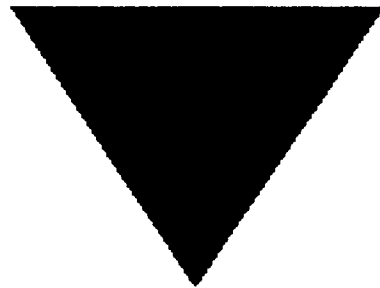


16-2006-101P
MARCH 1989

ATLANTIS



PRELIMINARY
OPERATING MANUAL

Bally/MIDWAY
T.M.



Registers and Options Table

Category	Register Directory			
	Player #1 & 2 Displays	Player #3 & 4 Displays	See Notes	Register Description
Game Status	Total coins	XXXXXXX	1	Total, all chutes
	Games played	XXXXXXX	1	Number of games
	Replays awarded	XXXXXXX	1	Number of replays
	Replays percent	XX	1	Percent of replays
	Avg game time	XX XX	1	Minutes: seconds
	Balls played	XXXXXXX	1	Number of heats
	X-balls awarded	XXXXXXX	1	Number of extra balls
	X-ball percent	XX	1	Percent extra balls awarded
	Avg ball time	XX XX	1	Minutes: seconds
	Clear account	NO**	2	Clear accounting data
Replay Status	Level 1 special	XXXXXXX	1	No. of 1st Threshold specials awarded
	Level 2 special	XXXXXXX	1	No. of 2nd Threshold specials awarded
	Level 3 special	XXXXXXX	1	No. of 3rd Threshold specials awarded
	High score spcl	XXXXXXX	1	No. of high score specials awarded
	Playfield special	XXXXXXX	1	No. of playfield specials awarded
	Match special	XXXXXXX	1	No. of match feature specials awarded
Scoring Status	Level 1 score	XXXXXXX	3	Set and display first award level
	Level 2 score	XXXXXXX	3	Set and display second award level
	Level 3 score	XXXXXXX	3	Set and display third award level
	High score =	XXXXXXX	3	Set high score replay level
	Times HS beaten	XXXXXXX	1	Times point total exceeded high score
	Level 1 percent	XX	1	% of first level replays awarded
	Level 2 percent	XX	1	% of second level replays awarded
	Level 3 percent	XX	1	% of third level replays awarded
	Target percent	XX	4	Enter desired % replays awarded for reaching first threshold level
Coin Status	Left coins =	XXXXXXX	1	No. of coins through left coin chute
	Middle coins =	XXXXXXX	1	No. of coins through middle coin chute
	Right coins =	XXXXXXX	1	No. of coins through right coin chute
	Total coins =	XXXXXXX	1	Total coins through all chutes
	Bonus credits	XXXXXXX	1	No. of bonus credits awarded
Coin Setup***	Left XX Coin	YY CRDT, ZZ BONS	10	Left coin chute setup
	Middle XX Coin	YY CRDT, ZZ BONS	10	Middle coin chute setup
	Right XX Coin	YY CRDT, ZZ BONS	10	Right coin chute setup

*Player # 3 and 4 indicate a variable range of values. The XXXXXXXX represents the number value. XX represents the % value. Player #4 shows values that can be selected to replace the value shown in Player #3.

**Factory Setting.

***See Coin Setup Procedure examples

Category	Register Directory			
	Player #1 & 2 Displays	Player #3 & 4 Displays	See Notes	Register Description
Misc. Information	Total Time =	XXXXXXX	1	Time (in minutes) that the game is powered up. Starts when the game is ready for play.
Game Setup	Factory setting	No**	2	Reset to factory selected options
	Credit limit =	10**	5	Set credit limit from 1 through 40
	Balls allowed	03**	5	Number of balls allowed (1-5)
	Levels award	Replay**	6	Set award for exceeding thresholds
	Special award	Replay**	6	Set award for Feature Specials
	HiScore award	3 Replay**	7	Set award for exceeding high score
	Bkground sound	On**	8	Provide background music
	Match percent	10**	5	Set allowed match percent, 00-10%
	Display credits	Yes**	2	Display credits when game is over
	No limit replay	Yes**	2	Allow more than 1 special per player
	Free play	No**	2	NO = coins, or YES = Free Play Mode
	Tilt warning	01**	5	Number of tilt warnings (0 through 3)
Game Checkup	Attract sounds	On**	8	Attract sound in Game-Over Mode
	Slingshots	On**	8	Activate slingshots
	Game options	Medium**	9	Set difficulty level
	Maximum players	04**	5	Number of players allowed (1-4)
	All lamps			Flashes playfield lamps.
	Single lamps			Lamps flash sequentially until you press either lower flipper button. Advance to next lamp in test by pressing lower right flipper button. Press lower left flipper button to back up to previous test.
	Display Test			Continuously cycles through all segments of a selected digit in either display module. Press the right flipper button to advance to the next digit to the right. Press the left flipper button to back up one digit.
	Coil Test			To advance to the next solenoid, press the right flipper button. To test the same solenoid, press the left flipper button.
	Program version			Program version of U2 and U3
	Switch Test			Game displays name of stuck switch

NOTES:

1. Feature can only be reset to 00.
2. Feature can only be changed to YES (enabled) or NO (disabled).
3. Feature can be changed in 100,000 point steps.
4. Feature has a value from 00 through 20. If this setting is 00, self-percentaging feature is off (disabled).
5. Feature can be changed in unit steps.
6. Feature can be changed to REPLAY, XBALL, POINTS or NOTHING.
7. Feature can be changed to 3 REPLAYS, 2 REPLAYS, 1 REPLAY or NOTHING.
8. Feature can be changed to ON (enabled) or OFF (disabled).
9. Feature can be changed to XX-EASY, X-EASY, MEDIUM, HARD, X-HARD or XX-HARD.
10. Coin value XX buys YY credits. The game awards bonus credits when the player buys ZZ credits.

COIL CHARACTERISTICS TABLE

Sol. No.	Solenoid Description	Nominal Coil Resistance	Bobbin Type, Wire Gauge	No. of Turns	No. of Lugs, Diodes	Solenoid Label Number
01	Right Slingshot	8.1 Ω	A,25	1,050	2,1	A25-1050
02	Bumper Left	10.2 Ω	A,26	1,200	2,1	A26-1200
03	Drop Target Reset	15.5 Ω	N,25	1,600	2,1	N25-1600
04	Right Bumper	10.2 Ω	A,26	1,200	2,1	A26-1200
05	Middle Bumper	10.2 Ω	A,26	1,200	2,1	A26-1200
06	Left Slingshot	8.1 Ω	A,25	1,050	2,1	A25-1050
07	Popper Kicker	8.1 Ω	A,25	1,050	2,1	A25-1050
08	Ramp Lift	10.2 Ω	A,26	1,200	2,1	A26-1200
09	Ball Eject	10.2 Ω	A,26	1,200	2,1	A26-1200
10	Outhole	10.2 Ω	A,26	1,200	2,1	A26-1200
11	Knocker	10.2 Ω	A,26	1,200	2,1	A26-1200
12	Submarine Eject	10.2 Ω	A,26	1,200	2,1	A26-1200
13	Submarine Motor	(No Coil)	(No Coil)	-0-	-0-	A084-91902-A000
14	Flipper Enab. Relay	-	-	-	-	-
15	Drain Plug	10.2 Ω	A,26	1,200	2,1	A26-1200
16	Ramp Down	10.8 Ω	M,28	900	2,1	SM-28-900-D.C.
17	Saucer	10.2 Ω	A,26	1,200	2,1	A26-1200
18	Reserved	-	-	-	-	-
19	Not Used	-	-	-	-	-
-	Left Flipper	4.5 , 161 Ω	FL,24,31	874,4000	3,2	FL-11630
-	Right Flipper	4.5, 161 Ω	FL,24,31	874,4000	3,2	FL-11630

NOTES:

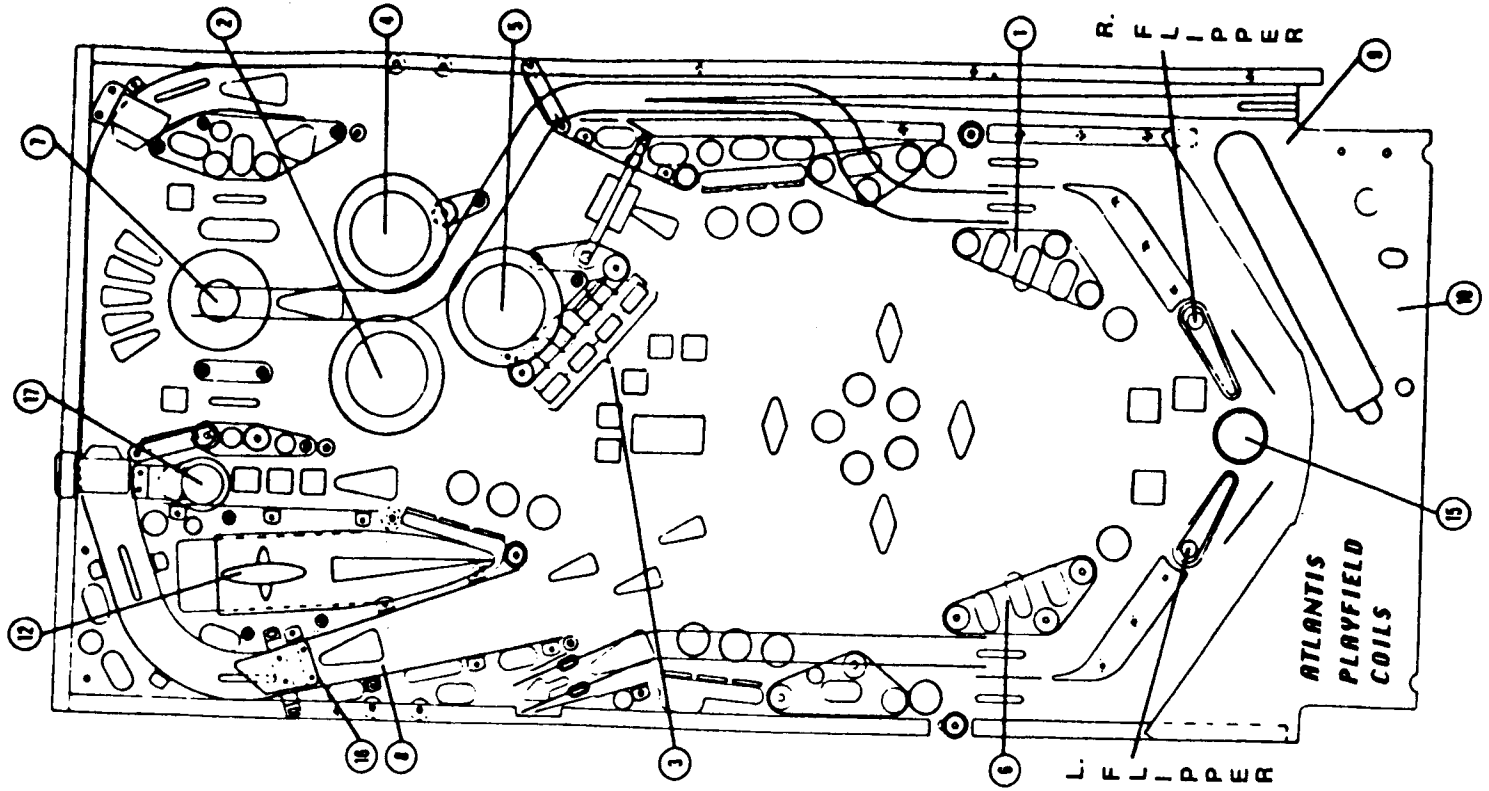
- For coil wire colors and coil part numbers, see the Coil Table .
- Although coil drivers switch it, the Submarine Motor Relay has no coils.
- The Flipper-Enabling Relay is located on the CPU Board. It provides ground to the flippers.

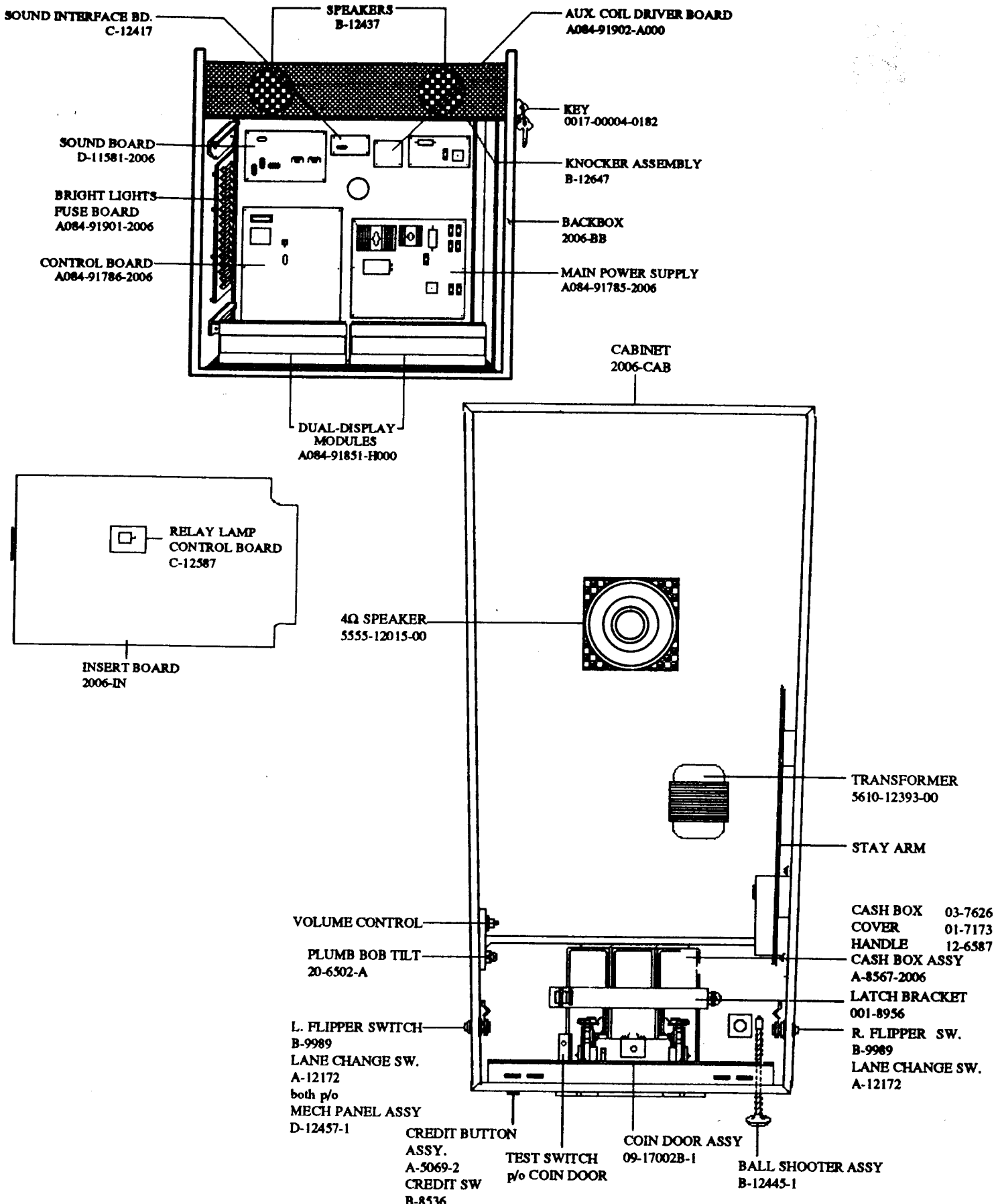
ATLANTIS COIL TABLE

SOL NO.	SOLENOID DESCRIPTION	SOL TYPE	WIRE COLOR	CONTROL BOARD	CONNECTIONS DRIVER TRANSISTOR	SOLENOID PART NUMBER
01	Right Slingshot	Momentary	White-Red	CJ9-1	Q18	A365-00067-0029
02	Left Bumper	Momentary	Yellow-White	CJ6-4	Q14	A365-00067-0006
03	Drop Target Reset	Momentary	Yellow-Blue	CJ6-2	Q12	A365-00067-0019
04	Right Bumper	Momentary	Blue-White	CJ8-6	Q15	A365-00067-0006
05	Middle Bumper	Momentary	Blue-Orange	CJ8-7	Q16	A365-00067-0006
06	Left Slingshot	Momentary	Yellow-Brown	CJ6-5	Q17	A365-00067-0029
07	Popper Kicker	Momentary	Yellow-Red	CJ6-1	Q11	A365-00067-0029
08	Ramp Lift	Momentary	Yellow-Green	CJ6-3	Q13	A365-00067-0006
09	Ball Elect	Momentary	White-Brown	CJ9-6	Q22	A365-00067-0007
10	Outhole	Momentary	White-Black	CJ9-8	Q39	A365-00067-0006
11	Knocker	Momentary	White-Gray	CJ9-11	Q40	A365-00067-0006
12	Submarine Eject	Momentary	Yellow-Violet	CJ6-7	Q10	A365-00067-0006
13	Submarine Motor	Continuous	Blue-Green	CJ9-10	Q6	A084-91902-A000
14	Flipper Enabling Relay	Continuous	--	--	Q7	114E-00001-0011
15	Drain Plug	Momentary	White-Blue	CJ9-2	Q19	A365-00067-0007
16	Ramp Down	Momentary	White-Yellow	CJ9-3	Q20	SM-28-900-DC
17	Saucer	Momentary	White-Green	CJ9-4	Q21	A365-00067-0007
18	Reserved for German	Momentary	White-Orange	CJ9-7	Q38	--
19	Not Used	Continuous	White-Violet	CJ9-9	Q8	--
WIRE COLORS & CONNECTORS						
FLIPPER DESCRIPTION			FLIPPER			
20	Left Flipper	Gray: CJ6-8		FL-11630		
21	Right Flipper	Gray-White: CJ8-9		FL-11630		

NOTES:

- For continuous solenoid 19, install jumper JW8. Remove jumper JW9.
- For continuous solenoid 12, install jumper JW10. Remove jumper JW11.
- To use switch strobe at CJ4-1, install jumper JW9. Remove jumper JW8.
- To use extra display at CJ2-19, install jumper JW11. Remove jumper JW10.
- "Knocker" is located in the backbox.





ATLANTIS BACKBOX & CABINET PARTS

PLAYFIELD PARTS LIST

ITEM	DESCRIPTION	PART NUMBER
1	Drain Plug	C-12605
2	Outhole Assembly	B-12669
3	Ball Trough Assy.: Lower Guide	C-8235
	Upper Guide	B-8623
4	Ball Shooter Assy.	B-12445-1
5	Ball Eject Assy.	C-9638
6	Right Flipper (Yellow)	20-9592-6
	Right Flipper Assy.	C-11626-R-3
7	Slingshot Kicker Assy.	A365-05210-0001
8	3-Pos. Standup Targets(Right)	B-12611
9	4-Unit Drop Target	D-12635
10	Spinner Gate Assy.	B-12626
11	Mid. Shooter Lane Gate	B-12623
12	Thumper Bumper Assy.	A365-05100-0002
13	Shooter Lane Exit Gate	A-8244-R
14	Ball Popper Assy.	D-11335-3
15	Saucer Gate	B-12623
16	Saucer Kicker Assy.	B-9361-R-6
17	Left Lane Exit Gate	A-8244-L
18	Submarine Assy.:	
	Sub. Platform Assy.	C-12571
	Sub. Lift Assy.	C-12567
19	Lift Ramp Assy.:	
	Lift Ramp Mechanism	B-12576
	L/Ramp Coil & Bracket Assy.	B-11494-1
20	3-Pos. Standup Targets(Left)	B-12612
21	Left Flipper (Yellow)	20-9592-6
	Left Flipper Assy.	C-12445-1

RUBBER PARTS

A	Flipper Rubbers(Red)	23-6519-4
B	2-1/2" Rubber Ring	23-6306
C	5/16" Rubber Ring	23-6300
D	1-1/2" Rubber Ring	23-6304
E	Post Rubber Sleeve(Yellow)	23-6552
F	3" Rubber Ring	23-6307
G	3/4" Rubber Ring	23-6301
H	1-1/2" Rubber Ring	23-6304
I	1-1/4" Rubber Ring	23-6303
J	Bumper Sleeve(Yellow)	23-6551
K	Bumper Sleeve(Black)	23-6556
L	2" Rubber Ring	23-6305
M	Ball Shooter Tip	23-6327

BALL GUIDES, RAMPS AND WIREFORMS

a	Flipper Wireforms	12-6839
b	Flipper Ball Guides: Left	B-12673-L
	Right	B-12673-R
c	Right Wire Ramp	12-6819
d	Spinner Entrance Guide	B-12575
e	Shooter Lane Exit Guide	D-12573
f	Saucer Ball Stop	A-12121-1
g	Saucer Ball Guide	01-9153
h	Inner Left Lane Guide	B-12614
i	Plastic Ramp	D-12620
j	Lift Ramp Guides (Inner & Outer)	B-12572
k	JACKPOT Ball Guide	B-12629
l	Left Wire Ramp	12-6818

ATLANTIS

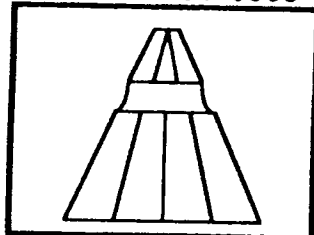
PLAYFIELD PARTS LOCATION DRAWING

MISCELLANEOUS PARTS

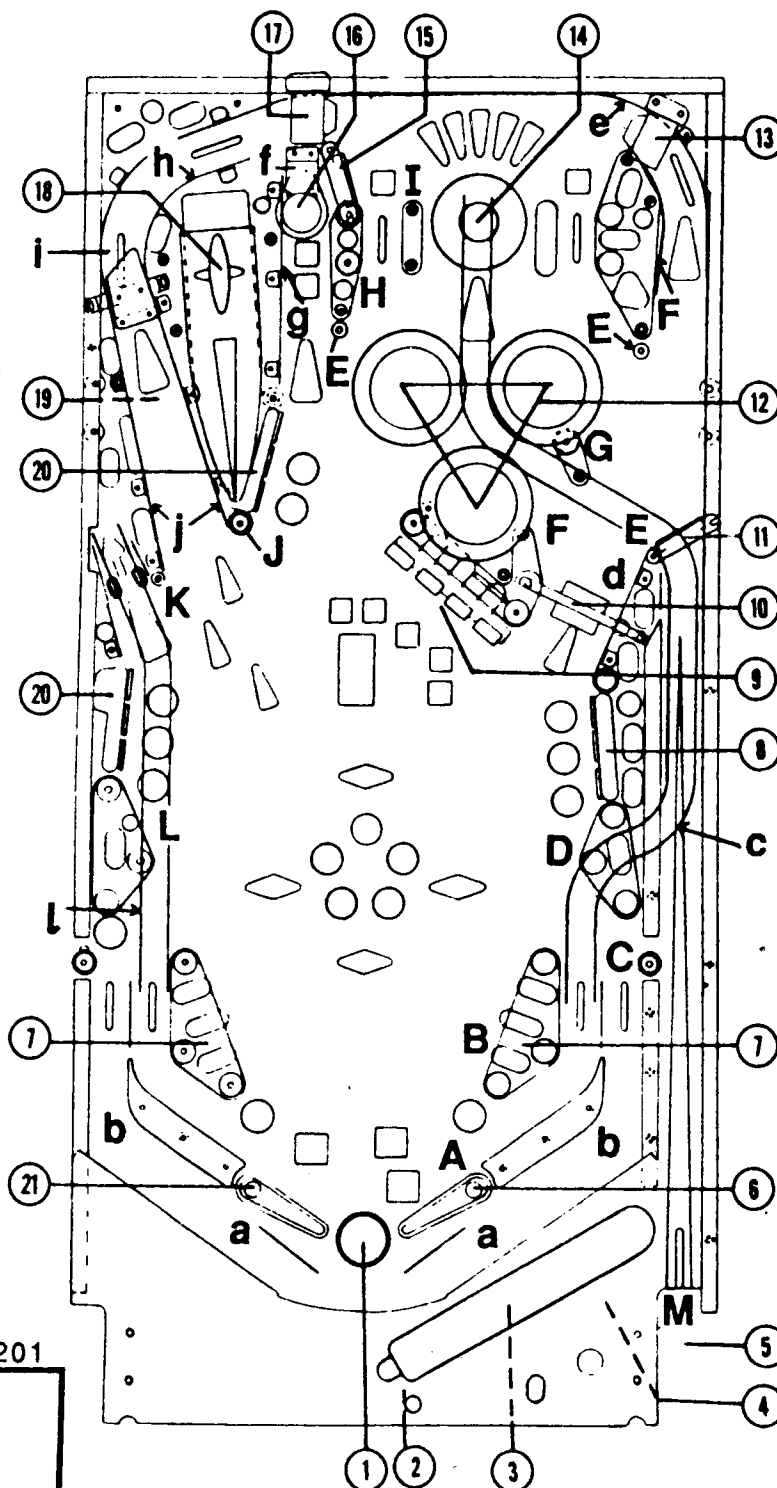
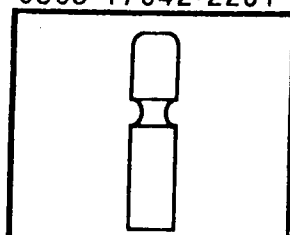
- Playfield Screened
31-1002-2006
- Playfield Plastics Assy.
31-1006-2006
- Right Plastic Piece
(w/ Lamp Cover)
C-12628-2
- Left Plastic Piece
(w/ Lamp Cover)
C-12628-1
- Playfield Galss
08-7028-T
- Screened Bottom Arch
31-1008-2006
- Screened Shooter Gauge
31-1009-2006
- Decal: Spinner
31-1462-2006
- Decals: Drop Target
31-1463-2006
- Decals: Submarine
31-1491-2006
- Red Light Bulb Sleeve
03-7351-9

Plastic Posts

0017-000101-0585



0365-17042-2201



ATLANTIS SWITCH MATRIX

COLUMN ROW	(1) STO WHT/RED CJ4-15	(2) ST1 WHT/BLU CJ4-14	(3) ST2 WHT/YEL CJ4-13	(4) ST3 WHT/GRN CJ4-12	(5) ST4 WHT/BRN CJ4-11	(6) ST5 WHT/VIO CJ4-1
(1) 10 RED CJ4-10	DROP TARGET #1, LEFT	COINS, RIGHT #3	LEFT BUMPER	LEFT TARGET, ORANGE	MIDDLE TARGET, ORANGE	SUBMARINE MOTOR SENSOR, UP
(2) 11 BLUE CJ4-9	DROP TARGET #2	COINS, LEFT #1	MIDDLE BUMPER	LEFT TARGET, WHITE	MIDDLE TARGET, WHITE	SUB. MOTOR SENSOR, DOWN
(3) 12 YELLOW CJ4-8	DROP TARGET #3	COINS, MIDDLE #2	RIGHT BUMPER	LEFT TARGET, YELLOW	MIDDLE TARGET, YELLOW	SUB. BALL LOAD
(4) 13 GREEN CJ4-7	DROP TARGET #4, RIGHT	TOP LANE "A"	LEFT SLINGSHOT	RIGHT TARGET, ORANGE	SPINNER	
(5) 14 WHITE CJ4-6	CABINET, LEFT	TOP LANE "B"	RIGHT SLINGSHOT	RIGHT TARGET, WHITE	RAMP SENSOR	HOLD BONUS
(6) 15 BROWN CJ4-4	CREDIT	SLAM	PLUG-POST SENSOR	RIGHT TARGET, YELLOW	RETURN LANES	LEFT TROUGH #1
(7) 16 ORANGE CJ4-3	CABINET, RIGHT	TILT	LEFT OUTLANE	RE- BOUNDERS	SAUCER	MIDDLE TROUGH #2
(8) 17 BLACK CJ4-2	OUTHOLE	SHOOTER LANE	RIGHT OUTLANE	TURN AROUND LOOP	POPPER DISH	RIGHT TROUGH #3

NOTE: I = Input and ST = Strobe

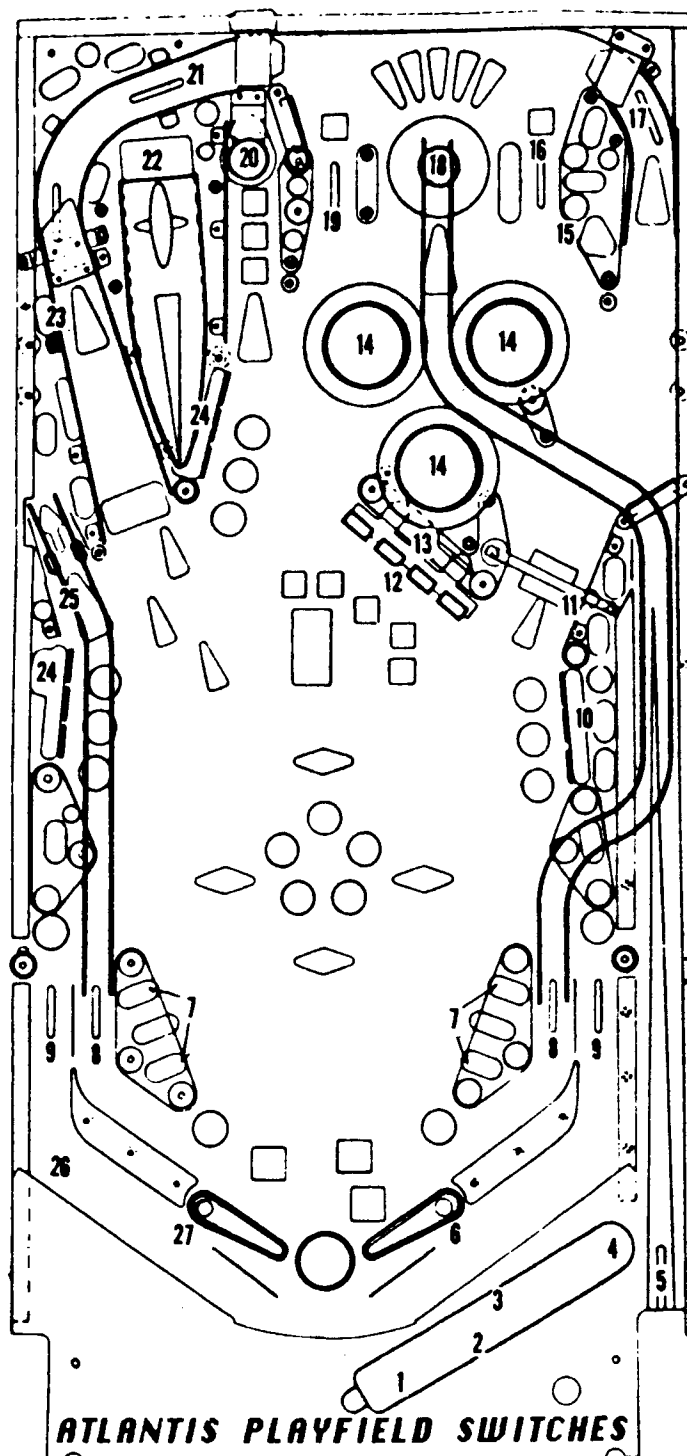
Columns 7 and 8 have been omitted, since they contain null values in this matrix.

PLAYFIELD SWITCHES

ITEM	DESCRIPTION	PART NO.
1	Outhole Switch	A-10417
2,3	Trough Switch Assy. Complete	B-8925
4	Sub-mini. Sw.	A-11680
5	Shooter Lane Sw.	A-11619-1
6	End of Stroke Flipper Sw. Right	p/o C-11626-R-3
7	Slingshot Sw. Assy	
	a. Score Sw.	A-4834-H
	b. Kicker Switch	B-8734-1
8	Right Return Lane	A-12245
9	Right Drain	A-12245
10	Right Targets	B-12611
11	Spinner Gate Sw.	A-12010
12	4-Position D/T	A-12644
13	Back Sw.(D/T)	D-12643
14	Thumper Bumpers	A967-00074-0100
15	Standup Sw.	B-4834-K
16	"B" Lane	A-12245
17	S/Lane Exit	A-12245
18	Ball Popper	A-11657
19	"A" Lane	A-12245
20	Saucer	A-9381-R
21	Top L. Loop	A-12245
22	Sub. Motor	A-12245-1
23	Ramp Sensor	SW-1A-180
24	Left Targets	B-12612
25	Vertical Loop	A-12238
26	Tilt Switch	B-8306
27	End of Stroke Flipper Sw. Left	p/o C-11626-L-3

CABINET SWITCHES

Shake-Tilt Switch	SW-1A-117
Credit Switch	SW-1A-126
Cabinet Flipper Sw.	SW-1010A-13
Lane Change Sw Assy.	A-12172



ATLANTIS LAMP TABLES

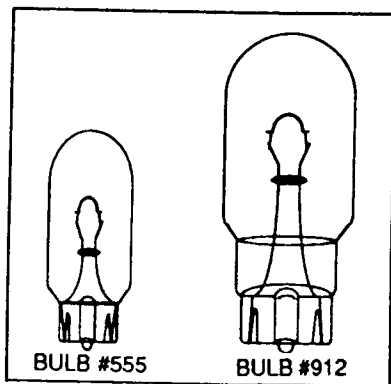
PHASE A AND C LAMP TABLE

CJ10-1 BACKBOX RELAY RED/BLU 1	CJ10-18 BONUS 2K GRN/YEL 9	CJ10-10 BONUS 50K BLU/BLK 17	CJ11-13 POPPER 50K ORG/YEL 25	CJ11-1 BRIGHT, L TARGETS GRN/BLK 33	CJ13-12 R. HOLD BONUS GRY/BRN 41
CJ10-7 RELAY RED GIB BLU/GRN 2	CJ10-4 BONUS 4K RED/WHT 10	CJ10-13 HOLD BONUS YEL/BRN 18	CJ11-10 POPPER 70K BRN/BLK 26	CJ13-1 BRIGHT, DT TIMER BLK/RED 34	CJ13-10 RETURN LANES GRY/GRN 42
CJ10-16 RELAY, WHITE GIB YEL/BLK 3	CJ10-11 BONUS 8K YEL/RED 11	CJ11-8 SAUCER 2X BRN/GRN 19	CJ11-3 POPPER 100K WHT/GRY 27	CJ13-8 BBOX BRIGHT #8 GRY/YEL 35	CJ13-4 SPINNER 1000 BLK/WHT 43
CJ10-2 TOP LANE "A" RED/YEL 4	CJ10-19 BONUS 8K GRN/WHT 12	CJ11-18 SAUCER 3X ORG/BLK 20	CJ11-14 POPPER 125K ORG/BLK 28	CJ13-6 BBOX BRIGHT #1 BLK/ORG 36	CJ13-11 SPOT SECC. ARROW GRY/WHT 44
CJ10-8 TOP LANE "B" BLU/WHT 5	CJ10-5 BONUS 10K RED/WHT 13	CJ11-6 SAUCER 8X BRN/BLU 21	CJ11-9 POPPER 150K BRN/ORG 29	CJ13-2 BRIGHT, L. HOLD BONUS BLK/YEL 37	CJ13-7 HOLD BONUS GRY/RED 45
CJ10-17 JACKPOT ARROW GRN/RED 6	CJ10-12 BONUS 20K YEL/BLU 14	CJ11-12 XPLIER 2X ORG/BLU 22	CJ11-2 POPPER XBALL WHT/BLK 30	CJ13-13 BBOX BRIGHT #3 GRY/ORG 38	
CJ10-3 MILLION ARROW RED/GRN 7	CJ10-14 BONUS 30K YEL/ORG 15	CJ11-11 XPLIER 3X ORG/RED 23	CJ11-15 OUTLANE, LEFT ORG/WHT 31	CJ13-5 BRIGHT POPPER BLK/BRN 39	
CJ10-9 SPSA BLU/BRN 8	CJ10-6 BONUS 40K BLU/RED 16	CJ11-4 XPLIER 8X BRN/RED 24	CJ11-3 OUTLANE, RIGHT BRN/YEL 32	CJ13-3 BBOX BRIGHT #6 BLK/GRN 40	

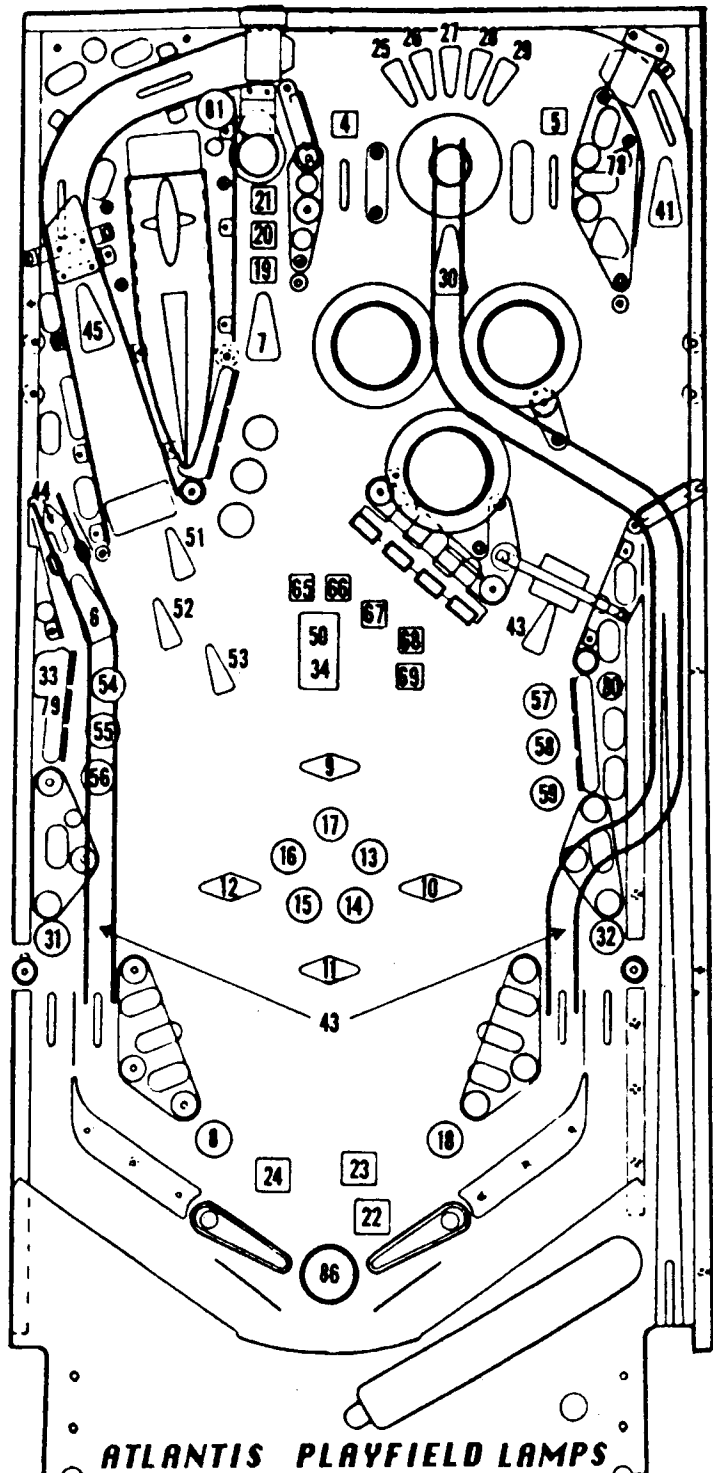
PHASE B AND D LAMP TABLE

CJ10-1 BACKBOX RELAY RED/BLU 46	CJ10-18 L. TARGET ORANGE GRN/YEL 54	CJ10-10 TARGET, MD. ORANGE BLU/BLK 62	CJ11-13 JACKPOT, 5 MILLION ORG/YEL 70	CJ11-1 BRIGHT, R. HOLD BONUS GRN/BLK 78	CJ13-12 DRAIN PLUG GRY/BRN 86
CJ10-7 RELAY RED GIB BLU/GRN 47	CJ10-4 L. TARGET, WHITE RED/WHT 55	CJ10-13 TARGET, MD. WHITE YEL/BRN 63	CJ11-10 JACKPOT, 1 MILLION BRN/BLK 71	CJ13-1 BRIGHT JACKPOT BLK/RED 79	CJ13-10 GRY/GRN 87
CJ10-16 RELAY, WHITE GIB YEL/BLK 48	CJ10-11 L. TARGET, YELLOW YEL/RED 56	CJ11-8 TARGET, MD. YELLOW BRN/GRN 64	CJ11-3 JACKPOT 15 MILLION WHT/GRY 72	CJ13-8 BRIGHT, R. TARGETS GRY/YEL 80	CJ13-4 BLK/WHT 88
CJ10-2 RED/YEL 49	CJ10-19 R. TARGET, ORANGE GRN/WHT 57	CJ11-16 DT VALUE LIGHTS LANE ORG/BLK 65	CJ11-14 JACKPOT, 2 MILLION ORG/BLK 73	CJ13-6 BRIGHT SAUCER BLK/ORG 81	CJ13-11 GRY/WHT 89
CJ10-8 DT. RESET TIMER BLU/WHT 50	CJ10-5 R. TARGET, WHITE RED/WHT 58	CJ11-8 DT VALUE LIGHTS XPLIER BRN/BLU 66	CJ11-9 JACKPOT 2.5 MILLION BRN/ORG 74	CJ13-2 BBOX BRIGHT #2 BLK/YEL 82	CJ13-7 GRY/RED 90
CJ10-17 LOCK ARROW ORANGE GRN/RED 51	CJ10-12 R. TARGET, YELLOW YEL/BLU 59	CJ11-12 DT VALUE LIGHTS HOLD BON ORG/BLU 67	CJ11-2 JACKPOT 3 MILLION WHT/BLK 75	CJ13-13 BRIGHT, LANE A GRY/ORG 83	
CJ10-3 LOCK ARROW WHITE RED/GRN 52	CJ10-14 NEXT A/B LIGHTS X-BALL YEL/ORG 60	CJ11-11 DT VALUE LIGHTS X-BALL ORG/RED 68	CJ11-15 JACKPOT, 3.5 MILLION ORG/WHT 76	CJ13-5 BBOX BRIGHT #4 BLK/BRN 84	
CJ10-9 LOCK ARROW, YELLOW BLU/BRN 53	CJ10-6 BLU/RED 61	CJ11-4 DT VALUE LIGHTS MILLION BRN/RED 69	CJ11-3 JACKPOT 4 MILLION BRN/YEL 77	CJ13-3 BRIGHT, LANE B BLK/GRN 85	

ATLANTIS LAMP LOCATION DRAWING



BULB #555 24-8768
BULB #912 0017-00003-0525



WARNINGS & NOTICES

WARNING

FOR SAFETY AND RELIABILITY, substitute parts and equipment modifications are not recommended.

USE OF NON-BALLY PARTS or circuit modifications may cause injuries or equipment damage.

SUBSTITUTE PARTS OR MODIFICATIONS may void FCC Type Acceptance.

THIS GAME IS PROTECTED by Federal copyright, trademark and patent laws. Unauthorized software or hardware modifications may be illegal under Federal law.

THIS "MODIFICATION" PRINCIPLE ALSO APPLIES to unauthorized facsimiles of *BALLY* logos, designs, publications and assemblies. Moreover, facsimiles of *BALLY* equipment (or any feature thereof) may be illegal under Federal law. Whether or not such facsimiles are manufactured with *BALLY* components, this rule applies.

WARNING

This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

WARNING

Transport this game **ONLY** with hinged backbox down!

WARNING

FCC STICKER. Check the back of your game for an FCC sticker. When *BALLY* ships a game, the game has been found to comply with FCC Rules. The sticker is proof. If the sticker is missing, legal repercussions to the owner and distributor of the game may result. If your game (manufactured after December 1982) has no FCC sticker, call *BALLY* for advice. Or write us a note on your game-registration card. Be sure the card bears your game's serial number.

WARNING

THREE-WIRE PLUG. Prevent shock hazard and assure proper game operation! Only plug this game into a properly grounded outlet. **DO NOT** use a "cheater" plug to defeat the power cord's ground pin. **DO NOT** cut off the ground pin.

RF-INTERFERENCE NOTICE

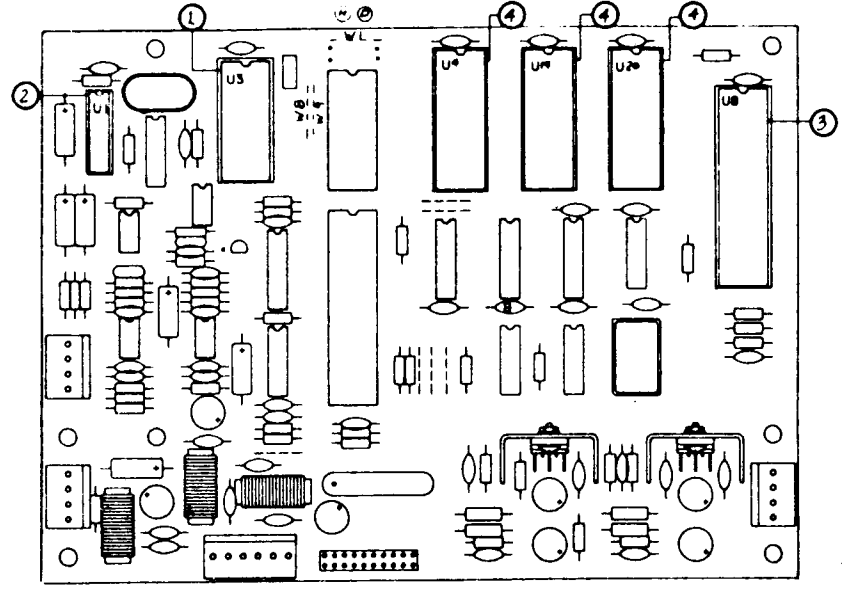
YOUR GAME'S CABLE-HARNESS PLACEMENT and ground-strap routing are very important. They are designed to keep RF radiation and conduction within levels accepted by FCC Regulations.

MAINTAIN THESE LEVELS. Servicing may require that you disconnect harnesses or ground straps. When you're finished, reposition and reconnect them as they were.

NOTICE

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REV	DESCRIPTION	DATE
1	N.P.H.	6-11-67
2	U.S. FROM 65411 (111) (111)	11-1-67
3	ADDED FIRE GUN INFO TO CHART	6-1-67
4	ADDED BIG GUN GAME INFO TO CHART	6-1-67
5	ADDED SPACE STATION GAME INFO TO CHART	6-1-67
6	ADDED C.K. GUN GAME INFO TO CHART	6-1-67
7	ADDED BURNER FOR GAME INFO TO CHART	6-1-67
8	ADDED TRUCK STOP GAME INFO TO CHART	6-1-67
9	ADDED TAXI GAME INFO TO CHART	6-1-67
10	ADDED TRUCK STOP GAME INFO TO CHART	6-1-67

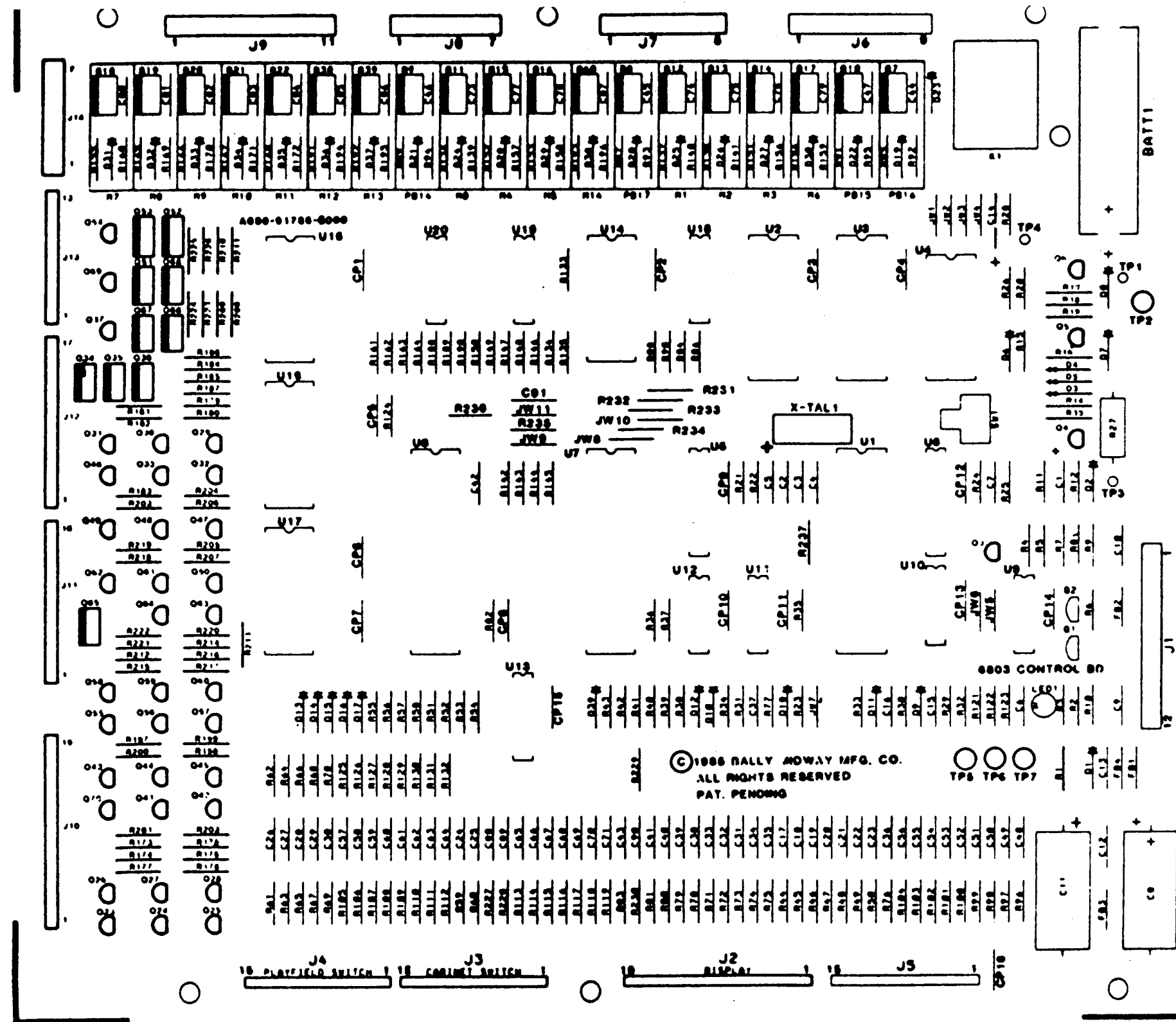


GAME	PART NO	SUB-TEST NO	ITEM 5	ITEM 6	ITEM 7	ITEM 8
FIRE	D-11581-111	D-11581-111	16-8430-175	16-8430-175	16-8430-175	16-8430-175
BIG GUN	D-11581-111	D-11581-111	16-8430-175	16-8430-175	16-8430-175	16-8430-175
SPACE STATION	D-11581-111	D-11581-111	16-8430-175	16-8430-175	16-8430-175	16-8430-175
C.K. GUN	D-11581-111	D-11581-111	16-8430-175	16-8430-175	16-8430-175	16-8430-175
BURNER	D-11581-111	D-11581-111	16-8430-175	16-8430-175	16-8430-175	16-8430-175
TRUCK STOP	D-11581-111	D-11581-111	16-8430-175	16-8430-175	16-8430-175	16-8430-175
TAXI	D-11581-111	D-11581-111	16-8430-175	16-8430-175	16-8430-175	16-8430-175

ITEM	PART NO	PART DESCRIPTION	DESCRIPTION	QTY
1	5400-10320-00	U2	IC 74181 B/A COPY	1
2	5371-11007-00	U1	IC 74181 B/A COPY	1
3	5370-11006-00	U3	IC 74181 B/A COPY	1

PROJ. ENGR C. BLEICH		DO NOT SCALE WORK TO DIMENSIONS SHOWN		REMOVE BUMPS - BREAK SHARP CORNERS & EDGES TOLERANCES UNLESS OTHERWISE SPECIFIED DECIMAL .005 ANGULAR .125° FRACTIONAL 1/32"		WILLIAMS ELECTRONICS, INC. 3401 N. CALIFORNIA AVE. CHICAGO, ILL. 60640	
DWN. BY SAM D. 2/11/67		CHECKED BY DATE 11/1/67		MATERIAL 554-00 1		NAME AUDIO SYSTEM PCB ASSEMBLY	
APPROVING DATE 11/1/67		FIRST PROJECT NO. 554		SCALE 1/8" = 1"		PART NO. D-11581-	

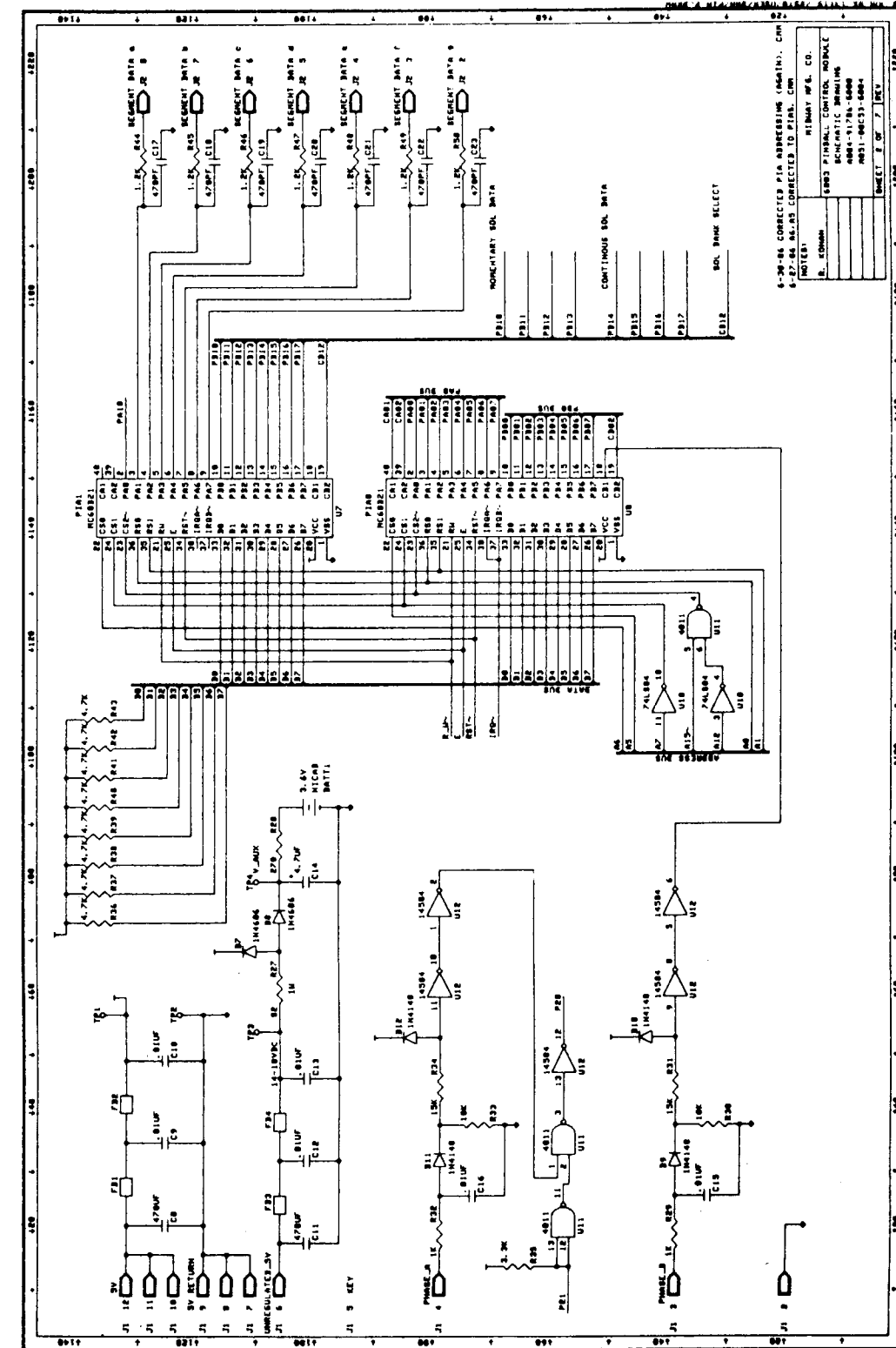
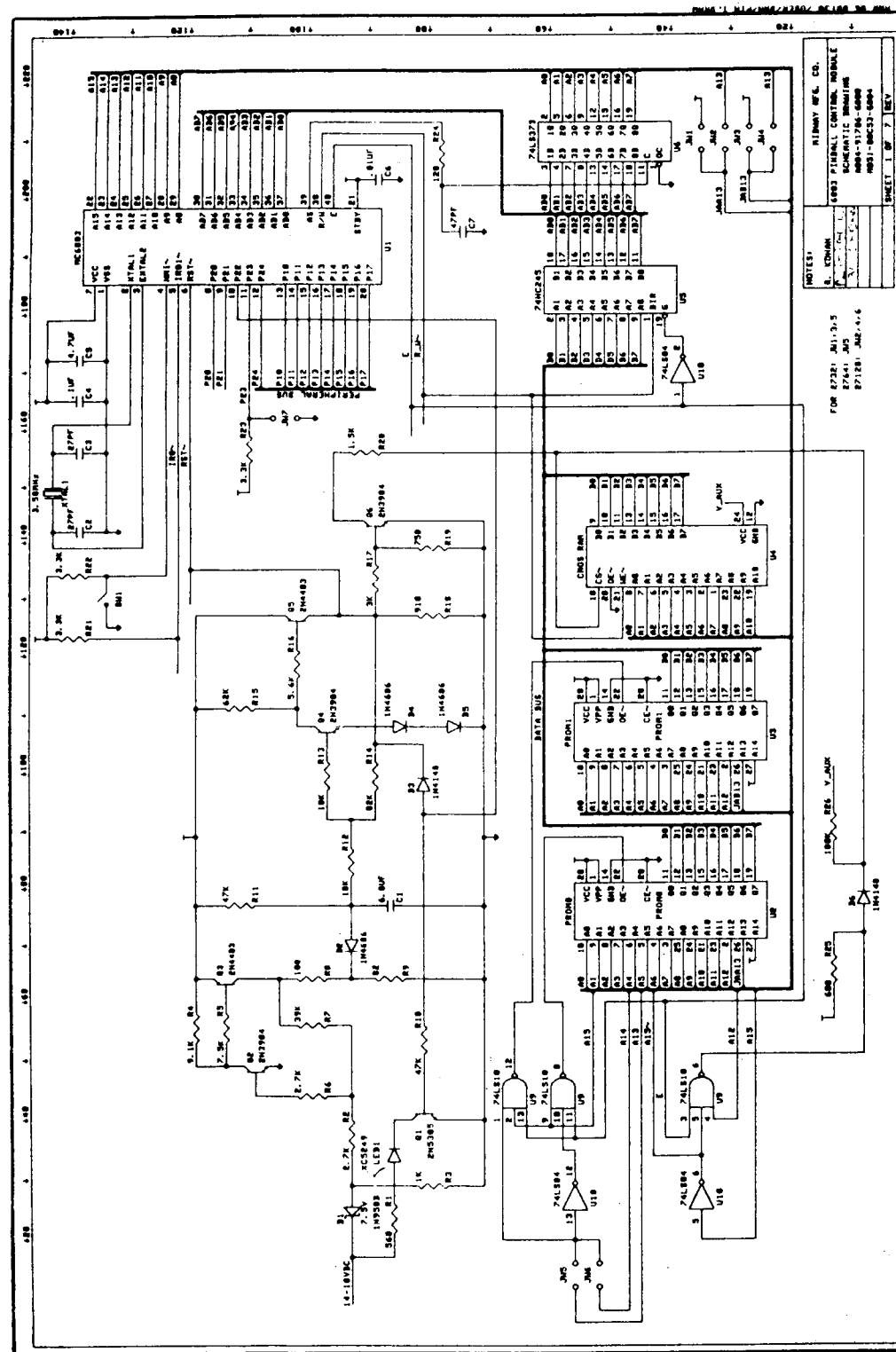
Sound Board D-11581-2001 Assembly Drawing

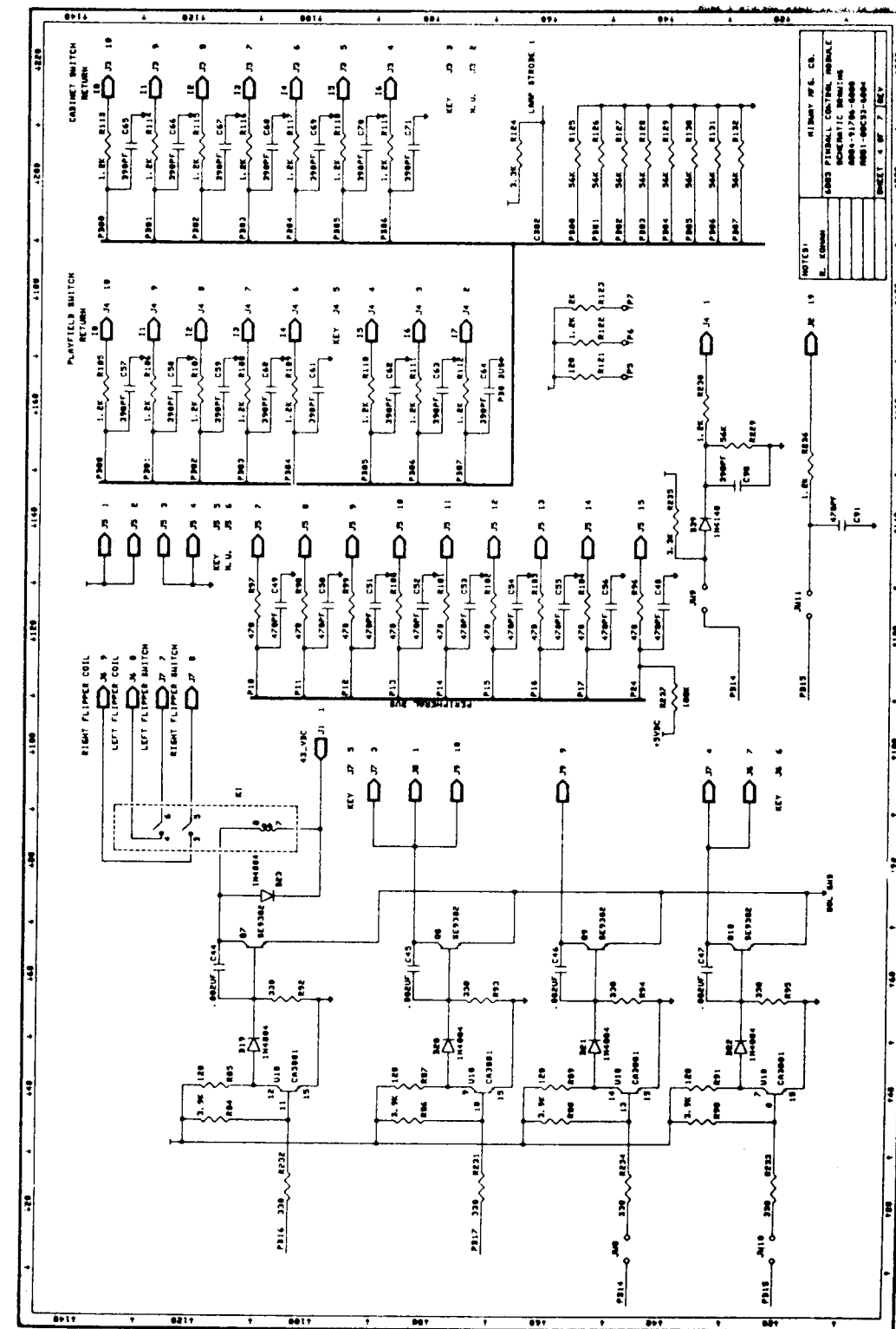
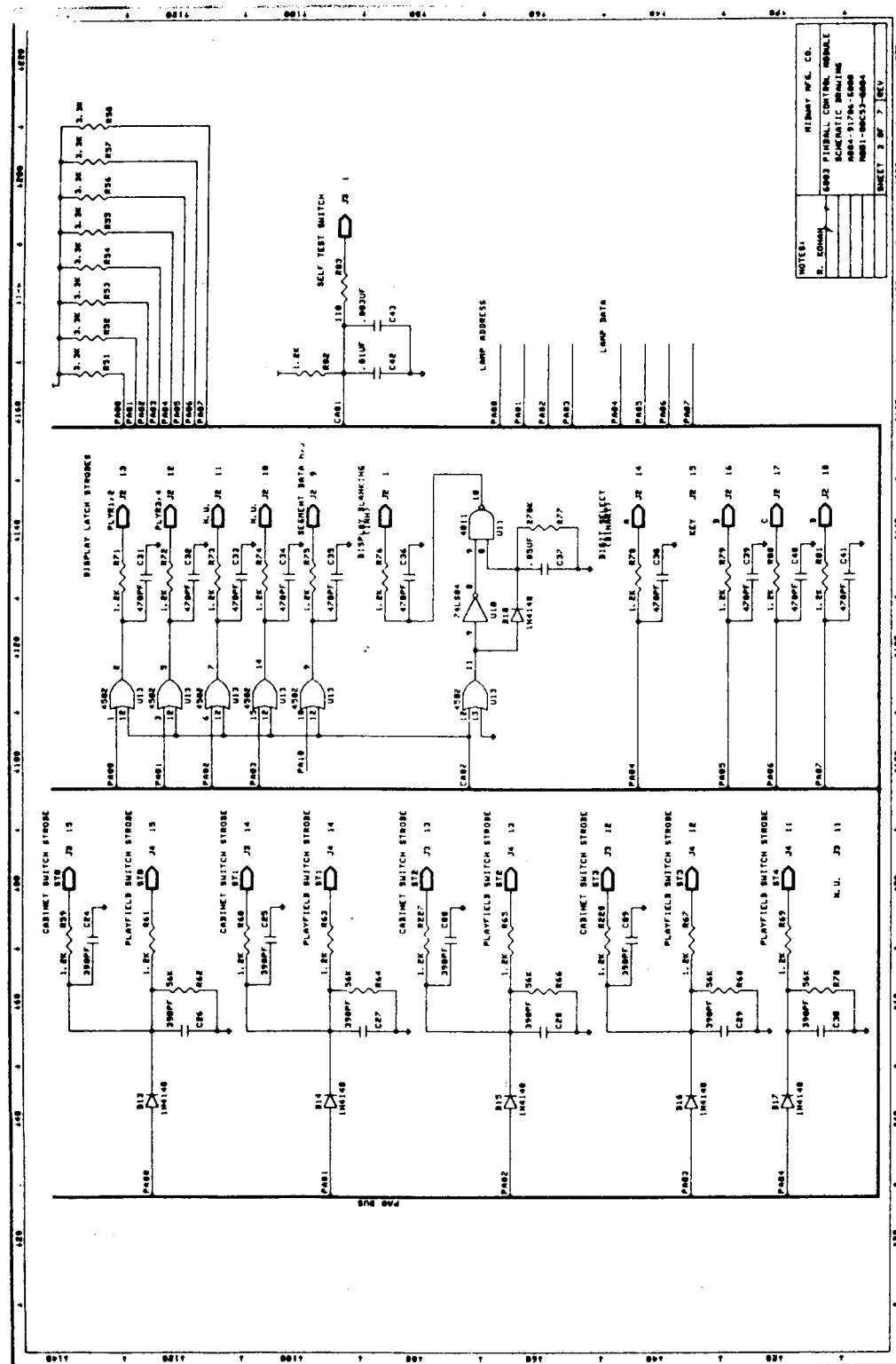


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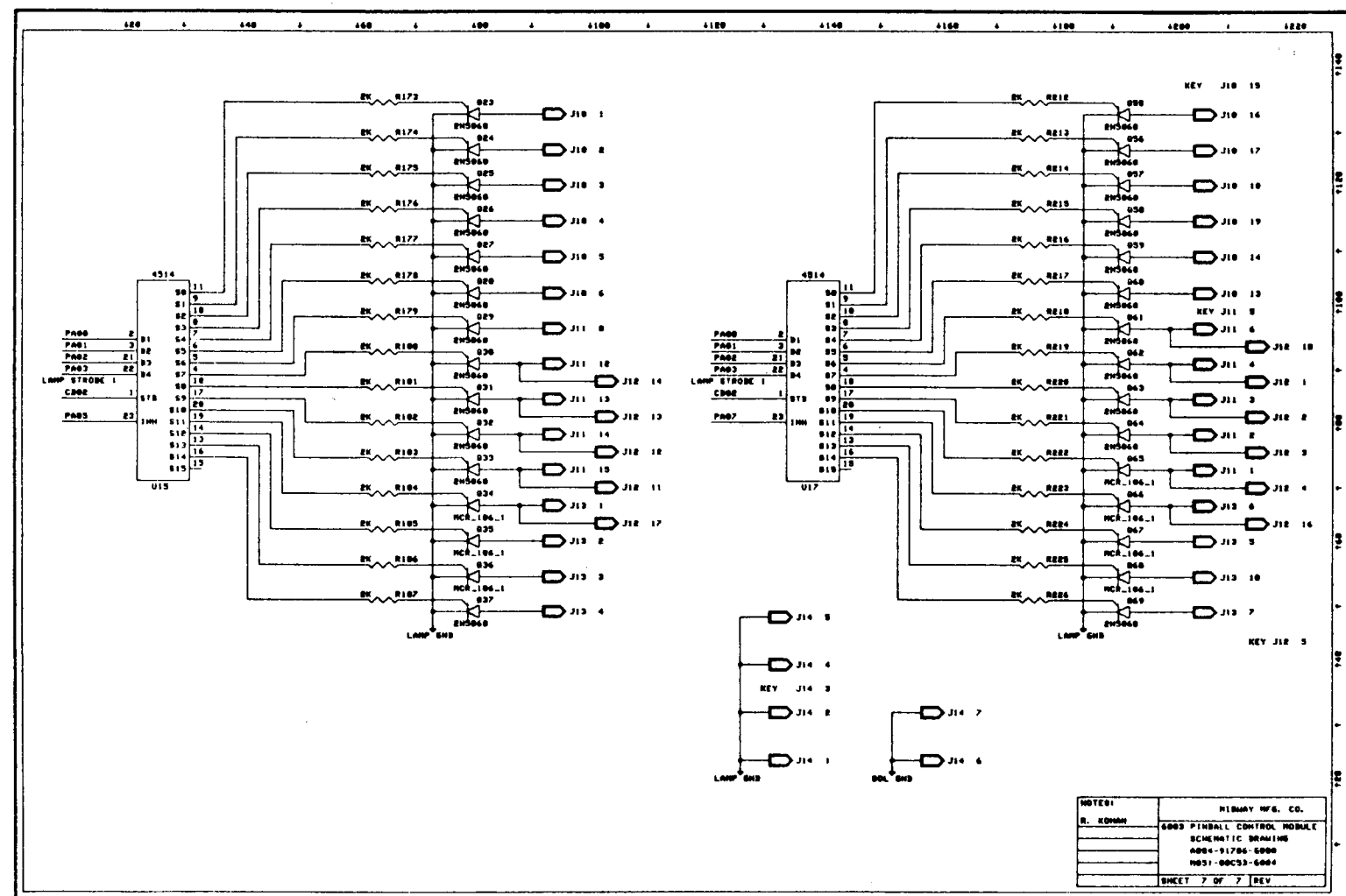
PROPERTY OF MIDWAY MFG. CO.
MIDWAY MFG. CO.
ASSY DRAWING
6803 CONTROL BD.
A084-91786-G000

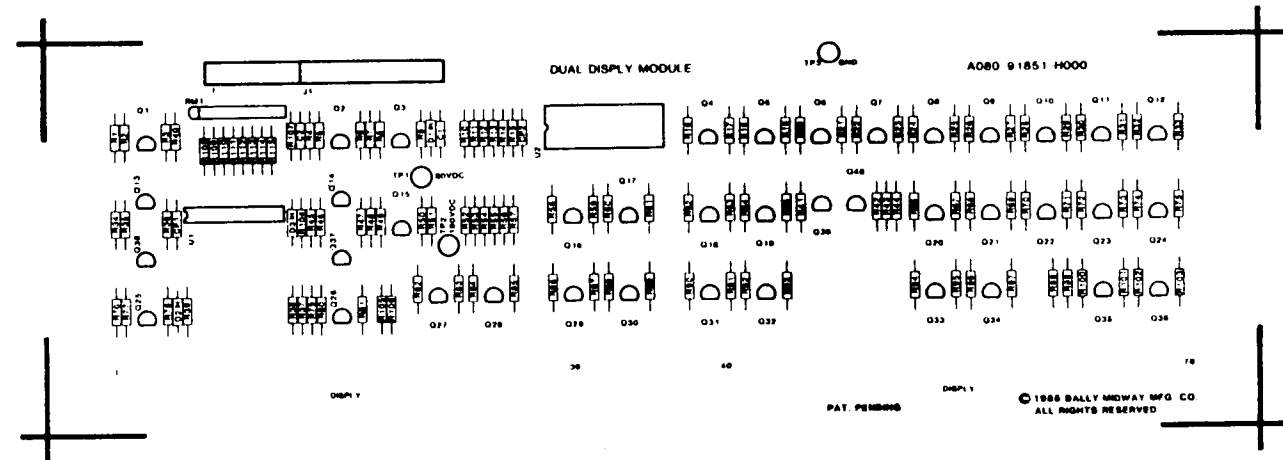
REVISIONS	
PART NO	A05-1-0-0-C-5-3-G-0-0-3



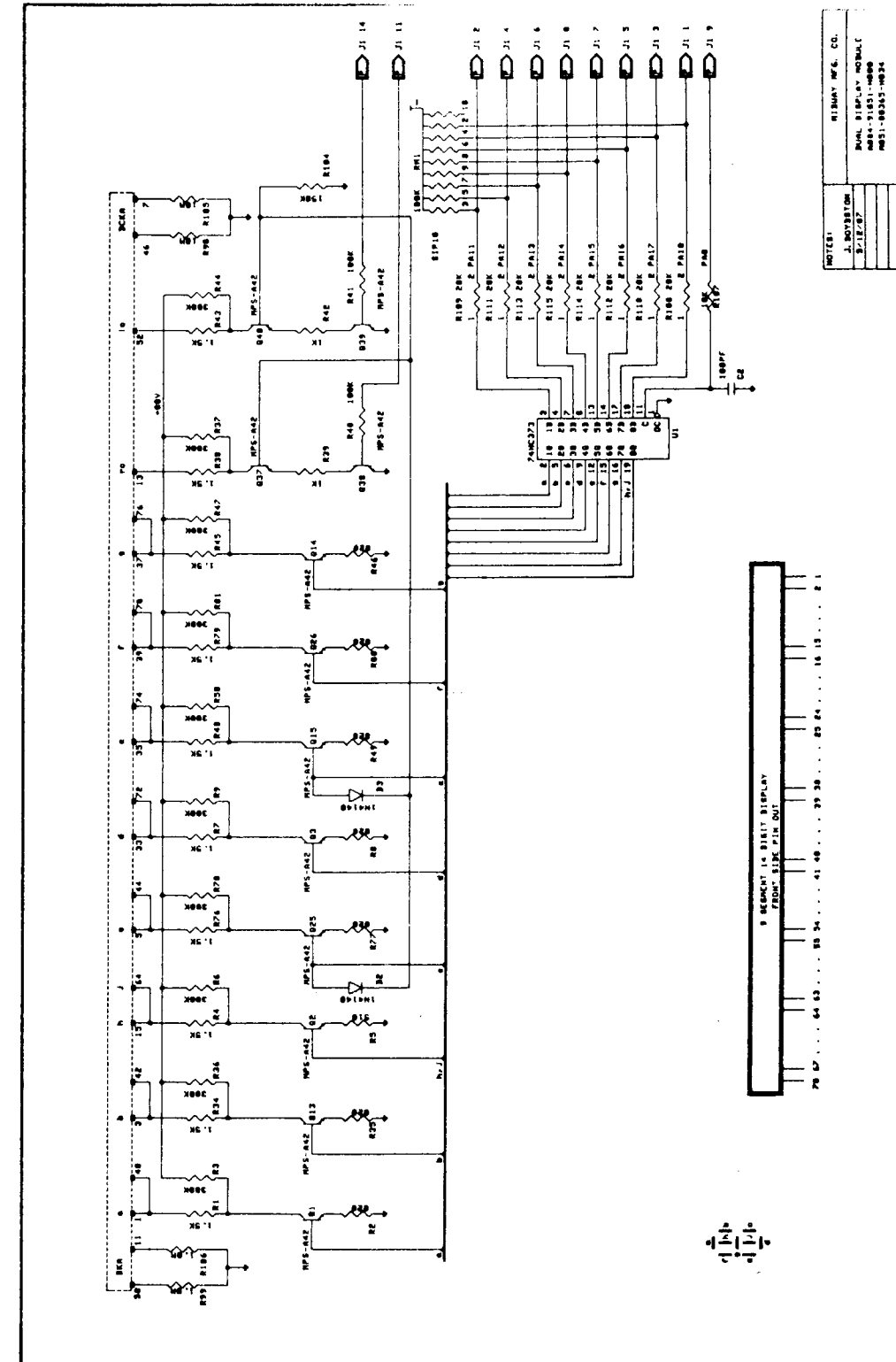
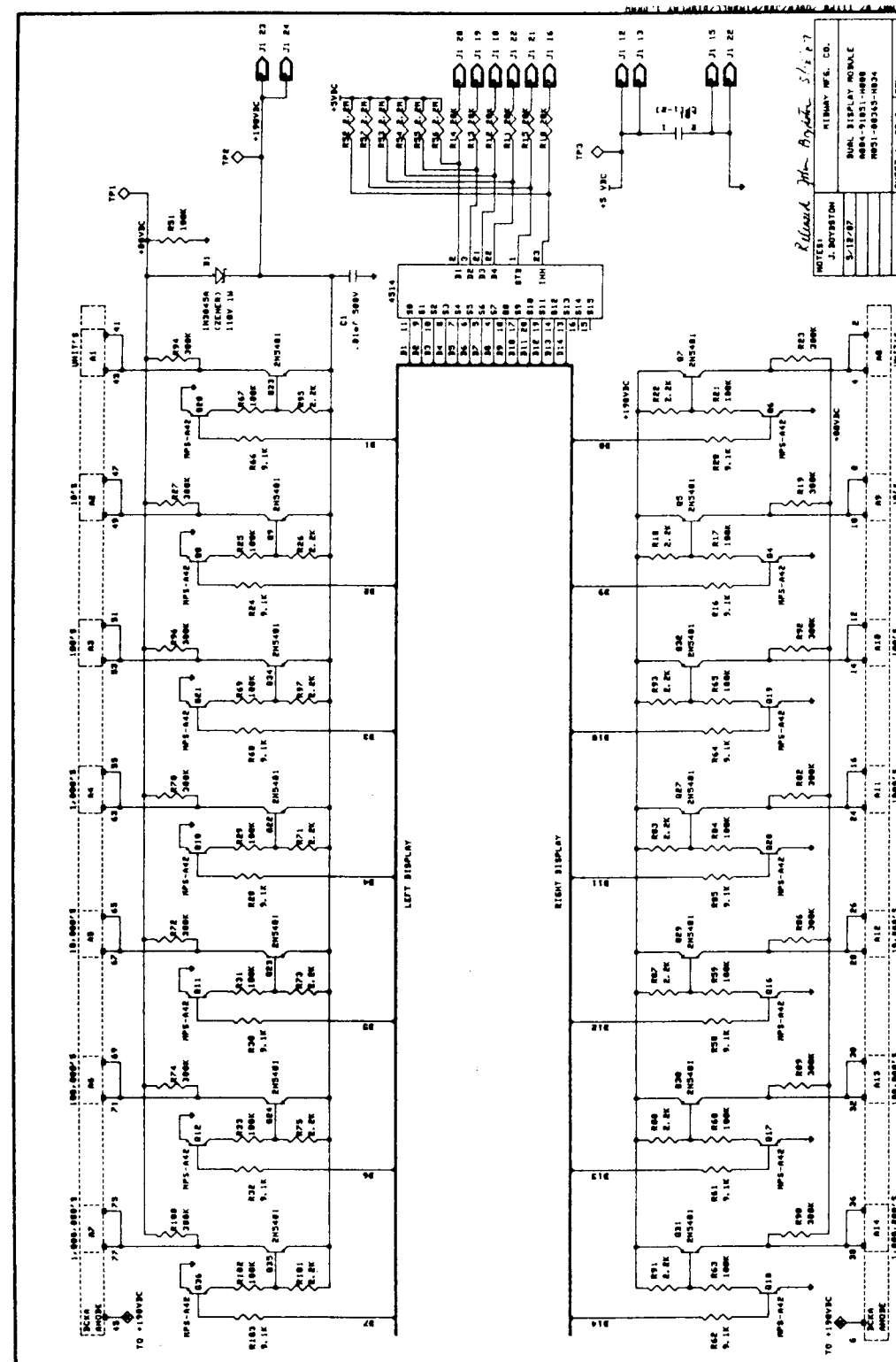


Control Board A080-91786-G000 Logic Diagram

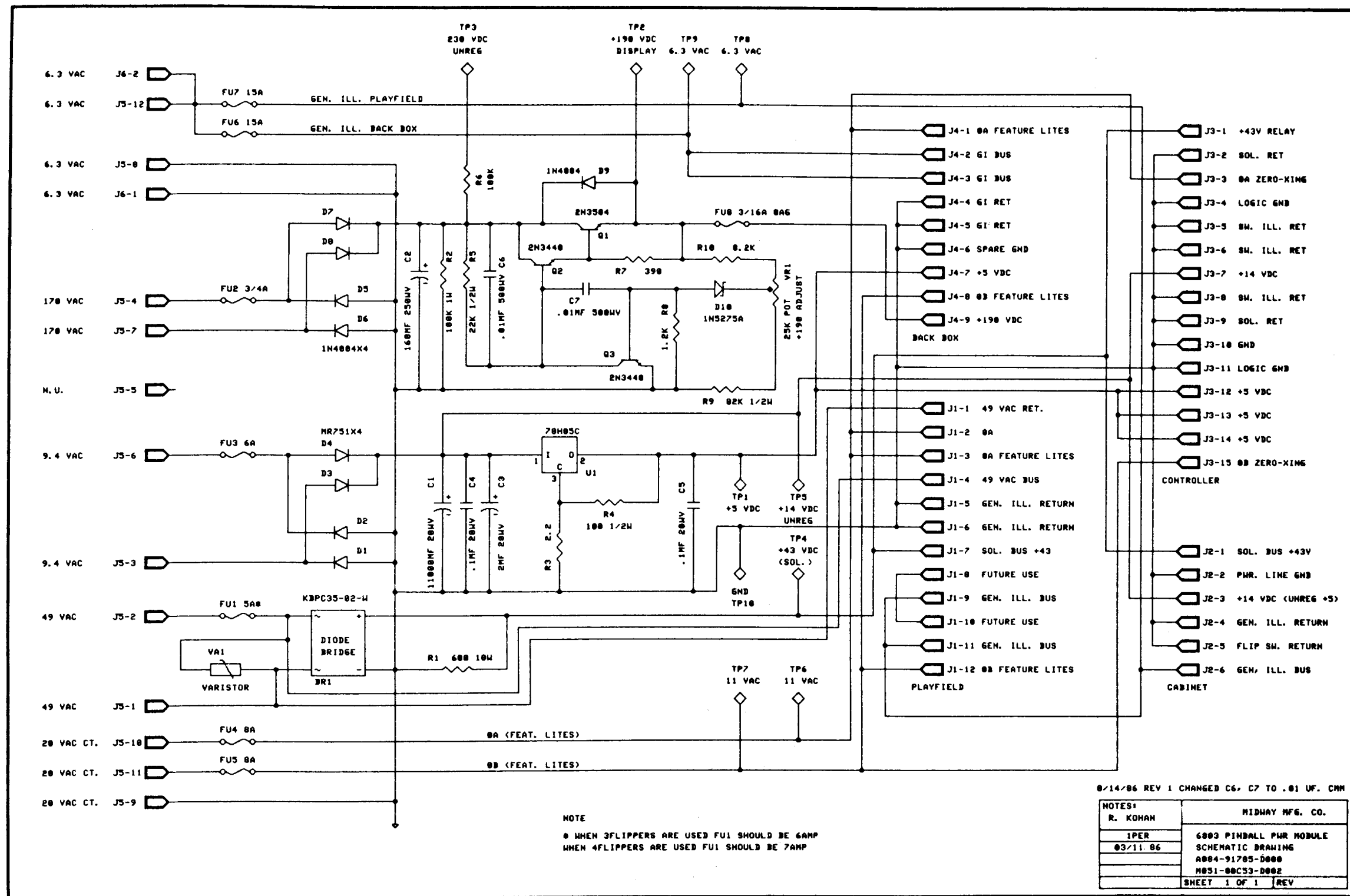


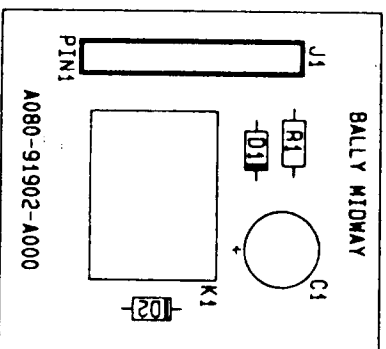


THIS DWG IS CONFIDENTIAL & PROPERTY OF BALLY/MIDWAY MFG. CO.			
DIM TOLERANCES UNLESS OTHERWISE SPEC CONCENTRICITY TIR .002 FRACTIONAL ± 1/64 DECIMAL ± .005 HOLE DIA + .002 - .003 ANGLE ± 1/2° DO NOT SCALE DWG.	PART NAME PIN BALL DATE 5/15/87 BY JBB CHECKED BY JBB		REL FOR PRODUCTION 5/15/87
	MIDWAY MFG. CO. FRANKLIN PARK, N. J. 07615 ASSEMBLY DRAWING DUAL DISPLAY MODULE A084-91851-H000		REVISIONS PART NO A051-00365-H033



Display Board A084-91851-H000 Logic Diagram



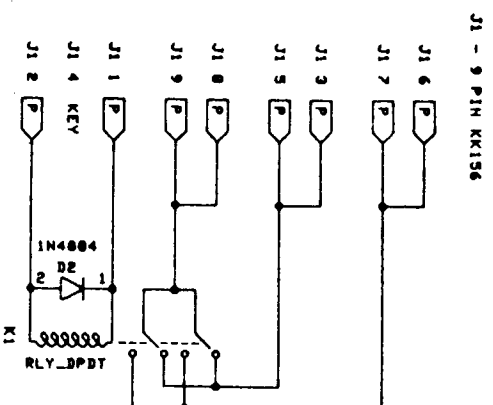


AUX COIL DRIVE
A084-91902-A000
M051-00114-A214

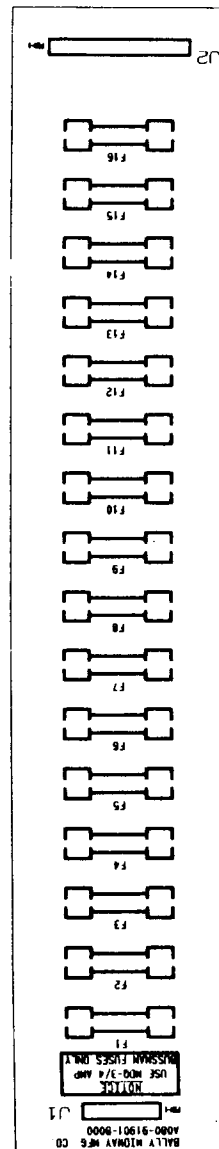
CROSS REFERENCE LIST

<u>DESCRIPTION</u>	<u>QTY.</u>	<u>DESIGNATION NO.</u>	<u>PART NO.</u>
1NA004 DIODE	1	D2	103E-00003-0005
.045 SQ. PIN	8	J1	0304-00804-0010
RELAY	1	K1	114E-00001-0011
NOT INSERTED	3	C1,D1,R1	
AUX COIL DRIVER PCB	1		A080-91902-A000

BALLY MIDWAY MFG. CO.			
PROJECT ENG.	D.B.S.	ASSEMBLY DRAWING	
C. MEDNICK	05/28/87	AUX. COIL DRIVER BD.	M051-00114-A213

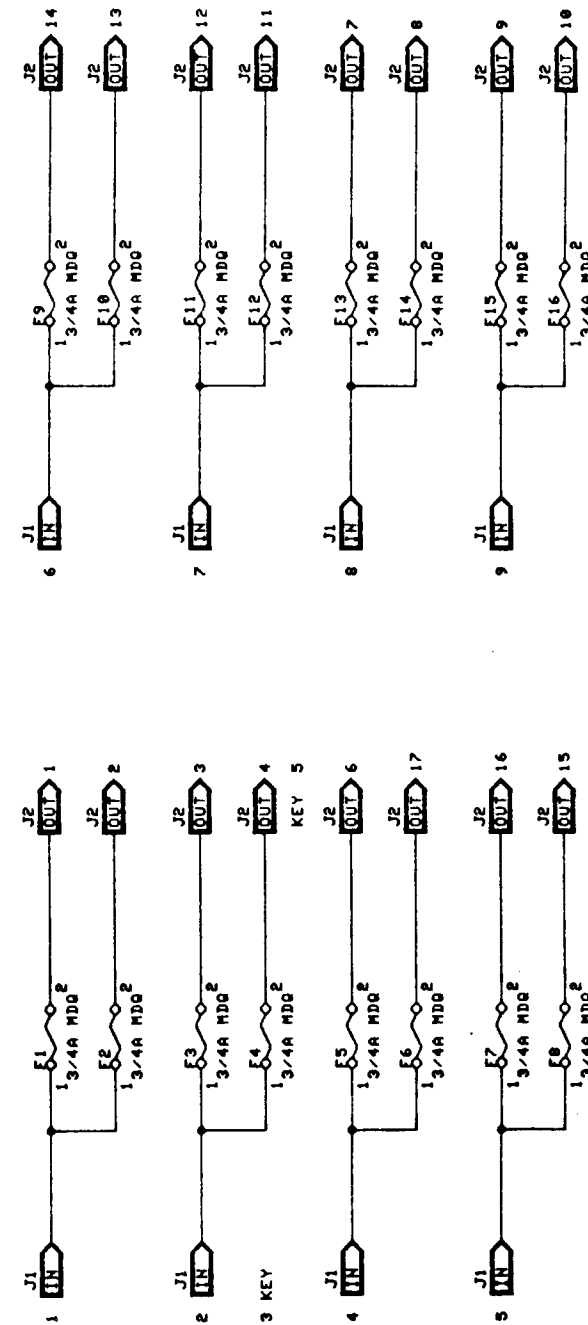


NOTES:		BALLY MIDWAY MFG. CO.
C. MEDWICK		
6/4/87		
		AUX COIL DRIVER
		4884-9190C-A000
		N051-00114-A215
SHEET 1	OF 1	REV



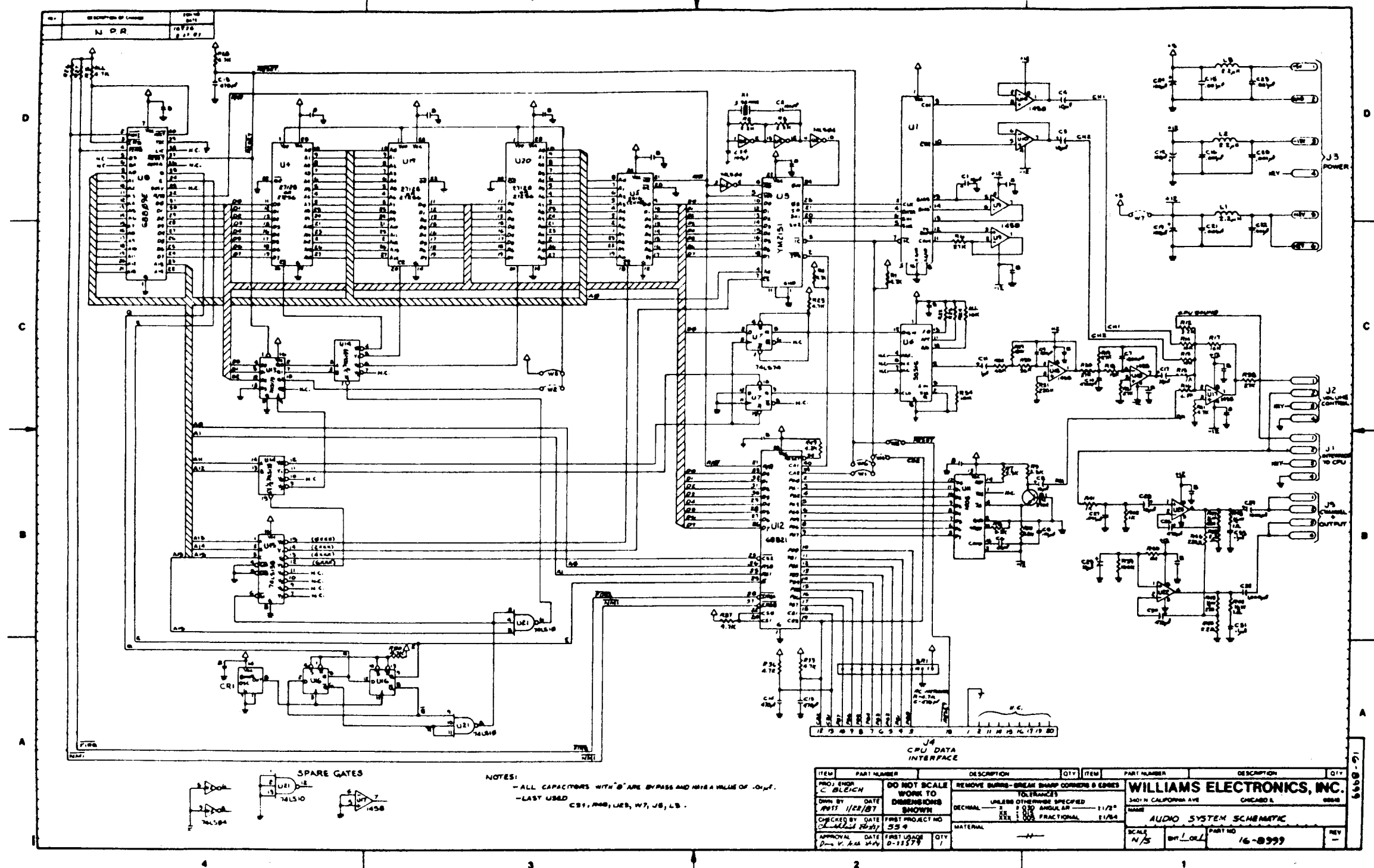
Bright-Lights Fuse Board A080-91901-B000 Assembly Diagram

PROJECT ENG		J BOYOSTON		USED ON 0385		/ MIDWAY MFG CO FRANKLIN PARK ILL	
DO NOT SCALE DIMS		NEXT TIME		SCALE FULL		NO RESD 1 PER	
TOLERANCES		UNLESS OTHERWISE SPECIFIED		FRACTION		PART NO	
DECIMAL .0005		MILS .0025		FRACTION		M051-00114-B21	
DATE 01/18/88		DATE 01/18/88		DATE 01/18/88		DATE 01/18/88	



Released for Production J.B.B. 26

NOTES:		MIDWAY MFG. CO.	
J. BOYDSTON		BRIGHT LIGHTS FUSE PCB	
02-04-00		A004-91901-3000	
		M051-00114-2212	
SHEET 1		OF 1	REV



Sound Board D-11581-2001 Logic Diagram