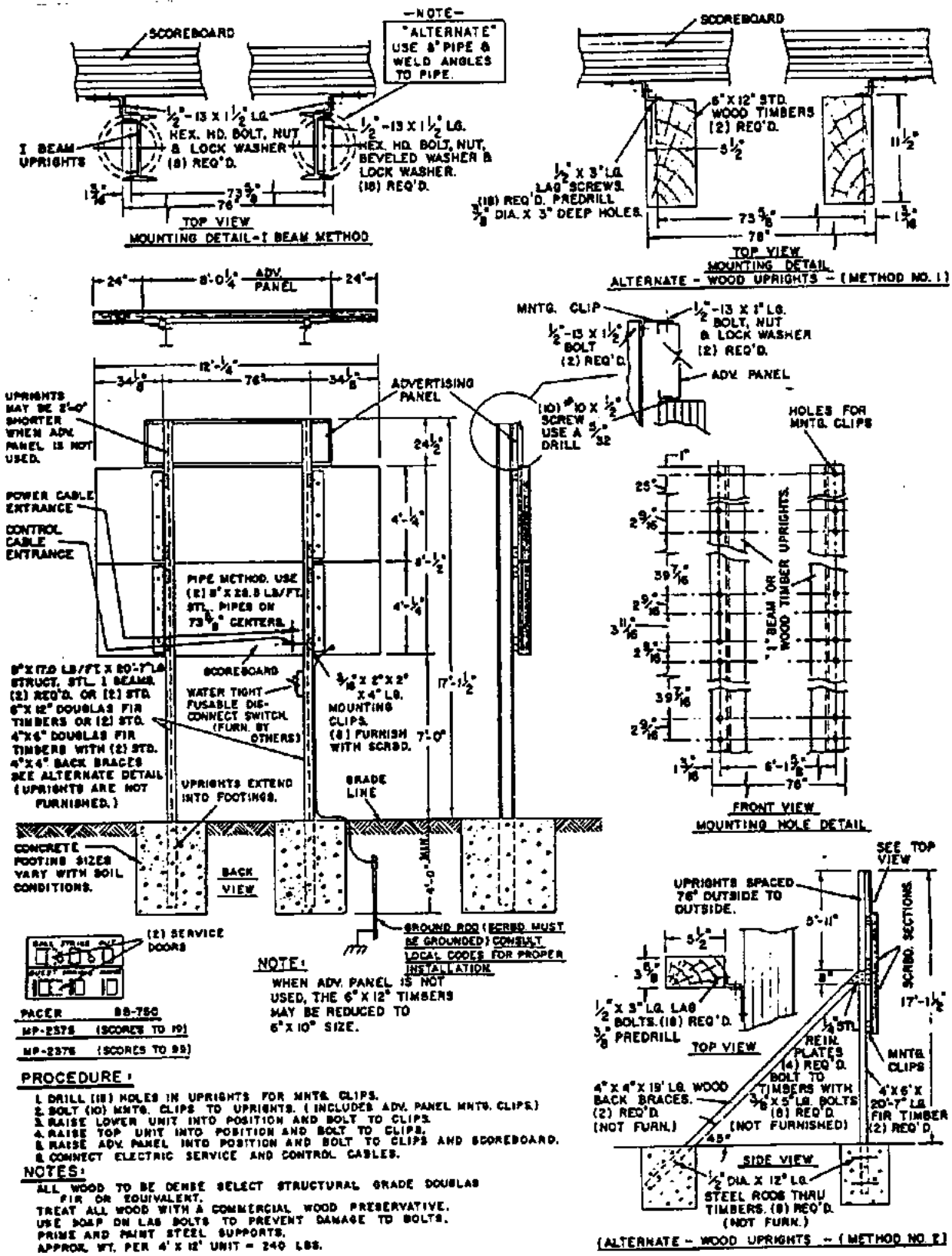


8 BIT FIGUREGRAM WIRING (Face View)



HIT AND ERROR WIRING

6.9 Installation



PACER	88-750
MP-2378	(SCORES TO 99)
MP-2376	(SCORES TO 99)

PROCEDURE:

1. DRILL (18) HOLES IN UPRIGHTS FOR MNTG. CLIPS.
2. BOLT (10) MNTG. CLIPS TO UPRIGHTS. (INCLUDES ADV. PANEL MNTG. CLIPS.)
3. RAISE LOWER UNIT INTO POSITION AND BOLT TO CLIPS.
4. RAISE TOP UNIT INTO POSITION AND BOLT TO CLIPS.
5. RAISE ADV. PANEL INTO POSITION AND BOLT TO CLIPS AND SCOREBOARD.
6. CONNECT ELECTRIC SERVICE AND CONTROL CABLES.

NOTES:

ALL WOOD TO BE DENSE SELECT STRUCTURAL GRADE DOUGLAS FIR OR EQUIVALENT.
TREAT ALL WOOD WITH A COMMERCIAL WOOD PRESERVATIVE.
USE SOAP ON LAG BOLTS TO PREVENT DAMAGE TO BOLTS.
PRIME AND PAINT STEEL SUPPORTS.
APPROX. WT. PER 4' X 12' UNIT = 240 LBS.

NOTE:
WHEN ADV. PANEL IS NOT USED, THE 6" X 12" TIMBERS MAY BE REDUCED TO 6" X 10" SIZE.

INSTALLATION DRAWING