

**STAR THE**  
**EMPIRE**  
**STRIKES BACK**  
**WAR**

## MANUAL : "THE EMPIRE STRIKES BACK"

### A. GENERAL GAME OPERATION

#### 1. Power-Up Sequence

When power is applied to the machine there is a short delay of approximately 10 seconds before the machine plays a "power-up" tune to announce that it is ready to play. During the power-up period the machine is performing six tests on its own hardware, the successful completion of each being signalled by a single flash of a LED on the M.P.U. module (A1) and a simultaneous tone from the sound system. After power-up the machine goes into attract mode waiting for a game to be played.

#### 2. Attract Mode

In this mode the four score windows display the player's score for the last game, alternating with the highest score to date. Some lamp flashing will occur on the playfield. As coins are inserted a "coin-in" tune will sound and the accumulated credit will be shown in the credit window.

#### 3. Game Start

A game is started by pressing the credit button located on the front end of the cabinet. The first player's score flashes '00', a '1' appears in the ball-in-play window, the credit display is reduced by one and a "player-up" tune is played. Additional players are posted each time the credit button is pressed. Up to four players can play at a time, each player's turn being indicated by the flashing of score display. The credit button has no effect after the fourth player has been added or the credit display reads '0'. Pressing the credit button after the first player has scored cancels the game and posts the first player for a new game.

When a game is started a background sound may be produced depending on game option switch 11.

The background sound will increase in pitch periodically while the ball is in play as long as scoring occurs.

#### 4. Game Scoring

Shooting the ball initiates play. Bumpers and spinners score 100 points or 1000 points when lit. Side kickers score 10 points. Rebound switches score 50 points. Outlanes score 5000 points.

- i) Outside return lanes - Scores 500 points plus 1 bonus advance or 5 000 points, 3 bonus advances and lights wedge for Planet Bespin eject hole when lit.
  
- ii) Inside return lanes - Scores 500 points plus 1 bonus advance or 5 000 points, 3 bonus advances and lights wedge for Planet Dagobah eject hole when lit.
  
- iii) Single drop target - Scores 500 points plus 1 bonus advance or 50 000 points when 50 000 points wedge is flashing.
  
- iv) Ball shooter lane - Resets single drop target, performs bonus countdown and then resets bonus to previous value. If single drop target is down and 50 000 points wedge is flashing ball shooter lane scores 50 000 points.
  
- v) Six central targets - Score 1 000 points.  
Completing all six targets for the first time lights two pop bumpers, both spinner targets and flashes the inserts of the inside ball return lanes.  
  
Completing all six targets for the second time lights remaining pop bumpers and flashes the inserts of the outside ball return lanes.
  
- vi) Three drop targets - Score 500 points and 1 bonus advance.  
Completing all three drop targets -
  - for the first time scores 10 000 points
  - for the second time scores 15 000 points
  - for the third time scores 20 000 points
  - for the fourth time scores 25 000 points
  - for the fifth time and successive times score 25 000 points and special  
Option switch 14 can be used to link fourth and fifth times together
  
- vii) Dagobah eject hole - Scores the value of the three drop targets. When lit performs bonus countdown and then resets bonus value to previous value.
  
- viii) Bespin eject hole - first time scores 10 000 points  
second time scores 20 000 points  
third time scores 30 000 points  
fourth time and successive times scores 50 000 points  
When Bespin wedge lit extra ball is scored.

ix) Top target - Scores 1 000 points plus 1 bonus advance or value of lit insert.

x) 4 top lanes - Scores 500 points plus 1 bonus advance.  
The player has control over the position of the 4 top lane lamps. By operating the right hand flipper the lit lamps will move to the right one position at a time. The lit lamp in top lane '4' will move to top lane '1'.

Completing all 4 top lanes for the first time lights the 2x multiplier and lights the 10 000 points insert for the top target.

Completing all 4 top lanes for the second time lights the 3x multiplier and lights the 20 000 points insert for the top target.

Completing all 4 top lanes for the third time lights the 4x multiplier and lights the 30 000 points insert for the top target.

Completing all 4 top lanes for the fourth time lights the 5x multiplier

Option switch 12 allows the status of the top lanes to be remembered throughout the player's game.

xi) Bonus - Once the maximum bonus of 39 000 points is achieved, no more bonus points can be accumulated. Bonus lamps score 1 000 points each. The value of the multiplier lit determines how many times the bonus is counted off. The bonus is collected when the ball enters the outhole.

Memory option exists for Bonus multiplier to be remembered throughout the player's game.

## 5. Outhole Sequence

After the ball returns to the outhole and there is only one player the "ball-in-play" number will advance by one. If there is more than one player, "ball-in-play" will remain the same and the next player's turn is indicated by the flashing score. However, if the ball enters the outhole without scoring it is returned to the same player for replay. The game continues until each player has played the allowable number of balls (adjustable). The "game-over" light will then be lit and an optional "game-over" tune will sound. A random "match" number appears and the match light is lit (optional). If the number is the same as the last two digits in the player's score, a free game is awarded.

6. Extra Balls

When a player wins an extra ball a unique tune is played and the "shoot-again" light on the playfield will flash during the play of the regular ball. Once this ball enters the outhole, the score display will flash to prompt the same player and the "ball-in-play" number will not advance.

7. Tilt

If the machine is tilted during play a tilt sound is made, all scoring will stop and the bumpers, flipper and kickers are disabled. Bonus points are not collected. The player only resumes control of the machine after the current ball enters the outhole.

8. Slam

Slamming the machine will result in a more severe penalty. The current game is cancelled, score displays and feature lights go out and the machine will remain "dead" for approximately 10 seconds. After this delay the "power-up" tune is played, the "game-over" light is lit and the machine returns to attract mode.

B. SELF TEST SEQUENCE

Self test can be entered at any time by pressing the push button on the inside of the front door. By pressing the button once the sequence is started with the test number 1. Subsequent tests are activated by re-pressing the button. For all except the first test, the self test number is displayed in the "ball-in-play" window. Tests 1 to 5 are routine maintenance checks. Tests 6 to 17 are bookkeeping functions, designed to help the operator perform certain accounting tasks.

1. Routine Maintenance Tests

Test 1 - Display Test : All five displays cycle 0 - 9 and repeat continuously.

Test 2 - Feature Lamp Test : All switched lamps flash on and off continuously.

Test 3 - Solenoid Test : All solenoids are activated one at a time in a continuous sequence. The flipper solenoids may be tested by holding both flipper buttons in during the test. Solenoid identification numbers are shown in the player score displays. Refer to Appendix 1 for a Solenoid Identification Chart.

Test 4 - Switch Test : The switch assembly is searched for stuck contacts. If any are found the identification number of the first set encountered is flashed on the player score displays. The number remains until the fault is cleared. Other numbers may follow if more stuck contacts are present. Once stuck switches are found "00" is displayed. Refer to Appendix 2 for a switch identification chart.

Test 5 - Sound Test : The 10 points sound is pulsed continuously.

## 2. Bookkeeping Functions

The bookkeeping functions are displayed in the all player score windows. The test number appears in the "ball-in-play" window.

Test 6 - First High Score Level : The game is designed to award a free game or extra ball (optional) at each of three score levels. Any desired level from 10 000 to 999 000 can be set. The level can be increased by 10 000 points at a time by holding in the credit button. It can be decreased by 1 000 points at a time by holding in the slam switch inside the coin door. The level can be reset to "00" by simultaneously operating the slam and coin door switches.

Test 10 - This test displays the total number of times the coin switches have operated with the coin door open. The number is normally not resettable.

Test 11 - This test displays the total coins through both chutes with the coin door closed. The number is normally not resettable.

Test 12 - Number of free games awarded with the coin door closed. This figure can be reset by simultaneously operating the slam and coin door switches.

Test 13 - Number of paid games with the coin door closed. This figure can be reset as for test 12.

Test 14 - Number of times the Highest Score to Date changes with the coin door closed. Can be reset as for test 12.

Test 15 - Number of extra balls awarded with the coin door closed. Can be reset as for test 12.

Test 16 - Number of tilts and slams with coin door closed. Can be reset as for test 12.

Test 17 - This test displays the percentage of free games to paid games awarded with the coin door closed. The percentage can be reset as for test 12. It should be noted that the number of free games and paid games displayed in tests 12 and 13 are not affected when the percentage is reset. The ratio is calculated using separate date areas.

Pressing the self test button once more while in test 17 causes the game to return to attract mode after performing the power-up sequence. For a more rapid return to attract mode, self test can be aborted at any stage by turning the power off, then on.

A self test time out feature is built into the machine so that it can never be left in any test mode. After about two minutes in any self test the game automatically resets by going through the power-up sequence. (For maximum flexibility, however, this time-out feature can be disabled by first switching power off, then setting switch 24 on the M.P.U. board, A1 to the OFF position).

C. GAME FEATURE ADJUSTMENTS

Each game has twenty four switches located on the M.P.U. board, A1, that allow play to be customised to the location. The switches are contained in 3 packages and numbered S1-S8, S9-S16 and S17-S24. Game adjustments must be made while the power is turned off.

Credits/Coin Adjustments : The credits/coin options are set by means of switches 1, 2 and 3. There are 8 different settings as shown below.

<u>Switches</u>			<u>Credits/Coin</u>
1	2	3	
OFF	OFF	OFF	1/1
ON	OFF	OFF	1/2
OFF	ON	OFF	1/3
ON	ON	OFF	1/4
OFF	OFF	ON	1/1, 3/2 *
ON	OFF	ON	1/2, 2/3 *
OFF	ON	ON	2/3, 4/5 * #
ON	ON	ON	2/5 #

\* Coin Counter reset at first score of each ball

# No credits until third coin dropped

# No credit until fifth coin dropped

High Score Award : At each of the three high score levels, the game can be programmed to give either an extra ball or a free game by setting switch 4.

<u>Switch 4</u>	<u>Award</u>
OFF	FREE GAME
ON	EXTRA BALL

Match Feature : With this feature on a random number appears in the "ball-in-play" window at game over. If this number matches the tens digit in the player's score, a free game is awarded. The feature is controlled by switch 5.

<u>Switch 5</u>	<u>Match Feature</u>
ON	ON
OFF	OFF

High Score to Date Award

<u>Switch</u>		<u>Award</u>
	<u>6    7</u>	
OFF	OFF	NO AWARD
ON	OFF	1 FREE GAME
OFF	ON	2 FREE GAMES
ON	ON	3 FREE GAMES

Coin Alarm Sound

The alarm sound may be turned ON or OFF by switch 9.

<u>Switch 9</u>	<u>Alarm Sound</u>
OFF	DISABLED
ON	ENABLED

Background Sound Feature

A background sound may be produced during play depending on the setting of switch 11.

<u>Switch 11</u>	<u>Background Sound</u>
OFF	DISABLED
ON	ENABLED

Top Lane Memory

The lit lamps of the 4 top lanes may be remembered from ball to ball using option switch 12

<u>Switch 12</u>	<u>Top 4 Lane Memory</u>
OFF	DISABLED
ON	ENABLED

Multiplier Memory

Option switch 13 enables the 2x, 3x, 4x and 5x multiplier to be remembered throughout the player's game.

<u>Switch 13</u>	<u>Multiplier Memory</u>
OFF	DISABLED
ON	ENABLED

Bottom 3 Drop Target

25 000 point insert and special insert may be linked together by option switch 14.

<u>Switch 14</u>	<u>25000 point/special</u>
OFF	NOT LINKED
ON	LINKED

Coin Alarm

A coin alarm is available using switch 15. This sets a maximum time for coin travel through the coin chute. If this time is exceeded the credit is not incremented and an alarm sound can occur depending on the setting of switch 9. This fundion only operates with the coin door closed.

<u>Switch 15</u>	<u>Coin Alarm</u>
OFF	DISABLED
ON	ENABLED

Balls per Game

<u>Switch 16</u>	<u># Balls/Game</u>
OFF	3
ON	5

Maximum Credits

The limit on the number of games that can be accumulated by either inserting coins or winning free games is set by switches 17 and 18.

<u>Switch</u>		<u>Maximum Credits</u>
<u>17</u>	<u>18</u>	
OFF	OFF	5
ON	OFF	10
OFF	ON	15
ON	ON	20

- Note:
1. When lowering the credit limit any surplus credits are lost
  2. Coin counters operate regardless of maximum credit settings

Free Game Sound

<u>Switch 22</u>	<u>Sound When Free Game Awarded</u>
OFF	SPECIAL TUNE
ON	KNOCKER

Self-Test Time-Out Option

The machine can be set by switch 24 to automatically exit self-test after 2 minutes in any one test

<u>Switch 24</u>	<u>Time Out Feature</u>
OFF	DISABLED
ON	OPERATIVE

Note: Any unused switches should be turned OFF

APPENDIX 1

Solenoid Identification Chart for "The Empire Strikes Back"

The following chart may be used with self test number 3 to identify the solenoids of the game.

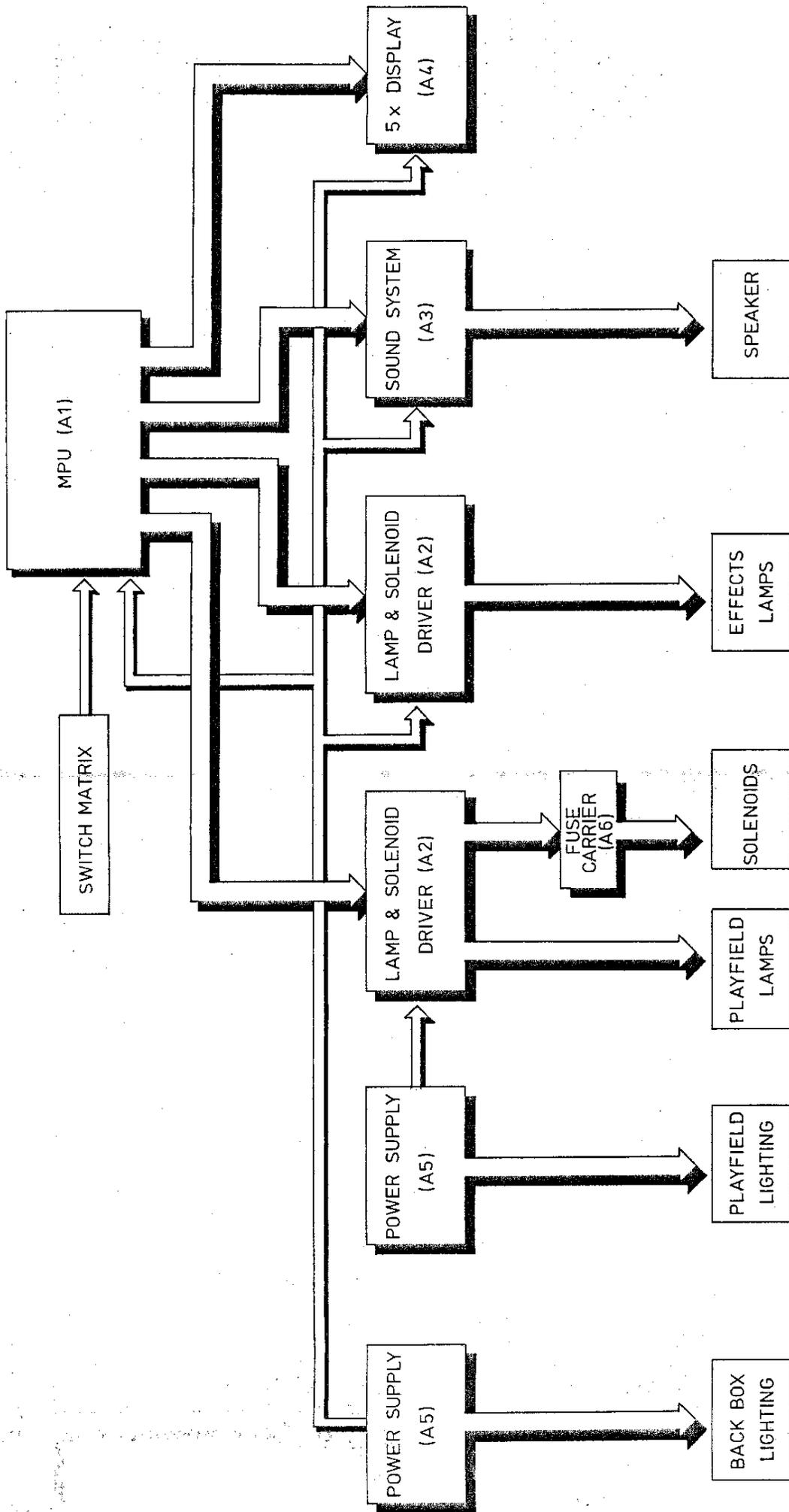
<u>Identification Number</u>	<u>Solenoid Description</u>
01	KNOCKER (if installed)
02	3 DROP TARGET
03	DAGOBAH EJECT HOLE
04	BESPIN EJECT HOLE
05	'1' DROP TARGET
06	RIGHT BOTTOM BUMPER
07	OUTHOLE KICKER
08	NOT USED
09	LEFT TOP BUMPER
10	RIGHT TOP BUMPER
11	LEFT BOTTOM BUMPER
12	RIGHT SLINGSHOT
13	NOT USED
14	LEFT SLINGSHOT
15	COIN LOCKOUT
16	FLIPPER ENABLE RELAY
17	

APPENDIX 2

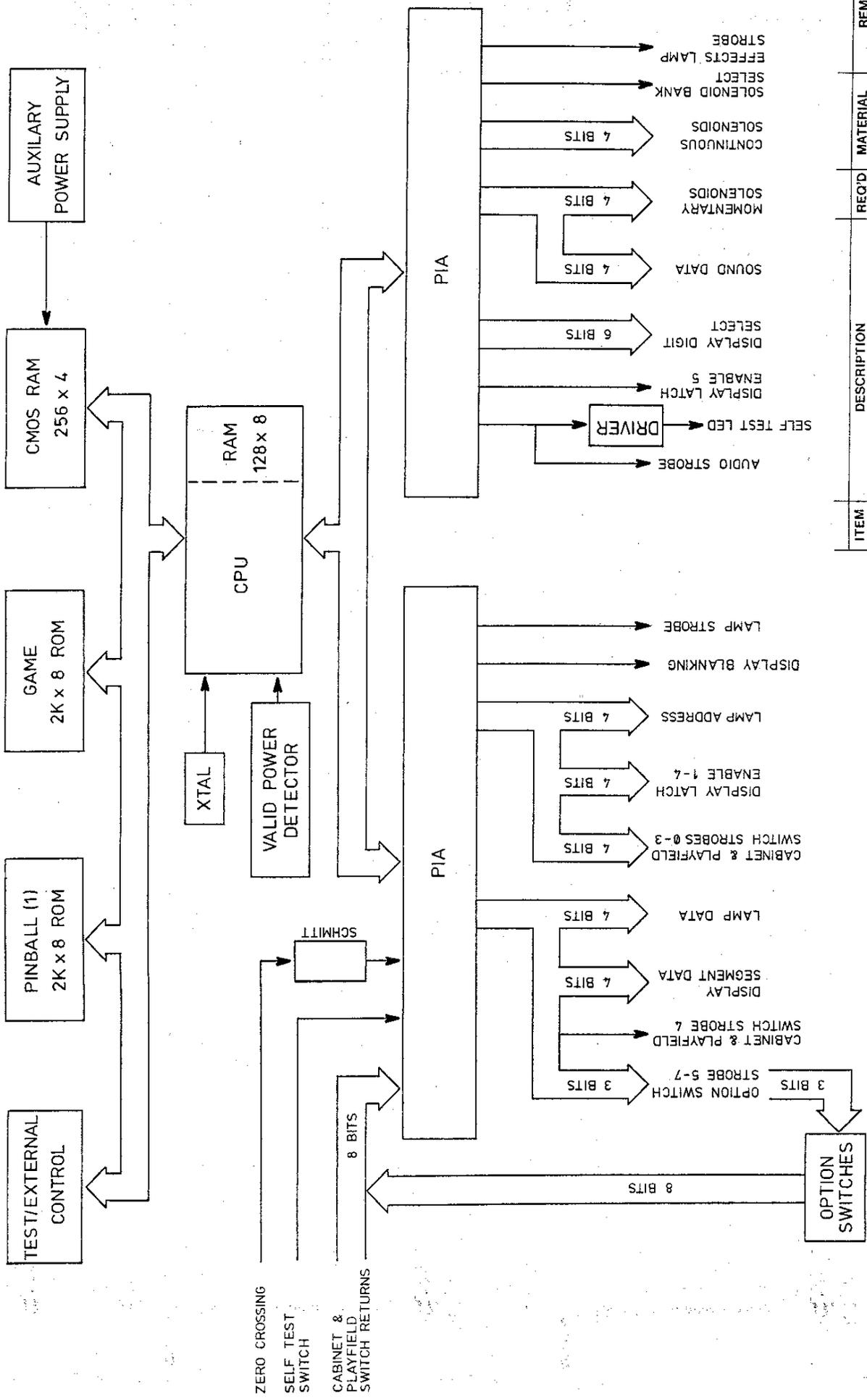
Switch Identification Chart for "The Empire Strikes Back"

The following chart may be used with self test number 4 to identify the switches of the game.

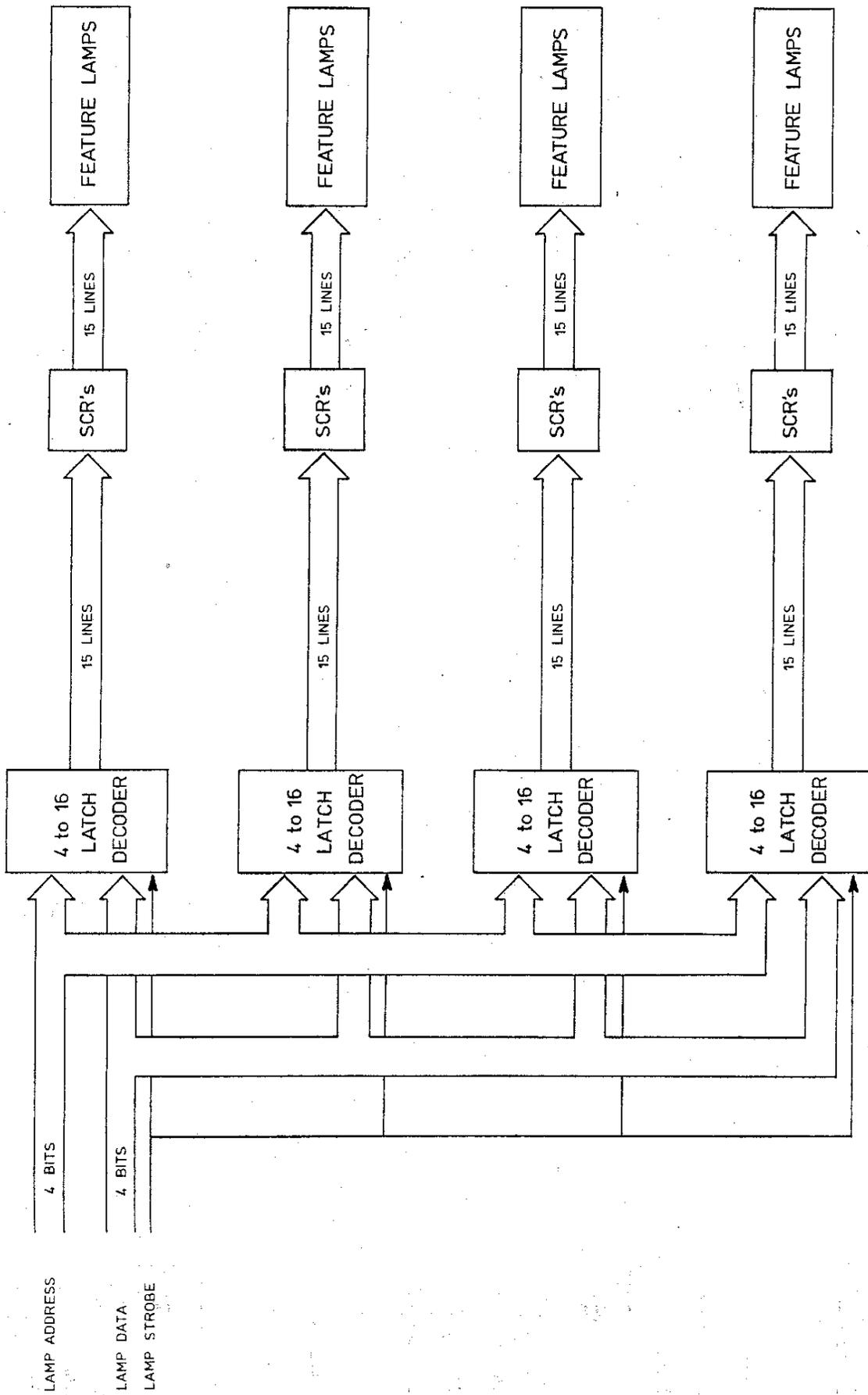
<u>Id. Number</u>	<u>Switch Description</u>
01	RIGHT FLIPPER
02	TILT
03	CREDIT
04	RIGHT OUTLANE
05	LEFT OUTLANE
06	RIGHT INSIDE RETURN LANE
07	RIGHT SPINNER
08	LEFT SPINNER
09	SLAM
10	COIN DOOR
11	TOP LANE 1
12	RIGHT OUTSIDE RETURN LANE
13	TOP LANE 2
14	TOP LANE 3
15	TOP LANE 4
16	COIN SWITCHES
17	LEFT INSIDE RETURN LANE
18	CENTRE TARGET
19	TARGET 1
20	TARGET 2
21	TARGET 3
22	TARGET 4
23	TARGET 5
24	TARGET 6
25	3 DROP TARGET 1
26	3 DROP TARGET 2
27	3 DROP TARGET 3
28	DROP TARGET 1
29	LEFT OUTSIDE RETURN LANE
30	BESPIN EJECT HOLE
31	REBOUND
32	DAGOBAN EJECT HOLE
33	TOP LEFT BUMPER
34	TOP RIGHT BUMPER
35	LEFT BOTTOM BUMPER
36	LEFT SLINGSHOT
37	RIGHT SLINGSHOT
38	RIGHT BOTTOM BUMPER
39	BALL SHOOTER LANE
40	OUTHOLE



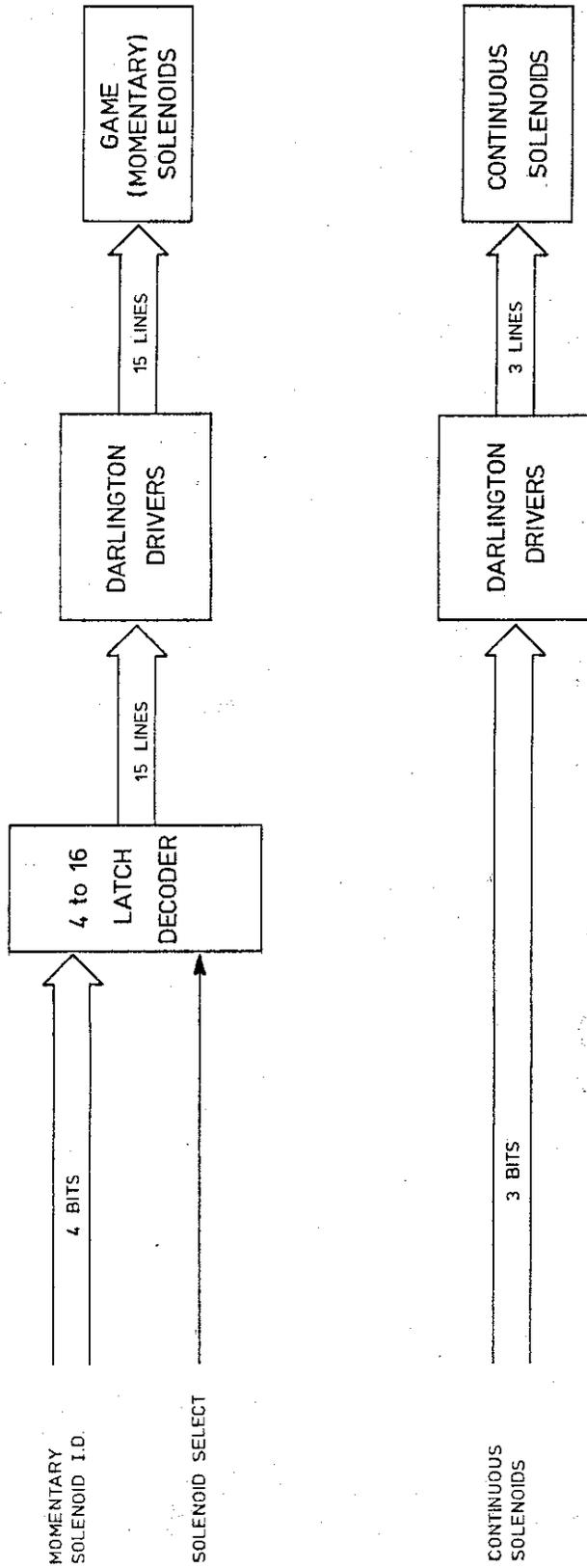
ITEM	DESCRIPTION	REQ'D	MATERIAL	REMARKS
	A. Hankin & Co. Pty. Ltd.	SCALE		PASSED
				DATE
				3/9/80
	STAR WARS SYSTEM ARCHITECTURE	DRAWN	G.T.	DRAWING NUMBER
		TRACED	A.P.	
		CHECKED		
				HD1114



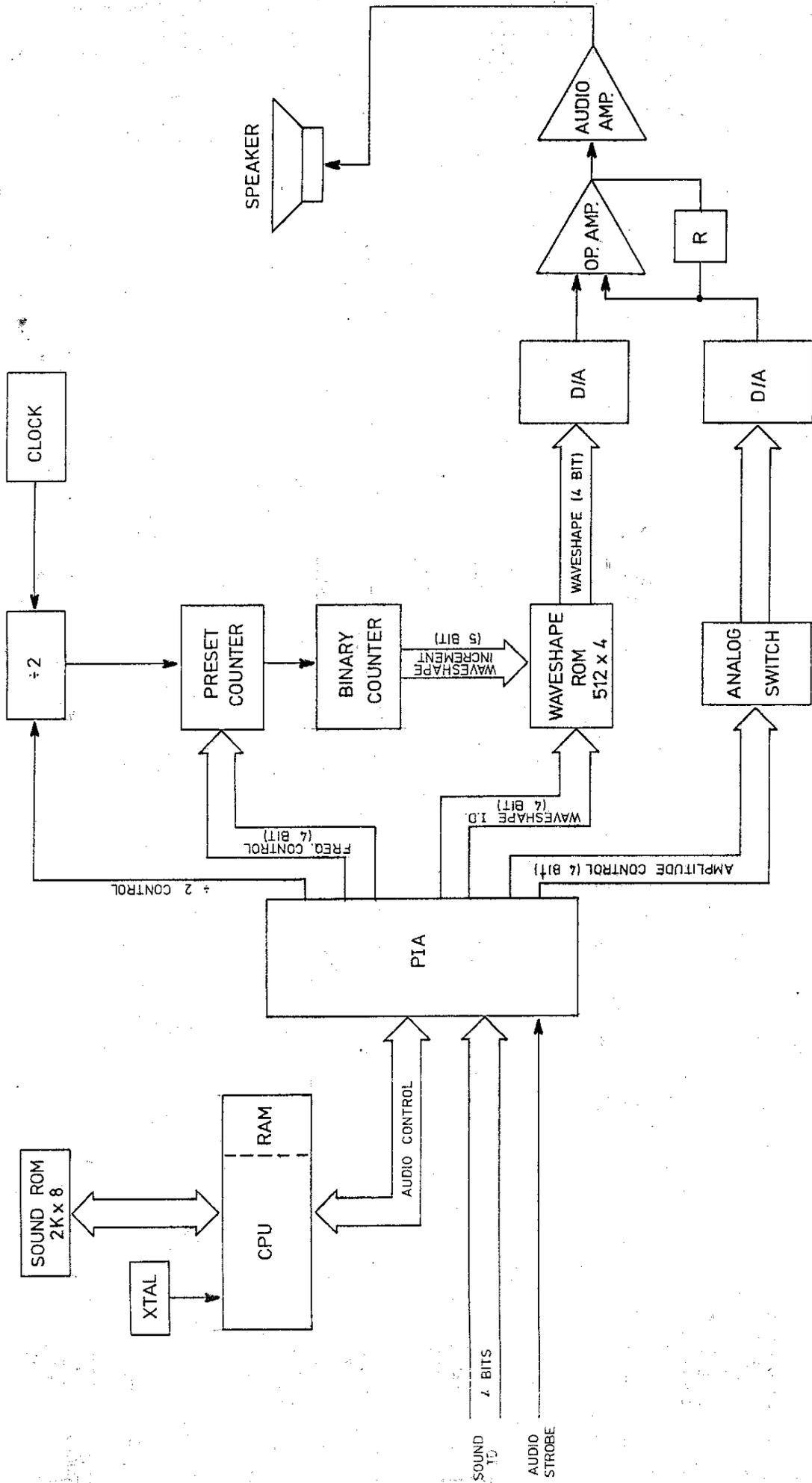
ITEM	DESCRIPTION	REMARKS	
		PASSED	DATE
	A. Hankin & Co. Pty. Ltd.		3/19/80
STAR WARS MPU BLOCK DIAGRAM		REQ'D	MATERIAL
		SCALE	
		DRAWN	G.T.
		TRACED	A.P.
		CHECKED	
		DRAWING NUMBER	
		HD1113	



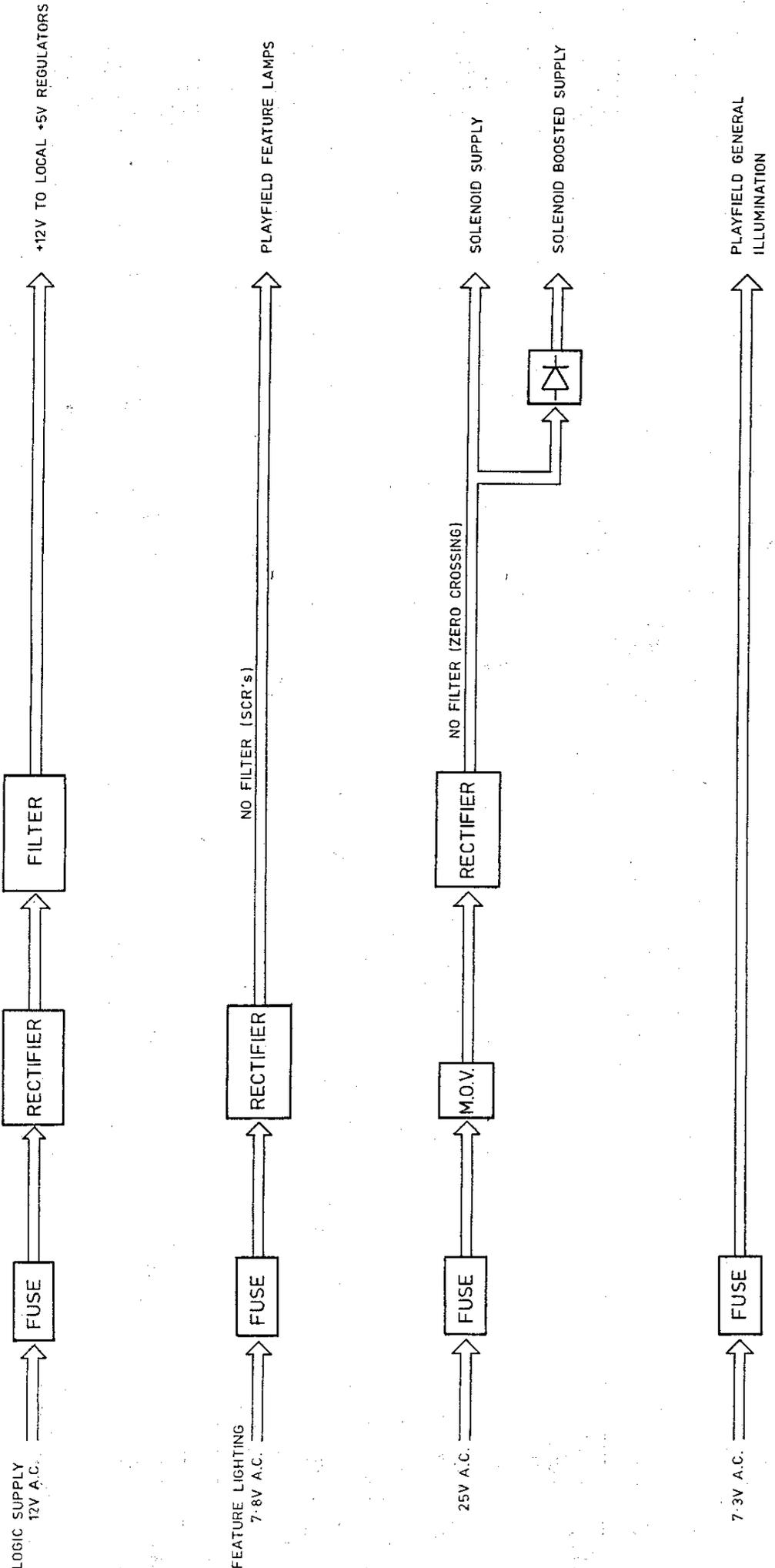
ITEM	DESCRIPTION	REQ'D MATERIAL		REMARKS	
		SCALE	PASSED	DATE	
	A. Hankin & Co. Pty. Ltd.				13/11/79
LAMP DRIVER BLOCK DIAGRAM		DRAWN	PG.	DRAWING NUMBER	
		TRACED	A.P.	HD1056	
		CHECKED			



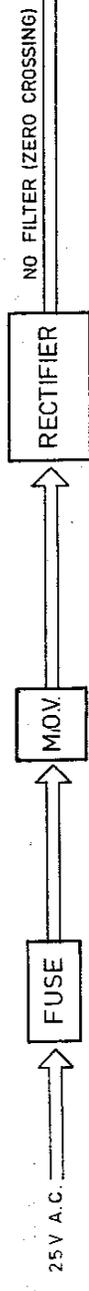
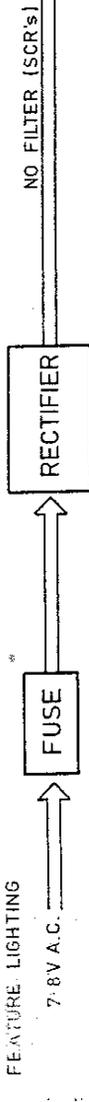
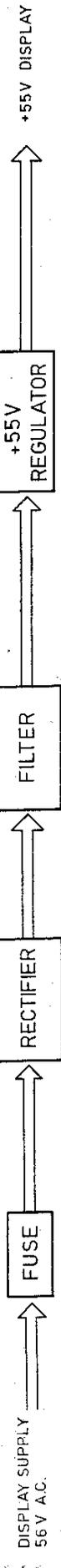
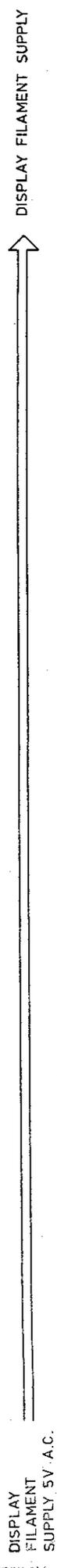
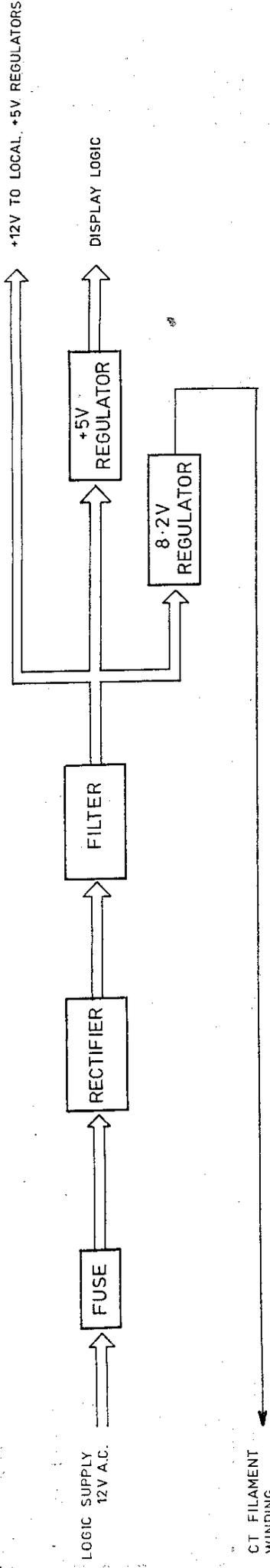
ITEM	DESCRIPTION	REO'D		MATERIAL		REMARKS	
		SCALE	DATE	SCALE	PASSED	DATE	REMARKS
	A. Hankin & Co. Pty. Ltd.						13/11/79
	SOLENOID DRIVER BLOCK DIAGRAM			DRAWN	P.G.		DRAWING NUMBER
				TRACED	A.P.		HD1055
				CHECKED			



ITEM	DESCRIPTION	REQ'D	MATERIAL	REMARKS
	A. Hankin & Co. Pty. Ltd.		SCALE	PASSED
	SOUND SYSTEM BLOCK DIAGRAM			DATE 12/11/79
		DRAWN	PG.	DRAWING NUMBER HD1054
		TRACED	A.P.	
			CHECKED	



ITEM	DESCRIPTION	REQ'D	MATERIAL	REMARKS
	A. Hankin & Co. Pty. Ltd.	SCALE		PASSED
				DATE
				2/9/80
CABINET POWER SUPPLY BLOCK DIAGRAM		DRAWN	G.T.	DRAWING NUMBER
		TRACED	A.P.	
		CHECKED		
				HD1112



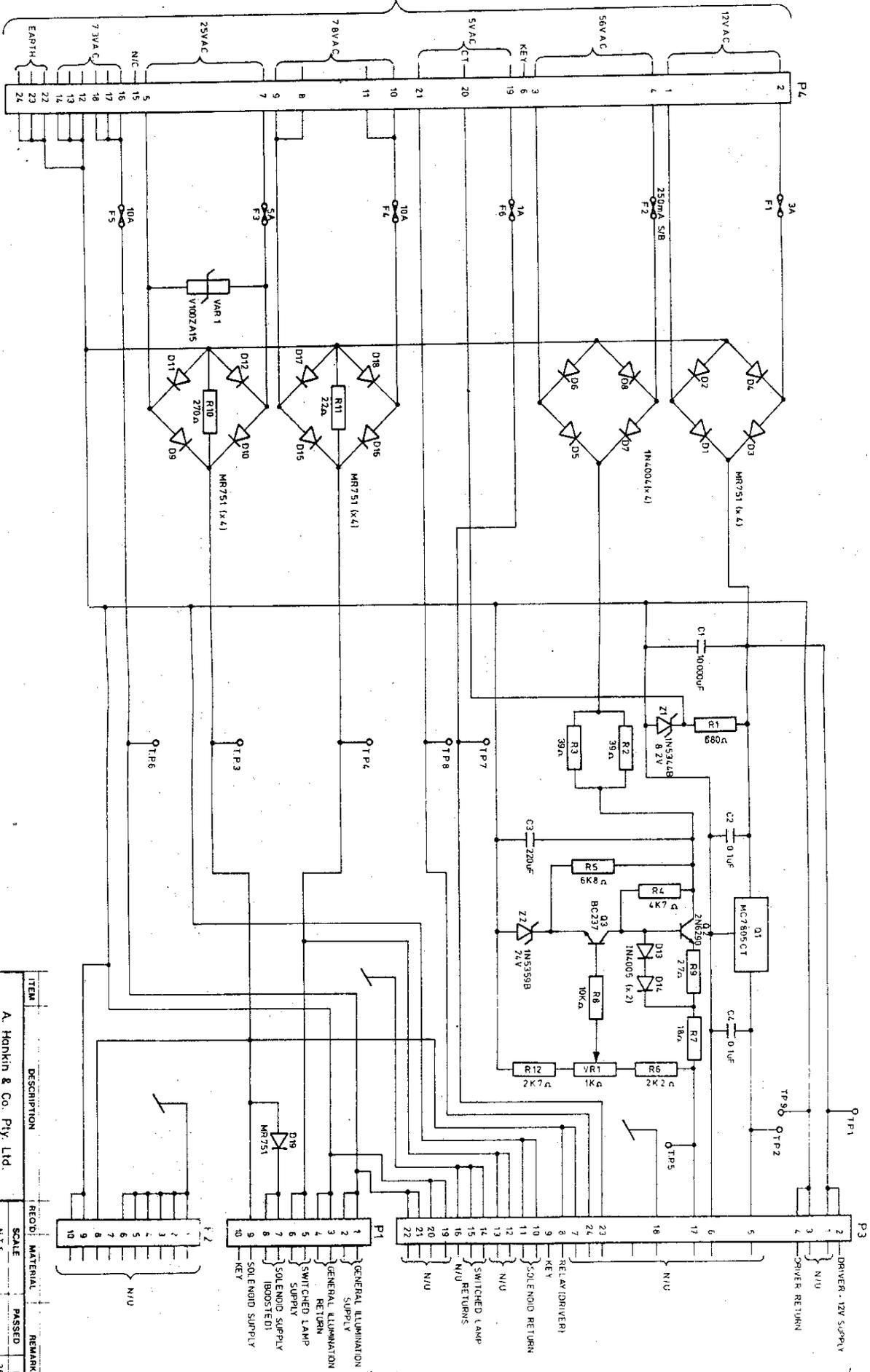
ITEM	DESCRIPTION	REQ'D	MATERIAL	REMARKS
	A. Hankin & Co. Pty. Ltd.	SCALE		PASSED
	BACK BOX POWER	DRAWN	G.T.	DATE
	SUPPLY BLOCK DIAGRAM	TRACED	A.P.	2/9/80
		CHECKED		DRAWING NUMBER
				HD 1111





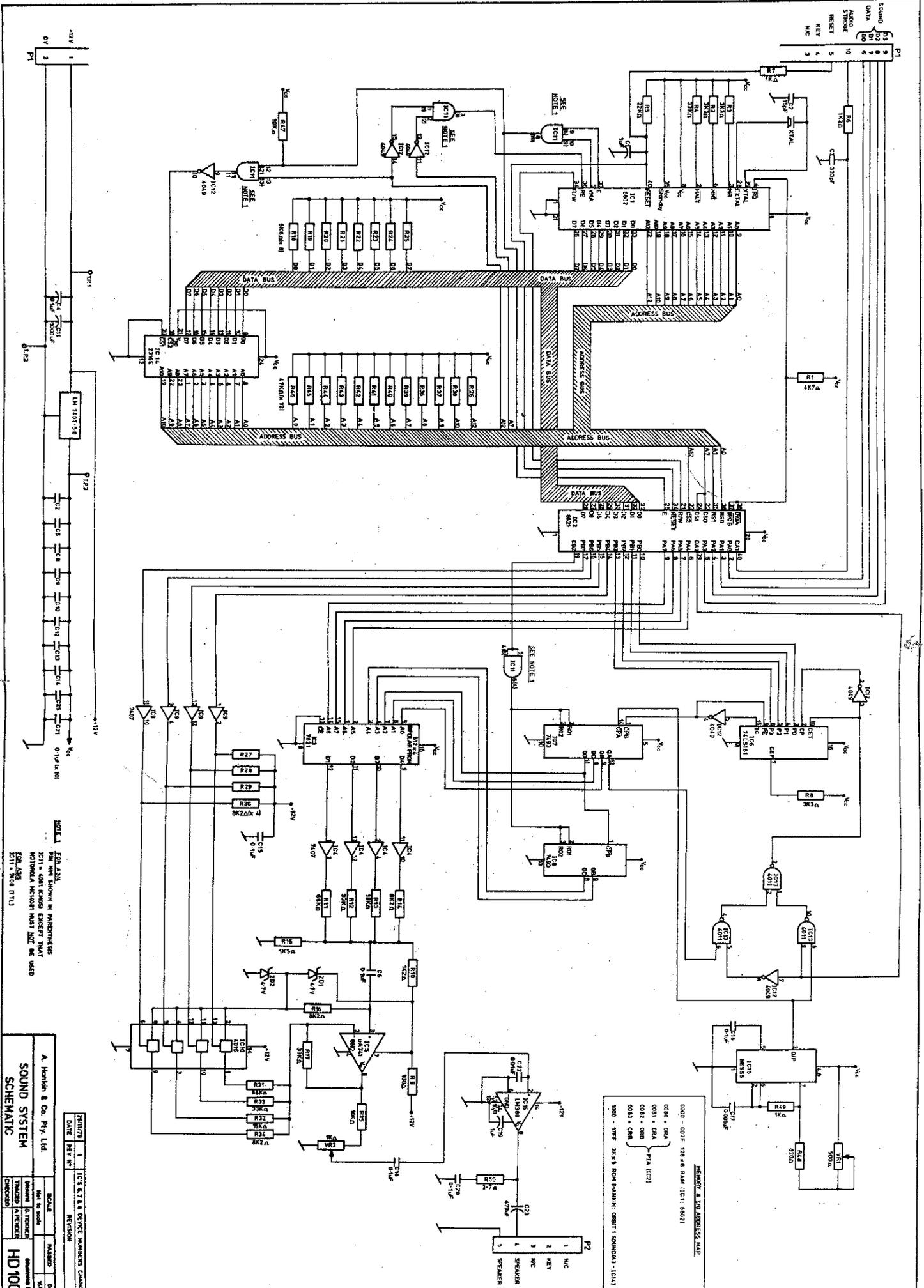


FROM TRANSFORMER



ITEM	DESCRIPTION	RECD.	MATERIAL	REMARKS
	A. Hankin & Co. Pty. Ltd.			
	POWER SUPPLY AS			
	SCHEMATIC - CABINET			
	SCALE			
	DATE			
	DRAWN BY			
	CHECKED			
	DRAWING NO.			
	DATE			

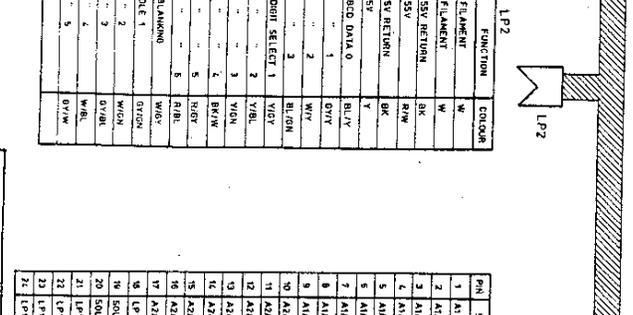
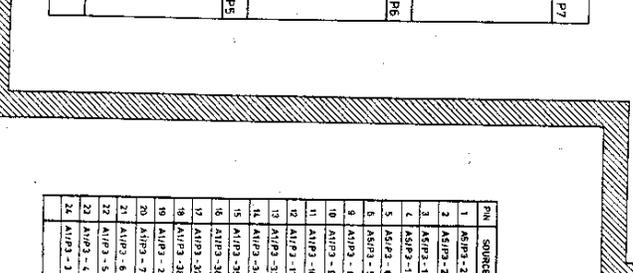
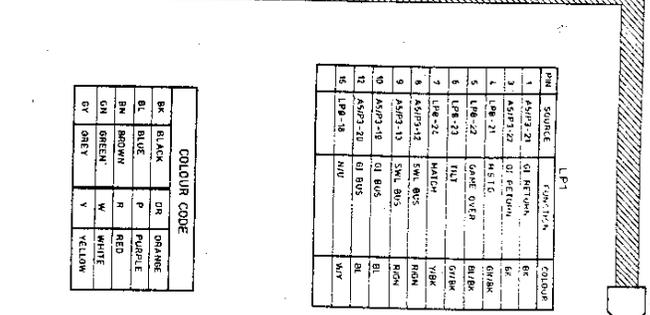
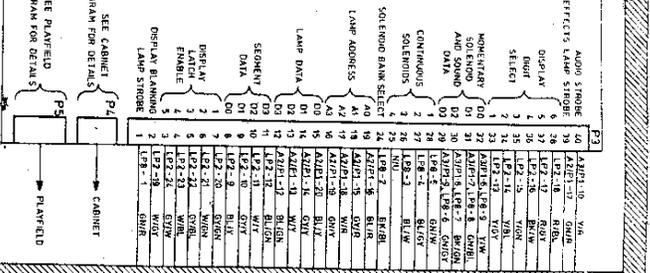
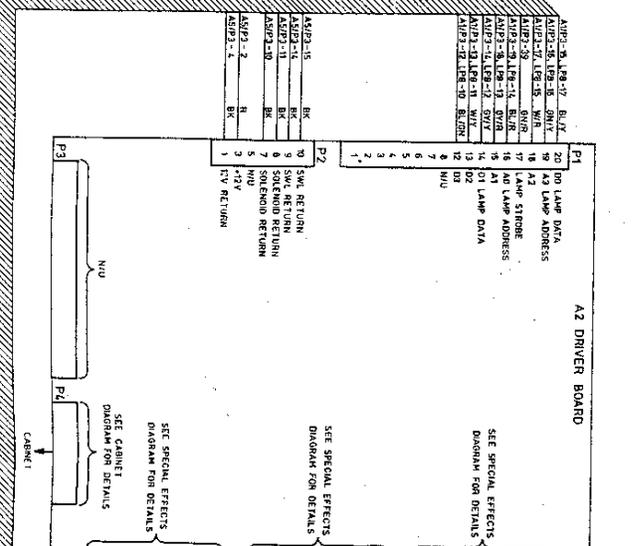
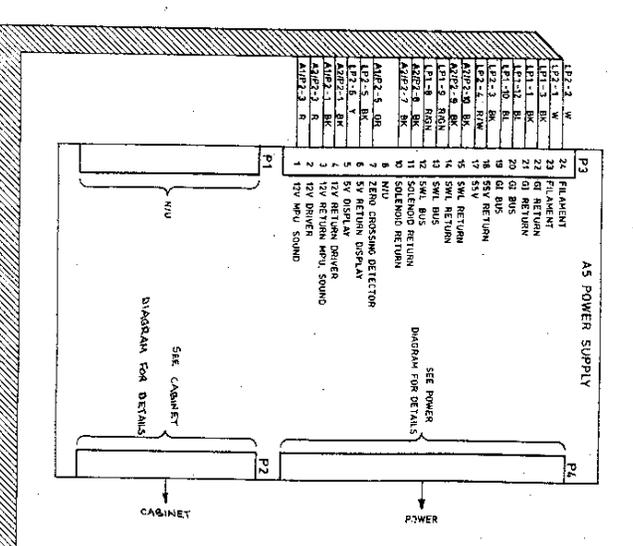
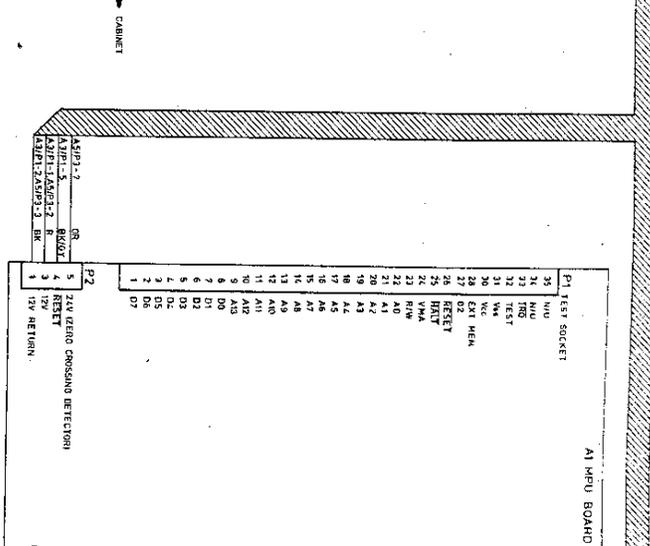
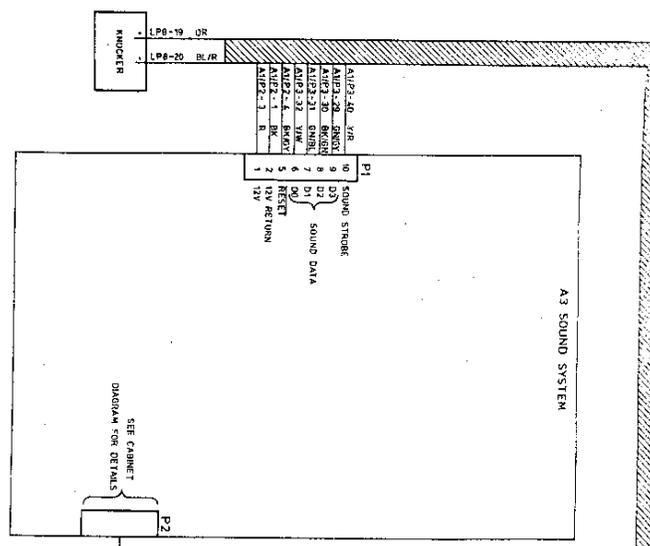
HD11055



**MEMORIC 310 ADDRESS MAP**  
 0000 - 007F 128 x 8 RAM (IC1: 88021)  
 0080 - 00A {  
 00B0 - 00C { P1A (IC2)  
 00D0 - 00E {  
 00F0 - 00FF { P1A (IC2)  
 0100 - 01FF 256 x 8 ROM (RAMIN: ORBIT 15000A3-101A1)

**NOTE 1** FOR A1A1  
 PIN 14N SHOWN IN PARENTHESES  
 1011 - 1041 CHIPS EXCEPT THAT  
 MOTOROLA MCD6000 MUST NOT BE USED  
 FOR A4A1  
 E117 - X08 DTU

A. Heath & Co. Pty. Ltd.		DRAWN		DATE	
SOUND SYSTEM		CHECKED		REV	
SCHEMATIC		THROUGHT		NO	
HD 1001		CONCERN		REV	



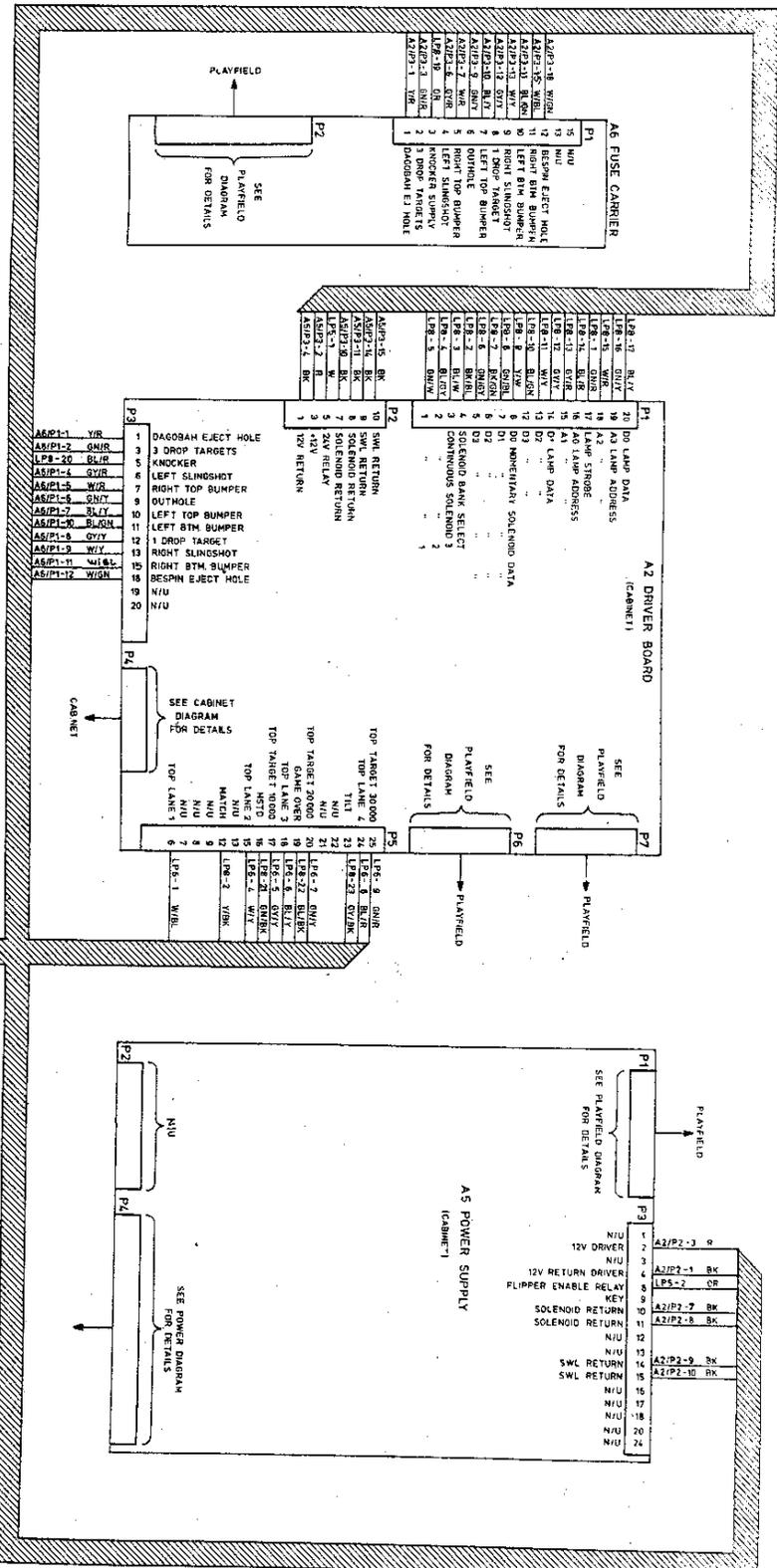
Colour	Code
Black	BK
Blue	BL
Brown	BN
Green	GN
Grey	GY
Orange	OR
Purple	PU
Red	RD
White	WH
Yellow	YL

Pin	Source	Function	Colour
1	AMP2-20	01 RETURN	BL
2	AMP2-20	02 RETURN	BL
3	AMP2-20	03 RETURN	BL
4	AMP2-20	04 RETURN	BL
5	AMP2-20	05 RETURN	BL
6	AMP2-20	06 RETURN	BL
7	AMP2-20	07 RETURN	BL
8	AMP2-20	08 RETURN	BL
9	AMP2-20	09 RETURN	BL
10	AMP2-20	10 RETURN	BL
11	AMP2-20	11 RETURN	BL
12	AMP2-20	12 RETURN	BL
13	AMP2-20	13 RETURN	BL
14	AMP2-20	14 RETURN	BL
15	AMP2-20	15 RETURN	BL
16	AMP2-20	16 RETURN	BL
17	AMP2-20	17 RETURN	BL
18	AMP2-20	18 RETURN	BL
19	AMP2-20	19 RETURN	BL
20	AMP2-20	20 RETURN	BL
21	AMP2-20	21 RETURN	BL
22	AMP2-20	22 RETURN	BL
23	AMP2-20	23 RETURN	BL
24	AMP2-20	24 RETURN	BL

Pin	Source	Function	Colour
1	AMP2-23	FILAMENT	W
2	AMP2-23	FILAMENT	W
3	AMP2-23	FILAMENT	W
4	AMP2-23	FILAMENT	W
5	AMP2-23	FILAMENT	W
6	AMP2-23	FILAMENT	W
7	AMP2-23	FILAMENT	W
8	AMP2-23	FILAMENT	W
9	AMP2-23	FILAMENT	W
10	AMP2-23	FILAMENT	W
11	AMP2-23	FILAMENT	W
12	AMP2-23	FILAMENT	W
13	AMP2-23	FILAMENT	W
14	AMP2-23	FILAMENT	W
15	AMP2-23	FILAMENT	W
16	AMP2-23	FILAMENT	W
17	AMP2-23	FILAMENT	W
18	AMP2-23	FILAMENT	W
19	AMP2-23	FILAMENT	W
20	AMP2-23	FILAMENT	W
21	AMP2-23	FILAMENT	W
22	AMP2-23	FILAMENT	W
23	AMP2-23	FILAMENT	W
24	AMP2-23	FILAMENT	W

Pin	Source	Function	Colour
1	AMP2-1	LAMP STROBE	GNR
2	AMP2-1	LAMP STROBE	GNR
3	AMP2-1	LAMP STROBE	GNR
4	AMP2-1	LAMP STROBE	GNR
5	AMP2-1	LAMP STROBE	GNR
6	AMP2-1	LAMP STROBE	GNR
7	AMP2-1	LAMP STROBE	GNR
8	AMP2-1	LAMP STROBE	GNR
9	AMP2-1	LAMP STROBE	GNR
10	AMP2-1	LAMP STROBE	GNR
11	AMP2-1	LAMP STROBE	GNR
12	AMP2-1	LAMP STROBE	GNR
13	AMP2-1	LAMP STROBE	GNR
14	AMP2-1	LAMP STROBE	GNR
15	AMP2-1	LAMP STROBE	GNR
16	AMP2-1	LAMP STROBE	GNR
17	AMP2-1	LAMP STROBE	GNR
18	AMP2-1	LAMP STROBE	GNR
19	AMP2-1	LAMP STROBE	GNR
20	AMP2-1	LAMP STROBE	GNR
21	AMP2-1	LAMP STROBE	GNR
22	AMP2-1	LAMP STROBE	GNR
23	AMP2-1	LAMP STROBE	GNR
24	AMP2-1	LAMP STROBE	GNR

A Hahn & Co. Pty. Ltd  
 STAR WARS BACK BOX  
 WIRING DIAGRAM  
 DRAWN: A.P.  
 TRACED: [ ]  
 CHECKED: [ ]  
 PASSED: [ ]  
 DATE: 20/1/81  
 DRAWING NUMBER: HD1101



**A6 FUSE CARRIER**

1	12V	12V
2	12V	12V
3	12V	12V
4	12V	12V
5	12V	12V
6	12V	12V
7	12V	12V
8	12V	12V
9	12V	12V
10	12V	12V
11	12V	12V
12	12V	12V
13	12V	12V
14	12V	12V
15	12V	12V
16	12V	12V
17	12V	12V
18	12V	12V
19	12V	12V
20	12V	12V
21	12V	12V
22	12V	12V
23	12V	12V
24	12V	12V
25	12V	12V
26	12V	12V
27	12V	12V
28	12V	12V
29	12V	12V
30	12V	12V
31	12V	12V
32	12V	12V
33	12V	12V
34	12V	12V
35	12V	12V
36	12V	12V
37	12V	12V
38	12V	12V
39	12V	12V
40	12V	12V
41	12V	12V
42	12V	12V
43	12V	12V
44	12V	12V
45	12V	12V
46	12V	12V
47	12V	12V
48	12V	12V
49	12V	12V
50	12V	12V
51	12V	12V
52	12V	12V
53	12V	12V
54	12V	12V
55	12V	12V
56	12V	12V
57	12V	12V
58	12V	12V
59	12V	12V
60	12V	12V
61	12V	12V
62	12V	12V
63	12V	12V
64	12V	12V
65	12V	12V
66	12V	12V
67	12V	12V
68	12V	12V
69	12V	12V
70	12V	12V
71	12V	12V
72	12V	12V
73	12V	12V
74	12V	12V
75	12V	12V
76	12V	12V
77	12V	12V
78	12V	12V
79	12V	12V
80	12V	12V
81	12V	12V
82	12V	12V
83	12V	12V
84	12V	12V
85	12V	12V
86	12V	12V
87	12V	12V
88	12V	12V
89	12V	12V
90	12V	12V
91	12V	12V
92	12V	12V
93	12V	12V
94	12V	12V
95	12V	12V
96	12V	12V
97	12V	12V
98	12V	12V
99	12V	12V
100	12V	12V

**A2 DRIVER BOARD (CABINET)**

1	12V	12V
2	12V	12V
3	12V	12V
4	12V	12V
5	12V	12V
6	12V	12V
7	12V	12V
8	12V	12V
9	12V	12V
10	12V	12V
11	12V	12V
12	12V	12V
13	12V	12V
14	12V	12V
15	12V	12V
16	12V	12V
17	12V	12V
18	12V	12V
19	12V	12V
20	12V	12V
21	12V	12V
22	12V	12V
23	12V	12V
24	12V	12V
25	12V	12V
26	12V	12V
27	12V	12V
28	12V	12V
29	12V	12V
30	12V	12V
31	12V	12V
32	12V	12V
33	12V	12V
34	12V	12V
35	12V	12V
36	12V	12V
37	12V	12V
38	12V	12V
39	12V	12V
40	12V	12V
41	12V	12V
42	12V	12V
43	12V	12V
44	12V	12V
45	12V	12V
46	12V	12V
47	12V	12V
48	12V	12V
49	12V	12V
50	12V	12V
51	12V	12V
52	12V	12V
53	12V	12V
54	12V	12V
55	12V	12V
56	12V	12V
57	12V	12V
58	12V	12V
59	12V	12V
60	12V	12V
61	12V	12V
62	12V	12V
63	12V	12V
64	12V	12V
65	12V	12V
66	12V	12V
67	12V	12V
68	12V	12V
69	12V	12V
70	12V	12V
71	12V	12V
72	12V	12V
73	12V	12V
74	12V	12V
75	12V	12V
76	12V	12V
77	12V	12V
78	12V	12V
79	12V	12V
80	12V	12V
81	12V	12V
82	12V	12V
83	12V	12V
84	12V	12V
85	12V	12V
86	12V	12V
87	12V	12V
88	12V	12V
89	12V	12V
90	12V	12V
91	12V	12V
92	12V	12V
93	12V	12V
94	12V	12V
95	12V	12V
96	12V	12V
97	12V	12V
98	12V	12V
99	12V	12V
100	12V	12V

**A5 POWER SUPPLY (CABINET)**

1	12V	12V
2	12V	12V
3	12V	12V
4	12V	12V
5	12V	12V
6	12V	12V
7	12V	12V
8	12V	12V
9	12V	12V
10	12V	12V
11	12V	12V
12	12V	12V
13	12V	12V
14	12V	12V
15	12V	12V
16	12V	12V
17	12V	12V
18	12V	12V
19	12V	12V
20	12V	12V
21	12V	12V
22	12V	12V
23	12V	12V
24	12V	12V
25	12V	12V
26	12V	12V
27	12V	12V
28	12V	12V
29	12V	12V
30	12V	12V
31	12V	12V
32	12V	12V
33	12V	12V
34	12V	12V
35	12V	12V
36	12V	12V
37	12V	12V
38	12V	12V
39	12V	12V
40	12V	12V
41	12V	12V
42	12V	12V
43	12V	12V
44	12V	12V
45	12V	12V
46	12V	12V
47	12V	12V
48	12V	12V
49	12V	12V
50	12V	12V
51	12V	12V
52	12V	12V
53	12V	12V
54	12V	12V
55	12V	12V
56	12V	12V
57	12V	12V
58	12V	12V
59	12V	12V
60	12V	12V
61	12V	12V
62	12V	12V
63	12V	12V
64	12V	12V
65	12V	12V
66	12V	12V
67	12V	12V
68	12V	12V
69	12V	12V
70	12V	12V
71	12V	12V
72	12V	12V
73	12V	12V
74	12V	12V
75	12V	12V
76	12V	12V
77	12V	12V
78	12V	12V
79	12V	12V
80	12V	12V
81	12V	12V
82	12V	12V
83	12V	12V
84	12V	12V
85	12V	12V
86	12V	12V
87	12V	12V
88	12V	12V
89	12V	12V
90	12V	12V
91	12V	12V
92	12V	12V
93	12V	12V
94	12V	12V
95	12V	12V
96	12V	12V
97	12V	12V
98	12V	12V
99	12V	12V
100	12V	12V

**L96**

PIN	SOURCE	FUNCTION	COLOR
1	A2/P5-6	TOP LANE 1	W/B
2	A2/P5-11	N/U	R
3	A2/P5-15	TOP LANE 2	W
4	A2/P5-17	TOP LANE 2	W/Y
5	A2/P5-17	TOP LANE 2	W/Y
6	A2/P5-18	TOP LANE 3	BL/Y
7	A2/P5-20	TOP TARGET 2000	ONLY
8	A2/P5-21	TOP LANE 4	BL/W
9	A2/P5-22	TOP TARGET 3000	GN/R

**L95**

PIN	SOURCE	FUNCTION	COLOR
1	A2/P2-5	RELAY	W
2	A2/P2-6	RELAY SUPPLY	OR

**L98**

PIN	SOURCE	FUNCTION	COLOR
1	A2/P1-17	LAMP STRIKE	GN/R
2	A2/P1-17	SOUND BUMP SELECT	GN/R
3	A2/P1-17	CONT. SOLENOID 1	BL/W
4	A2/P1-17	CONT. SOLENOID 2	BL/W
5	A2/P1-17	CONT. SOLENOID 3	GN/R
6	A2/P1-17	CONT. SOLENOID 4	GN/R
7	A2/P1-17	CONT. SOLENOID 5	GN/R
8	A2/P1-17	CONT. SOLENOID 6	GN/R
9	A2/P1-17	CONT. SOLENOID 7	GN/R
10	A2/P1-17	CONT. SOLENOID 8	GN/R
11	A2/P1-17	CONT. SOLENOID 9	GN/R
12	A2/P1-17	CONT. SOLENOID 10	GN/R
13	A2/P1-17	CONT. SOLENOID 11	GN/R
14	A2/P1-17	CONT. SOLENOID 12	GN/R
15	A2/P1-17	CONT. SOLENOID 13	GN/R
16	A2/P1-17	CONT. SOLENOID 14	GN/R
17	A2/P1-17	CONT. SOLENOID 15	GN/R
18	A2/P1-17	CONT. SOLENOID 16	GN/R
19	A2/P1-17	CONT. SOLENOID 17	GN/R
20	A2/P1-17	CONT. SOLENOID 18	GN/R
21	A2/P1-17	CONT. SOLENOID 19	GN/R
22	A2/P1-17	CONT. SOLENOID 20	GN/R
23	A2/P1-17	CONT. SOLENOID 21	GN/R
24	A2/P1-17	CONT. SOLENOID 22	GN/R

**COLOR CODE**

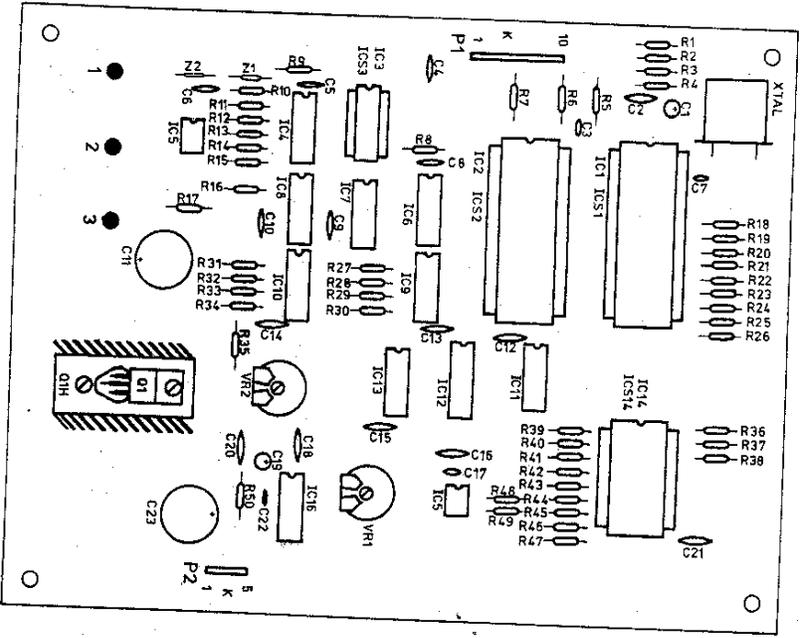
BL	BLACK	OR	ORANGE
BLU	BLUE	F	PURPLE
BRN	BROWN	R	RED
GRN	GREEN	W	WHITE
GRY	GREY	Y	YELLOW

**STAR WARS DRIVER WIRING DIAGRAM**

A. Hopkins & Co Pty. Ltd

HD1100





ITEM	DESCRIPTION	QTY	REF. DESIG.	REF. PART N°	REMARKS
A3	SOUND SYSTEM (COMPLETE)	-			
PCB	A3/5 PRINTED CIRCUIT BOARD	1	EP 21		
IC1	MC6802 MICROPROCESSOR	1	EE 300		
IC2	MC6821 PERIPHERAL INTERFACE ADP	1	EE 330		
IC3	MCW7221 512 x 4 BIPOLAR PROM	1	EE 370		WAVESHARE (1)
IC 4	7407PC HEX NON-INVERTING BUFFER	1	EE 450		
IC 5	MC1714CP1 OPERATIONAL AMPLIFIER	1	EE 530		
IC 6	74LS16PC SYNCHRONOUS 4 BIT COUNTER	1	EE 550		
IC 7	7493PC BINARY COUNTER	1	EE 490		
IC 8	7407PC HEX NON-INVERTING BUFFER	1	EE 450		
IC9	MC1408B QUAD ANALOG SWITCH	1	EE 390		
IC10	7408 PC QUAD 2 INPUT AND GATE	1	EE 460		ON A3/4 USE 4081 CMOS
IC11	MC14049 HEX INVERTING BUFFER	1	EE 400		
IC12	MC14017B QUAD 2 INPUT NAND GATE	1	EE 380		BUFFERED DEVICE ONLY
IC14	2716 2K x 8 EPROM	1	EE 201		SOUND FIRMWARE
IC15	MC1455P1 TIMER	1	EE 510		
IC16	LM380 AUDIO AMP	1	EE 520		
IC51	40 PIN GOLD IC SOLDER SOCKET	1	EO 700		
IC52	40	1	EO 700		
IC53	16	1	EO 730		
IC54	24	1	EO 710		
C1	100µF ELECTROLYTIC CAPACITOR 35V RB	1	EC 500		
C2	0.1µF CERAMIC CAPACITOR	1	EC 200		
C3	330µF	1	EC 120		
C4	0.1µF	1	EC 200		
C5	"	1	EC 200		
C6	"	1	"		
C7	15µF	1	EC 700		
C8	0.1µF	1	EC 200		
C9	"	1	"		
C10	"	1	"		
C11	1000µF ELECTROLYTIC CAPACITOR 25V RB	1	EC 560		
C12	0.1µF CERAMIC CAPACITOR	1	EC 180		
C13	"	1	"		
C14	"	1	"		
C15	"	1	"		
C16	"	1	"		
C17	0.001µF	1	EC 170		
C18	0.4µF	1	EC 200		
C19	1µF ELECTROLYTIC CAPACITOR 63V RB	1	EC 500		
C20	0.1µF CERAMIC CAPACITOR	1	EC 200		
C21	"	1	"		
C22	0.01µF	1	EC 180		
C23	470µF ELECTROLYTIC CAPACITOR 25V RB	1	EC 550		
Z1	1N750 4.7V 400mW ZENER DIODE	1	EF 280		
Z2	"	1	EF 280		
VR1	PT55VH2.5I K TRIMPOT (SCREW SLOT)	1	ER 700		
VR2	PT55VH2.5I K TRIMPOT (NUT/SCREW KNOB)	1	ER 720		

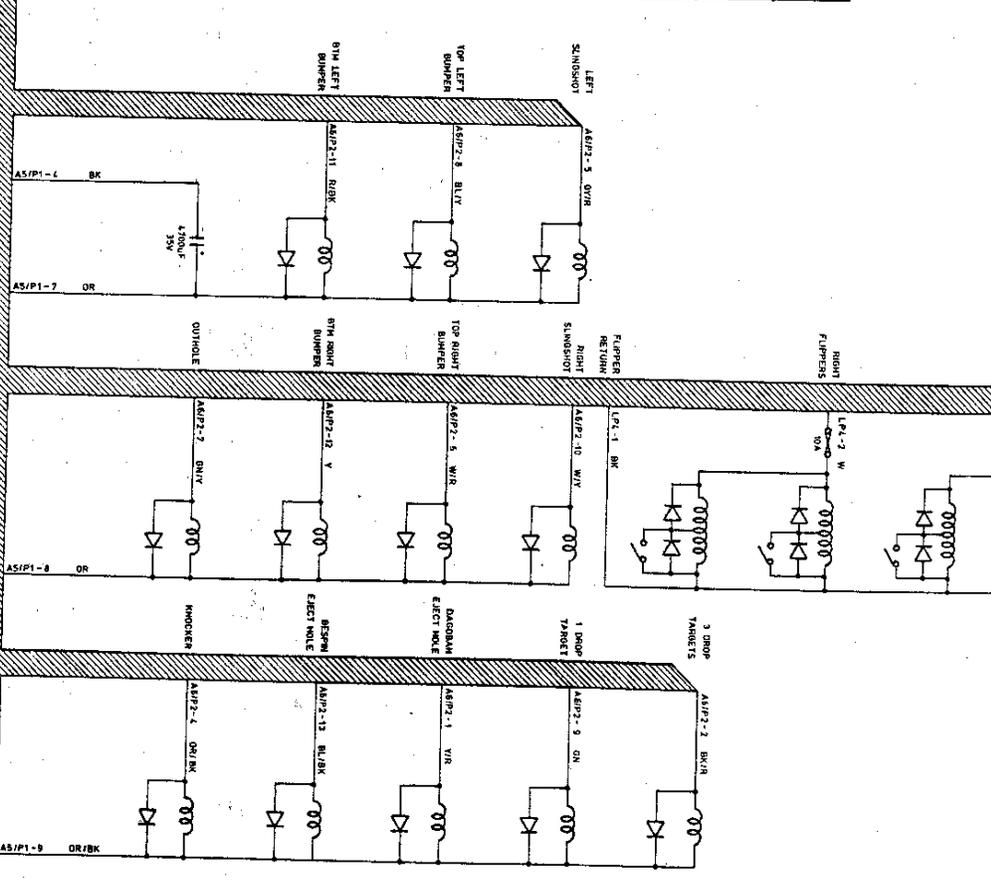
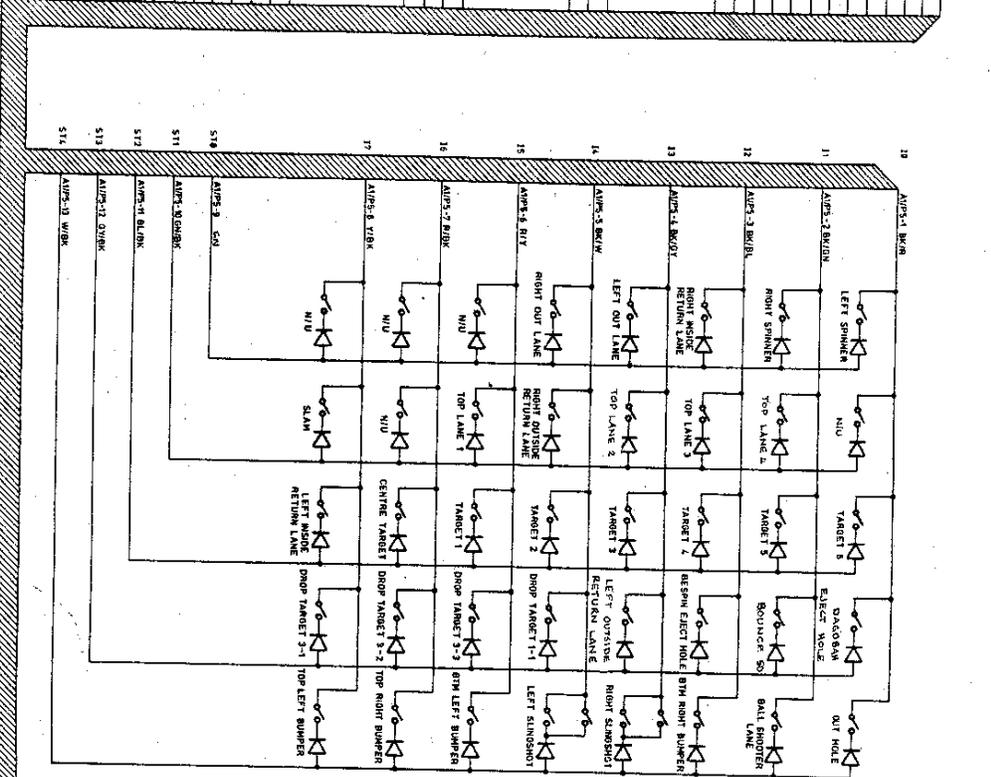
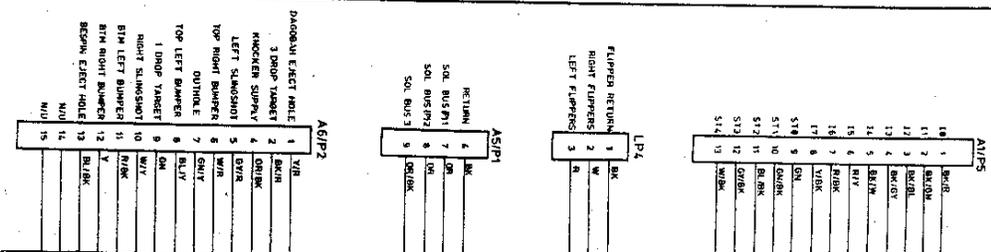
ITEM	DESCRIPTION	QTY	REF. DESIG.	REF. PART N°	REMARKS
R1	4K7 OHM RESISTOR 1/4W 5%	1	ER 300		
R2	3K3	1	ER 280		
R3	3K3	1	ER 370		
R4	33K	1	ER 350		
R5	22K	1	ER 240		
R6	1K2	1	ER 230		
R7	1K	1	ER 280		
R8	3K3	1	ER 150		
R9	100	1	ER 240		
R10	1K2	1	ER 400		
R11	68K	1	ER 370		
R12	33K	1	ER 350		
R13	18K	1	ER 330		
R14	8K2	1	ER 250		
R15	1K5	1	ER 330		
R16	8K2	1	ER 330		
R17	33K	1	ER 370		
R18	5K6	1	ER 310		
R19	"	1	"		
R20	"	1	"		
R21	"	1	"		
R22	"	1	"		
R23	"	1	"		
R24	"	1	"		
R25	"	1	"		
R26	47K	1	ER 380		
R27	9K2	1	ER 330		
R28	"	1	ER 330		
R29	"	1	"		
R30	"	1	"		
R31	68K	1	ER 400		
R32	18K	1	ER 350		
R33	33K	1	ER 370		
R34	8K2	1	ER 300		
R35	10K	1	ER 340		
R36	47K	1	ER 380		
R37	"	1	ER 380		
R38	"	1	"		
R39	"	1	"		
R40	"	1	"		
R41	"	1	"		
R42	"	1	"		
R43	"	1	"		
R44	"	1	"		
R45	"	1	"		
R46	"	1	"		
R47	10K	1	ER 340		
R48	820	1	ER 220		
R49	1K	1	ER 230		
R50	2.7	1	ER 100		
Q1H	TV21 HEATSINK	1	EO 930		
P1	1/8" x 3/8" RHM T	2			
P2	1/8" MACHINED NUT	2			
Q1	1/8" SHAKEPROOF WASHER	2			
XTAL	3.27680 MHZ CRYSTAL	1	EF 700		
Q1	MC7805CT POSITIVE 5V REGULATOR	1	EF 500		
P1	HL030-10A MOLDED WAFER ASSY	1	EF 110		
P2	HL030-5A MOLDED WAFER ASSY	1	EF 100		
TF-1-3	WIRE TEST POINT LOOP	3	EO 900		

A. Honkin & Co. Pty. Ltd.  
 SOUND SYSTEM  
 ASSEMBLY (A3)

DRAWN	SCALE	PASSED	DATE
TRACED	Full size		11/4/79

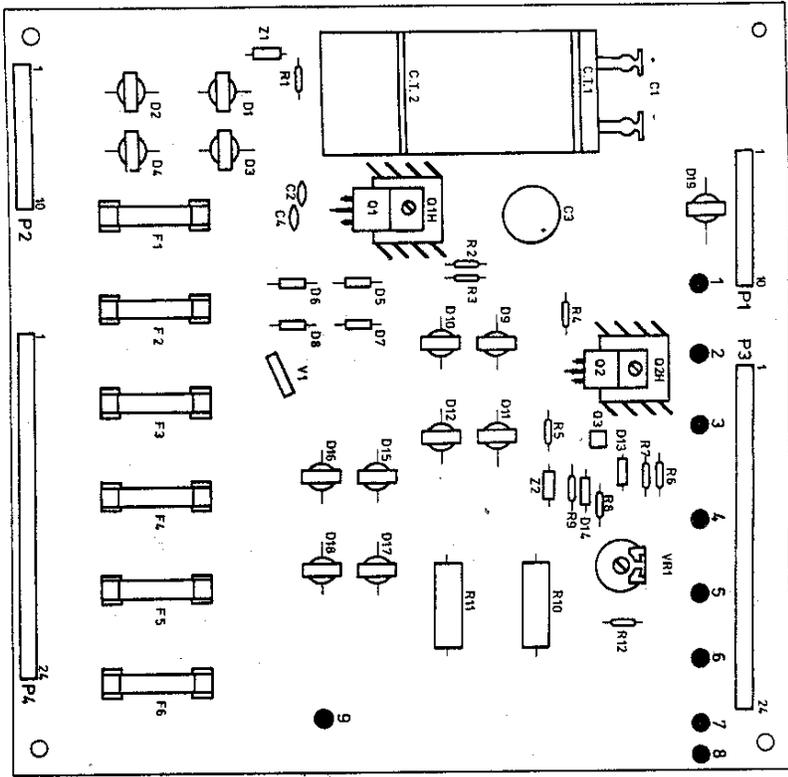
DRAWING NUMBER  
 HD 1000/L





COLOUR CODE	
BK	BLACK
BL	BLUE
BR	BROWN
BN	BROWN
DN	GREEN
DR	GREEN
OR	ORANGE
P	PURPLE
R	RED
W	WHITE
Y	YELLOW

ITER	DESCRIPTION	NO. OF	MATERIAL	REMARKS
1	A. Hendon & Co. Pty. Ltd.	SCALE	DATE	
STAR WARS PLAYFIELD		DATE	DATE	
WIRING DIAGRAM		DATE	DATE	
HD1104	DATE	DATE	DATE	
HD1104	DATE	DATE	DATE	



ITEM	DESCRIPTION	REV'D	PART N°	REMARKS
A5	POWER SUPPLY COMPLETE	-		
PCB	A5/3 PRINTED CIRCUIT BOARD	1	EP140	
P1	M2402-10 STANDARD WAFER	1	EJ210	
P2	M2402-10	1		
P3	M2402-12	2	EJ230	
P4	M2402-12	2		
	1397-01-28 PC MOUNTING FUSE CLIP	12	EG300	

ITEM	DESCRIPTION	REV'D	PART N°	REMARKS
C1	1000µF ELECTROLYTIC CAPACITOR 25V 5G	1	EG370	
C2	0.1µF CERAMIC CAPACITOR 63V	1	EG200	
C3	220µF ELECTROLYTIC CAPACITOR 80V RB	1	EG540	
C4	0.1µF CERAMIC CAPACITOR 63V	1	EC200	
Z1	1N5344B 82V 25W ZENER DIODE	1	EF230	
Z2	1N5359B 24V 2.5W	1	EF240	
D1	MR751 100V 6A DIODE	1	EF220	
D2	"	1	"	
D3	"	1	"	
D4	"	1	"	
D5	1N4004 400V 1A SILICON DIODE	1	EF200	
D6	"	1	"	
D7	"	1	"	
D8	"	1	"	
D9	MR751 100V 6A DIODE	1	EF220	
D10	"	1	"	
D11	"	1	"	
D12	"	1	"	
D13	1N4004 400V 1A SILICON DIODE	1	EF200	
D14	"	1	"	
D15	MR751 100V 6A DIODE	1	EF220	
D16	"	1	"	
D17	"	1	"	
D18	"	1	"	
D19	"	1	"	
R1	680 OHM 1/2 W 5% RESISTOR	1	ER210	
R2	39	1	ER130	
R3	39	1	ER130	
R4	4K7	1	ER300	
R5	6K8	1	ER320	
R6	2K2	1	ER260	
R7	18	1	ER320	
R8	10K	1	ER340	
R9	2.7	1	ER100	
R10	RESIST 270J 270 OHM 5W 10% RESISTOR	1	ER600	
R11	RESIST 22J 22	1	ER600	
R12	2K7 1/4 W 5% RESISTOR	1	ER270	
V1	PT5V1251 K TRIM POT (SCREW SLOT)	1	ER700	
V1	V100ZAN5 100V 150µF VARISTOR	1	EF600	
Q1H	TYS HEATSINK	2	EJ970	
O2H	1/8 x 3/16 RHMT	2		
	1/8" MACHINED NUT	2		
	1/8" SHAKERPROOF WASHER	2		
Q1	MC7805CT POSITIVE SV REGULATOR	1	EF500	
Q2	2N6290 45V BA NPN TRANSISTOR	1	EF120	
Q3	BC237 50V 200mA NPN TRANSISTOR	1	EF100	
F1	3A 3AG FUSE	1	EG340	
F2	250mA	1	EG320	
F3	5A 5/8	1	EG360	
F4	10A	1	EG370	
F5	15A	1	EG390	
F6	1A	1	EG330	
	1P-1-9 WIRE TEST POINT LOOP	9	EG900	
C11&2	PL12M 2.5mm x 200mm NYLON CABLE TIE	2	EP700	

A. Harkin & Co. Pty. Ltd.  
**POWER SUPPLY ASSEMBLY (A5)**

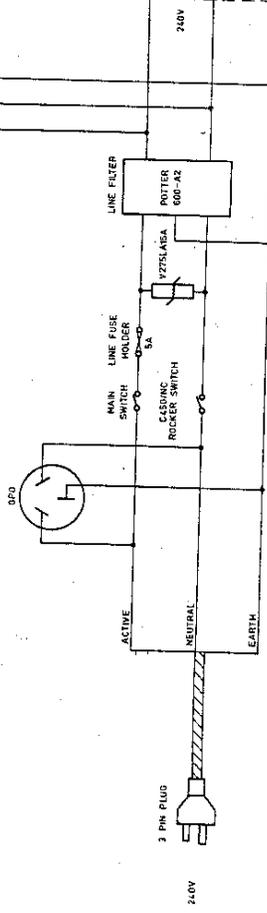
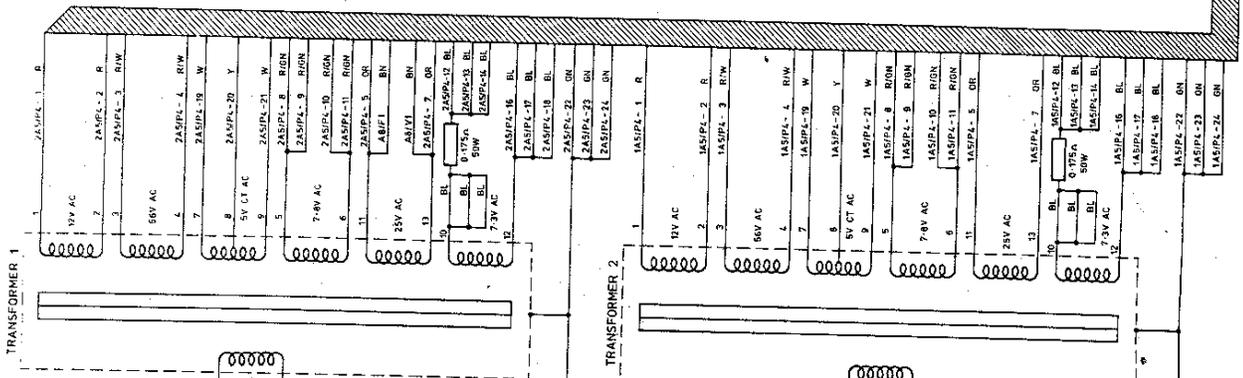
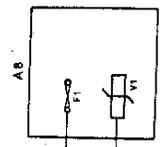
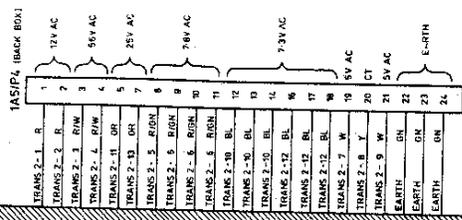
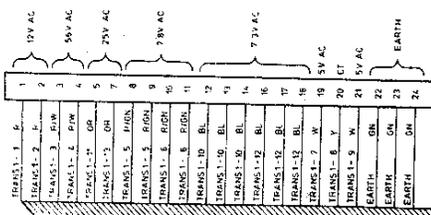
DRAWING NUMBER  
**HD1021/1**

DATE 17/10/79  
 REV N° 1  
 F1 RATING CHANGED  
 REVISION

DRAWN  
 TRACED  
 CHECKED

PASSED  
 DATE 28/5/79

ZAS1P/4 (CABINET)



COLOUR CODE

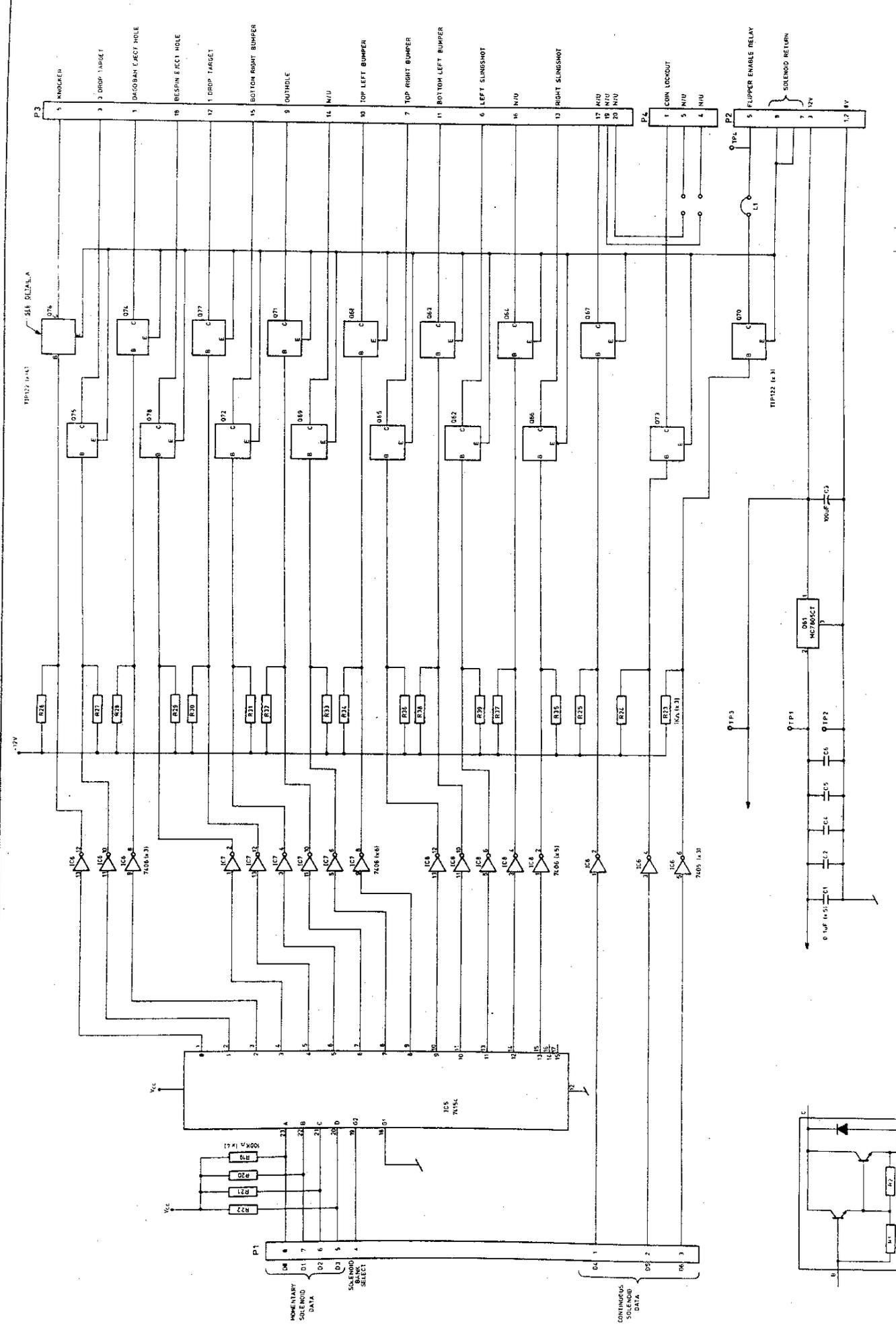
BL	BLACK	GR	GRANGE
BL	BLUE	P	PURPLE
BN	BROWN	R	RED
GN	GREEN	W	WHITE
GY	GREY	Y	YELLOW

ITEM	DESCRIPTION	RECD.	MATERIAL	REMARKS
A. Honkin & Co. Pty. Ltd.				
STAR WARS TRANSFORMERS WIRING DIAGRAM				DATE
				22/1/80
				SCALE
				N.T.S.
				DRAWN
				A.P.
				TRACED
				CHECKED
				DRAWING NUMBER
				HD 1102

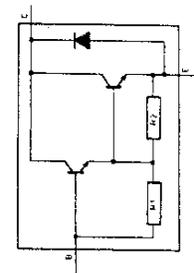


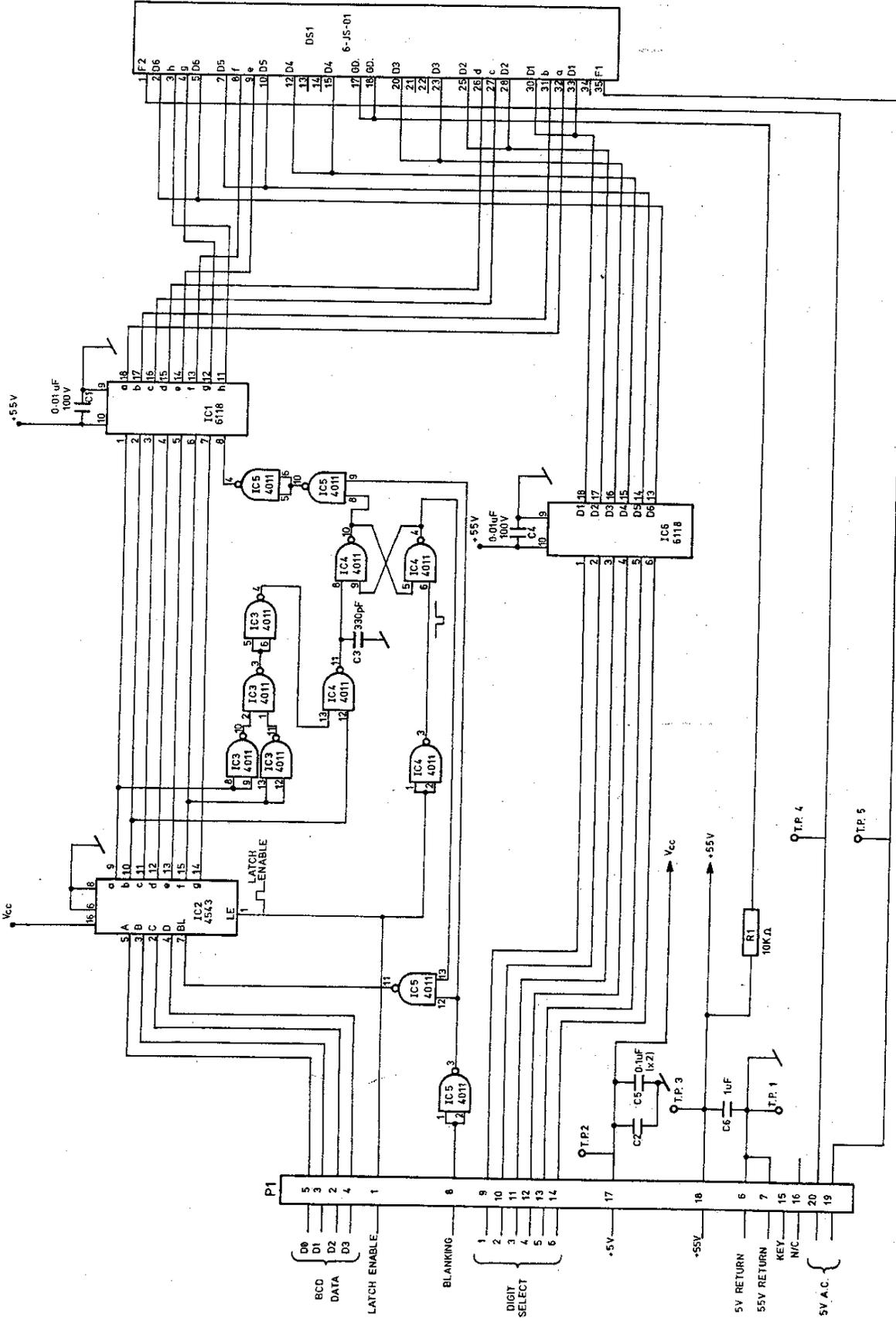
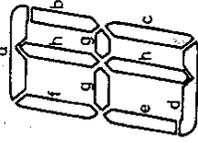




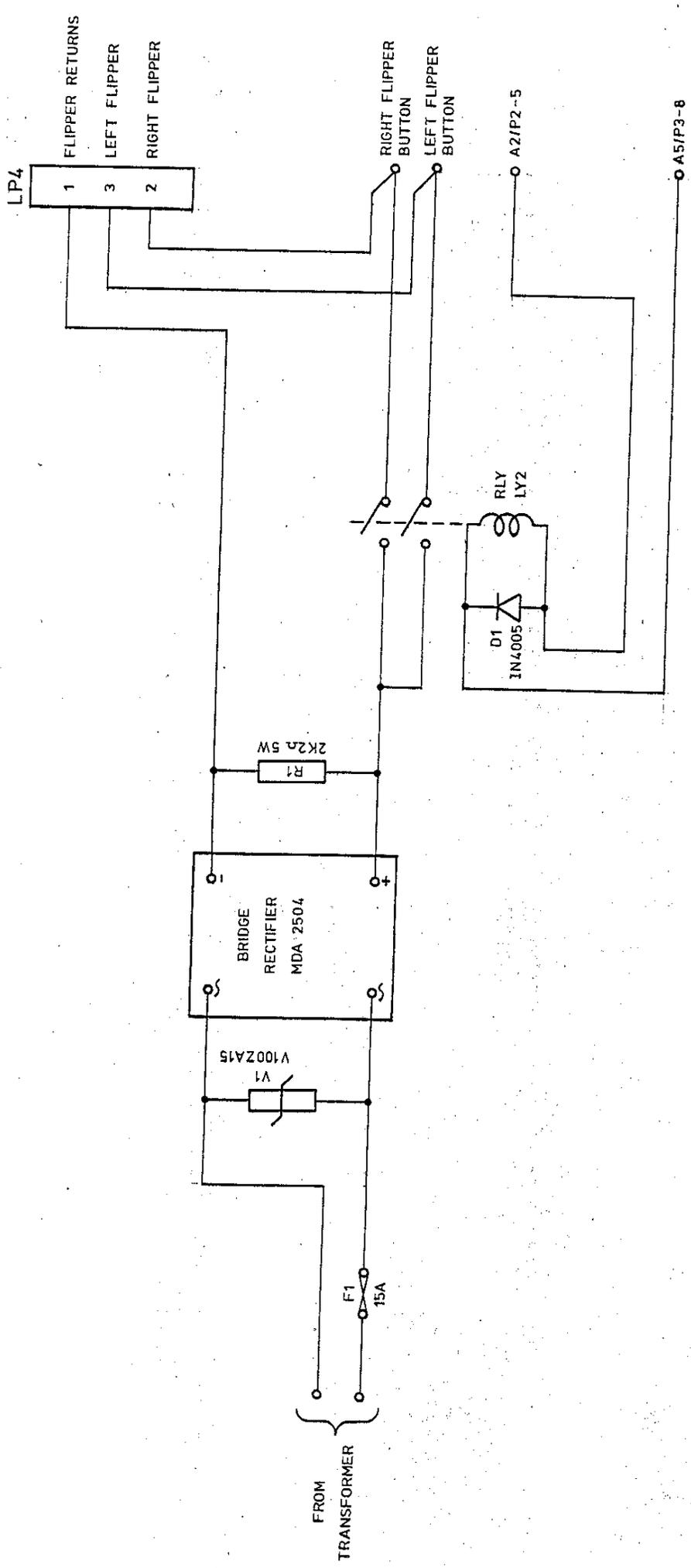


ITEM	DESCRIPTION	RECD.	MATERIAL	REMARKS
	A. Honkkin & Co. Pty Ltd	SCALE	DATE	
		1:1	31/11/64	
<b>LAMP &amp; SOLENOID DRIVER</b>				
<b>SCHEMATIC - CABINET</b>				
DRAWN: C. HOLLAND CHECKED: A.P. <b>HD 1106</b> SHEET 1 OF 2				



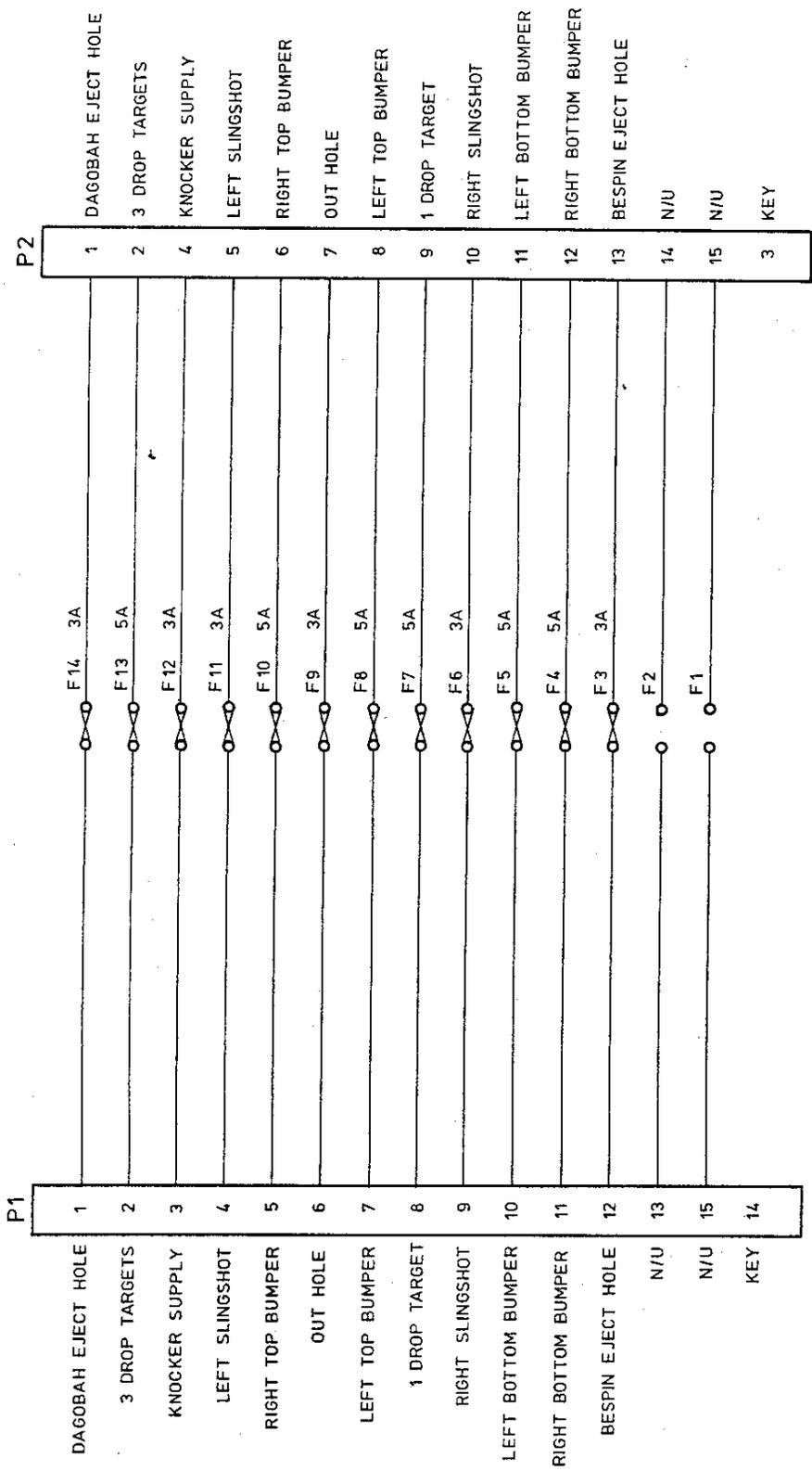


ITEM	DESCRIPTION	REQ'D	MATERIAL	REMARKS
	A. Hankin & Co. Pty. Ltd.			
		SCALE	N.T.S.	PASSED DATE
				3/7/76
		DRAWN	C. MCKAY	DRAWING NUMBER
		TRACED	A. PENDER	HD 1002
		CHECKED		



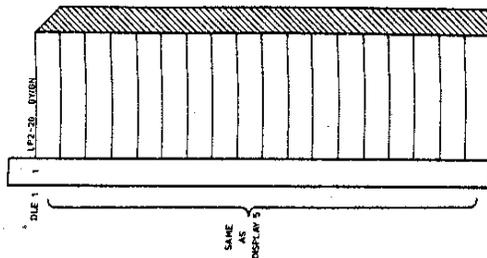
ITEM	DESCRIPTION	REQ'D	MATERIAL	REMARKS
	A. Hankin & Co. Pty. Ltd.	SCALE	N.T.S.	PASSED
	FLIPPER BOOSTER SCHEMATIC (A8)	DATE	16/7/80	DRAWING NUMBER
		DRAWN	J.R.	
		TRACED	A.P.	
		CHECKED		

HD1091

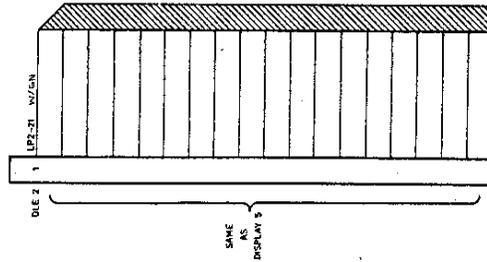


ITEM	DESCRIPTION	REQ'D	MATERIAL	REMARKS
	A. Hankin & Co. Pty. Ltd.	SCALE	N.T.S.	PASSED
		DRAWN	A.P.	DATE
		TRACED		2/19/80
		CHECKED		
STAR WARS FUSE BOARD A6 SCHEMATIC				DRAWING NUMBER
				HD1110

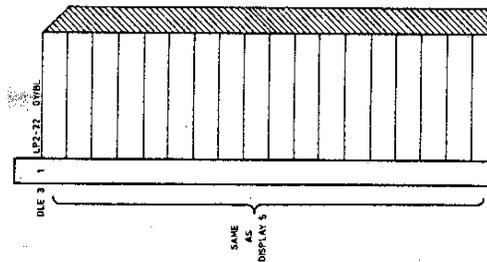
DISPLAY 1



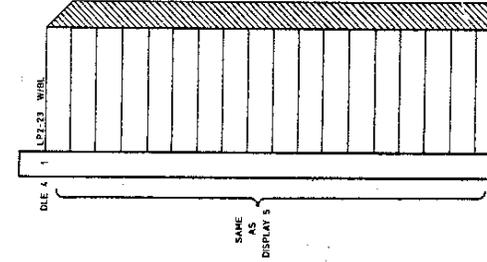
DISPLAY 2



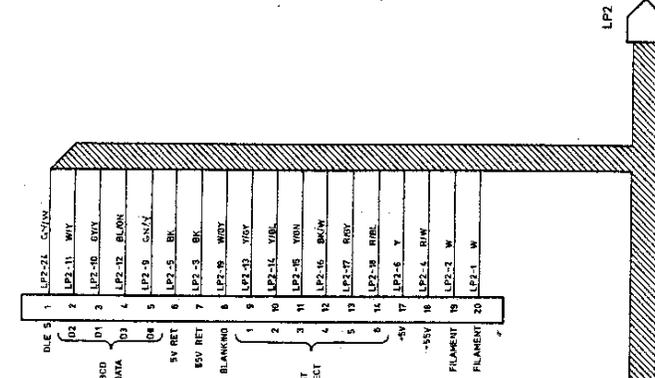
DISPLAY 3



DISPLAY 4



DISPLAY 5



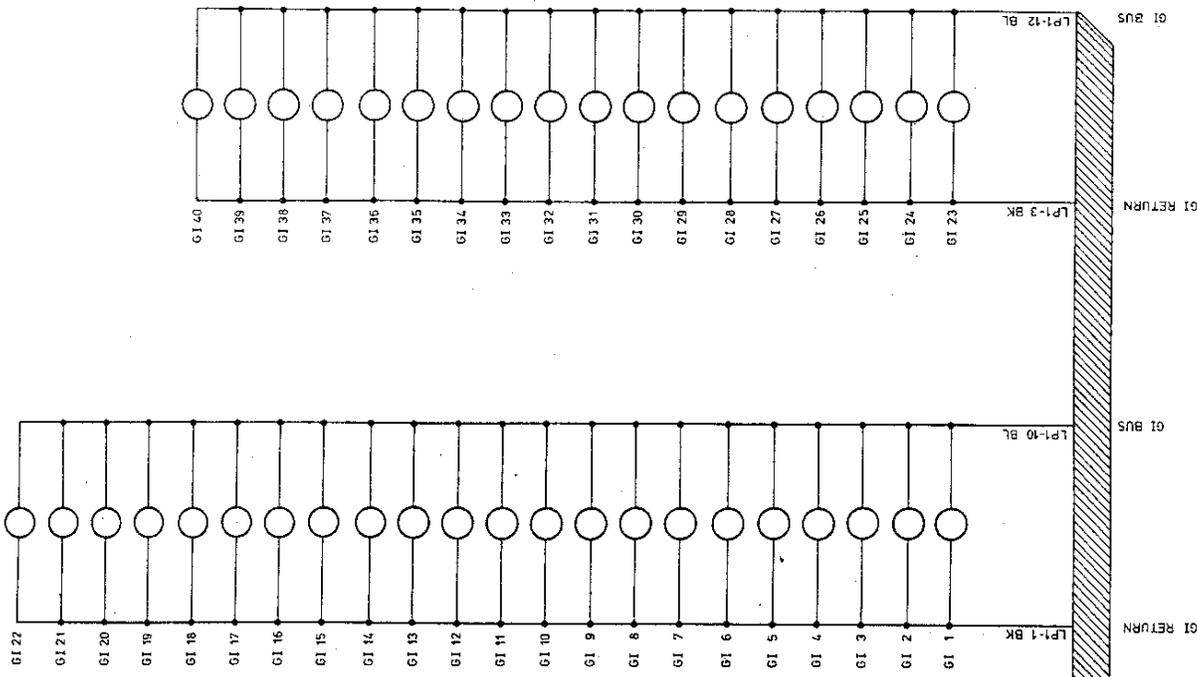
LP2	PIN	SOURCE	FUNCTION	COLOR
	1	ASPP-23	FILAMENT	W
	2	ASPP-24	FILAMENT	W
	3	ASPP-18	SV RETURN	BK
	4	ASPP-17	SV	RM
	5	ASPP-6	SV RETURN	BK
	6	ASPP-5	SV	Y
	8	ASPP-8	RED DATA	B
	9	ASPP-9	RED DATA	B
	10	ASPP-10	SV	Y
	11	ASPP-11	SV	Y
	12	ASPP-11	SV	Y
	13	ASPP-11	SV	Y
	14	ASPP-11	SV	Y
	15	ASPP-11	SV	Y
	16	ASPP-11	SV	Y
	17	ASPP-11	SV	Y
	18	ASPP-11	SV	Y
	19	ASPP-11	SV	Y
	20	ASPP-11	SV	Y

COLOR CODE	BL	BLUE	BK	BLACK	BR	BROWN	GN	GREEN	GY	GREY	OR	ORANGE	P	PURPLE	R	RED	W	WHITE	Y	YELLOW
------------	----	------	----	-------	----	-------	----	-------	----	------	----	--------	---	--------	---	-----	---	-------	---	--------

ITEM	DESCRIPTION	QTY	MATERIAL	ISSUES	ISSUES
	A. Honkh & Co. Pty. Ltd.				

DISPLAY WIRING DIAGRAM		DATE	REV. NO.	REVISION
1	REVISED TO SUIT 'HONZAI'			

HD1030/1



LP1 24 PIN

PIN	SOURCE	FUNCTION	COLOUR
1	A5/P3-21	GI RETURN	BK
3	A5/P3-22	GI RETURN	BK
4	A2/P5-16	HSTD	GN/BK
5	A2/P5-19	GAME OVER	BL/BK
6	A2/P5-23	TILT	GY/BK
7	A2/P5-12	MATCH	Y/BK
8	A5/P3-12	SWL BUS	R/BN
9	A5/P3-13	SWL BUS	R/BN
10	A5/P3-19	GI BUS	BL
12	A5/P3-20	GI BUS	BL

COLOUR CODE

BK	BLACK	OR	ORANGE
BL	BLUE	P	PURPLE
BN	BROWN	R	RED
GN	GREEN	W	WHITE
GY	GREY	Y	YELLOW

ITEM	DESCRIPTION	RECD	MATERIAL	SCALE	PASSED	DATE	REMARKS
	A. Hankin & Co. Pty. Ltd.			N.T.S.		13/8/80	
STAR WARS BACK GLASS				DRAWN	A.P.		DRAWING NUMBER
WIRING DIAGRAM				TRACED			
				CHECKED			
							HD 1098

LP7

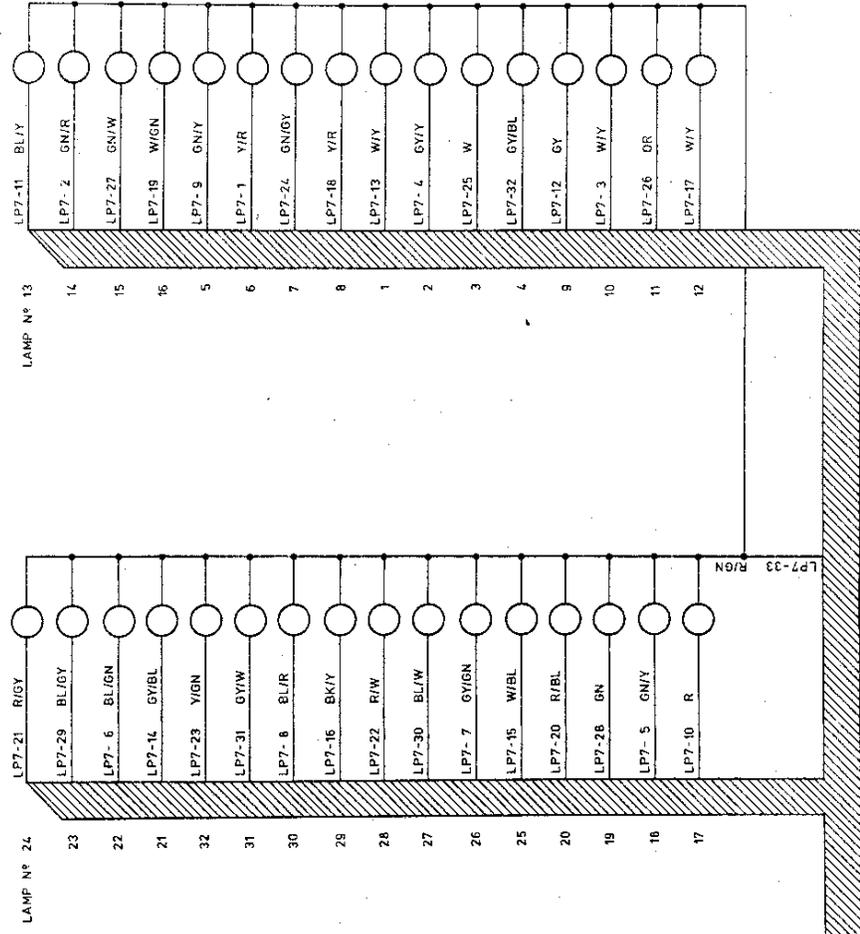


1x24 PIN & 1x12 PIN

PIN	SOURCE	FUNCTION	COLOUR
1	A2/P7-1	LAMP N° 6	Y/R
2	A2/P7-2	" " 14	GN/R
3	A2/P7-3	" " 10	W/Y
4	A2/P7-4	" " 2	GY/Y
5	A2/P7-5	" " 18	GN/Y
6	A2/P7-6	" " 22	BL/GN
7	A2/P7-7	" " 26	GY/GN
8	A2/P7-9	" " 30	BL/R
9	A2/P7-13	" " 5	GN/Y
10	A2/P7-14	" " 17	R
11	A2/P7-15	" " 13	BL/Y
12	A2/P7-16	" " 9	GY
13	A2/P7-17	" " 1	W/Y
14	A2/P7-18	" " 21	GY/BL
15	A2/P7-19	" " 25	W/BL
16	A2/P7-20	" " 29	BK/Y
17	A2/P6-2	" " 12	W/Y
18	A2/P6-3	" " 8	Y/R
19	A2/P6-4	" " 16	W/GN
20	A2/P6-5	" " 20	R/BL
21	A2/P6-6	" " 24	R/GY
22	A2/P6-7	" " 28	R/W
23	A2/P6-8	" " 32	Y/GN
24	A2/P6-13	" " 7	GN/GY
25	A2/P6-14	" " 3	W
26	A2/P6-15	" " 11	OR
27	A2/P6-16	" " 15	GN/W
28	A2/P6-17	" " 19	GN
29	A2/P6-18	" " 23	BL/GY
30	A2/P6-19	" " 27	BL/W
31	A2/P6-20	" " 31	GY/W
32	A2/P6-25	" " 4	GY/BL
33	SP EFFECT3	SWL BUS	R/GN

24 PIN LINE PLUG

12 PIN LINE PLUG



SWL BUS

COLOUR CODE			
BK	BLACK	OR	ORANGE
BL	BLUE	P	PURPLE
BN	BROWN	R	RED
GN	GREEN	W	WHITE
GY	GREY	Y	YELLOW

ITEM	DESCRIPTION	REMARKS	
		REV'D	MATERIAL
A	Hankin & Co. Ply. Ltd.	SCALE	PASSED
		R.T.S.	DATE
		DRAWN	17/8/60
		TRACED	
		CHECKED	

STAR WARS  
BACK GLASS SURROUND  
WIRING DIAGRAM

HD1097



LP7 TO BACK GLASS SURROUND

LP7 1x24 PIN & 1x12 PIN			
PIN	SOURCE	FUNCTION	COLOUR
1	AZ/P7-1	LAMP N° 6	Y/R
2	AZ/P7-2	" " 14	GN/R
3	AZ/P7-3	" " 10	W/Y
4	AZ/P7-4	" " 2	GY/Y
5	AZ/P7-5	" " 18	GN/Y
6	AZ/P7-6	" " 22	BL/GN
7	AZ/P7-7	" " 26	GY/GN
8	AZ/P7-9	" " 30	BL/R
9	AZ/P7-13	" " 5	GN/Y
10	AZ/P7-14	" " 17	R
11	AZ/P7-15	" " 13	BL/Y
12	AZ/P7-16	" " 9	GY
13	AZ/P7-17	" " 1	W/Y
14	AZ/P7-18	" " 21	GY/BL
15	AZ/P7-19	" " 25	W/BL
16	AZ/P7-20	" " 29	BK/Y
17	AZ/P6-2	" " 12	W/Y
18	AZ/P6-3	" " 8	Y/R
19	AZ/P6-4	" " 16	W/GN
20	AZ/P6-5	" " 20	R/BL
21	AZ/P6-6	" " 24	R/GY
22	AZ/P6-7	" " 28	R/W
23	AZ/P6-8	" " 32	Y/GN
24	AZ/P6-13	" " 7	GN/GY
25	AZ/P6-14	" " 3	W
26	AZ/P6-15	" " 11	OR
27	AZ/P6-16	" " 15	GN/W
28	AZ/P6-17	" " 19	GN
29	AZ/P6-18	" " 23	BL/GY
30	AZ/P6-19	" " 27	BL/W
31	AZ/P6-20	" " 31	GY/W
32	AZ/P6-25	" " 4	GY/BL
33	SP EFFECT 3	SWL BUS	R/GN

24 PIN LINE PLUG

12 PIN LINE PLUG

**AZ/P7**

1	Y/R
2	GN/R
3	W/Y
4	GY/Y
5	GN/Y
6	BL/GN
7	GY/GN
8	GN/Y
9	GN/R
10	W/Y
11	Y
12	GN/Y
13	R
14	BL/Y
15	GY
16	W/Y
17	GY/BL
18	W/BL
19	BK/Y
20	GN/Y
21	GY
22	GN/R
23	W/R
24	GN/Y
25	Y

**SPECIAL EFFECTS**

13	22	GN/Y
23	5	W/R
5	24	GN/Y
1	1	Y

**AZ/P6**

1	W/Y
2	Y/R
3	W/GN
4	R/BL
5	R/GY
6	R/W
7	Y/GN
8	Y/BL
9	Y/GY
10	Y/W
11	Y/BL
12	GN/BL
13	GN/GY
14	W
15	GN/W
16	GN
17	BL/GY
18	BL/W
19	GY/W
20	W/GY
21	BN
22	GY
23	Y
24	GY/BL
25	Y

**SPECIAL EFFECTS**

6	9	Y/BL
7	15	Y/W
12	12	GN/BL
13	13	GN/GY
14	14	W
15	15	GN/W
16	16	GN
17	17	BL/GY
18	18	BL/W
19	19	GY/W
20	20	W/GY
21	21	BN
22	22	GY
23	23	Y
24	24	GY/BL
25	25	Y

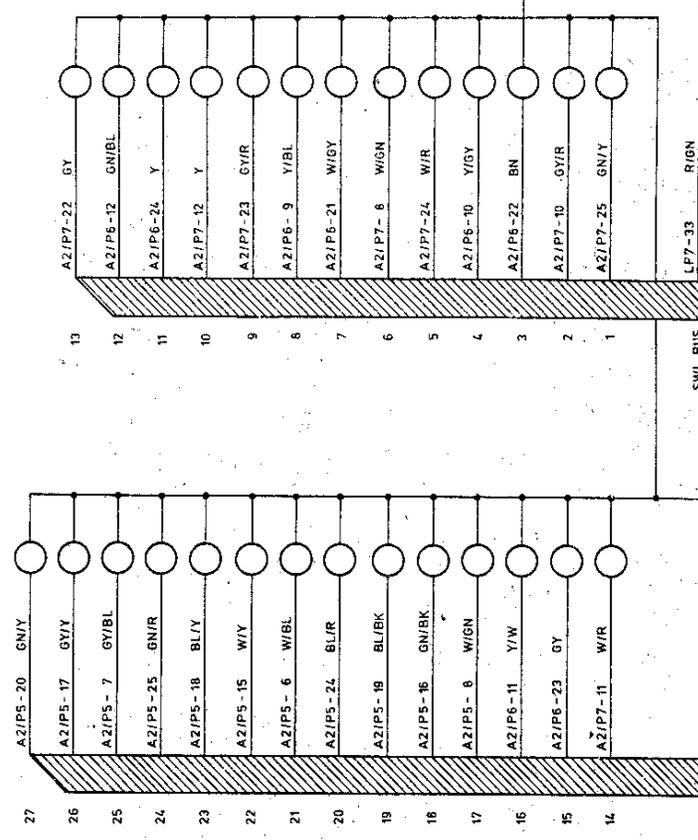
**AZ/P5**

5	W/BL
6	GY/BL
7	W/GN
8	W/Y
9	W/BL
10	GN/BK
11	GY/Y
12	BL/Y
13	BL/BL
14	GN/Y
15	GN/Y
16	BL/R
17	GN/R
18	GN/R
19	GN/R
20	BL/R
21	GN/R
22	GN/R
23	GN/R
24	GN/R
25	GN/R

**SPECIAL EFFECTS**

21	6	W/BL
22	7	GY/BL
23	8	W/GN
24	9	W/Y
25	10	W/BL
26	11	GN/BK
27	12	GY/Y
28	13	BL/Y
29	14	BL/BL
30	15	GN/Y
31	16	GN/Y
32	17	BL/R
33	18	GN/R
34	19	GN/R
35	20	BL/R
36	21	GN/R
37	22	GN/R
38	23	GN/R
39	24	GN/R
40	25	GN/R

SPECIAL EFFECTS LAMPS

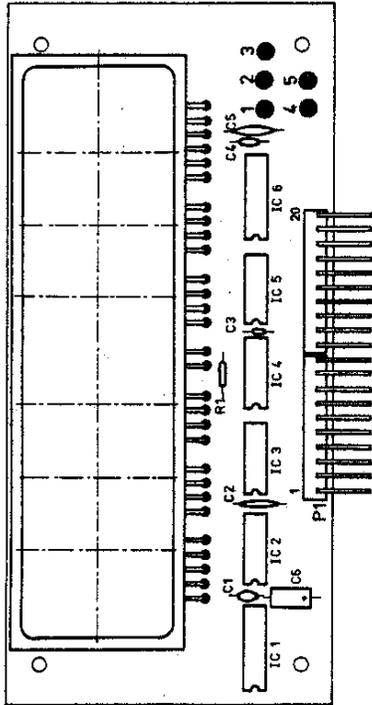


FROM BACK GLASS WIRING DIAGRAM  
 LP1-8 R/GN  
 LP1-9 R/GN

**COLOUR CODE**

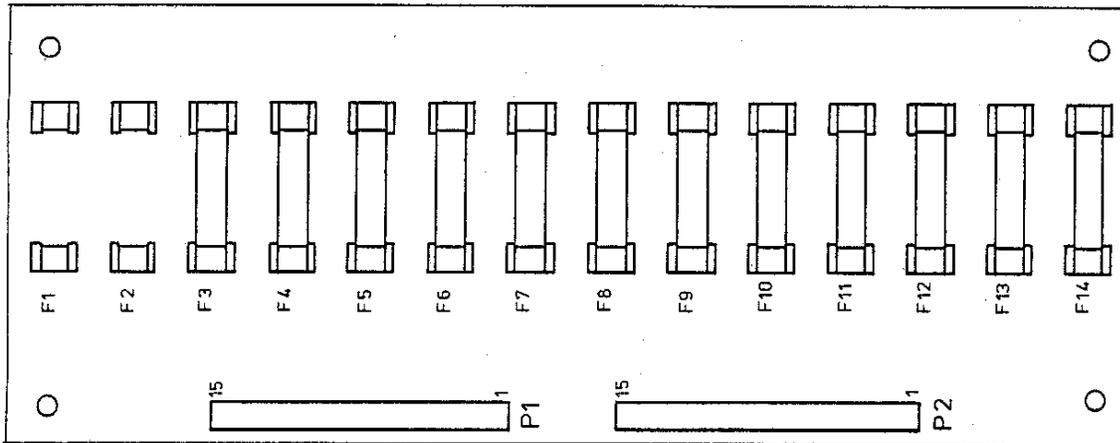
BK	BLACK	OR	ORANGE
BL	BLUE	P	PURPLE
BN	BROWN	R	RED
GN	GREEN	W	WHITE
GY	GREY	Y	YELLOW

ITEM	DESCRIPTION	RECD	MATERIAL	REMARKS
	A. Hankin & Co. Pty. Ltd.			
	STAR WARS SPECIAL EFFECTS WIRING DIAGRAM			
		SCALE	NTS	DATE
		DRAWN	A.P.	14/8/60
		TRACED		DRAWING NUMBER
		CHECKED		HD1099

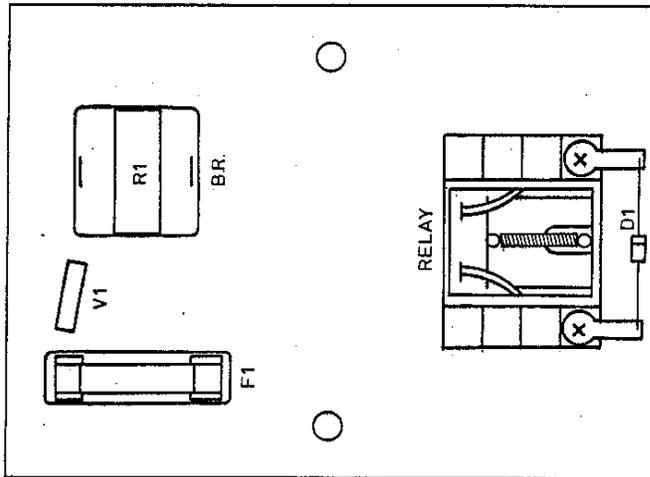


ITEM	DESCRIPTION	QTY	PART NO.	REMARKS
A.1	DISPLAY BOARD (COMPLETE)	1	EA130	
PCB	A4/2 PRINTED CIRCUIT BOARD	1	EA130	
IC1	XR-6118 DISPLAY DRIVER	1	EE540	
IC2	MC14513 BCP BCD-7SEG LAT/DEC/DRM	1	EE430	
IC3	MC14011 BCP QUAD 2 INPUT NAND	1	EE380	
IC4	"	1	"	
IC5	"	1	"	
IC6	XR-6118 DISPLAY DRIVER	1	EE540	
R1	10KΩ, 1/4 W, 5% RESISTOR	1	ER340	
C1	0.01μF 100V CERAMIC CAPACITOR	1	EC185	
C2	0.01μF 25V	1	EC180	
C3	330pF 25V	1	EC120	
C4	0.01μF 100V	1	EC185	
C5	0.01μF 25V	1	EC180	
C6	10μF 100V RT ELECTROLYTIC CAPACITOR	1	EC510	
DS1	6-JS-01 6 DIGIT FLUORESCENT DISPLAY	1	EG100	
P1	M2373-10 RIGHT ANGLE WAFER	2	EJ580	
TP1-5	WIRE TEST POINT LOOP	5	EG900	
RECD PART NO. SCALE Full size				
A. Hankin & Co. Pty. Ltd.				
DRAWN A. FENDER				
TRACED				
CHECKED				
DRAWING NUMBER				
HD 1008/1				

DATE	REV. NO.	REVISION
9/1/80	1	C2 & C5 NOW 0.01μF.



A6 FUSE CARRIER (COMPLETE)		--	
PCB	A6/3 PRINTED CIRCUIT BOARD	1	EP150
F1	--		
F2	--		N/U
F3	3A 3AG FUSE	1	EG350
F4	"	1	EG360
F5	"	1	"
F6	3A	1	EG350
F7	5A	1	EG360
F8	"	1	"
F9	3A	1	EG350
F10	5A	1	EG360
F11	3A	1	"
F12	"	1	EG350
F13	5A	1	EG360
F14	3A	1	EG350
P1	M2402-15 STANDARD WAFER	1	EJ220
P2	M2402-15	1	"
1397-01-28 PCB MOUNTED FUSE CLIP (BAG)		28	EG300
ITEM	DESCRIPTION	REQ'D	MATERIAL
A Hankin & Co. Pty. Ltd.		SCALE	
		FULL SIZE	
		DATE	
		22/8/80	
STAR WARS FUSE CARRIER ASSEMBLY (A6)		DRAWING NUMBER	
		HD1103	



ITEM	DESCRIPTION	REQ'D	PART N°	REMARKS
A8	FLIPPER BOOSTER (COMPLETE)			
RELAY	LY2 2 POLE RELAY - 24V DC COIL	1	EG120	
RLY.BS	PTF08 SCREW MOUNTED RELAY BASE	1	EG131	
BR.	MDA2504 BRIDGE RECTIFIER	1	EG133	
R1	2K2Ω 5W 5% RESISTOR	1	ER615	
V1	V100ZA15 100V 15 JOULE VARISTOR	1	EF600	
D1	IN4005 SILICON DIODE	1	EF200	
F1	15A 3AG FUSE	1	EG380	
	SCREW MOUNTED 3AG FUSE HOLDER	1	EG315	
	1397-01-28 PCB MOUNT FUSE CLIP (3AG)	2	EG300	
SCALE				
A. Hankin & Co. Pty. Ltd.		PASSED		DATE
FLIPPER BOOSTER ASSEMBLY (A8)		FULL SIZE		2/7/80
		DRAWN A.P.		DRAWING NUMBER
		TRACED		HD1086
		CHECKED		