

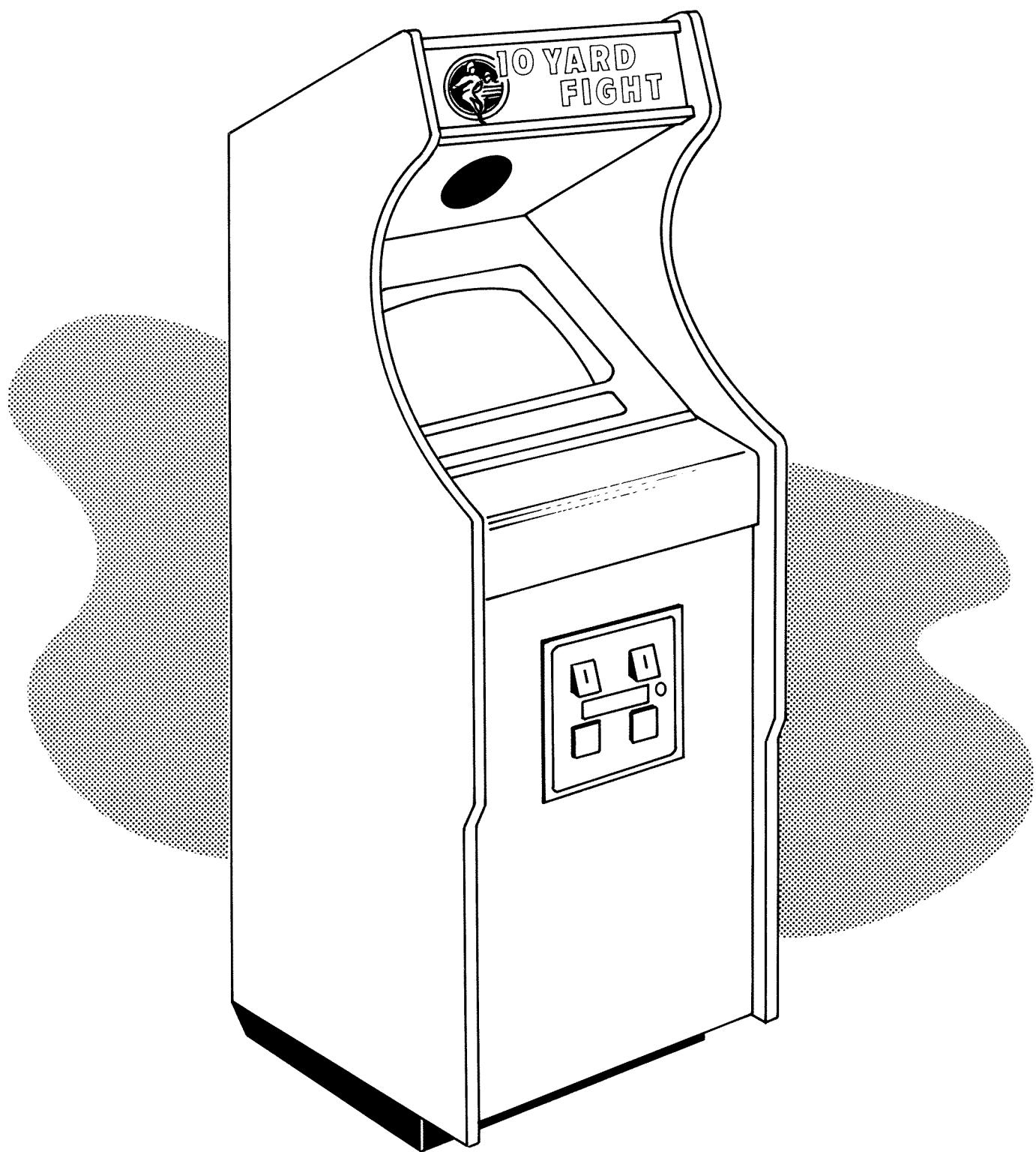


TAITO

© 1984

Trade Marks of Taito America Corporation

72-00049-001



**"10-YARD FIGHT"™**  
**TABLE OF CONTENTS**

<b>1. "TEN-YARD FIGHT"™</b>	
A. GAME FEATURES .....	1
B. INTRODUCTION .....	1
C. GAME INSTALLATION .....	1
D. DIP SWITCH AND VOLUME CONTROL SETTINGS .....	1-3
<b>2. MAINTENANCE</b>	
A. CLEANING .....	3
B. FUSE REPLACEMENT .....	3
C. VIDEO MONITOR REMOVAL .....	3
D. PRE GAME INSTALLATION .....	4
E. COVERGLASS REMOVAL .....	4
F. PRINTED CIRCUIT BOARD REPLACEMENT .....	4
<b>3. DIAGNOSTIC PROCEDURE</b> .....	5-6
<b>4. ILLUSTRATION &amp; PARTS LISTS</b>	
FIGURE 7 INCANDESCENT PANEL .....	7
FIGURE 8 8-WAY JOYSTICK .....	8
FIGURE 9 CONTROL PANEL .....	9
FIGURE 10 DOOR ASSEMBLY SJC-3 .....	10
FIGURE 11 COIN DOOR .....	11-12
FIGURE 12 COIN DOOR .....	13-14
FIGURE 13 COIN DOOR .....	15-16
FIGURE 14 CABINET ASSEMBLY REAR VIEW .....	17-18
FIGURE 15 CABINET ASSEMBLY FRONT VIEW .....	19-20
FIGURE 16 POWER SUPPLY COMPONENT LAYOUT .....	21-23
FIGURE 17 POWER SUPPLY SCHEMATIC 1 of 1 .....	24
FIGURE 18 FILTER BOARD .....	25
FIGURE 19 TOP PCB (M52-Sound) .....	26
FIGURE 20 TOP PCB (M52-Sound G) .....	27
FIGURE 21 TOP PCB (M58-A-A) .....	28
FIGURE 22 CENTER PCB (M58-A-A) 4 BOARD SYSTEM .....	29-32
FIGURE 23 BOTTOM PCB (M58-B-A) .....	33
FIGURE 24 BOTTOM PCB (M58-B-A) 5 BOARD SYSTEM .....	34-38
<b>5. WIRING DIAGRAM FOLDOUT</b>	

# "10-YARD FIGHT"™ UPRIGHT

## 1. GAME SET-UP

### A. GAME FEATURES

TAITO AMERICA CORPORATION'S "10-YARD FIGHT"™ upright game is housed in a compact and highly serviceable cabinet with many added features.

A larger designed cash box has been incorporated into the design of this cabinet.

By putting wheels on the cabinet, moving the game from one location to another is made much easier.

The Control Panel has a polycarbonate overlay, so cigarette marks and mars can easily be wiped clean. This overlay can be replaced if necessary.

The Marquee and Coverglass are made of fully Tempered Glass to minimize breakage.

The Back Service Door houses all the P.C. Boards for the system making servicing of the game, if needed, much easier.

Lighted instructions are provided to further enhance the game and attract players, by making the instructions easier to read.

### B. INTRODUCTION

"10-YARD FIGHT"™ is a fast moving football game licensed by Irem Corporation exclusively to Taito America Corporation. "10-YARD FIGHT"™ can be played by one or two players.

"10-YARD FIGHT"™ lets all the armchair quarterbacks take the field, take the ball and take as much action as they can handle. The player must score a touchdown in the time allotted to go from high school and college ball all the way to the Pros and the Super Bowl with cheerleaders marking his progress in-between. Each level begins with the player carrying the ball on the kick-off as far up the field as he can before being tackled. Then he's in control as quarterback, running with the ball or throwing a forward pass to or lateral to a receiver who lets him know he's open by waving his arms. An intercept pass means a 20 yard penalty, points after can be scored by kicking the ball or running with it into the end zone and the clock is stopped when the player runs out of bounds.

"10-YARD FIGHT"™ has a continuous play feature whereby the player can continue to play where he left off by inserting an additional coin.

So be the next All American Football Hero - Play "10-YARD FIGHT"™. Good Luck!

### C. GAME INSTALLATION

TAITO AMERICA CORPORATION'S "10-YARD FIGHT"™ upright game is shipped ready for operation, but a last visual check should be made to insure the game is in good condition. Please verify the following before turning the game on.

Check the exterior of the game for shipping damage, chips, dents, or broken parts.

- \* Open the Rear Service Door and check for any interior damage.
- \* Make sure there isn't any damage to the wiring.
- \* Check the Printed Circuit Boards, making sure there is no damage to the components.
- \* Check fuses to make sure they are firmly in their holders.
- \* Check for loose foreign objects, especially metal objects which may cause electrical problems.
- \* Check Plug-in Connectors making sure they are firmly in their sockets.

\* Check Switches making sure they are not damaged.

The Video Monitor is properly adjusted before shipping. If there are any adjustments necessary, refer to our Video Monitor Manual (72-00025-001). This manual contains all the manufacturers recommendations for adjusting the video monitor.

### POWER REQUIREMENTS

TAITO AMERICA CORPORATION'S "10-YARD FIGHT"™ upright game is shipped ready for operation at 120VAC, 60Hz with a power consumption of approximately 250 Watts.

### CAUTION

For safe operation it is recommended the cabinet be grounded. This game is equipped with a three conductor power cable. The third conductor is the ground conductor and when the cable is plugged into an appropriate receptacle the game is grounded. The offset pin on the power cable's three-prong connector is the ground connection.

### LOCATION SPACE

Depth 35" (87.5cm)

Width 24" (61cm)

Height 68" (171cm)

Weight 300 lbs.

(Packaged Weight)

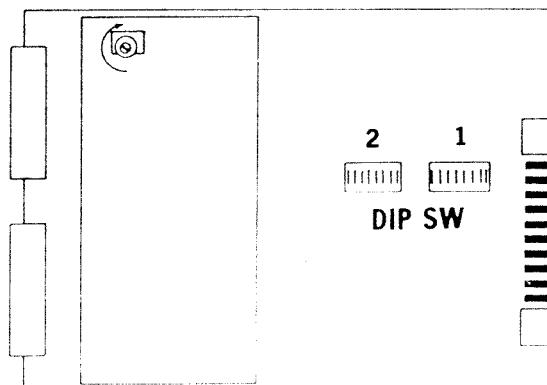
### D. DIP SWITCH AND VOLUME CONTROL SETTINGS

#### DIP SWITCHES

TAITO AMERICA CORPORATION'S "10-YARD FIGHT"™ game provides the following option switches. See Figure 1. These option switches can be found on the Game Board (99-AA017808).

FIGURE 1

VR - MAIN



# "10-YARD FIGHT" DIP SWITCH ADJUSTMENTS

## DIP SWITCH 1

OPTIONS			SWITCHES		1	2	3	4	5	6	7	8	
TIMER SPEED BETWEEN PLAYS			NORMAL				OFF	OFF					
			X 1.3				ON	OFF					
			X 1.5				OFF	ON					
			X 1.8				ON	ON					
COIN MODE (SEE NOTE)	MODE 2 DIP SWITCH 2 POSITION 3 ON	COIN- SELECTOR A	1 COIN/1 PLAY		AL- WAYS OFF		OFF	OFF					
			2 COINS/1 PLAY				ON	OFF					
			3 COINS/1 PLAY				OFF	ON					
			FREE PLAY				ON	ON					
			1 COIN/2 PLAYS				OFF	OFF	OFF	OFF			
			1 COIN/3 PLAYS				ON	OFF	OFF	OFF			
			1 COIN/5 PLAYS				OFF	ON	OFF	OFF			
			1 COIN/6 PLAYS				ON	ON	OFF	OFF			
			1 COIN/1 PLAY		AL- WAYS ON		OFF	OFF	OFF	OFF			
			2 COINS/1 PLAY				ON	OFF	OFF	OFF			
			3 COINS/1 PLAY				OFF	ON	OFF	OFF			
			4 COINS/1 PLAY				ON	ON	OFF	OFF			
			5 COINS/1 PLAY				OFF	OFF	ON	OFF			
			6 COINS/1 PLAY				ON	OFF	ON	OFF			
			1 COIN/2 PLAYS				OFF	OFF	OFF	ON			
			1 COIN/3 PLAYS				ON	OFF	OFF	ON			
			1 COIN/4 PLAYS				OFF	ON	OFF	ON			
			1 COIN/5 PLAYS				ON	ON	OFF	ON			
			1 COIN/6 PLAYS				OFF	OFF	ON	ON			
			FREE PLAY				ON	ON	ON	ON			
			CONTINUED PLAY	YES		AL- WAYS ON	ON						
			NO				OFF						

Note! Set for Coin Mode 1 in case a single coin-selector or two selectors of the same coin value are used.  
Set for Coin Mode 2 in case two coin-selectors of different coin values are used.

## DIP SWITCH 2

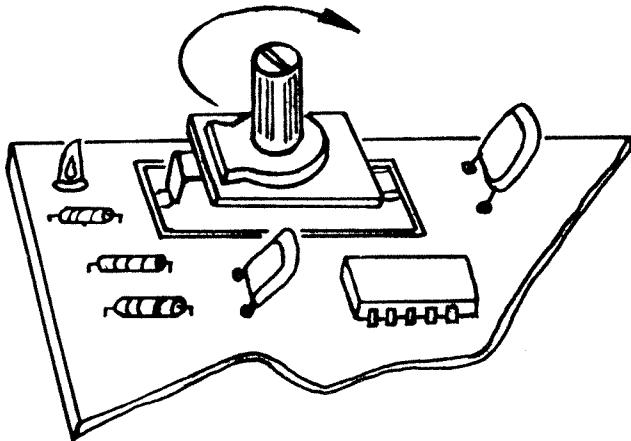
OPTIONS		SWITCHES		1	2	3	4	5	6	7	8
SCREEN INVERSION	PLAYER 2		OFF								
	PLAYER 1		ON								
CABINET TYPE	T T		OFF								
	UPRIGHT		ON								
COIN MODE	MODE 1		OFF								
	MODE 2		ON								
FREEZE PICTURE	NORMAL		OFF								
	FREEZE		ON								
HIT MODE	NORMAL		OFF								
	NO HIT		ON								
TEST MODE	NORMAL		OFF								
	TEST		ON								

NOTE! Press 2P. start button to freeze picture. Press 1P. start button to let it move again.

## VOLUME CONTROL SETTING

The Volume increases by turning the potentiometer as indicated in Figure 2.

VOLUME CONTROL LOCATIONS  
FIGURE 2



## POWER ON/OFF SWITCH

The power on/off switch is located in the front lower left hand corner of the cabinet.

## 2. MAINTENANCE

All games require a certain amount of maintenance to keep them in good condition. A periodic check of mechanical controls would be beneficial to guarantee your game will be profitable.

### A. CLEANING

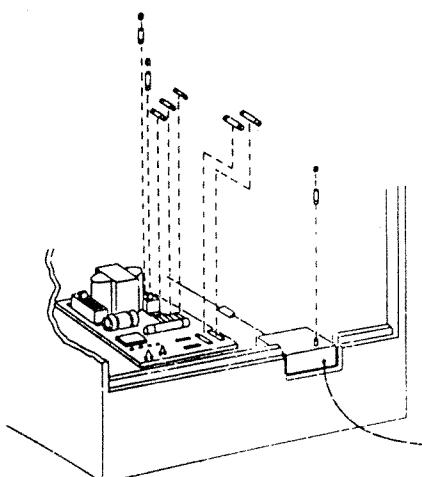
The exterior of the game, all metal parts and all plastic parts can be cleaned with a non-abrasive cleanser. Caution should be used when cleaning the plastic, a dry cloth can cause scratches and result in a foggy appearance.

### B. FUSE REPLACEMENT

This game contains 8 fuses. Seven of these fuses can be found on the Power Supply Assembly, five (5) are on the PCB and two (2) are on the Power Supply Bracket. One (1) is located at the bracket where the AC line cord comes into the cabinet. See Figure 3 for location of these fuses.

### FUSE REPLACEMENT

FIGURE 3



## C. VIDEO MONITOR REMOVAL

If you need to remove the Video Monitor follow the instructions listed below:

**NOTICE:**

"This equipment complies with the requirements of Part 15 of FCC Rules for a Class A computing Device. Operation of this equipment in a residential area may cause unacceptable interference to radio and T.V. reception requiring the operator to take whatever steps are necessary to correct the interference."

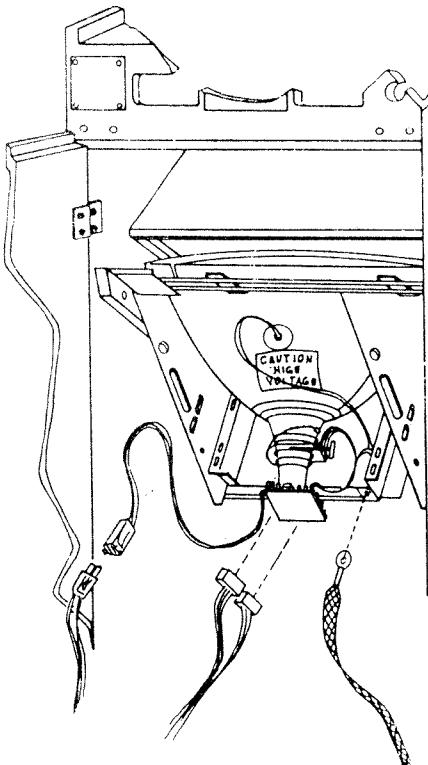
- \* Turn game power switch off.
- \* Disconnect the power from the line voltage.
- \* Make sure back door is open fully.
- \* Disconnect the Monitor cable connector.
- \* While holding the monitor bracket take out the two rear side bolts, one on each side of the cabinet.
- \* Carefully lower the monitor on to monitor stops.
- \* Remove the four mounting bolts and disconnect the braided ground wire.
- \* Slide the monitor out by pulling the monitor toward you.

**CAUTION**

Use extreme caution and do not touch electrical parts of the Monitor Yoke area with your hands or with any metal object in your hands! High voltages may exist in any Monitor, even with power disconnected.

## MONITOR REMOVAL

FIGURE 4



#### D. PRE GAME INSTALLATION

The following precautions should be followed when installing the game.

- \* Avoid rough handling of the game, the picture tube is fragile.
- \* Install the game on a level surface.
- \* Avoid installing the game where it may receive excessive sunlight or heat, to protect the game from rising internal temperatures.
- \* Do not install in a damp or dusty location.
- \* For a short time after connecting the power to the game, the picture may be temporarily distorted.

The monitor's purity is affected by the earth's magnetic field, causing a variation of color. By turning the game on for 10 to 15 seconds and then off for 20 to 30 minutes, the automatic degaussing circuit applies a degaussing field to the edges of the monitor. Doing this several times will correct the problem. Another way to correct this problem is to purchase a degaussing coil or bulk tape eraser at any Electronics store. This will help to immediately demagnetize the Video tube. Caution must be used with a degaussing coil so the magnetic field of the degaussing coil is not allowed to become too intense at any one place on the picture tube thereby causing a localized color distortion. If you move the game to another location after degaussing the problem may reappear. Refer to Monitor Manual.

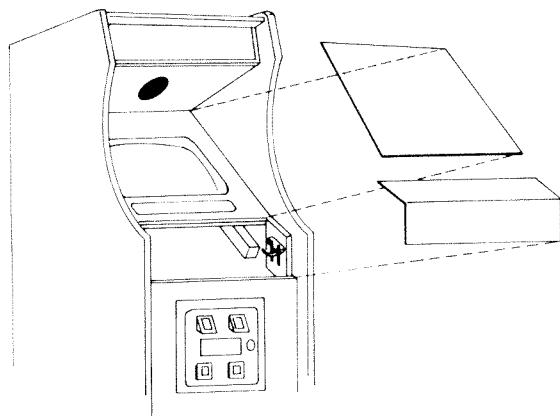
#### E. COVERGLASS REMOVAL

To remove the Coverglass follow the Instructions listed below:

1. Remove the control panel by reaching up through the Coin Door and unlatching the latching clamps.
2. Disconnect the Control Panel Cable.
3. Lift the Control Panel out. The Coverglass can now be easily removed from the front of the game with no screws. To replace the coverglass simply reverse the above procedure.

**NOTE:** Be sure you are holding the glass firmly to ensure against any chipping or breakage.

**FIGURE 5**



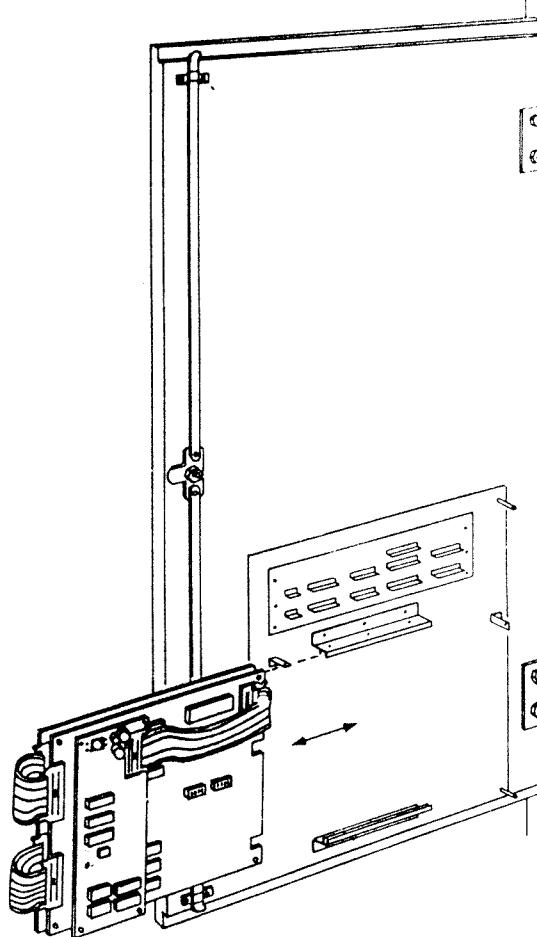
#### F. PRINTED CIRCUIT BOARD REPLACEMENT

You may wish to remove the "10-YARD FIGHT"™ Printed Circuit Boards for servicing. Refer to Figure 6. The 10 Yard Fight Printed Circuit Boards are located on the inside of the rear Service Door for easy access. To remove the boards the following steps should be followed:

1. Open the rear service door, the power will automatically be removed by the Interlock Switch located on the inside of the door frame.
2. Disconnect the connectors G, H and T from the boards.
3. Loosen and turn the Stop Bracket and slide the boards out of the board guides.

#### PRINTED CIRCUIT BOARD REPLACEMENT

**FIGURE 6**



### 3. Test Mode

The Diagnostic program is activated by turning switch 8 of Dip Switch 2 to the ON position and turning the power switch ON. This diagnostic program is composed of 8 independent tests, the first two (RAM test and ROM test) of which initiate automatically as the power switch is turned ON. After these two tests end, the video monitor will display a list of the next six tests as described below when the 2-Player button is pressed:

- 01 DIP SWITCH
- 02 I-O PORT
- 03 SOUNDS
- 04 CHARACTER
- 05 COLOR
- 06 CROSS HATCH PATTERN

Move the joystick to position the cursor at the desired test and press the 1-Player button to start the test.

To return to test list: Press the 2-Player button (except when 02 I-O PORT test ends). As 02 I-O PORT test ends, move the joystick left (the 1-Player joystick for table type game) while pressing the 2-Player button.

When all the necessary testing is complete, turn power switch OFF and turn switch 8 of Dip Switch 2 to the OFF position.

#### A. RAM TEST

If RAM is OK, "RAM OK" appears on the video monitor.

If RAM is at fault: "RAM NG    XXXX    YY    ZZ"  
 XXXX    RAM ADDRESS  
 YY    RAM input data  
 ZZ    RAM output data key  
 Press the 1-player button to continue RAM TEST  
 or  
 Press the 2-Player button to end this test and advance to ROM TEST.

#### B. ROM TEST

If the ROMs are OK, the following appears on the video monitor.

RAM	OK
ROM 0	OK
ROM 1	OK
ROM 2	OK
ROM 3	OK

If any of the ROMs are at fault, for instance, ROM 1, the following appears on the video monitor.

RAM	OK
ROM 0	OK
ROM 1	NG
ROM 2	OK
ROM 3	OK

#### ROM LOCATION TABLE

MEMORY	LOCATION TABLE	
	#	LOCATION
RAM	3J	
ROM 0	3R	
ROM 1	3N	
ROM 2	3M	
ROM 3	3K	

#### C. DIP SWITCH TEST

When the video monitor displays the test list, control the joystick to position the cursor at 01 and press the 1-Player button.

This test shows the state of switches of Dip Switch 1 and 2 and the results of game adjustments.

1 = ON

0 = OFF

DIP	SW	1	2	3	4	5	6	7	8
DSW 1		0	0	0	0	0	0	0	0
DSW 2		0	0	0	0	0	0	0	1

TIME REDUCED BY DEAD BALL      NORMAL

#### COIN MODE

SELECTOR A      1 COIN 1 PLAY

SELECTOR B      1 COIN 2 PLAYS

CABINET TYPE      UPRIGHT

#### D. I-O PORT TEST

While the video monitor displays the test list, control the joystick to position the cursor at 02 and press the 1-Player button.

This test checks if all the switches on the Control Panel and Coin Doors are working correctly. The following display appears.

1 = ON

0 = OFF

	1	2	3	4	5	6	7	8
KEY 0	0	0	0	0	0	0	0	0
KEY 1	0	0	0	0	0	0	0	0
KEY 2	0	0	0	0	0	0	0	0

\*TIMING 0000

\*TIMING starts at 0000 and adds one count approximately every second.

KEY	0-1.....	1-Player Button
	0-2.....	2-Player Button
	0-3.....	Service Switch
	0-4.....	Coin Switch A
KEY	1-1.....	P1 Joystick right
	1-2.....	P1 Joystick left
	1-3.....	P1 Joystick down
	1-4.....	P1 Joystick up
	1-6.....	P1 Forward Pass Button
	1-8.....	P1 Sideways Pass Button
KEY	2-1.....	P2 Joystick right
	2-2.....	P2 Joystick left
	2-3.....	P2 Joystick down
	2-4.....	P2 Joystick up
	2-5.....	**Coin Switch B
	2-6.....	P2 Forward Pass
	2-8.....	P2 Sideways Pass

\*\*Coin Switch B is for coin doors with two coin selectors of different values.

P2 Switches are for cocktail table games only.

To terminate this test and bring the test list back to the video monitor, move the joystick left while depressing the 2-Player button.

**E. SOUND TEST**

While the video monitor displays the test list, control the joystick to position the cursor at 03 and press the 1-Player button.

A table of sound appears on the video monitor.

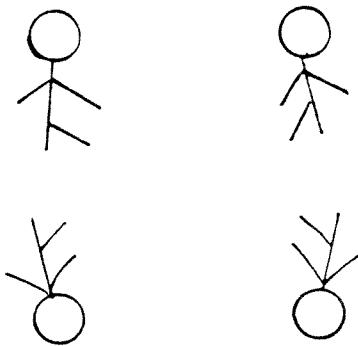
01	BALL KICKING SOUND
02	LINEMAN BLOCKING SOUND
03	BLOCKING SOUND
04	TACKLING SOUND
05	GAME OVER SOUND
06	CHEER 1
07	CHEER 2
08	QUARTERBACK CALL 1
09	QUARTERBACK CALL 2
10	REFEREE CALL 1
11	REFEREE CALL 2
12	JUMP TACKLE VOICE
13	WHISTLE SOUND
14	TIME OVER INSERT COIN
15	SNAPBACK SOUND
16	BALL PASSING SOUND
17	OPENING MUSIC
18	GAME OVER MUSIC
19	BALL CARRIER RUNNING
20	CHEERLEADER MUSIC
21	TOUCHDOWN MUSIC

Select a sound by positioning the cursor with the joystick. Depressing the 1-Player button repeats the sound.

**F. CHARACTER TEST**

While the video monitor displays the test list, control the joystick to position the cursor at 04 and press the 1-Player button.

The video monitor displays four players carrying the ball which are flipped vertically and horizontally as shown below.

**G. COLOR TEST**

While the video monitor displays the test list, control the joystick to position the cursor at 05 and press the 1-Player button.

This test is comprised of five independent checkups. Pressing the 1-Player brings each checkup to the video monitor.

- (1) A row of letters A thru Z appears along with a row of numbers 0 thru 9 as shown below.

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
0123456789

- (2) Blue field is displayed.  
(3) Red field is displayed.  
(4) Green field is displayed.

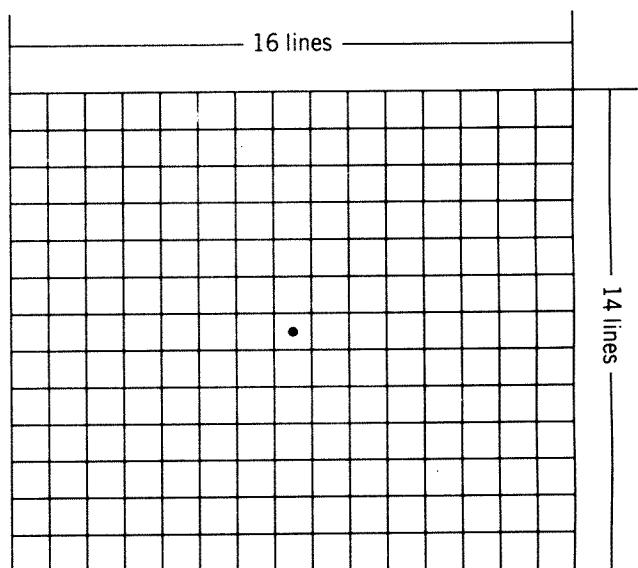
CYANOGEN	BLUE	RED	BLACK	YELLOW	PINK	GREEN	BLACK

(5) Color pattern appears on the video monitor as shown above.

**H. CROSS HATCH PATTERN TEST**

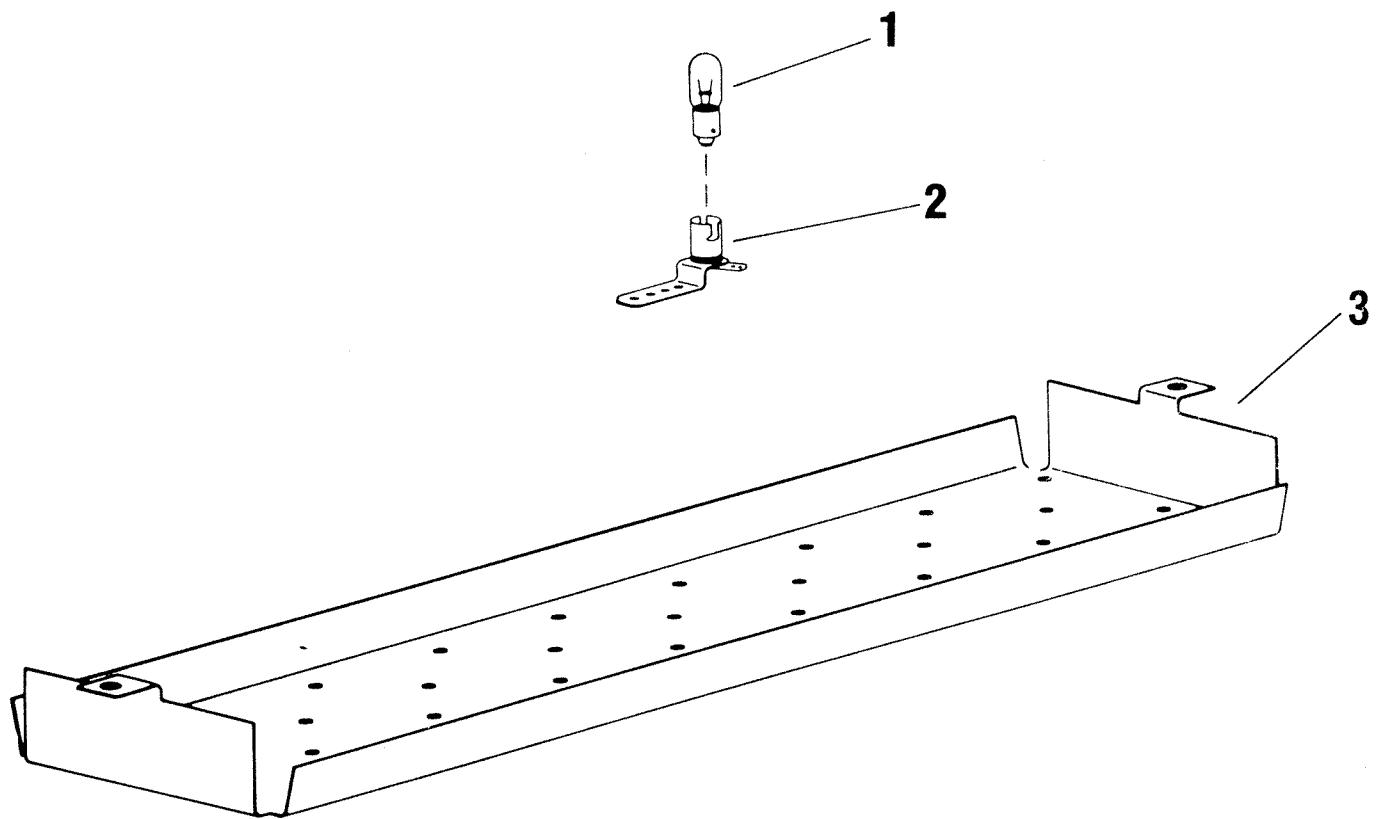
Control the joystick to position the cursor at 06 and press the 1-Player button.

A cross hatch pattern is displayed as shown below.



**INCANDESCENT PANEL****FIGURE 7**

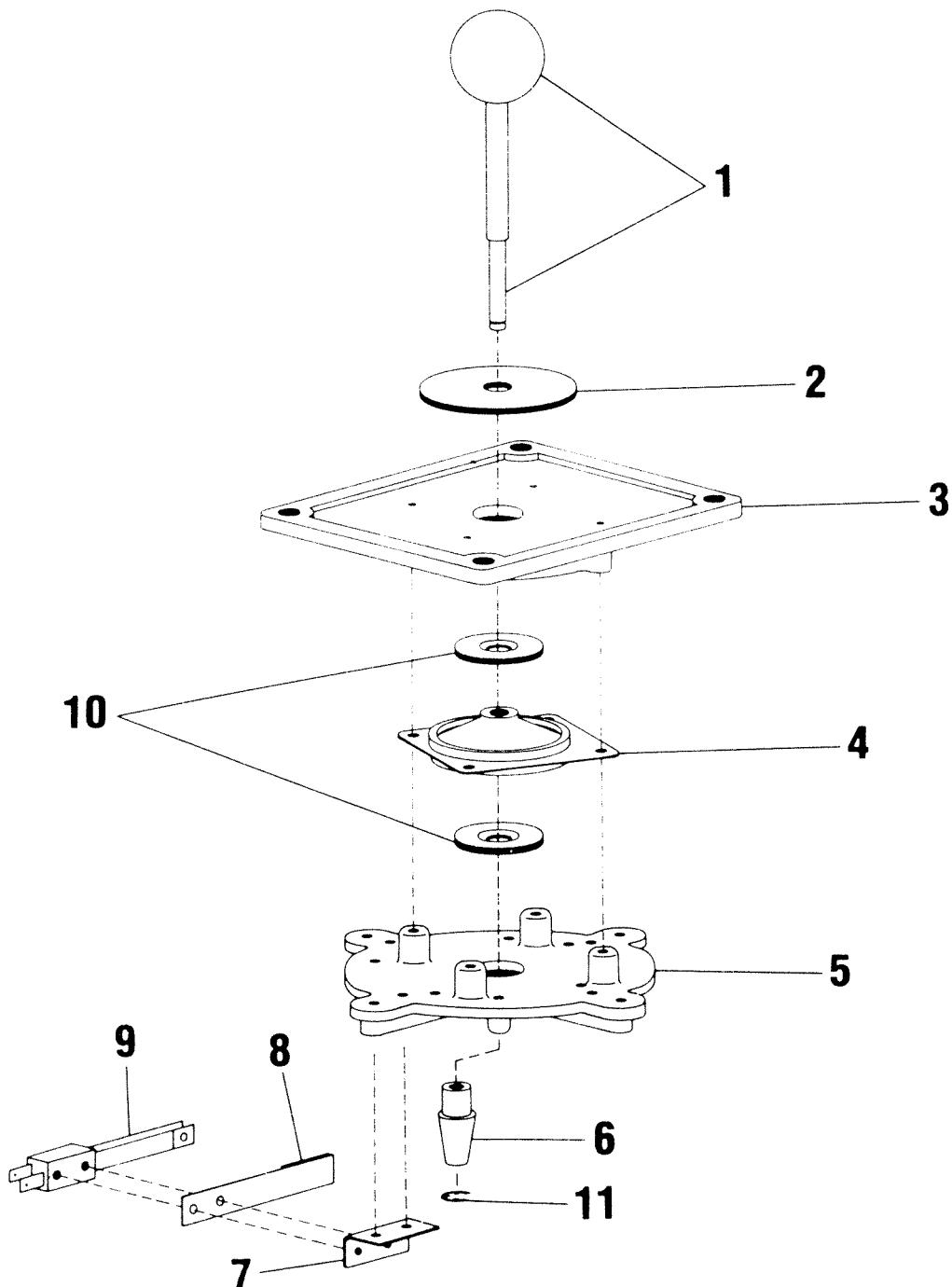
ITEM	TAITO PART NO.	DESCRIPTION
1	27-00006-001	LAMP #47
2	26B00009-001	BAYONET BASE SOCKET
3	61D00112-001	MARQUEE LIGHTING PLATE



## 8-WAY JOYSTICK (63-00032-006)

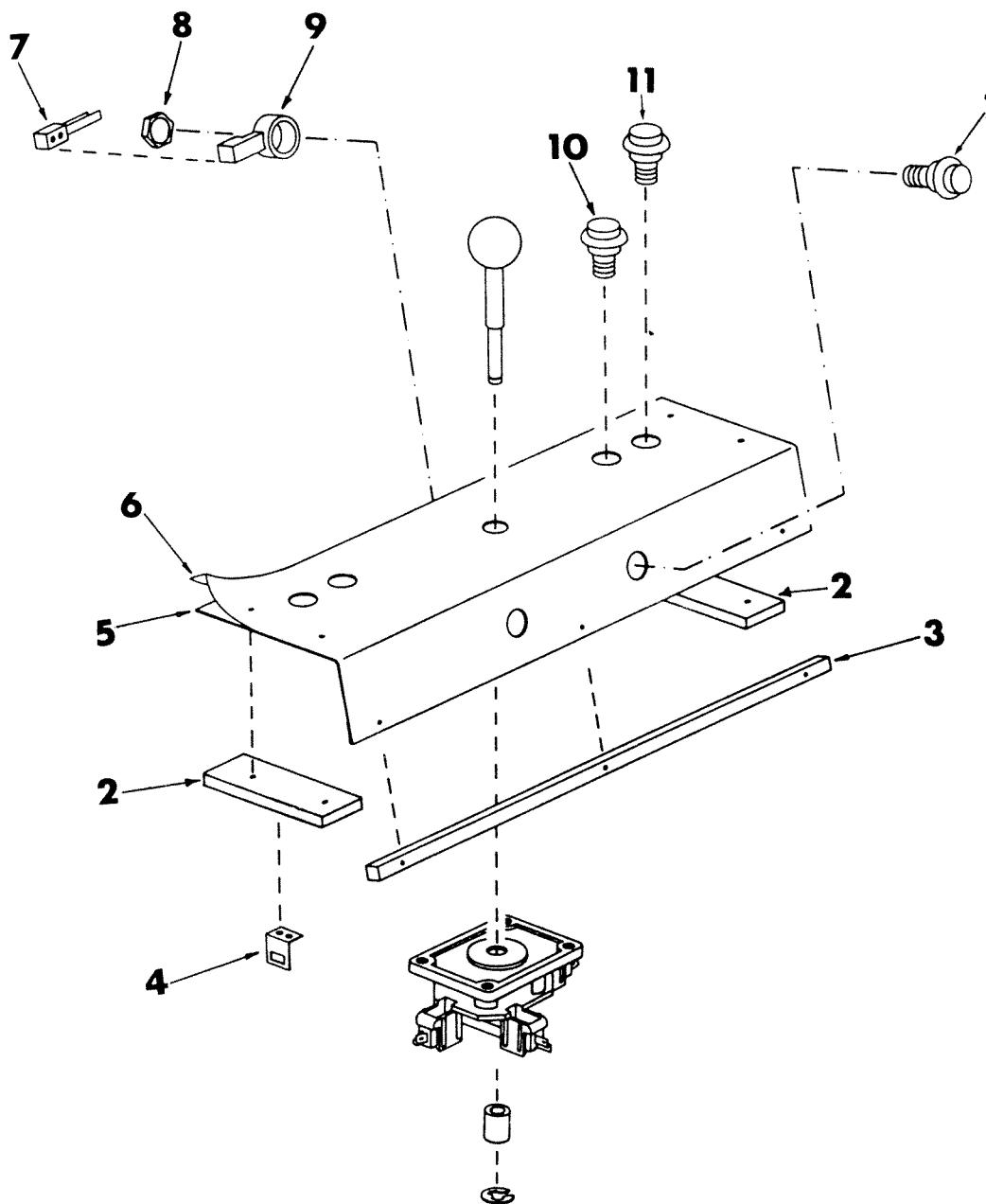
**FIGURE 8**

ITEM	TATIO PART NO.	DESCRIPTION
1	63B00031-001	BALL & SHIFT
2	63A00033-001	MASK
3	63C00027-001	MOUNTING PLATE
4	62A00002-001	SHOCK MOUNT PLATE
5	63A00028-001	SWITCH PLATE
6	63A00030-001	ACTUATOR
7	61A00078-001	"L" BRACKET
8	63A00026-001	SWITCH SPACER
9	29B00016-002	LEAF SWITCH, SHORT
10	63A00029-001	SPACER
11	59B00020-017	"E" RING



**CONTROL PANEL**  
**FIGURE 9**

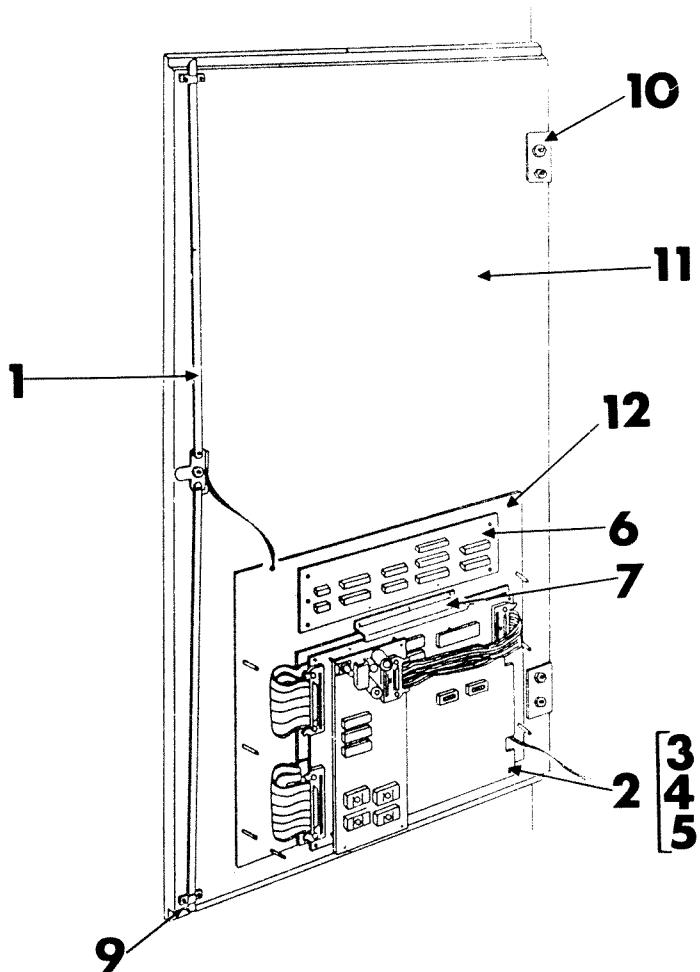
ITEM	TATIO PART NO.	DESCRIPTION
1	63B00024-001	PUSH BUTTON WHITE
2	42-00150-001	MOUNTING PLATE
3	42B00108-001	CLEAT, WOOD
4	61A00015-001	STRIKE HOOK
5	61-00216-001	METAL CONTROL PANEL
6	66-00015-001	CONTROL PANEL OVERLAY
7	29B00016-001	SWITCH LEAF
8	54A07001-008	NUT, STAMPED 5/8-11
9	63-00025-001	SWITCH SUPPORT
10	63-00156-004	PUSH BUTTON (SIDE PASS)
11	63-00156-005	PUSH BUTTON (FWD PASS)



**DOOR ASSEMBLY SJC-3**  
**FIGURE 10**

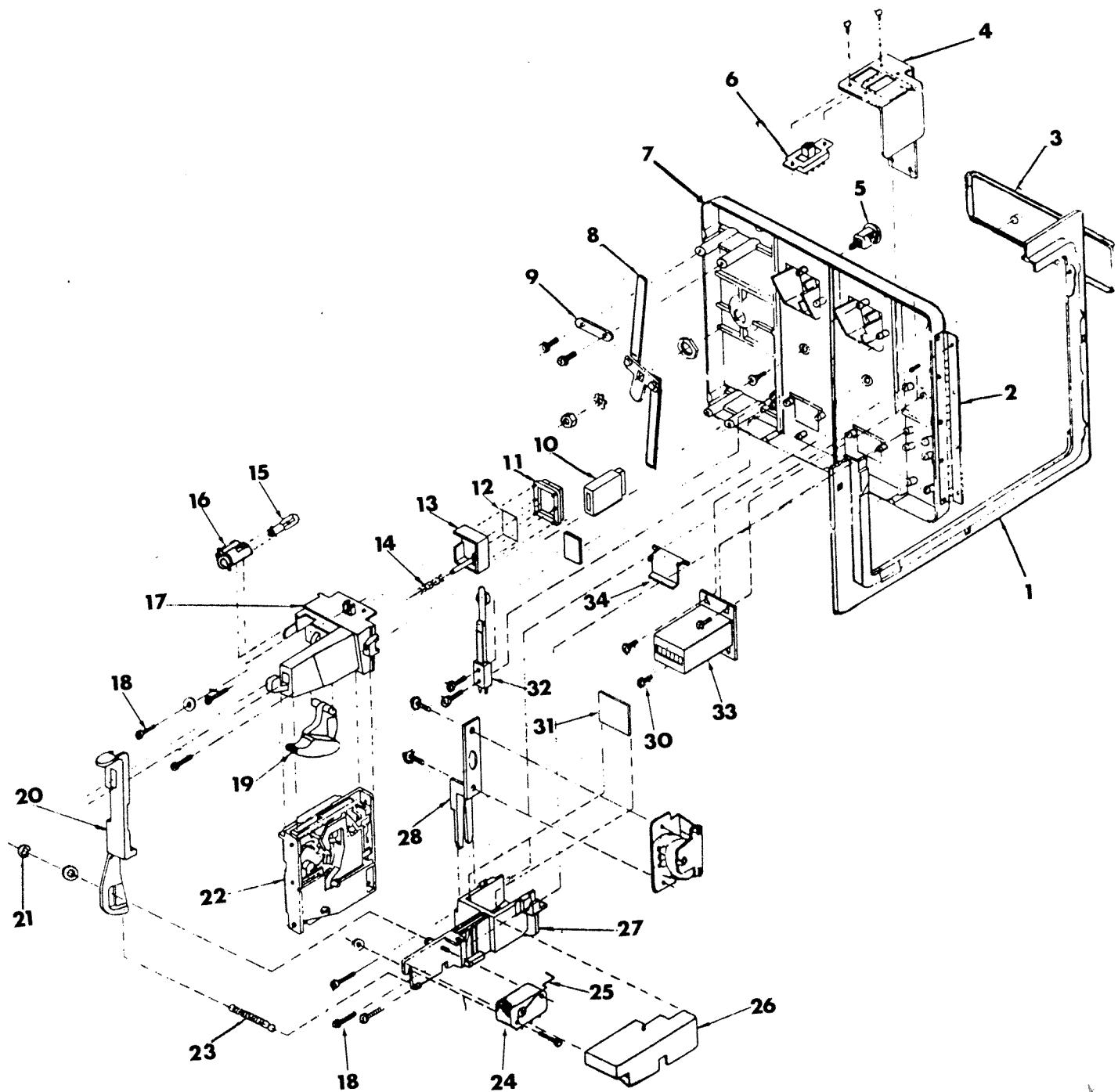
ITEM	TAITO PART NUMBER	DESCRIPTION
1	61-00142-001	LOCK ROD ASSEMBLY
2	08-00140-001	GAME BOARD SET
3	08-00140-002	SOUND PCB
4	08-00140-003	CPU PCB
5	08-00140-004	VIDEO PCB
6	08-00141-001	FILTER PCB
7	07-00349-001	BRACKET PC BOARD
8 *	61A00014-001	"L" BRACKET
9	61-00111-001	BRACKET, LOCK ROD
10	61-00229-001	HINGE
11	42-00144-001	BACK DOOR
12	61-00356-001	GROUND PLATE
13 *	59-00016-001	SPACER (FILTER BOARD)

\* Item not shown on dwg.



## COIN DOOR

FIGURE 11



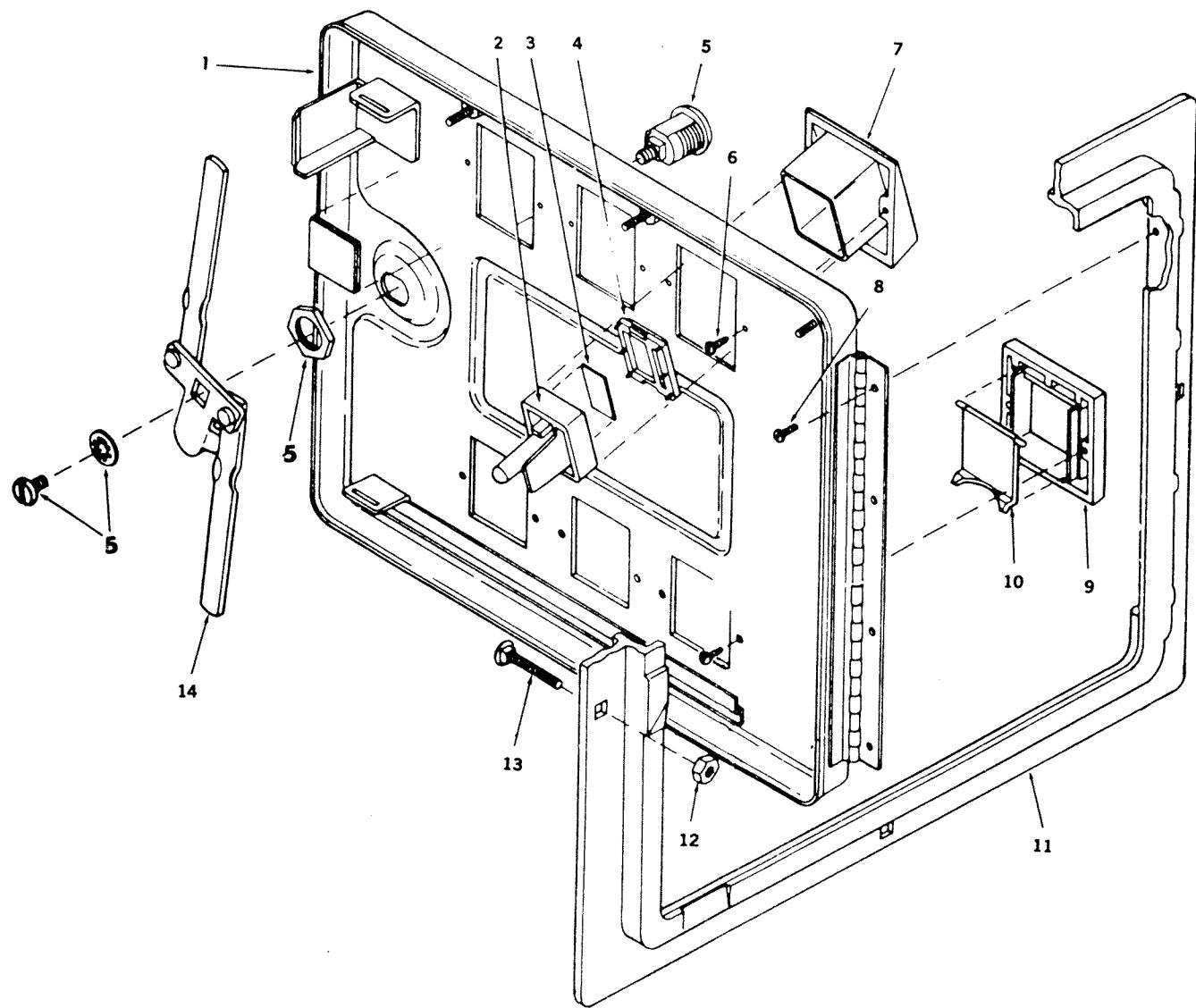
# COIN DOOR

**FIGURE 11**

<b>ITEM</b>	<b>TAITO PART NO.</b>	<b>DESCRIPTION</b>	<b>REFERENCE</b>
1	61-00270-001	DOOR FRAME	15-8039
2	61-00272-001	HINGE	30-9125
3	61-00273-001	TAITO NAME PLATE	15-8115
4	61-00277-001	SERVICE SWITCH BRACKET	15-8030
5	07-00242-001	LOCK 5/8" ASSEMBLY	34-1855
6	29-00037-001	SERVICE SWITCH	23-1339
7	61-00271-001	DOOR	15-8038
8	07-00243-001	LOCK CAM ASSEMBLY	55-2909
9	61-00278-001	LOCK CAM PLATE	55-2909
10	63-00124-001	COIN ENTRY SLOT	15-8074
11	63-00125-001	PUSH BUTTON COVER	15-8072
12	79-50034-001	.25 PRICE DECAL	15-8081
13	63-00126-001	PUSH BUTTON	15-8071
14	58-00007-001	COMPRESSION SPRING	30-7722
15	27-00008-001	LAMP #1815	21-1815
16	26-00019-001	LAMP SOCKET 25B4-L187	15-9419
17	61-00274-001	COIN CHUTE	15-8075
18	51-02002-006	#6-32 X 1/2 PR PH SCREW	
19	63-00127-001	REJECT LEVER	15-8084
20	63-00131-001	COIN ACCEPTOR RETAINER	15-8086
21	59-00020-025	1/4" E RING	30-0731
22	59-00055-001	PLASTIC COIN ACCEPTOR .25	31-4014
23	58-00008-001	EXTENSION SPRING	30-7372
24	29-00041-001	SWITCH	23-1347
25	61-00279-001	WIRE FORM (COIN SWITCH)	23-1348
26	63-00130-001	SWITCH COVER	15-8043
27	23-00003-001	COIN RETURN BOX	15-8091
28	63-00129-001	COIL BRACKET	15-8080
29		NOT USED	
30	51-02002-002	#6-32 X 1/4 PR PH SCREW	
31	61-00276-001	GUARD	15-8092
32	29-00036-001	SLAM SWITCH	15-1255
33	33-00002-001	COIN COUNTER 6VDC	31-4550
34	63-00128-001	COIN RETURN DOOR	15-8083

# COIN DOOR

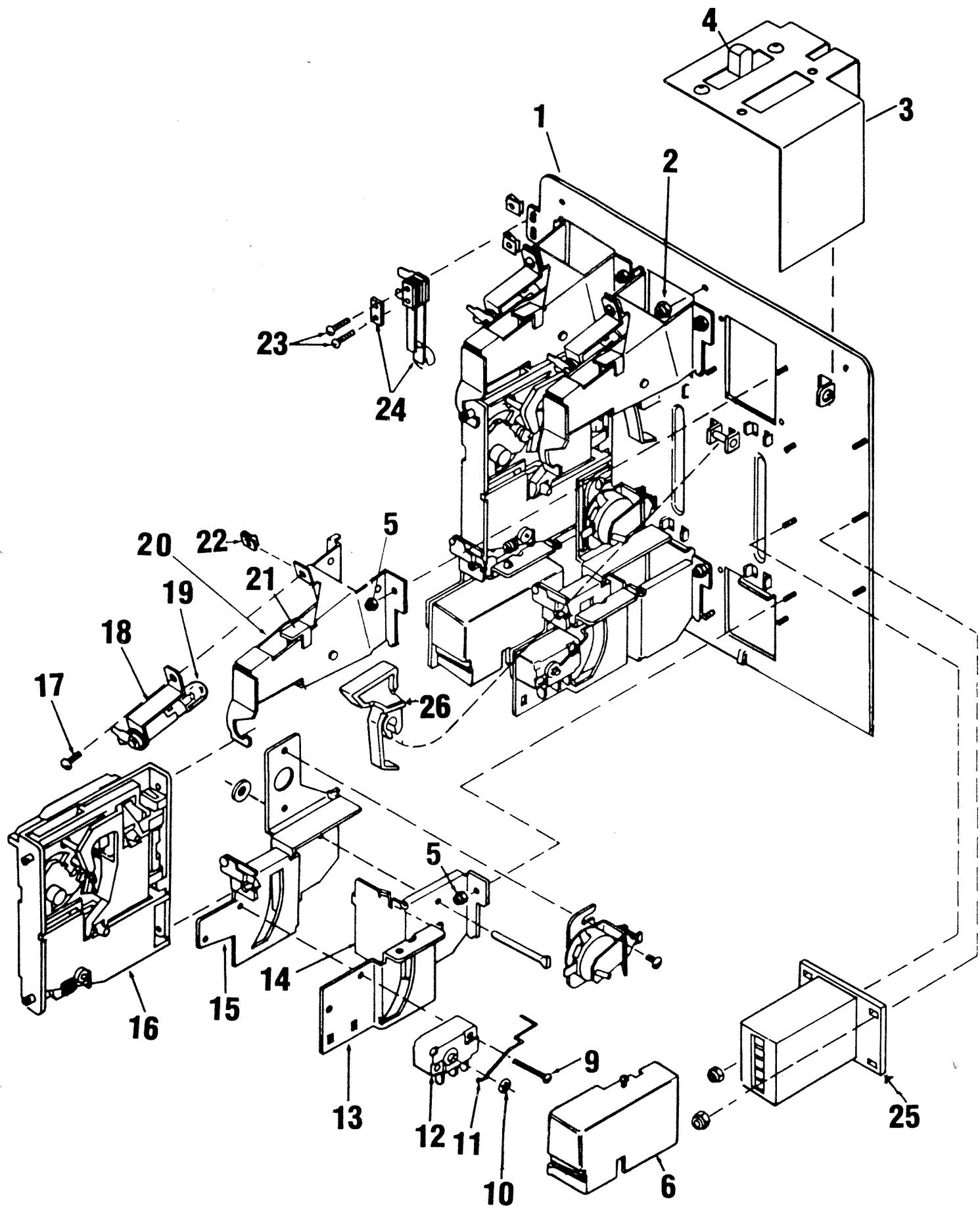
FIGURE 12



**COIN DOOR****FIGURE 12**

<b>ITEM</b>	<b>TAITO PART NO.</b>	<b>DESCRIPTION</b>	<b>REFERENCE</b>
1	61-00042-001	COIN DOOR ONLY (2 COIN)	404341
2	63-00015-001	COIN RETURN BUTTON	904591
3	79-50004-001	US .25 PRICE DECAL	904703
4	63-00016-001	COIN RETURN BUTTON COVER	
5	07-00025-001	LOCK ASSEMBLY	904707-1
6	51-01051-003	SCREW #4 X 5/16 SL PH TYPE B	345-4-5
7	63-00011-001	COIN BUTTON HOUSING	904588
8	51-02051-002	SCREW #4-40 X 1/4 SL PH	325-4-4
9	63-00012-001	COIN RETURN BEZEL	904590
10	63-00013-001	COIN RETURN COVER	904599
11	61-00040-001	COIN DOOR FRAME 11 5/8 X 13 3/8 MOUNTS IN A 10 3/8 X 12 3/16 OPENING	
12	54-01005-001	HEX NUT 1/4-20	406-416
13	51A03003-113	CARRIAGE BOLT	904734
14	07-00026-001	LOCK CAM ASSEMBLY	404357

COIN DOOR  
FIGURE 13

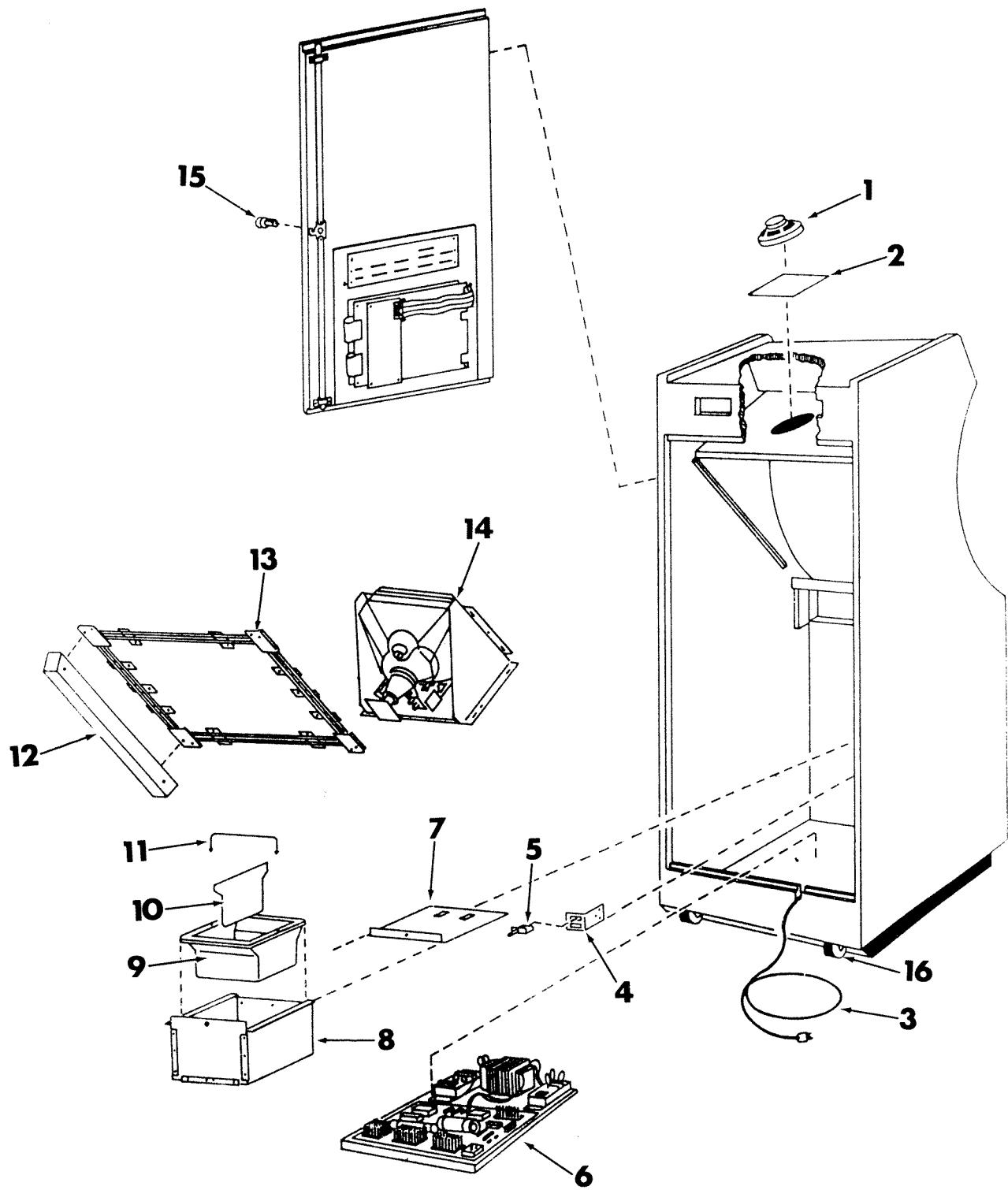


**COIN DOOR**  
**FIGURE 13**

ITEM	TAITO PART NO.	DESCRIPTION	REFERENCE
1	07-00027-001	INNER PANEL W/LEVERS	404429 SUB ASSEMBLY
2	54-03013-001	NUT #8-32 400-8	
*	09-00017-001	CUSTOM HARNESS ASSEMBLY (SGL COIN)	
*	09-00017-002	CUSTOM HARNESS ASSEMBLY (DUAL COIN)	
3	61B00113-001	SERVICE SWITCH BRACKET	
4	29-00022-001	SERVICE SWITCH	
5	54-03011-001	NUT #4-40	904762
6	63-00014-001	SWITCH COVER	100-6-3
7	51-02052-001	NOT USED	
8	23-00001-001	NOT USED	
9	51-02052-001	SCREW #6-32 X 3/16 SS PH	100-4-12
10	59-00019-001	RETAINER	900651
11	28-00029-001	SILVER SWITCH FOR US .25	904710-1
12	29-00007-001	SWITCH	904845
13	61-00044-001	COIN CHUTE	904701
14	61-00045-001	COIN RETURN BOX	904598
15	61-00025-001	SWITCH & C.R.E.M. COIL BRACKET	404428
16	59-00018-001	.25 ACCEPTOR	5301-10
17	51-02051-006	SCREW 4-40 X 3/8 SS PH	110-4-6
18	27-00003-001	MINATURE BAYONET BASE LAMP 904717 * 26-00006-001 LAMP SOCKET	904717
19	27-00003-001	1815 LAMP 12V	
20	61-00048-001	COIN INLET CHUTE	904418
21	61-00047-001	RIGHT HALF OF COIN INLET CHUTE	904594
22	54-00001-001	"U" TYPUE FASTENER	904712
23	51-02051-006	SCREW 4-40 X 1/2 SS PH	116-4-8
24	29-00006-001	SLAM SWITCH ASSEMBLY	904704
25	33-00002-001	COIN METER	
26	63-00155-001	COIN REJECT LEVER	904583

\* Item not shown on drawing.

CABINET ASSEMBLY REAR VIEW  
FIGURE 14



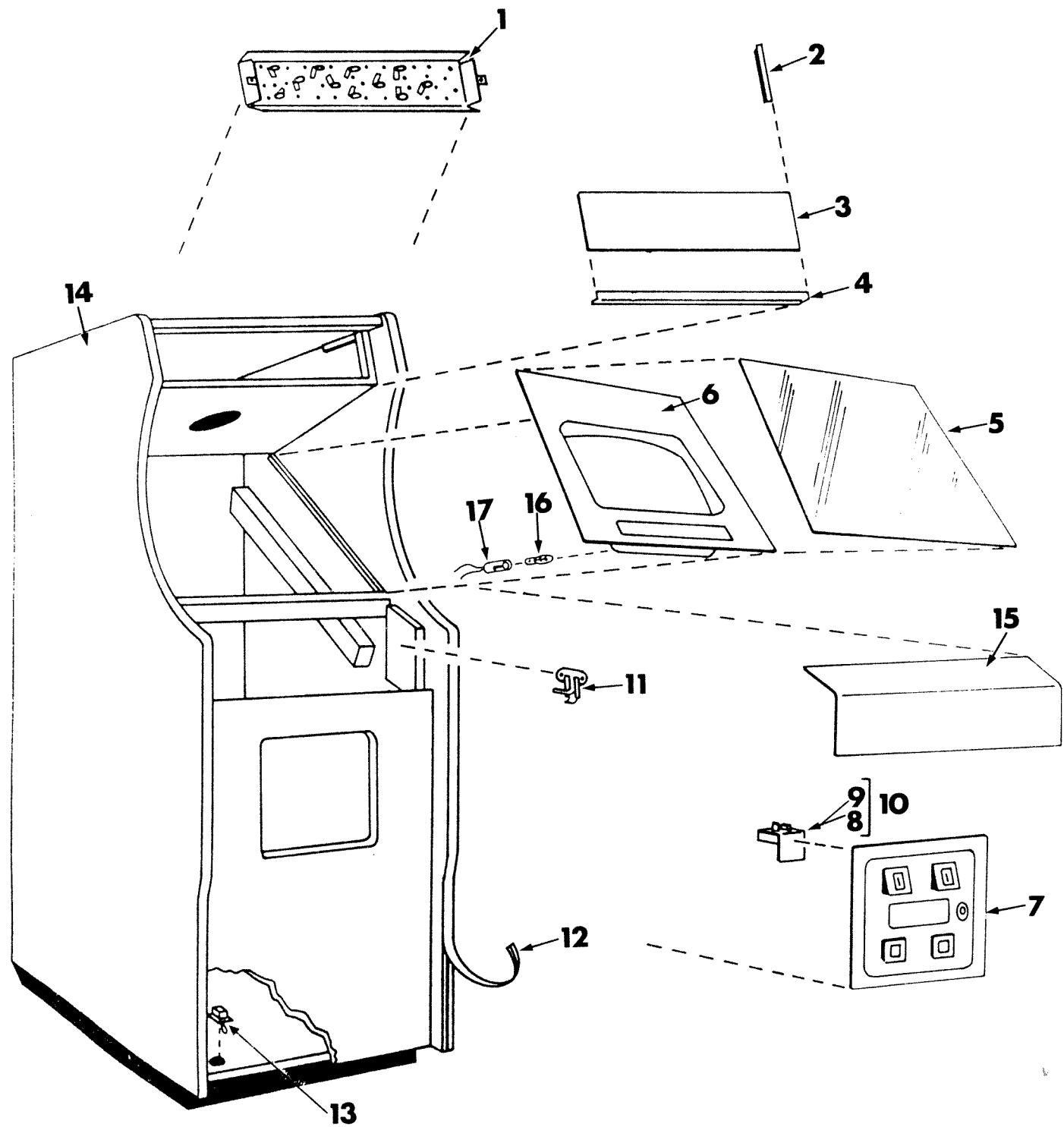
**CABINET ASSEMBLY REAR VIEW**  
**FIGURE 14**

ITEM	TAITO PART NO.	DESCRIPTION
1	21-00003-001	SPEAKER
2	61B00027-001	SPEAKER GRILL
3	07M00042-001	A/C LINE CORD ASSEMBLY
4	61-00114-001	INTERLOCK BRACKET
*4A	59-00046-001	SWITCH BARRIER
5	29B00015-001	INTERLOCK SWITCH
6	07M00039-003	POWER SUPPLY ASSEMBLY
7	61C00054-001	CASH BOX LID
8	61D00060-001	CASH BOX
9	63R00010-001	CASH TRAY (ONLY)
10	63-00019-001	CASH TRAY SEPARATOR
11	61B00039-001	CASH TRAY HANDLE
12	42C00013-001	MONITOR SUPPORT CLEAT
13	61D00208-001	MOUNTING BRACKET
14	31-00013-001	19" COLOR MONITOR
15	04-00037-002	LOCK ASSEMBLY
16	44-00001-001	WHEEL ASSEMBLY
*17	07-00041-001	HEAT SINK ASSEMBLY
*18	08-00007-002	REGULATOR BOARD
*19	18-00003-001	TRANSFORMER

\* Item not shown on drawing.

CABINET ASSEMBLY FRONT VIEW

FIGURE 15



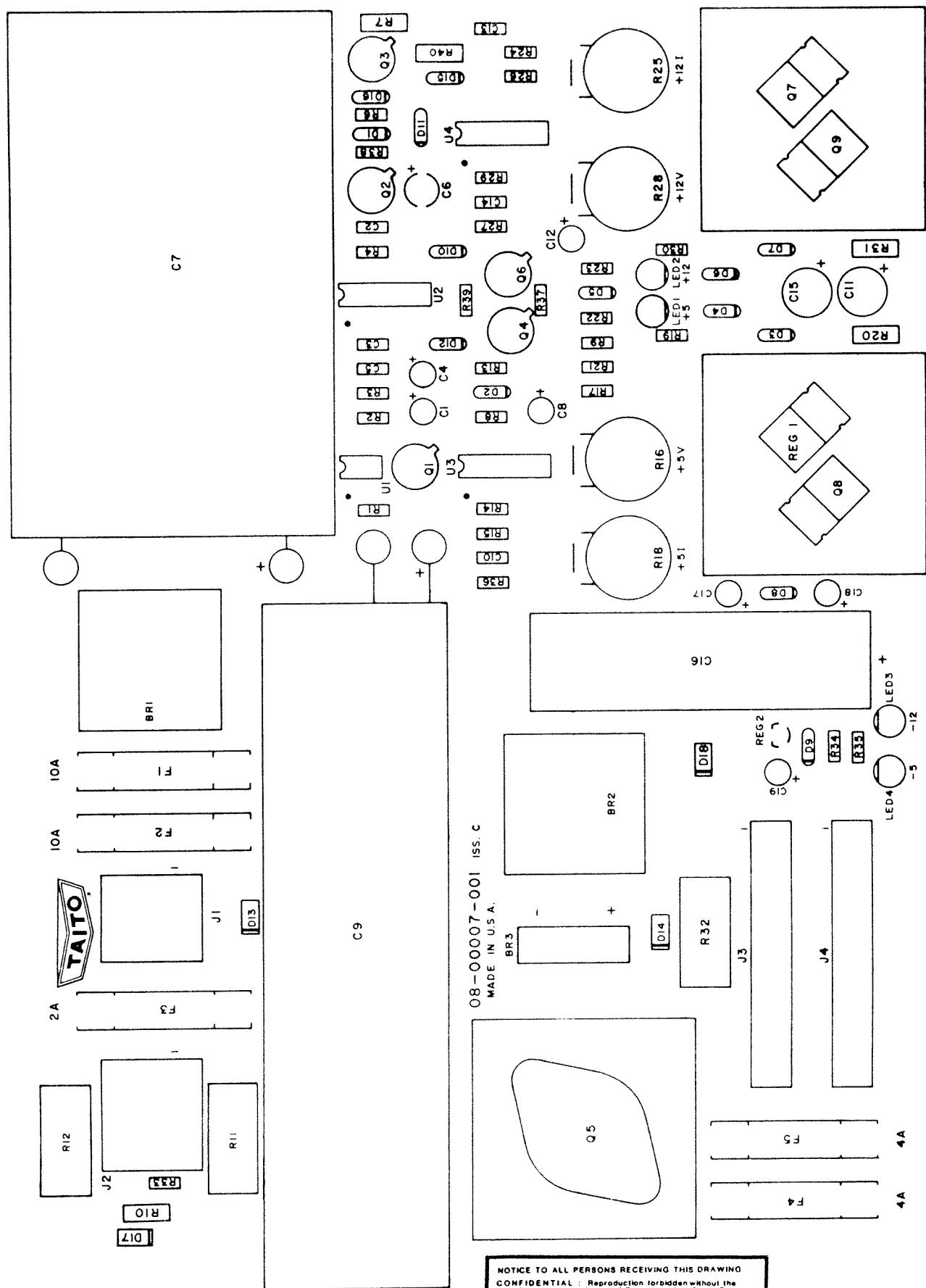
**CABINET ASSEMBLY FRONT VIEW****FIGURE 15**

ITEM	TAITO PART NUMBER	DESCRIPTION
1	07M00055-002	INCANDESCENT PANEL
2	63B00006-003	"U" CHANNEL BRACKET
3	47-00012-021	MARQUEE
4	61C00115-001	MARQUEE RETAINING BRACKET
5	47-00016-011	COVERGLASS
6	63-00053-001	SHROUD
7	07-00285-003	COIN DOOR
8	61B00113-001	SWITCH BRACKET
9	07-00118-001	SERVICE SWITCH ASSEMBLY
10	29-00022-001	SLIDE, CENTER RETURN SWITCH
11	59-00008-001	LATCHING CLAMP
12	63B0002-004	"T" MOLDING
13	29A00023-001	POWER ON/OFF SWITCH
*	09-00227-001	MAIN HARNESS CABLE
*	09-00043-001	SPEAKER CABLE
14	41-00024-005	FINISHED CABINET
15	07-00347-001	CONTROL PANEL ASSEMBLY
16	27-00006-001	#47 BULB
17	26-00008-001	LAMPCLIP-ON MINI BAY

\* Item not shown on drawing.

# POWER SUPPLY COMPONENT LAYOUT

FIGURE 16



CONFIDENTIAL : Reproduction forbidden without the specific written permission of Taito America Corp., EKA Corp., VLSI. This drawing contains confidential material, and neither receipt nor possession thereof conveys or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown therein. Any right in, or license to use, the subject matter of the drawing or any design or technical information shown therein, is held by Taito America Corp. and/or its wholly-owned subsidiary, EKA Corp. Each item manufactured by Taito America Corp., and for manufacture under the corporation's written license, no right to reproduce this drawing is granted or the subject matter thereof unless by written agreement with or written permission from the corporation.

**POWER SUPPLY BOARD**

**FIGURE 16**

<b>SYM</b>	<b>TAITO PART NO.</b>	<b>DESCRIPTION</b>
R1	11-00001-102	RES, 1.0K 1/4W 5%
R2	11-00001-512	RES, 5.1K 1/4W 5%
R3	11-00001-183	RES, 18K 1/4W 5%
R4	11-00001-224	RES, 220K 1/4W 5%
R5	11-00001-472	RES, 4.7K 1/4W 5%
R6	11-00001-222	RES, 2.2K 1/4W 5%
R7	11-10001-101	RES, 100 1/4W 5%
R8	11-00001-102	RES, 10K 1/4W 5%
R9	11-00001-472	RES, 4.7K 1/4W 5%
R10	11-10001-101	RES, 100 1/2W 5%
R11	11-30001-015	RES, .15 4W 5%
R12	11-30001-015	RES, .15 4W 5%
R13	11-00001-472	RES, 4.7K 1/4W 5%
R14	11-00001-222	RES, 2.2K 1/4W 5%
R15	11-00001-222	RES, 2.2K 1/4W 5%
R16	11-60001-252	RES, VAR 2.5K 1/4W 20%
R17	11-00001-222	RES, 2.2K 1/4W 5%
R18	11-60001-102	RES, VAR 1.0K 1/4W 20%
R19	11-00001-511	RES, 510 1/4W 5%
R20	11-10001-470	RES, 47 1/2W 5%
R21	11-00001-162	RES, 1.6K 1/4W 5%
R22	11-00001-103	RES, 10K 1/4W 5%
R23	11-00001-472	RES, 4.7K 1/4W 34
R24	11-00001-222	RES, 2.2K 1/4W 5%
R25	11-60001-102	RES, VAR 1.0K 1/4W 5%
R26	11-00001-472	RES, 4.7K 1/4W 5%
R27	11-00001-222	RES, 2.2K 1/4W 5%
R28	11-60001-252	RES, VAR 2.5K 1/4W 20%
R29	11-00001-472	RES, 4.7K 1/4W 5%
R30	11-00001-122	RES, 1.2K 1/4W 5%
R31	11-10001-470	RES, 47 1/4W 5%
R32	11-30001-015	RES, .15 4W 5%
R33	11-00001-222	RES, 2.2K 1/4W 5%
R34	11-00001-122	RES, 1.2K 1/4W 5%
R35	11-00001-511	RES, 510 1/4W 5%
R36	11-00001-222	RES, 2.2K 1/4W 5%
R37	11-00001-104	RES, 100K 1/4W 5%
R38	11-00001-103	RES, 10K 1/4W 5%
R39	11-00001-224	RES, 220K 1/4W 5%
C1	12-30001-225	CAP, TANT 2.2uf 25V
C2	12-10004-103	CAP, CER .01uf 50V
C3	12-10004-103	CAP, CER .01uf 50V
C4	12-30001-105	CAP, TANT 1uf 35V
C5	12-10001-102	CAP, .001uf 50V
C6	12-30001-106	CAP, TANT 10uf 16V
C7	12-20003-509	CAP, ELECTRO 50,000uf

<b>SYM</b>	<b>TAITO PART NO.</b>	<b>DESCRIPTION</b>
C8	12-30001-105	CAP, TANT 1uf 35V
C9	12-20003-209	CAP, ELECTRO 20,000uf 30V
C10	12-10001-332	CAP, CER .0033uf 50V
C11	12-30001-476	CAP, TANT 47uf 15V
C12	12-30001-105	CAP, TANT 1.uf 35V 50V
C13	12-10004-103	CAP, CER .01uf 50V
C14	12-10001-102	CAP, .001uf 50V
C15	12-30001-476	CAP, TANT 47uf 15V
C16	12-20002-108	CAP, ELECTRO 1,000uf 30V
C17	12-30001-225	CAP, TANT 2.2uf 25V
C18	12-30001-225	CAP, TANT 2.2uf 25V
C19	12-30001-105	CAP, TANT 1uf 35V
F1	24-00003-010	10A FUSE
F2	24-00003-010	10A FUSE
F3	24-00003-003	FUSE, 2A
F4	24-00003-004	FUSE, 4A
F5	24-00003-004	FUSE, 4A
*BR1	13-00100-025	DIODE BRIDGE 25A, 100V
BR2	13-00100-012	DIODE BRIDGE 12A, 100V
BR3	13-00100-002	DIODE BRIDGE 2A, 100V
D1	13-14002-001	DIODE IN4002
D2	13-14002-001	DIODE IN4002
D3	13-10752-001	DIODE ZENER IN752
D4	13-14002-001	DIODE IN4002
D5	13-14002-001	DIODE IN4002
D6	13-14002-001	DIODE IN4002
D7	13-10964-001	DIODE ZENER IN964
D8	13-14002-001	DIODE IN4002
D9	13-14002-001	DIODE IN4002
D10	13-14002-001	DIODE IN4002
D11	13-14002-001	DIODE IN4002
D12	13-14002-001	DIODE IN4002
LED1	13-00001-001	LED (RED)
LED2	13-00001-001	LED (RED)
LED3	13-00001-001	LED (RED)
LED4	13-00001-001	LED (RED)
U1	15-62500-001	OPTO COUPLER H11AA2
U2	15-50556-001	TIMER (DUAL) 556
U3	15-50723-001	VOLTAGE REGULATOR 723
U4	15-50723-001	VOLTAGE REGULATOR 723
REG1	15-57912-001	VOLTAGE REGULATOR 7912
REG2	15-57905-001	VOLTAGE REGULATOR 79L05
Q1	14-22905-001	TRANSISTOR 2N2905
Q2	14-22905-001	TRANSISTOR 2N2905
Q3	14-22905-001	TRANSISTOR 2N2905
Q4	14-22905-001	TRANSISTOR 2N2905

**POWER SUPPLY BOARD**

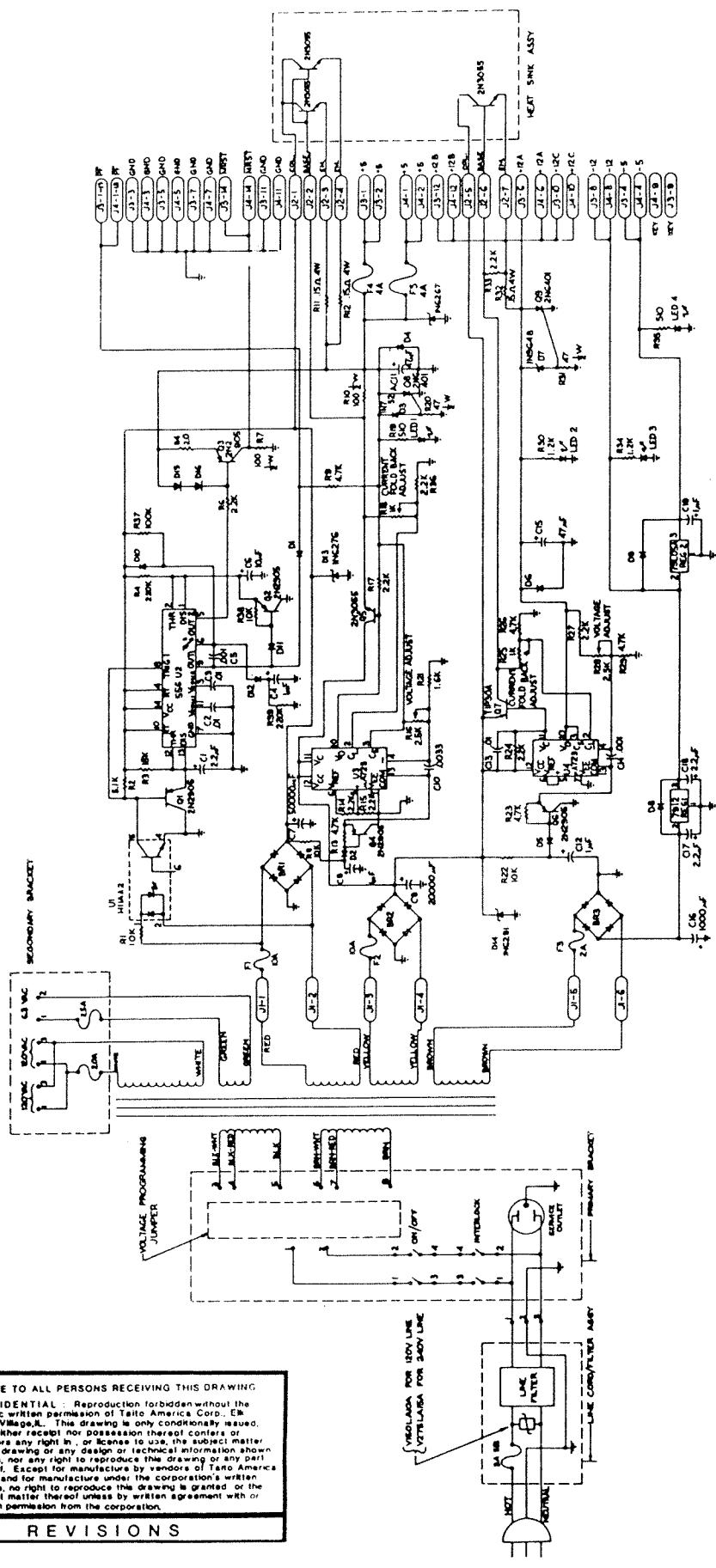
FIGURE 16

SYM	TAITO PART NO.	DESCRIPTION
Q5	14-23055-001	TRANSISTOR 2N3055
Q6	14-22905-001	TRANSISTOR 2N2905
Q7	14-20030-001	TRANSISTOR TIP-30A
Q8	14-26401-001	SCR 2N6401
Q9	14-26401-001	SCR 2N6401
J1	25-00022-006	CONNECTOR, 6PIN
J2	25-00022-008	CONNECTOR, 8PIN
J3	25-00002-014	CONNECTOR, 14PIN
J4	25-00002-014	CONNECTOR, 14PIN
*	24-10001-001	FUSE CLIPS
*	30-00220-002	HEAT SINK DUAL TO-220
*	30-00003-001	HEAT SINK SINGLE TO-3
*	30-00005-001	HEAT SINK 3" FIN
*	51-02002-011	BOLT
*	54-02002-001	NUT
D13	13-16276-001	TRANSORB IN6276
D14	13-16281-001	TRANSORB IN6281
D17	13-16267-001	TRANSORB IN6267
*BR1	32-00004-001	PCB REGULATOR
*	13-00100-025	DIODE BRIDGE 25A, 100V
*	30-00007-001	HEAT SINK FOR BR1

\* Item not shown on drawing.

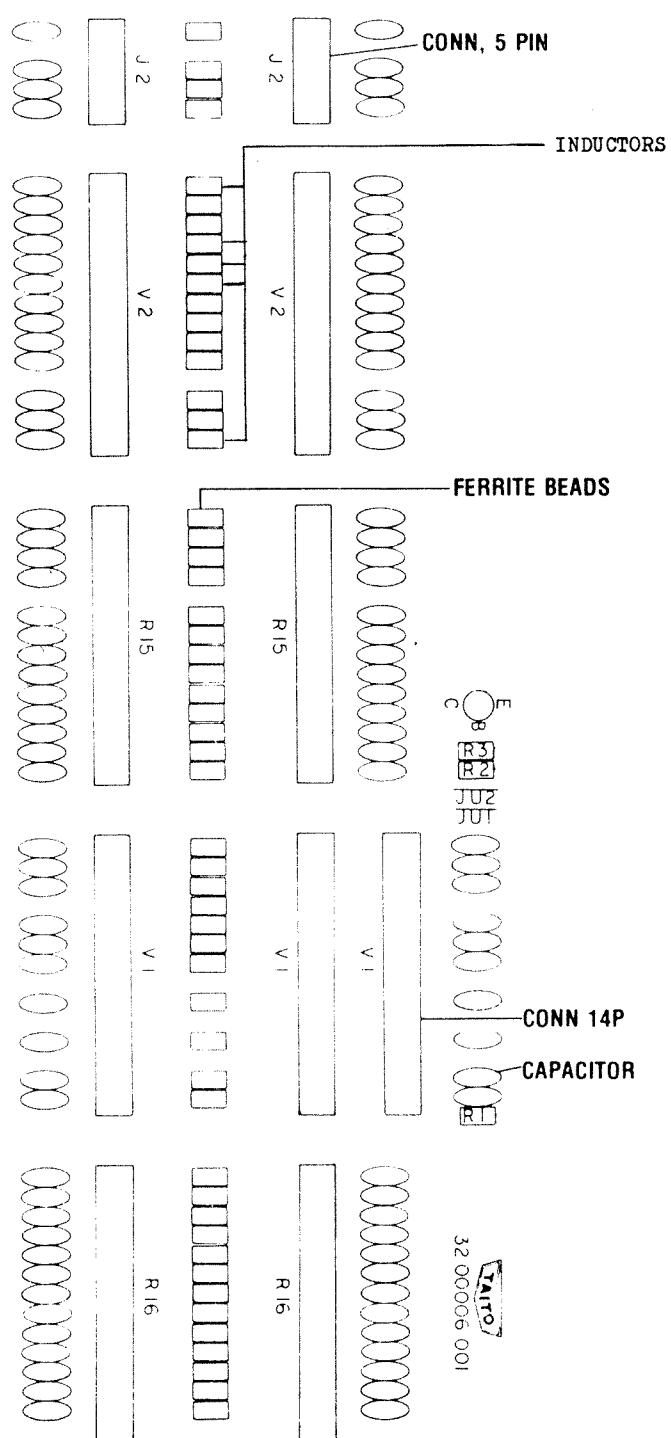
# POWER SUPPLY SCHEMATIC 1 of 1

FIGURE 17



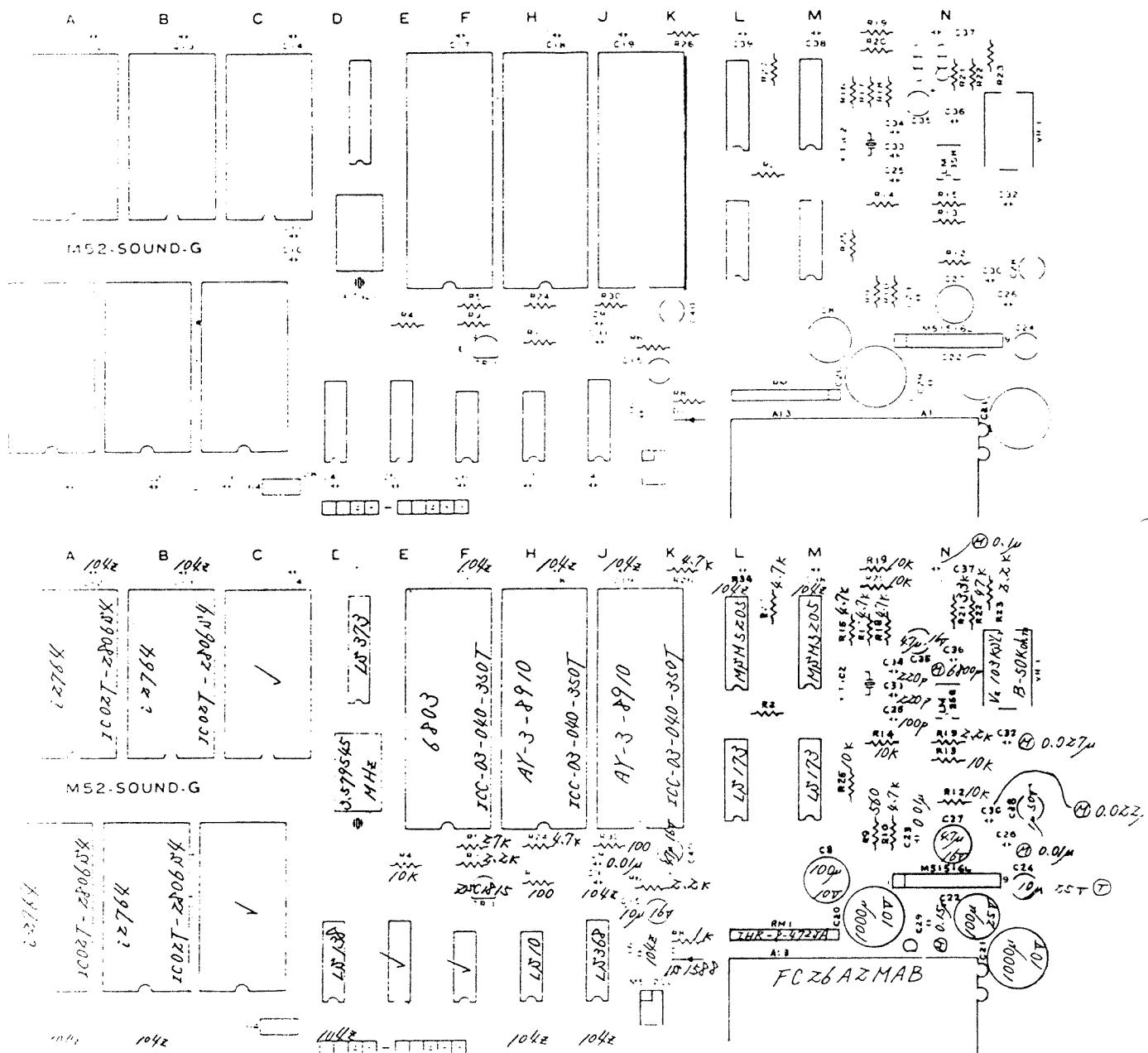
**FILTER BOARD**  
**FIGURE 20**

ITEM	TAITO PART NO.	DESCRIPTION	QUANTITY
1	12-10001-471	CAP, 470PF ± 10% AXIAL LEAD	36
2	17-00001-001	FERRITE BEAD ASSEMBLY	18
3	25-00002-014	CONNECTOR 14P	9
4	25-00002-005	CONNECTOR 5P	2
5	63B00068-001	STAND OFF	6
6	17-10001-001	10 UH INDUCTOR	5



## TOP PCB (M52-Sound)

**FIGURE 19**

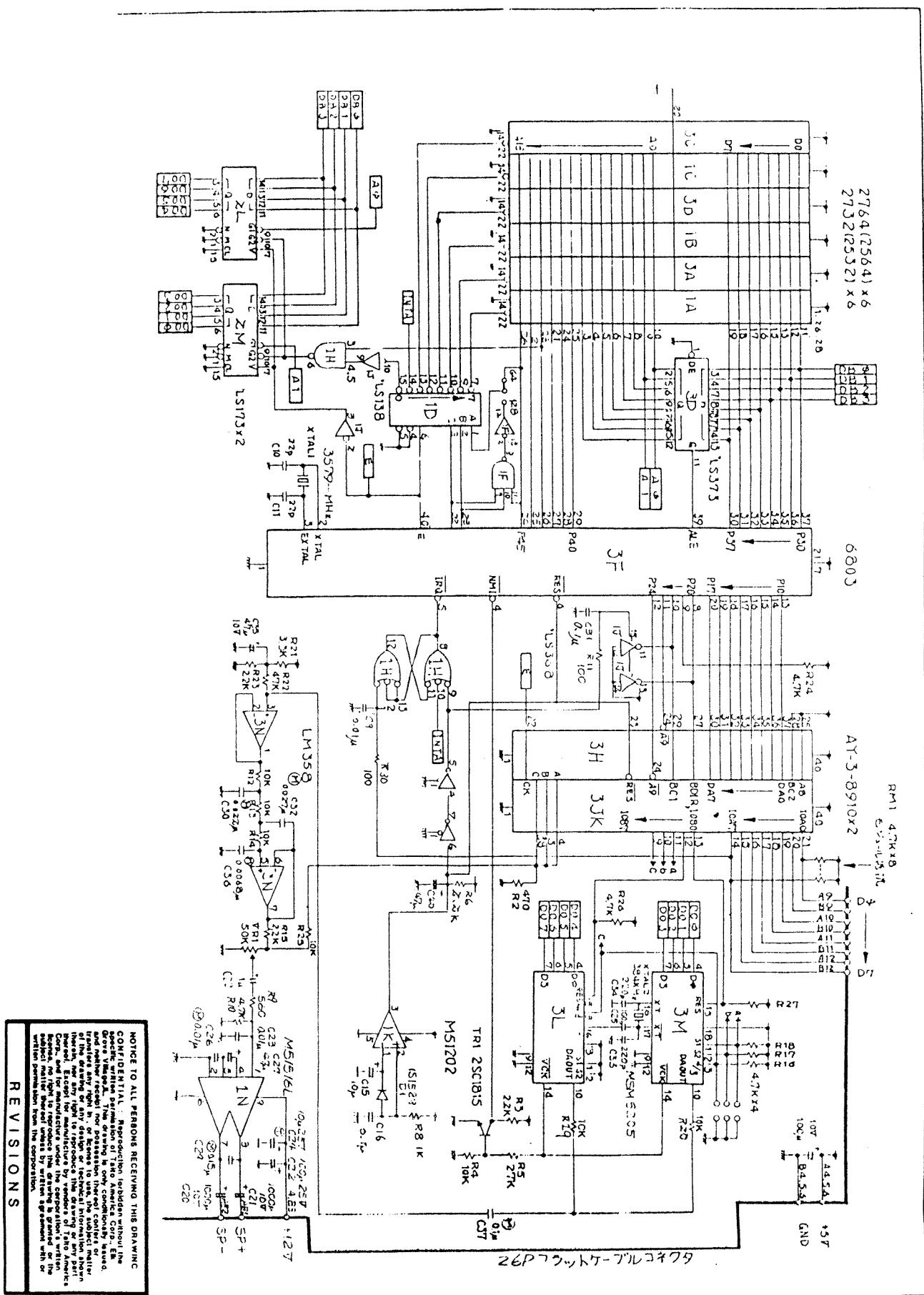


NOTICE TO ALL PERSONS RECEIVING THIS DRAWING

**CONFIDENTIAL:** Reproduction forbidden without the written permission of Taito America Corp., or its wholly-owned subsidiary, Taito Corp. of America Corp., or its wholly-owned subsidiary, Taito Corp. This drawing is only conditionally issued, and neither receipt nor possession thereof conveys or transfers any right in, or license to use, the subject matter shown in the drawing or any design or technical information herein contained. The drawing is not to be reproduced in any part thereof. Except for manufacture by vendors of Taito America Corp., and for manufacture under the corporation's written license, no right to reproduce this drawing is granted or will be granted except in accordance with an agreement with or written permission from the corporation.

## REVISIONS

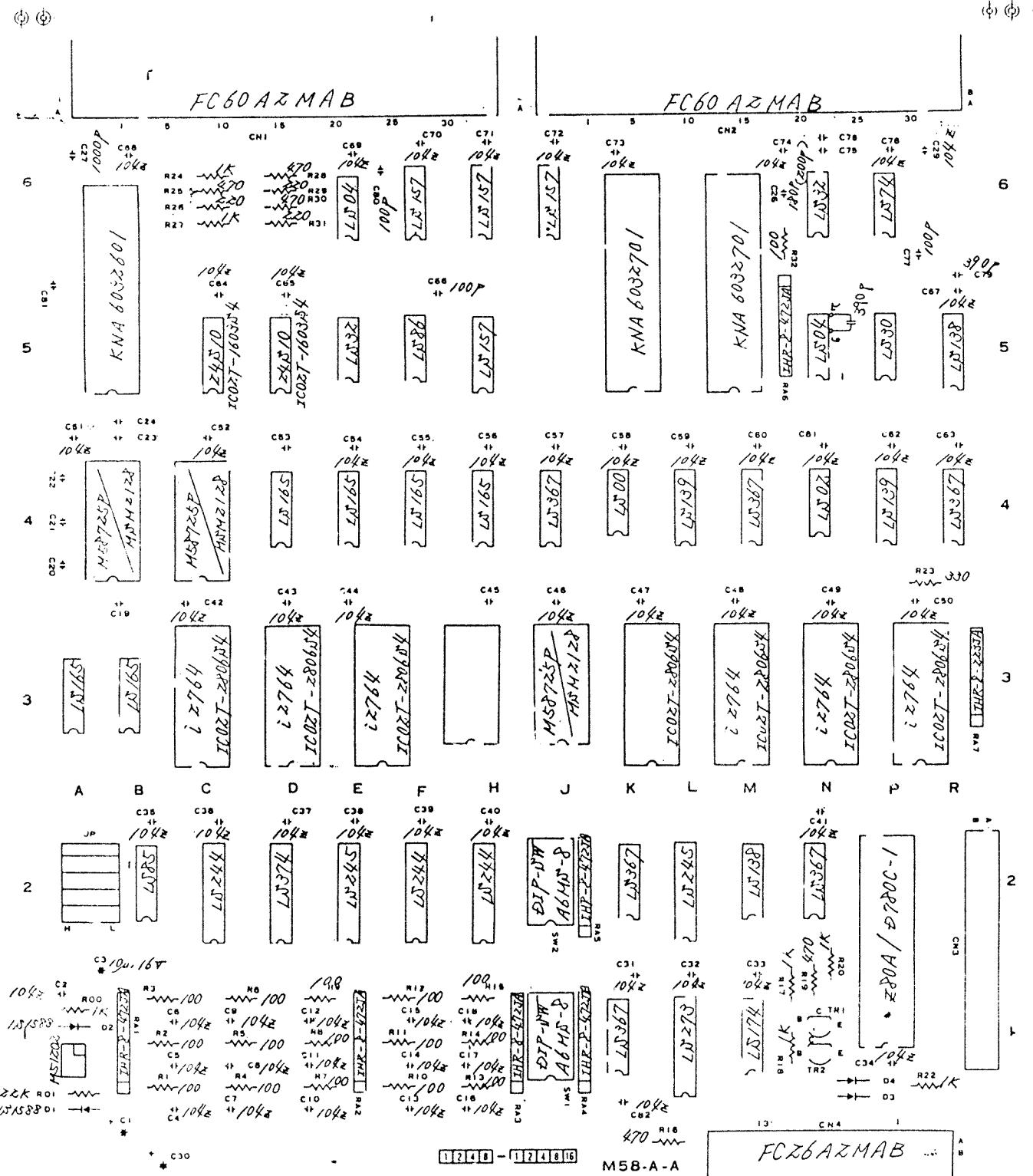
## TOP PCB (M52-Sound G)



REVISIÖNS

## CENTER PCB (M58-A-A)

**FIGURE 21**



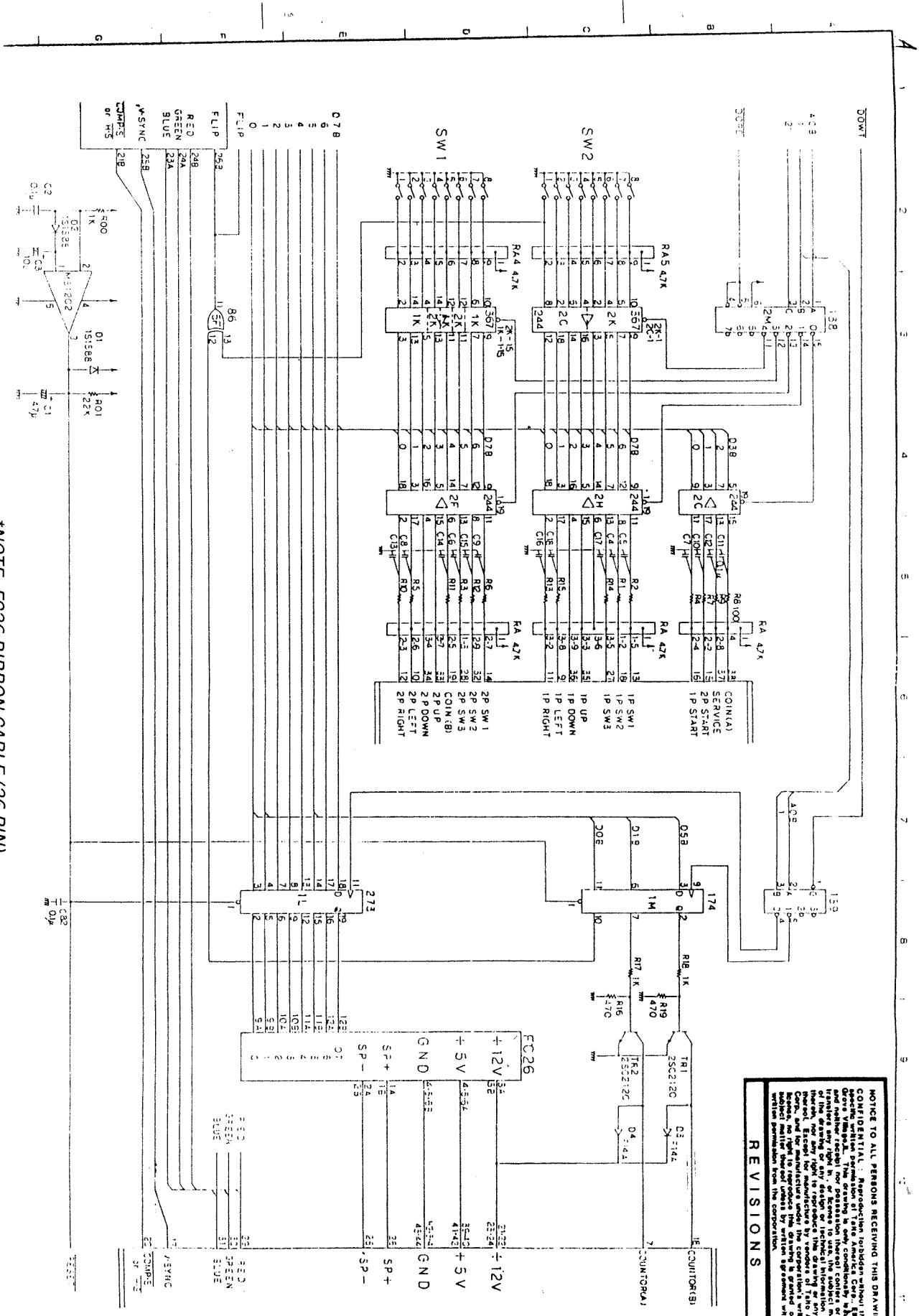
E TO ALL PERSONS RECEIVING THIS DRAWING

**CONFIDENTIAL**. Reproduction forbidden without the written permission of Taito America Corp. EX-  
clude Vespapel. This drawing is only conditionally issued,  
and neither recipient nor possession thereof confers or  
transfers any right, in, or otherwise relating to this material.  
Recipient shall not copy or reproduce this drawing or any part  
therein, nor any right to reproduce this drawing or any part  
thereof. Except for manufacture by Taito America  
Corporation, no right to reproduce this drawing is granted.  
Recipient, no right to reproduce this drawing is granted or  
conferred. No right to reproduce this drawing is granted or  
conferred under this contract or otherwise unless by written agreement with or  
written permission from the corporation.

## **REVISIONS**

CENTER PCB (M58-A-A) 1 of 4

FIGURE 22



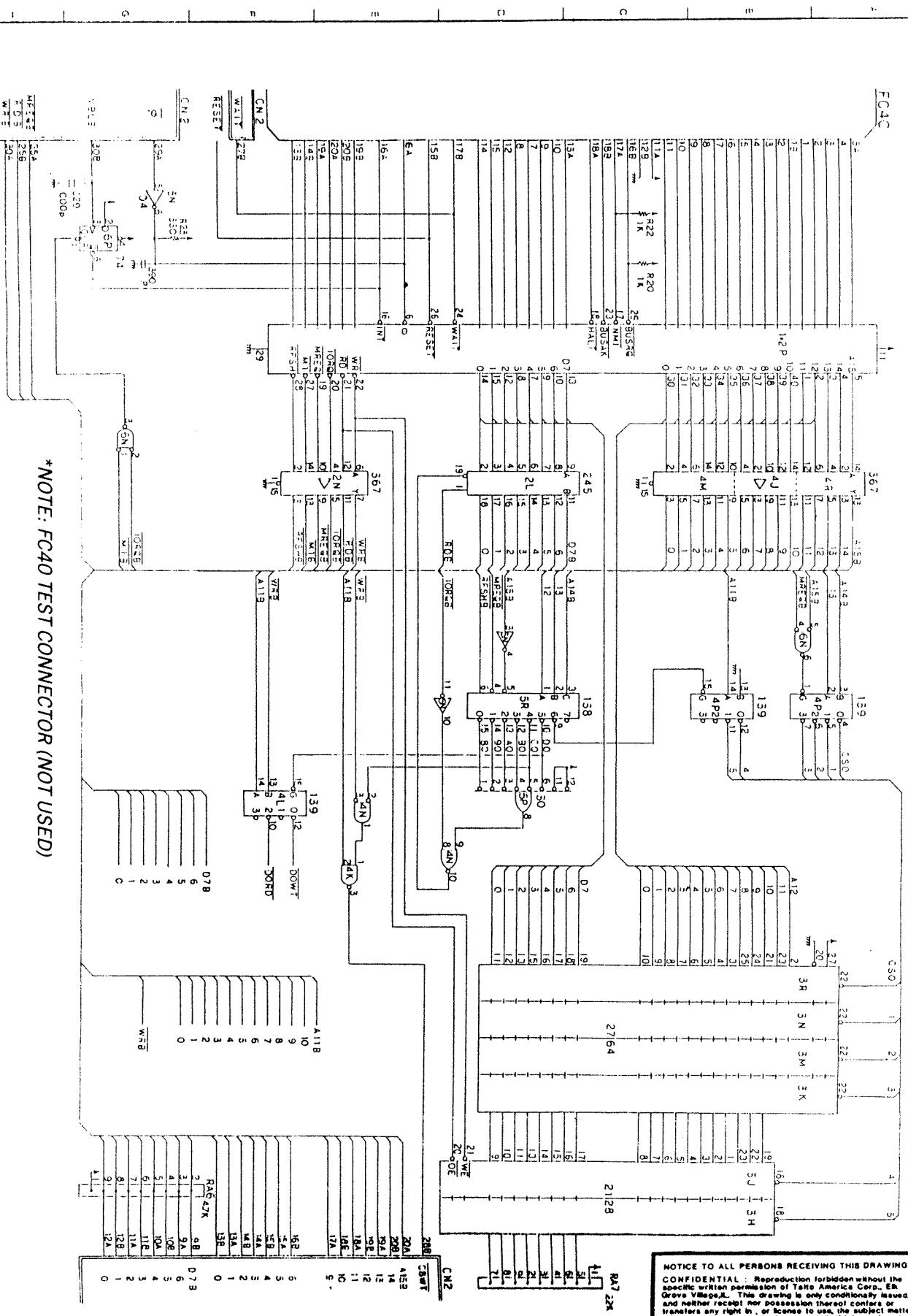
REVISIONS

**CONFIDENTIAL** - Reproduction forbidden without the written permission of The American Cenozoic Fossil Society. This drawing is only conditionally reproduced. Dated 1968.

**\*NOTE: FC26 RIBBON CABLE (26 PIN)**

CENTER PCB (M58-A-A) 2 of 4

**FIGURE 22**



**\*NOTE: FC40 TEST CONNECTOR (NOT USED)**

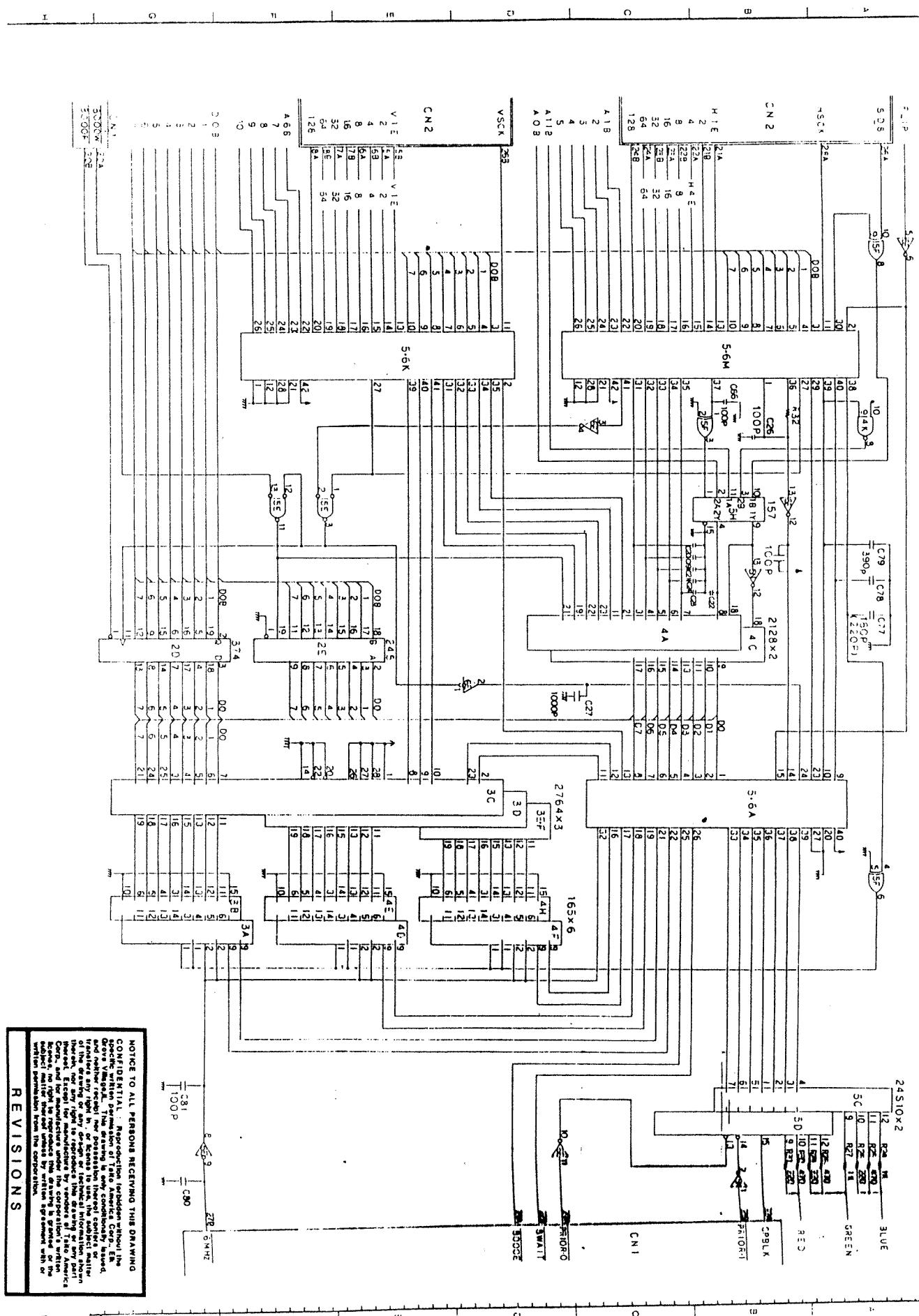
**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**

**CONFIDENTIAL:** Reproduction forbidden without the specific written permission of Taito America Corp., Elk Grove Village, IL. This drawing is only conditionally issued, and may be recalled at any time. Any unauthorized transfer, any right in, or license to use, the subject matter of the drawing or any design or technical information shown therein, nor any right to reproduce this drawing or any part thereof, except for manufacture by vendors of Taito America Corp., and for manufacture under the corporation's written permission to reproduce this drawing is granted or the subject matter held in trust under the above agreement with or written permission from the corporation.

#### **REVISIONS**

CENTER PCB (M58-A-A) 3 of 4

FIGURE 22

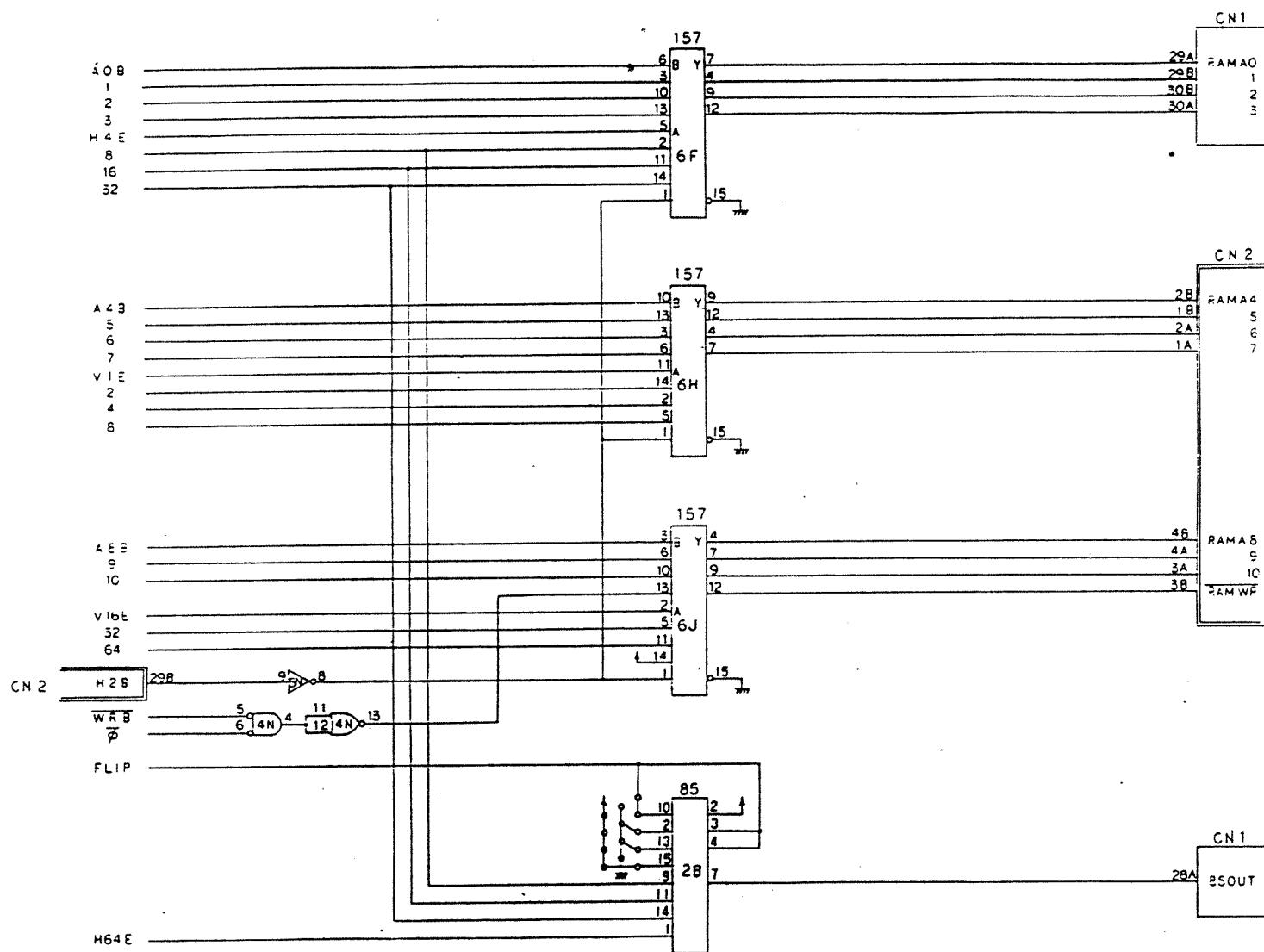


REVISI<sup>N</sup>S

**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**  
**CONFIDENTIAL - Proprietary Information**  
**Specified in Amendment of Title America Spec. E.**  
**Drawings V-1000.** This drawing is only conditionally licensed.  
and neither recipient nor licensee shall have the right to copy or  
otherwise reproduce it without the express written consent of the  
original licensor. It is the property of the original licensor and  
shall be returned to him upon request. Any unauthorized copying  
thereof, or any attempt to reproduce this drawing by any party  
other than the original licensor, is illegal and subject to  
severe criminal penalties. Except as manufacturer by vendor of Title America  
Cars, and for manufacturer's own internal purposes, no other  
person may receive or use this drawing. No part of this  
drawing may be reproduced, copied, or otherwise used without  
written permission from the copyright owner.

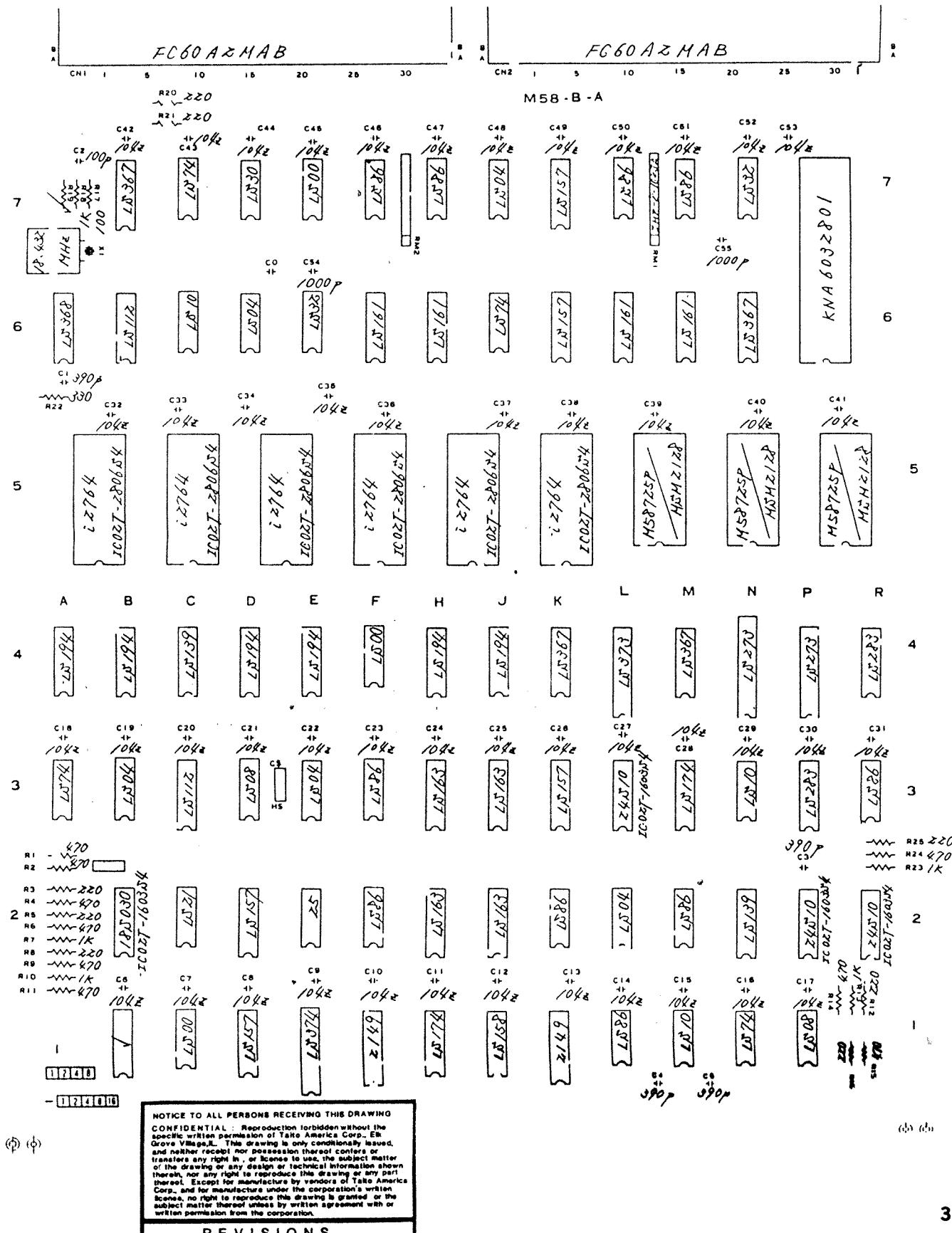
CENTER PCB (M58-A-A) 4 of 4

FIGURE 22



# BOTTOM PCB (M58-B-A)

FIGURE 23



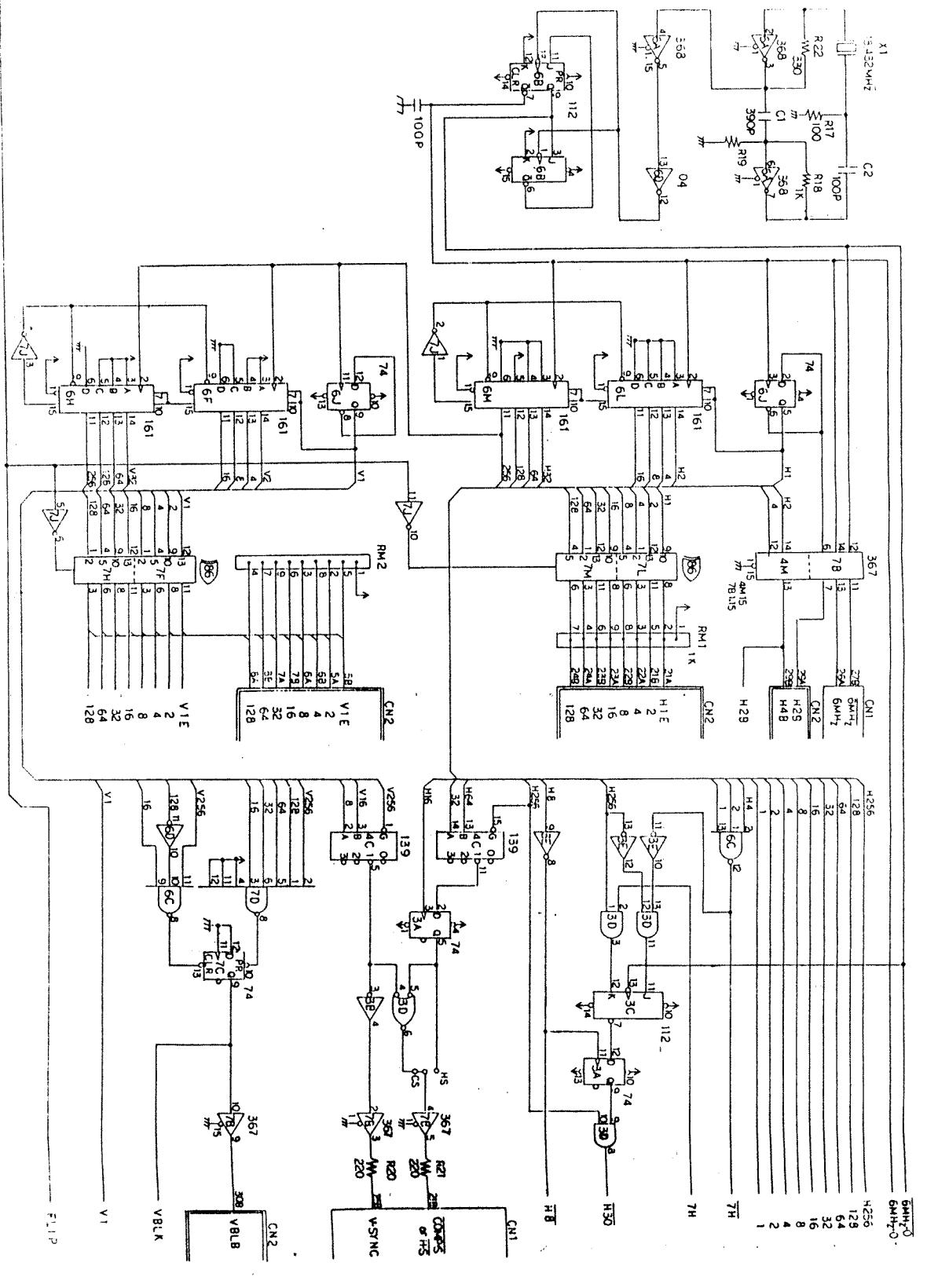
BOTTOM PCB (M58-B-A) 1 of 5

FIGURE 24

**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**

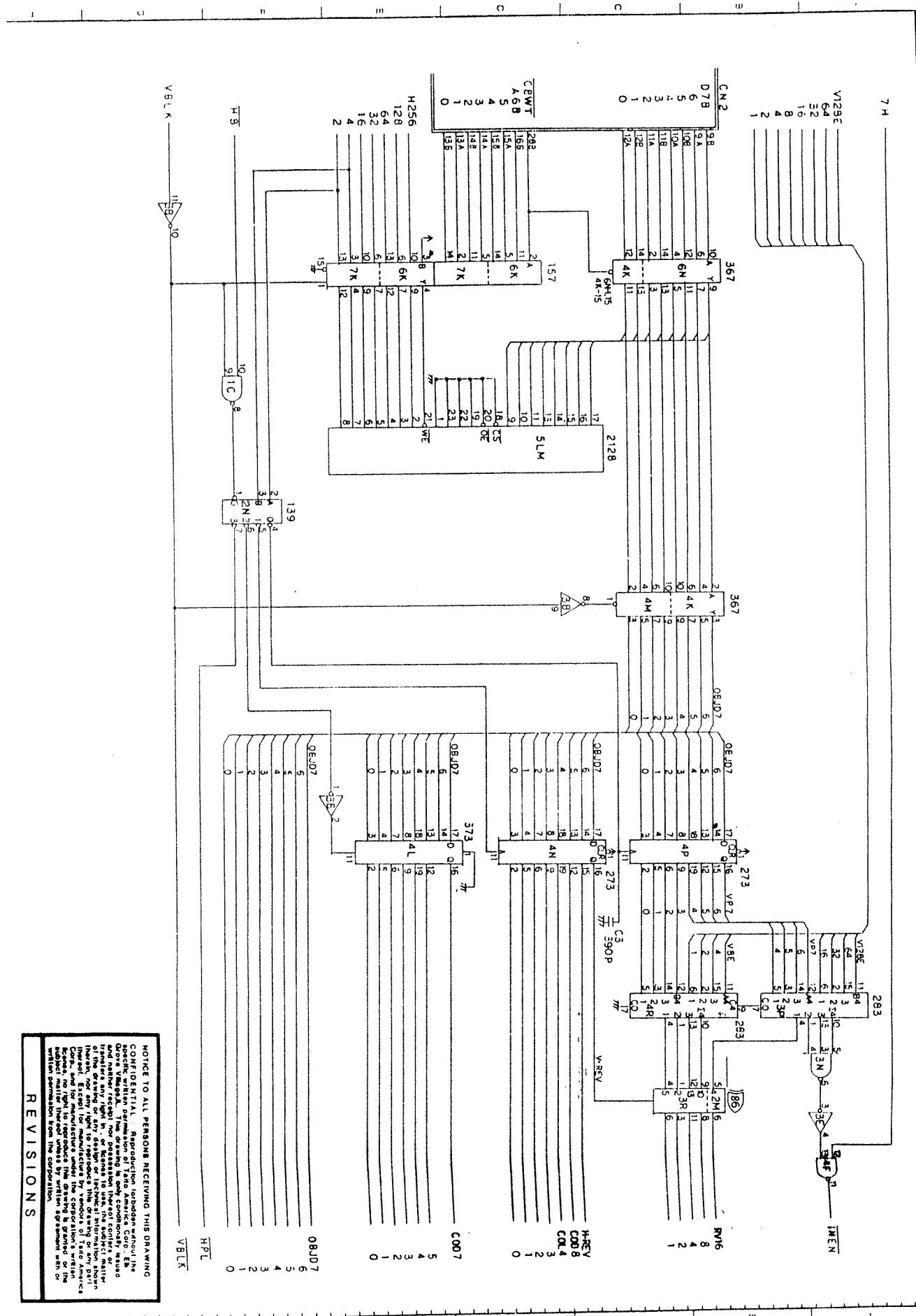
**CONFIDENTIAL . . .** Reproduction forbidden without the specific written permission of Taito America Corp., Elk Grove Village. This drawing contains valuable trade secrets, and neither receipt nor possession thereof conveys or transfers any right in, or license to use, the subject matter of the drawing or any design or technical information shown therein, nor any right to reproduce this drawing or any part thereof, except under and in accordance with the terms of the license, and for manufacture under the corporation's written license. No right to reproduce the drawing is granted or the subject matter thereof unless by written agreement with or written permission from the corporation.

## REVISIONS



BOTTOM PCB (M58-B-A) 2 of 5

FIGURE 24

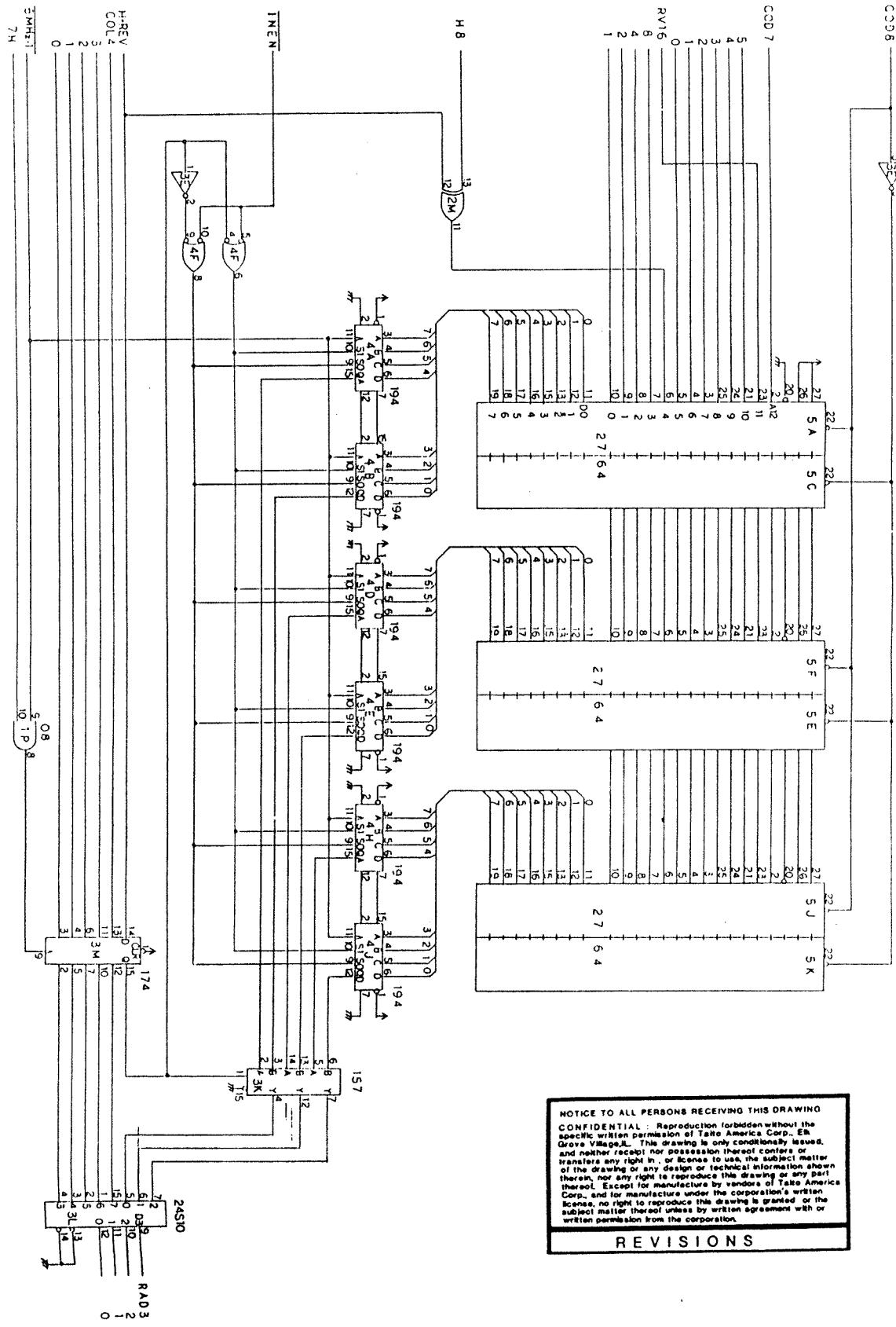


**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**

**CONFIDENTIAL - Reproduction forbidden without the**  
**specific written permission of Eaton America Corp., El**  
**gin, Ohio. This drawing is being furnished to you confidentially and**  
**represents an original or a license to use the subject matter**  
**of the drawing as any design or technical information shown**  
**thereon, nor any right to reproduce the drawing or any part**  
**thereof, except as specifically granted in the contract or agreement**  
**between the parties. The copyright and all rights reserved.**  
**Persons, no right to reproduce this drawing or grants or the**  
**subject matter thereof unless by written agreement with or**  
**written permission from the corporation.**

BOTTOM PCB (M58-B-A) 3 of 5

FIGURE 24



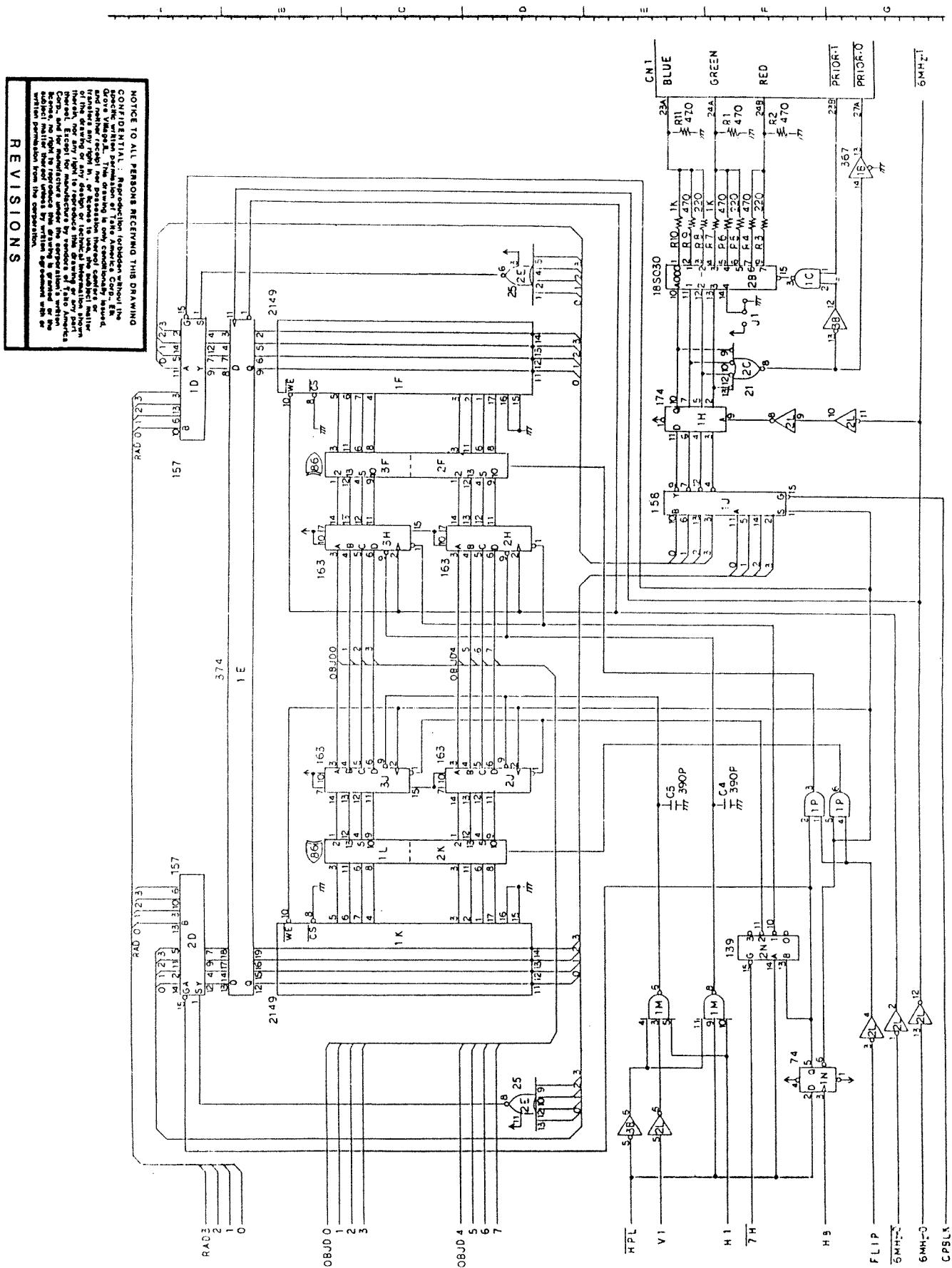
**NOTICE TO ALL PERSONS RECEIVING THIS DRAWING**

**CONFIDENTIAL** : Reproduction forbidden without the specific written permission of Taito America Corp., Elk Grove Village, IL. This drawing is only conditionally issued, and neither receipt nor possession thereof conveys or transfers any right in, to, or to the subject matter shown therein, or any right to reproduce this drawing or any part thereof. Except for manufacture by vendors of Take America Corp., and for manufacture under the corporation's written license, no right to reproduce this drawing is granted, and the submission of this drawing under any contract or agreement, including non-disclosure, from the corporation.

## REVISIONS

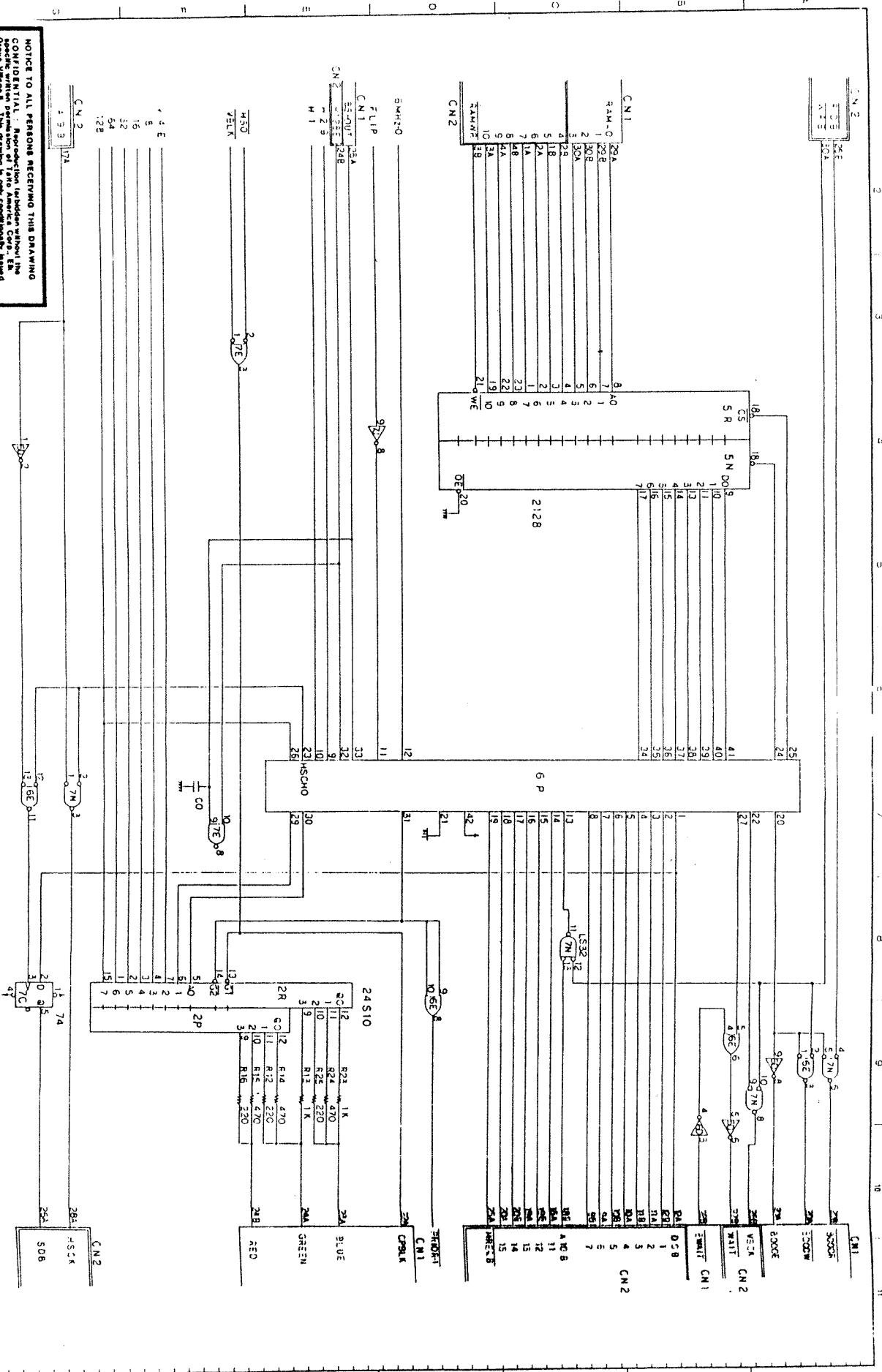
BOTTOM PCB (M58-B-A) 4 of 5

FIGURE 24

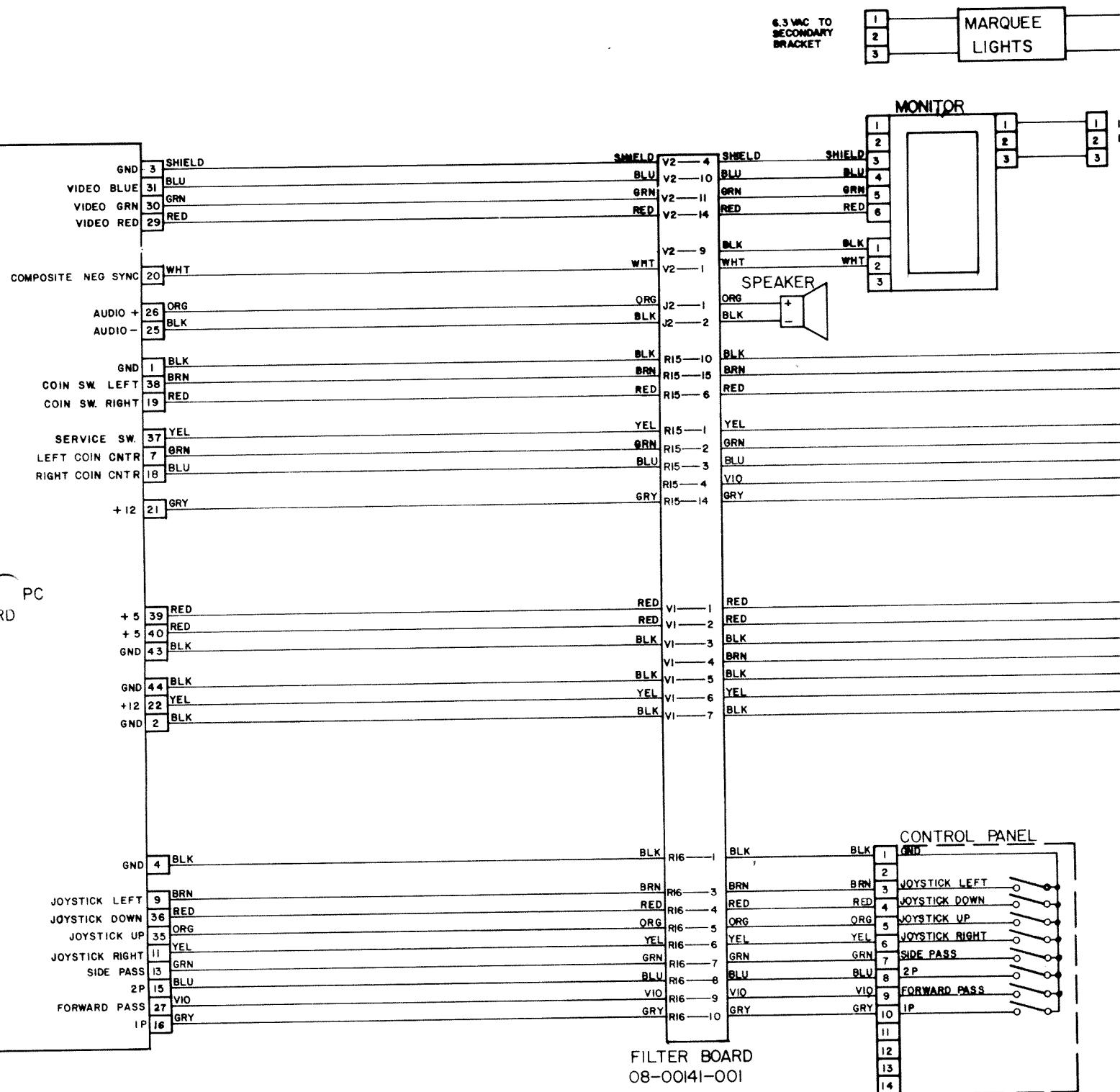


# BOTTOM PCB (M58-B-A) 5 of 5

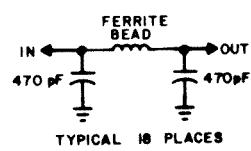
FIGURE 24



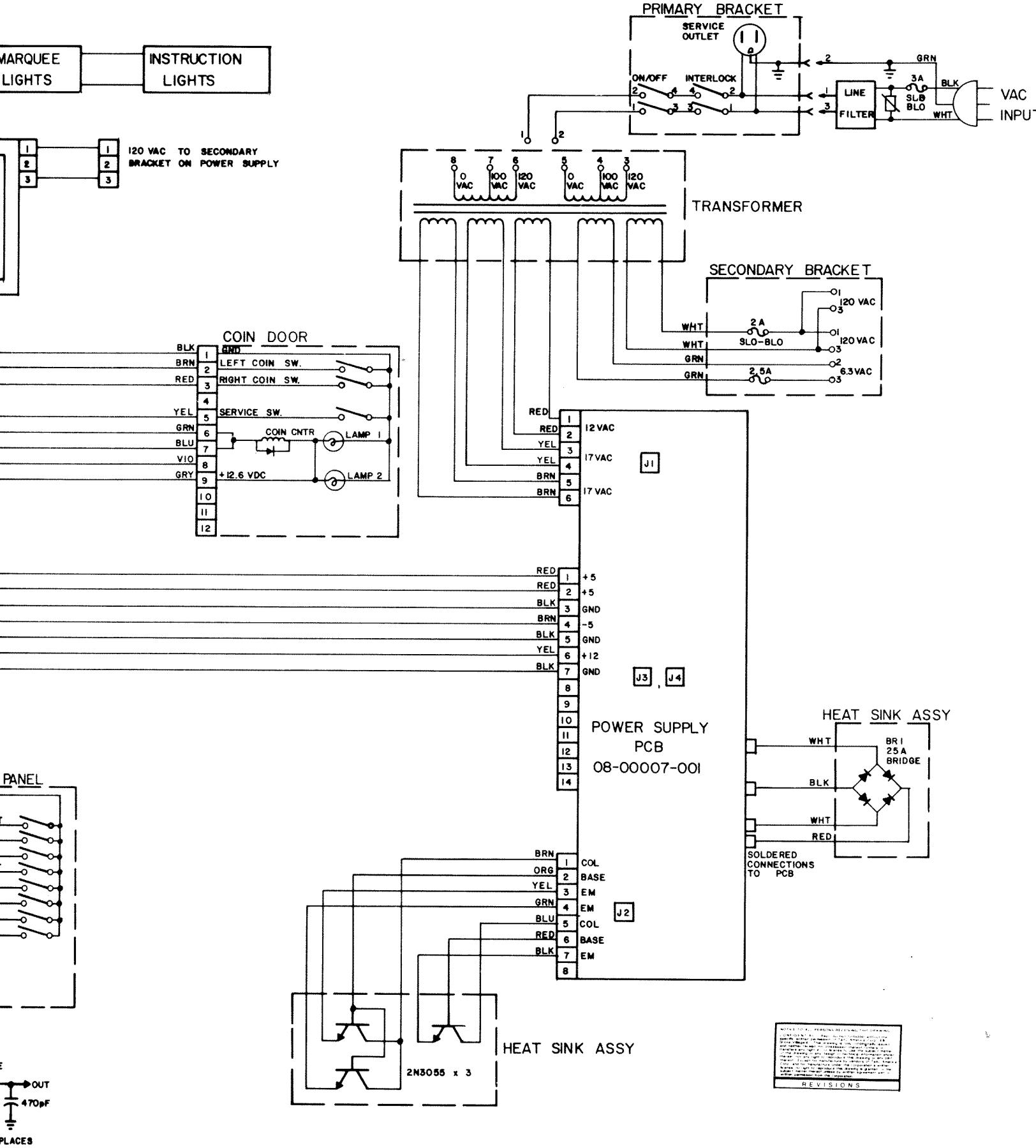
# WIRING DIAGRAM



10uh  
TYPICAL 4 PLACES



# WIRING DIAGRAM



## **WARRANTY**

TAITO AMERICA CORPORATION warrants that its printed circuit boards and parts are free from defects in material and workmanship under normal use and service for a period of ninety (90) days from the date of shipment. Seller warrants that its monitors are free from defects in material and workmanship under normal use for a period of thirty (30) days from the date of shipment. The factory also warrants all socketed parts for a period of ninety (90) days when furnished with the game serial number.

If the above products fail to conform to this Warranty Taito America Corporation has the option to repair, replace, or credit the Buyer's account.

The Buyer must notify Taito America Corporation in writing upon finding the defective product. Buyer must also return the defective product prepaid to Taito America Corporation's factory located in Elk Grove Village, Illinois. If Taito America Corporation determines upon examining the returned product that damage was caused by accident, misuse, neglect, modification, or improper repair or testing, this Warranty will be void.

In no event will Taito America Corporation be held for loss of profits to Buyer.



**TAITO AMERICA CORPORATION**

1256 Estes Avenue, Elk Grove Village, IL 60007  
Telephone (312) 981-1000 Telex 25-3290