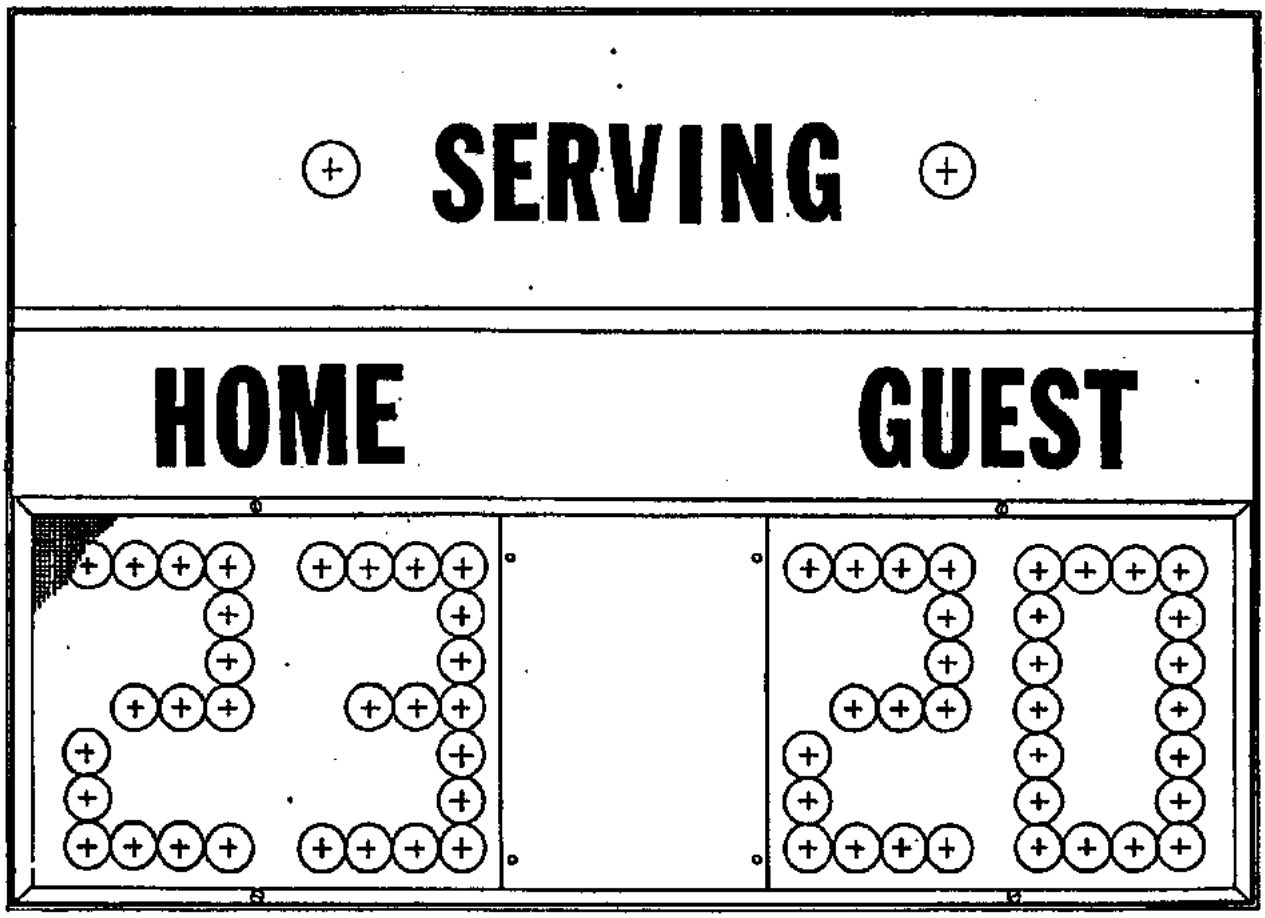
ALL AMERICAN SCOREBOARDS

A product of
Everbrite
401 S Main St
Pardeeville, WI 53954
(608) 429-2121 / (800) 356-8146

OPERATING INSTRUCTIONS AND SERVICE MANUAL

VOLLEYBALL SCOREBOARD

Model MP-2610



EFFECTIVE S.N.2542, AUGUST 1988

TABLE OF CONTENTS

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 troubleshooting guide (section 4). If equipment then fails to operate, contact immediately:

ALL-AMERICAN Service Department
General Indicator Corporation
P. O. Box 97
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
General Indicator 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 General Indicator 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	Volleyball 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 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 scoreboard requires the following:

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

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-2003 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 (2610) as in the following example.

Push CODE 2 6 1 0 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 Home and Guest scores continuously. The two left digits are home score and the two right digits are guest score.

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 Serve

Push SERVE to increment the serve indicator.

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 shield 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 between 8 VAC and 13 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 3VDC 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

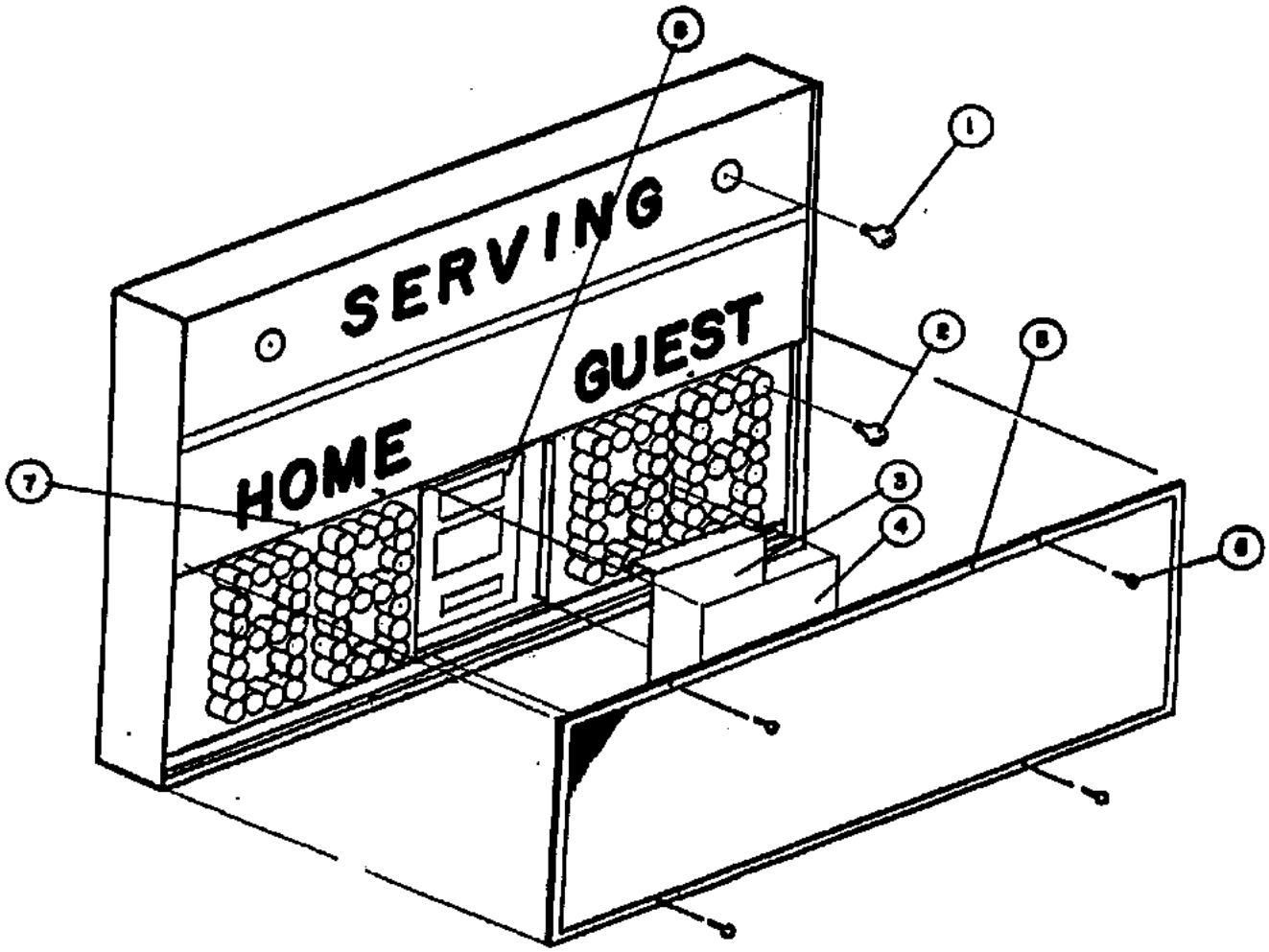


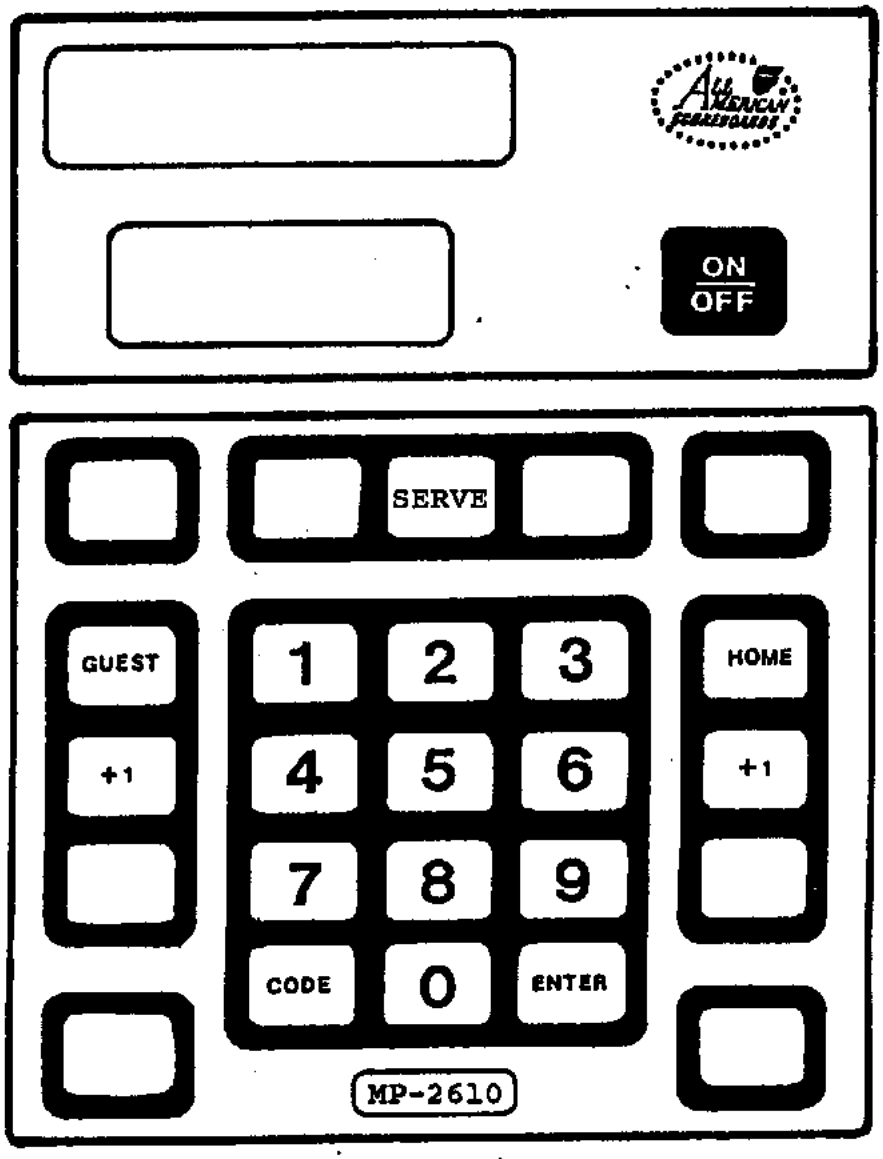
figure 1

DISPLAY ASSEMBLY

REPLACEMENT PARTS LIST (MP-2610)

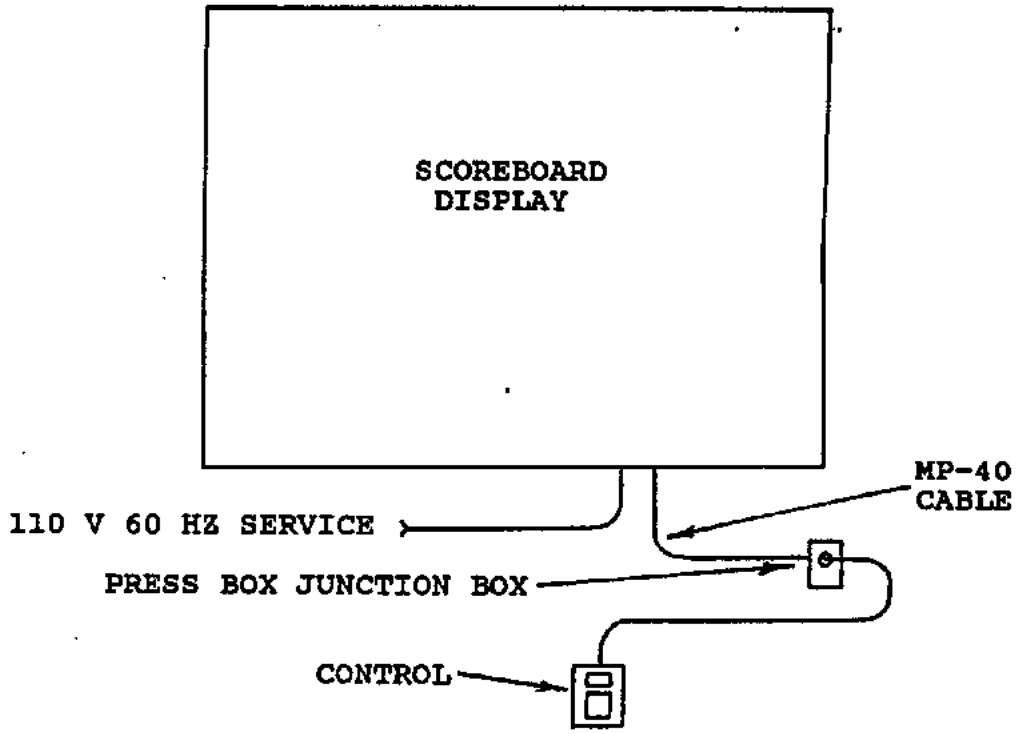
fig.& index	MFG PART NUMBER	DESCRIPTION	REF DES	VENDOR PART #
1-	121821	Display Assembly		121821
1-1	850030	Lamp, 25W/130V Clear		25A19 CL
1-2	850022	Lamp, 15W/130V Clear		15A15 CL
1-3	150572	Rainshield		150572
1-4	159089	Service Door		159089
1-5	120386	Face Screen		120386
1-6	903370	Thumbscrew, 10-24 X 1"		
1-7	701416	Wellnut, 10-24		
1-8	150375	Controller Assembly	A1	150375
	150376	Receiver/Driver PCB Assembly	A2	150376
	150377	Scoring Driver PCB Assembly	A3	150377
	701136	7 Pin Terminal Block	TB1	671-7
	151309	8V/18V Transformer Assembly	T1	CS-697
	118522	Lightning Suppressor	A5/A6	118522
	700520	Varistor		ERZ-C20DK201U
	121820	MP-2610 Control Console		121820
	119771	Control Console Slipsheet		119771
	121830	Transmitter PCB Assembly	A4	121830
	702785	Connector, 5 Pin Male CCT	P1	RM12BPG-5P
	121219	Press Box Junction Box		121219
	702786	Connector, 5 Pin Female	J1	RM12BRD-5S
	150508	Cable, MP-40 Control		YR21233

6.1 Control Console Keyboard and Slipsheet Layout



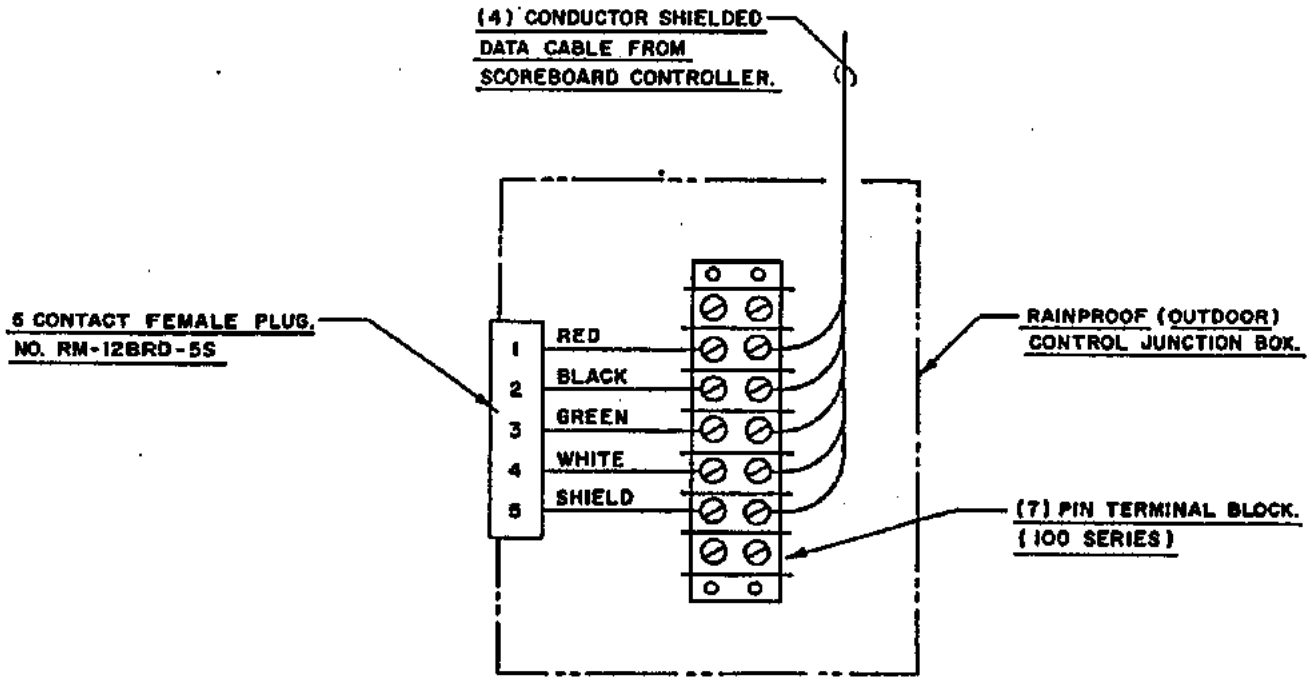
CONSOLE KEYBOARD

6.2 Scoreboard System Layout



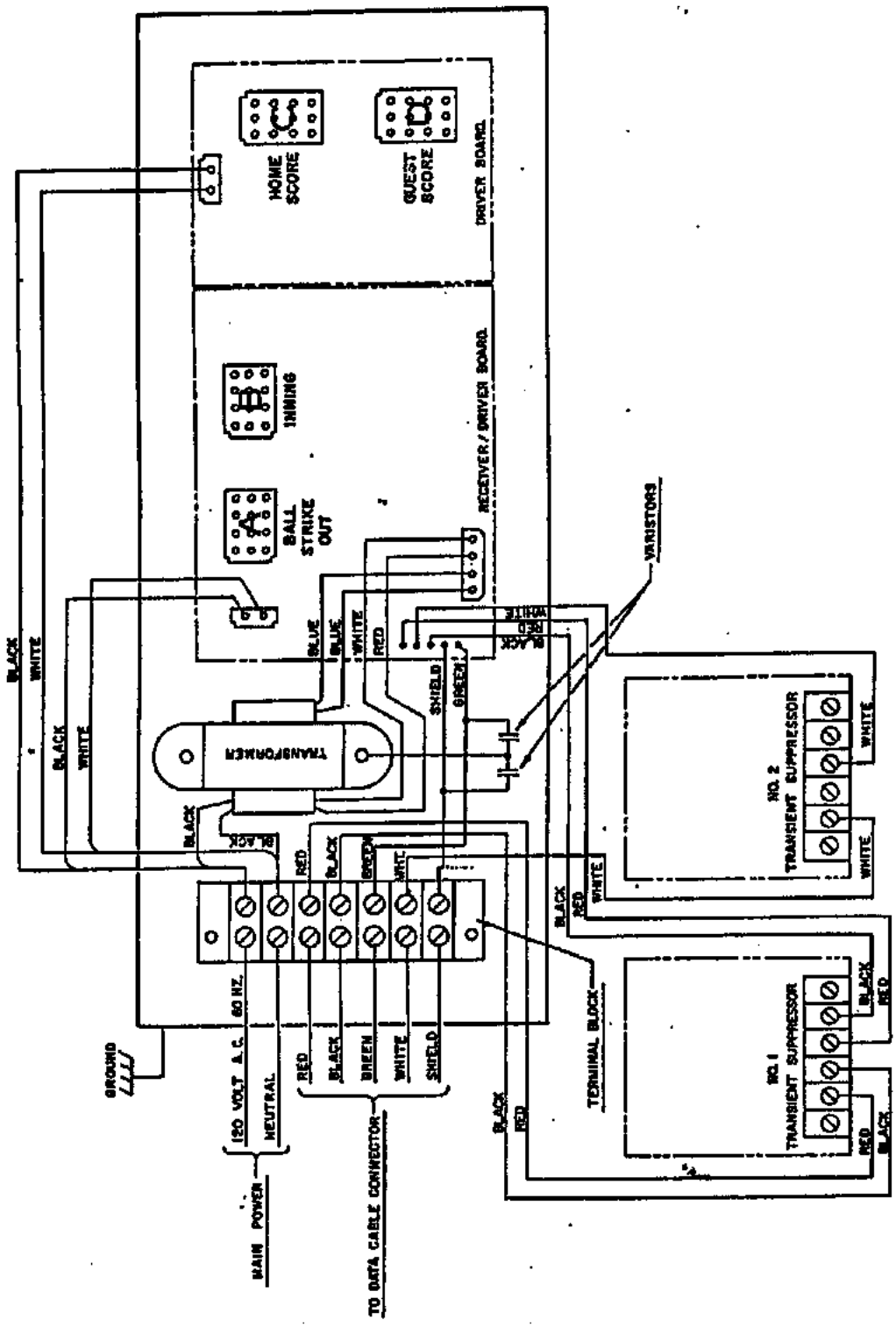
SYSTEM LAYOUT

6.3 Press Box Junction Box Wiring



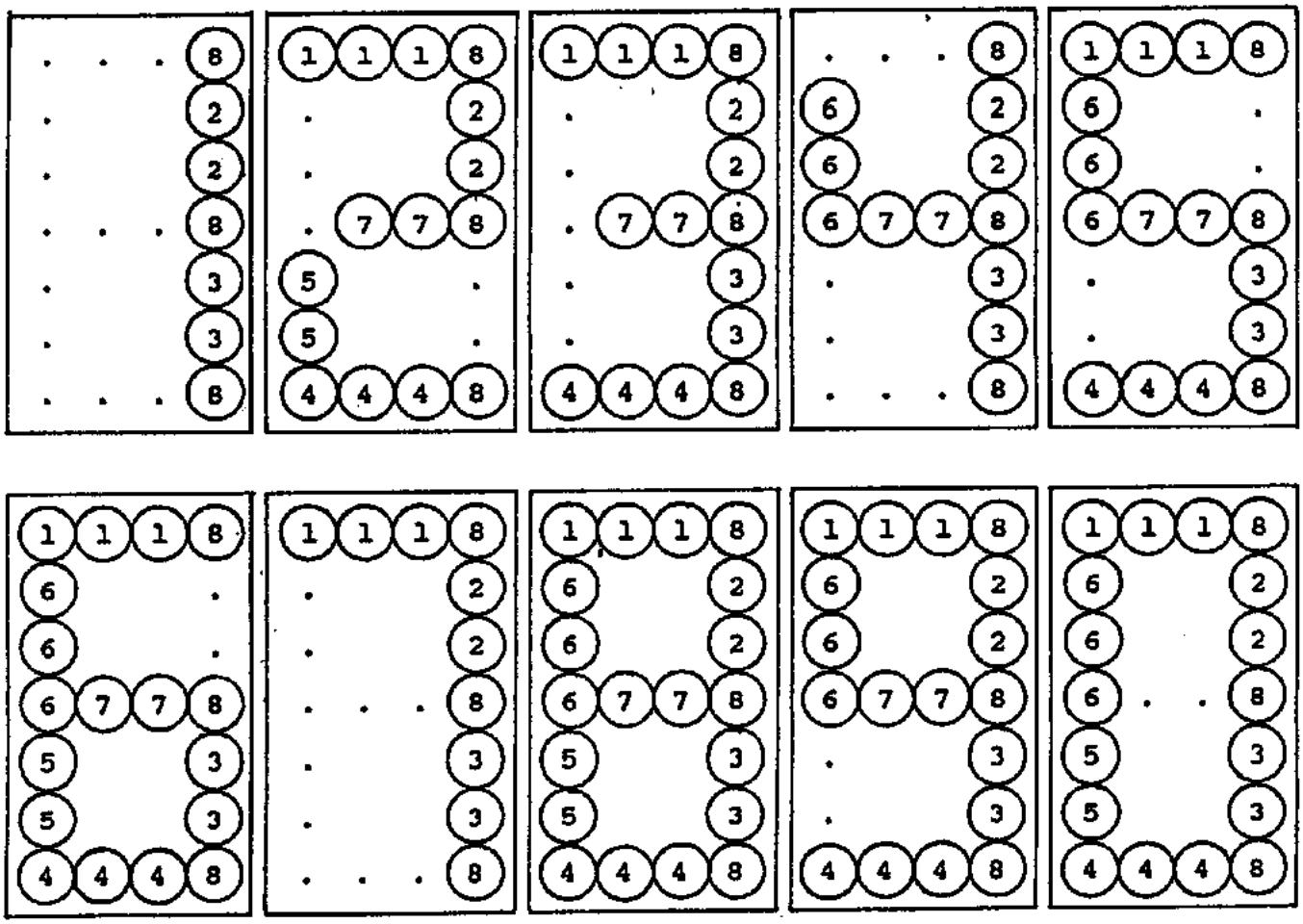
JUNCTION BOX WIRING

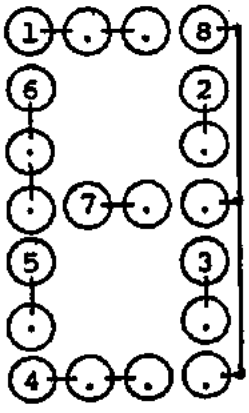
6.4 Controller Wiring and Layout



CONTROLLER LAYOUT

6.5 Microprocessor 4X7 Lamp Pattern (8 Bit)





8 BITS

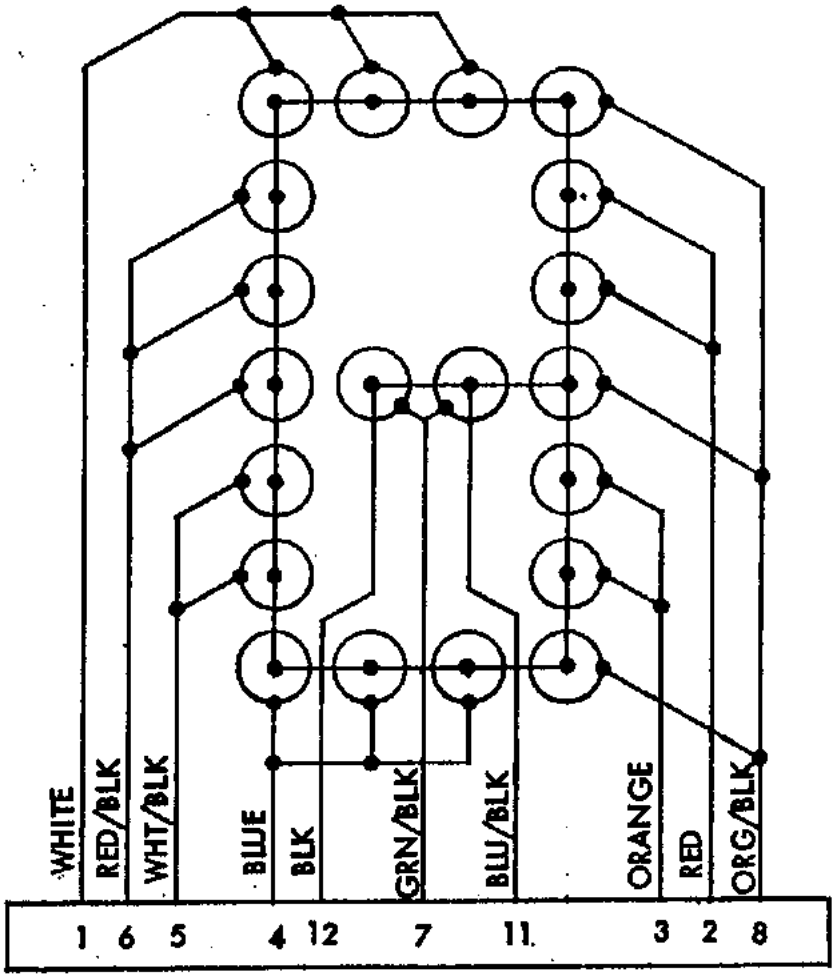
NUMERALS

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

MICROPROCESSOR 4 X 7 (8 BIT) LAMP PATTERN

6.6 Figuregram Wiring

NOTES: 1. Socket common wired with 14 Ga. insulated wire.
2. Sockets to be potted with an approved type insulating epoxy.



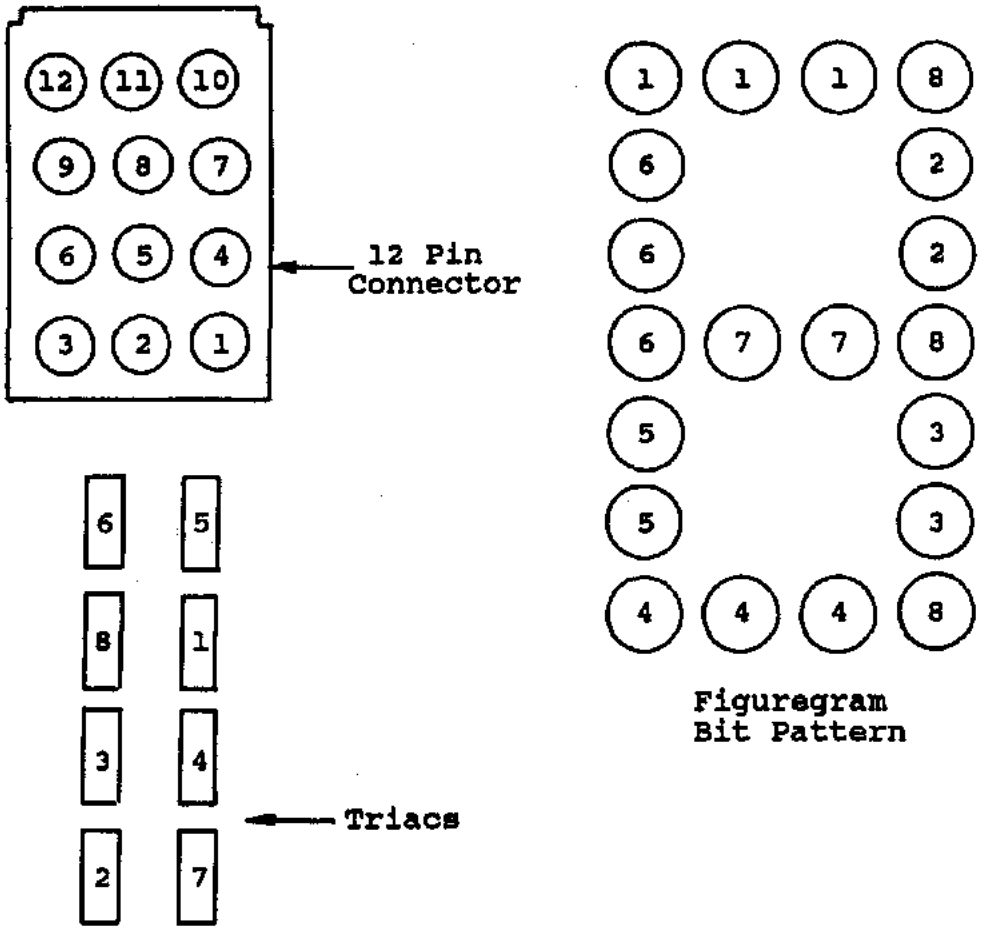
12 Pin Connector Housing Amp #1-480278-0 on 12 Conductor 18 Ga. Cable

8 BIT FIGUREGRAM WIRING

6.7 Triac Placement

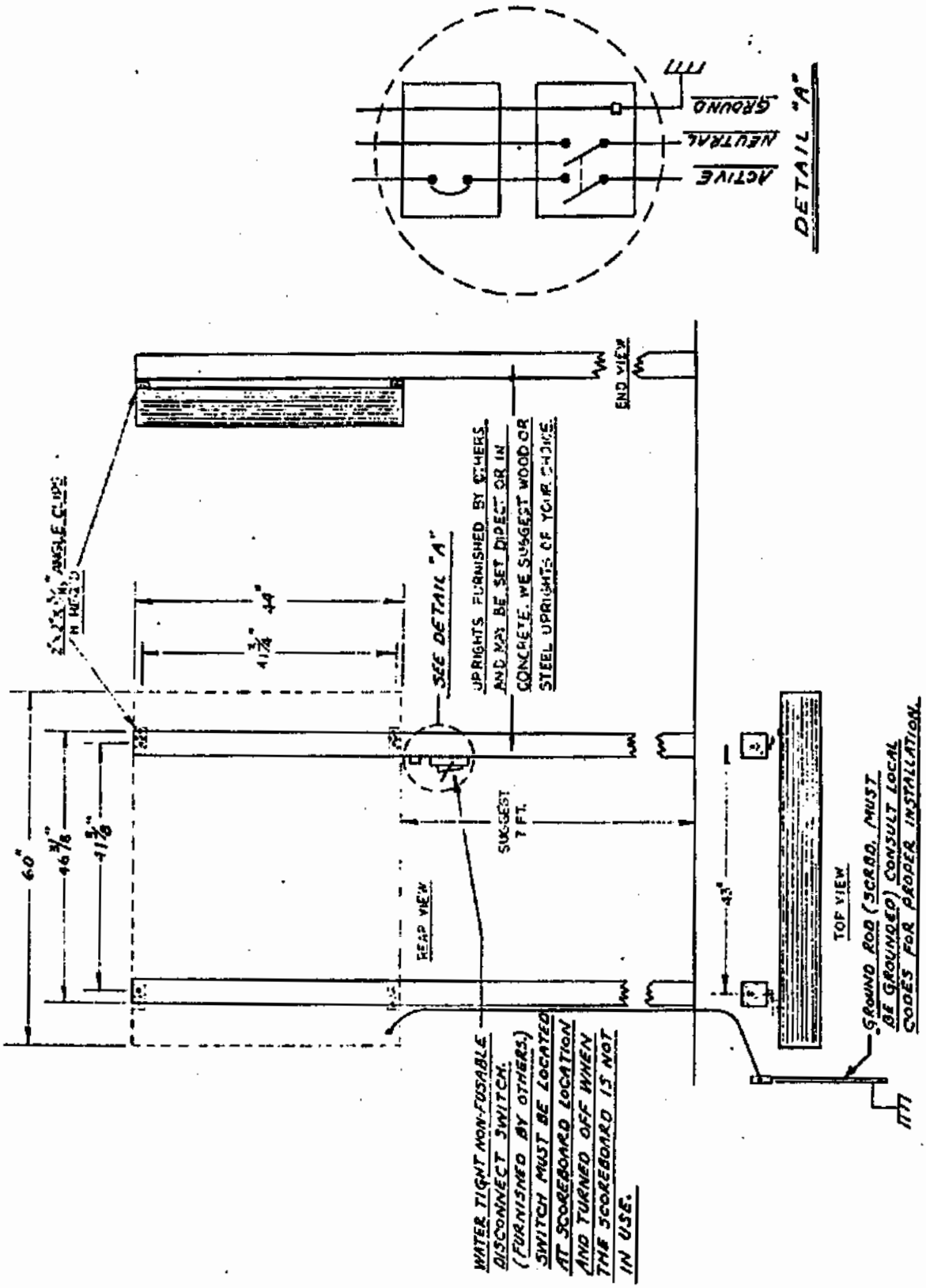
The triac is the switch that controls the figuregram lamps. The triacs for any given figuregram are adjacent to the twelve pin connector on the driver board that controls that figuregram.

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



MP TRIAC PLACEMENT

6.8 Erection



ERECTION DRAWING