

This document has been downloaded from:



FLIPPERSPILL.COM

# POPEYE

## SAVES THE EARTH

### Operators Handbook

Midway Manufacturing Company  
3401 North California Avenue  
Chicago, Illinois 60618

## TABLE OF CONTENTS

MENU.....	1
LAMP MATRIX.....	2
LAMP LOCATIONS.....	3
SWITCH MATRIX.....	4
SWITCH LOCATIONS.....	5
SOLENOID TABLE.....	6
SOLENOID LOCATIONS.....	7
UPPER PLAYFIELD PARTS LIST.....	8
UPPER PLAYFIELD PARTS LOCATIONS.....	9
LOWER PLAYFIELD PARTS & LOCATIONS.....	10
RAMP PARTS & LOCATIONS.....	11
RUBBER RING PARTS & LOCATIONS.....	12
FUSE LIST.....	13

## MENU SYSTEM OPERATION

The Main Menu allows you to choose from several categories, which in turn lead to other menus. To access the Main Menu, open the coin door and press the Begin Test button, then press the Enter button. Press the Up or Down buttons to cycle through the Main Menu. Press the Enter button to access a menu. Press the Escape button to return to the Main Menu. Press the Start button for HELP at any time.

### Main Menu

B. Bookkeeping Menu	
	B.1 Main Audits
	B.2 Earnings Audits
	B.3 Standard Audits
	B.4 Feature Audits
	B.5 Histograms
	B.6 Time-Stamp
P. Printouts Menu	
	P.1 Earnings Data
	P.2 Main Audits
	P.3 Standard Audits
	P.4 Feature Audits
	P.5 Score Histograms
	P.6 Game Time Histograms
	P.7 Time-Stamp
	P.8 All Data
T. Test Menu	
	T.1 Switch Edges
	T.2 Switch Levels
	T.3 Single Switches
	T.4 Solenoid Test
	T.5 Flasher Test
	T.6 General Illumination
	T.7 Sound & Music Test
	T.8 Single Lampe
	T.9 All Lamps
	T.10 Lamp & Flasher Test
	T.11 Display Test
	T.12 Flipper Test
	T.13 Ordered Lamp Test
	T.14 Lockup Test
	T.15 Wheel Test
	T.16 Clear Ball Test
U. Utilities Menu	
	U.1 Clear Audits
	U.2 Clear Coins
	U.3 Reset H.S.T.D.
	U.4 Set Time & Date
	U.5 Custom Message
	U.6 Set Game I.D.
	U.7 Factory Adjustments
	U.8 Factory Resets
	U.9 Presets
	U.10 Clear Credits
	U.11 Auto Bum-In
A. Adjustments Menu	
	A.1 Standard Adjustments
	A.2 Feature Adjustments
	A.3 Pricing Adjustments
	A.4 H.S.T.D. Adjustments
	A.5 Printer Adjustments

### Press Escape

To move out of a menu selection.

### Press Enter

To get into a menu selection.

### Press Up

Increases sequence; Example A.1, A.2, A.3, A.4.

### Press Down

Decreases Sequence; Example A.4, A.3, A.2, A.1.

Use Up and Down to cycle through the selections in a menu.

Use Escape and Enter to move into and out of the selected menu

## LAMP MATRIX

Yellow (B+) → Red

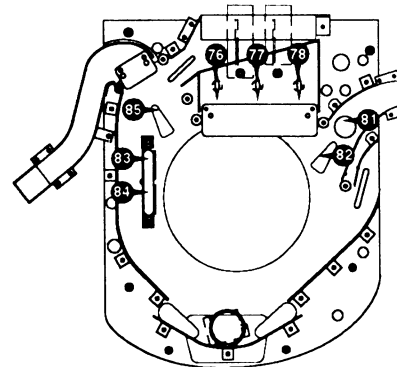
Column Row	1 Yellow-Brown J138-1 Q98	2 Yellow-Red J138-2 Q97	3 Yellow-Orange J138-3 Q96	4 Yellow-Black J138-4 Q95	5 Yellow-Green J138-5 Q94	6 Yellow-Blue J138-6 Q93	7 Yellow-Violet J138-7 Q92	8 Yellow-Gray J138-9 Q91	
1	Red-Brown J134-1 Q90	Left Lane 11	Island Rhino 21	Lockjaw 31	Spillco Oil Co. 41	Left Loop Arrow 51	"Sea" Standup 61	Backbox Tail 71	Upper Extra Ball 81
2	Red-Black J134-2 Q89	Center Lane 12	Island Leopard 22	Never Green Co. 32	Blutonium Waste 42	Left Loop Can 52	Animal Dolphin 62	Backbox Star 72	Wimpy 2X Wheel 82
3	Red-Orange J134-4 Q88	Right Lane 13	Island Eagle 23	Earth Paving Co. 33	Left Outlane 43	Popeye "P1" 53	Left Popper Arrow 63	Animal Rhino 73	Two Bank Upper 83
4	Red-Yellow J134-5 Q87	Fight Bluto 14	Island Dolphin 24	Escalator Enter 34	Left Flipper Lane 44	Popeye "O" 54	Instant Multi-ball 64	Backbox Right 74	Two Bank Lower 84
5	Red-Green J134-6 Q86	Right Popper Can 15	Item Can Opener 25	Popeye "E1" 35	Right Flipper Lane 45	Popeye "P2" 55	Left Cheek 65	Animal Eagle 75	Animal Jackpot 85
6	Red-Blue J134-7 Q85	Right Loop Arrow 16	Item Bottle 26	Popeye "Y" 36	Special 46	Left Ramp Arrow 56	Right Cheek 66	Upper Ramp Left 76	Buy-In 86
7	Red-Violet J134-8 Q84	Right Loop Can 17	Item Katsup 27	Popeye "E2" 37	Shoot Again 47	Collect Item 57	Animal Panda 67	Upper Ramp Center 77	Launch Button 87
8	Red-Gray J134-9 Q83	"Hag" Standup 18	Island Panda 28	Item Flower 38	Rescue Olive 48	Left Ramp Can 58	Animal Leopard 68	Upper Ramp Right 78	Start Button 88

J1XX = Power Driver Board

## LAMP LOCATIONS

Item No.	Bulb No.	Lamp Assy. No.	Description	Item No.	Bulb No.	Lamp Assy. No.	Description
11	24-8768	A-17824	Left Lane	31	24-8768	A-17802	Lockjaw
12	24-8768	A-17824	Center Lane	32	24-8768	A-17802	Never Green Co.
13	24-8768	A-17824	Right Lane	33	24-8768	A-17802	Earth Paving Co.
14	24-8768	A-17800	Fight Bluto	34	24-8768	A-17802	Escalator Enter
15	24-8768	A-17800	Right Popper Can	35	24-8768	A-17802	Popeye "E1"
16	24-8768	A-17800	Right Loop Arrow	36	24-8768	A-17802	Popeye "Y"
17	24-8768	A-17800	Right Loop Can	37	24-8768	A-17802	Popeye "E2"
18	24-8768	A-17800	"Hag" Standup	38	24-8768	A-17802	Item Flower
21	24-8768	A-17802	Island Rhino	41	24-8768	A-17802	Spillco Oil Co.
22	24-8768	A-17802	Island Leopard	42	24-8768	A-17802	Blutonium Waste
23	24-8768	A-17802	Island Eagle	43	24-6549	A-17835	Left Outlane
24	24-8768	A-17802	Island Dolphin	44	24-6549	A-17835	Left Flipper Lane
25	24-8768	A-17802	Item Can Opener	45	24-6549	A-17835	Right Flipper Lane
26	24-8768	A-17802	Item Bottle	46	24-6549	A-17807	Special
27	24-8768	A-17802	Item Katsup	47	24-6549	A-17807	Shoot Again
28	24-8768	A-17802	Island Panda	48	24-6549	A-17807	Rescue Olive

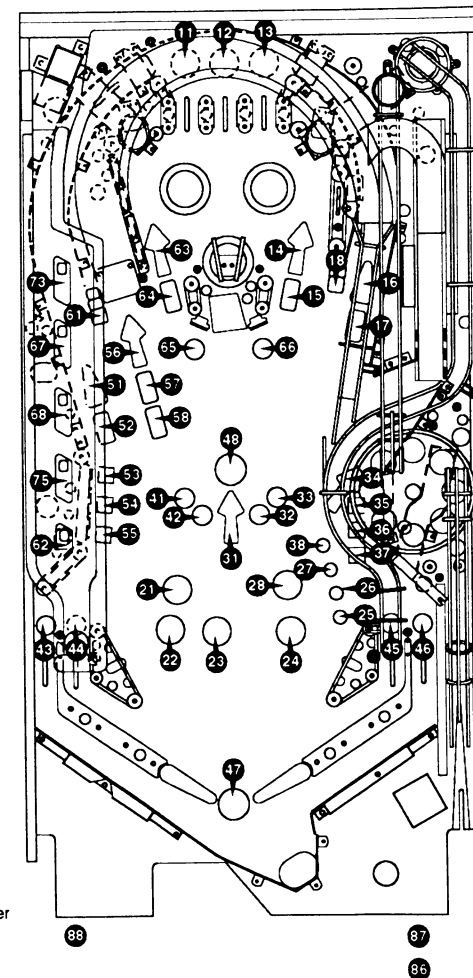
## LAMP LOCATIONS Continued



Item No.	Bulb No.	Lamp Assy. No.	Description
51	24-6549	A-17807	Left Loop Arrow
52	24-6549	A-17835	Left Loop Can
53	24-8768	A-17803	Popeye "P1"
54	24-8768	A-17803	Popeye "O"
55	24-8768	A-17803	Popeye "P2"
56	24-6549	A-17835	Left Ramp Arrow
57	24-6549	A-17835	Collect Item
58	24-6549	A-17835	Left Ramp Can
61	24-6549	A-17835	"Sea" Standup
62	24-8768	A-12887	Animal Dolphin
63	24-6549	A-17835	Instant Multi-ball
64	24-6549	A-17835	Left Popper Can
65	24-6549	A-17807	Left Cheek
66	24-6549	A-17807	Right Cheek
67	24-8768	A-12887	Animal Panda
68	24-8768	A-12887	Animal Leopard
71	24-8768	---	* Backbox Tail
72	24-8768	---	* Backbox Star
73	24-8768	A-12887	Animal Rhino
74	24-8768	---	* Backbox Right
75	24-8768	A-12887	Animal Eagle
76	24-6549	A-11905	† Upper Ramp Left
77	24-6549	A-11905	† Upper Ramp Center
78	24-6549	A-11905	† Upper Ramp Right
81	24-6549	A-17836	Upper Extra Ball
82	24-6549	A-17835	Wimpy 2X Wheel
83	24-8768	A-17853	Two Bank Upper
84	24-8768	A-17853	Two Bank Lower
85	24-6549	A-17835	Animal Jackpot
86	20-9663-9	---	Buy-In
87	20-9663-B-4	---	Launch Button
88	20-9663-1	---	Start Button

\* Not Shown

† Associated Parts: A-12753-2 Lug & Diode



24-8768 = #555 Bulb  
24-6549 = #44 Bulb

## SWITCH MATRIX

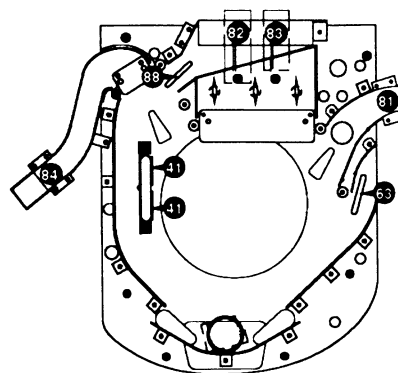
Dedicated Grounded Switches	Column Row	1 Green-Brown J207-1 U20-18	2 Green-Red J207-2 U20-17	3 Green-Orange J207-3 U20-16	4 Green-Yellow J207-4 U20-15	5 Green-Black J207-5 U20-14	6 Green-Blue J207-6 U20-13	7 Green-Violet J207-7 U20-12	8 Green-Gray J207-9 U20-11	Flipper Grounded Switches
		White Left Lane	Green Slam Tilt	Green Left Popper	Green Two Bank	Green Right Trough	Green Left Cheek	Green Popeye "P1"	Green Upper Exit To Wheel	
Orange-Brown J206-1 (1)		Left Lane	Slam Tilt	Left Popper	Two Bank	Right Trough	Left Cheek	Popeye "P1"	Upper Exit To Wheel	Black-Green J906-1 Right Flipper End of Stroke F1
Left Coin Chute D1		11	21	31	41	51	61	71	81	
Orange-Red J206-2 (2)		Buy-In	Coin Door Closed	Right Popper	Center Lane	Trough 2nd	Right Cheek	Popeye "O"	Upper Ramp Left	Blue-Violet J905-1 Right Flipper Opto F2
Center Coin Chute D2		12	22	32	42	52	62	72	82	
Orange-Black J206-3 (3)		Start Button	Ball Launch	Right Loop Opto	Lockup Upper	Trough 3rd	Escalator Exit	Popeye "P2"	Upper Ramp Right	Black-Blue J906-3 Left Flipper End of Stroke F3
Right Coin Chute D3		13	23	33	43	53	63	73	83	
Orange-Yellow J206-4 (4)		Plumb Bob Tilt	Always Closed	Ramp Entrance	Lockup Center	Trough 4th	Animal Dolphin	Left Outlane	Animal Jackpot	Blue-Gray J905-2 Left Flipper Opto F4
4th Coin Chute D4		14	24	34	44	54	64	74	84	
Orange-Green J206-5 (5)		Right Lane	Left Loop	Ramp Completion	Lockup Lower	Trough 5th	Animal Eagle	Left Flipper Lane	Right Outlane	Black-Violet J906-4 Upper Right Flipper End of Stroke F5
Normal Function Service Credits Escape D5		15	25	35	45	55	65	75	85	
Orange-Blue J206-6 (6)		Left Jet	Popeye "E1"	Escalator Popper	Wheel Opto 1	Left Trough	Animal Tiger	Left Slingshot	Shooter Lane	Black-Yellow J906-3 Upper Right Flipper Opto F6
Normal Function Volume Down D6		16	26	36	46	56	66	76	86	
Orange-Violet J206-7 (7)		Right Jet	Popeye "Y"	Wheel Exit	Wheel Opto 2	Trough Jam	Animal Panda	Right Slingshot	Lockup Kicker	Black-Gray J906-5 Upper Left Flipper End of Stroke F7
Normal Function Volume Up D7		17	27	37	47	57	67	77	87	
Orange-Gray J206-8 (8)		Center Jet	Popeye "E2"	"Hag" Standup	Wheel Opto 3	"Sea" Standup	Animal Rhino	Right Flipper Lane	Upper Shot Exit	Black-Blue J906-5 Upper Left Flipper Opto F8
Normal Function Begin Test Enter D8		18	28	38	48	58	68	78	88	

J20X = CPU Board, J90X = Fliptron II Board ☐ = Opto, Typically Closed

## SWITCH LOCATIONS

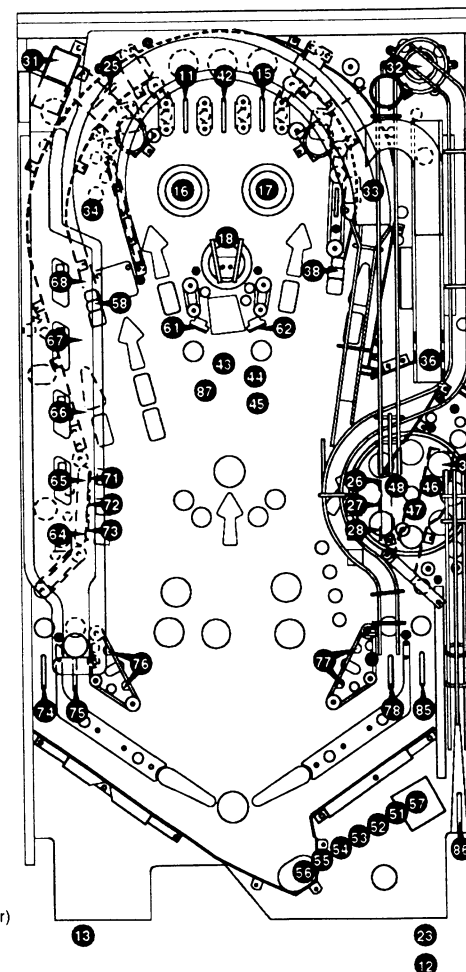
Item	Switch Part #	Where Used	Item	Switch Part #	Where Used
F1	SW-1A-194	*Lower Right Flipper EOS	32	A-16908 (LED)	Right Popper
F2	A-17316	*Lower Right Flipper Cabinet		A-16909 (Trans.)	
F3	SW-1A-194	*Lower Left Flipper EOS	33	A-16908 (LED)	Right Loop Opto
F4	A-17316	*Lower Left Flipper Cabinet		A-16909 (Trans.)	
F5	SW-1A-194	*Upper Right Flipper EOS	34	A-16908 (LED)	Ramp Entrance
F6	A-17316	*Upper Right Flipper Cabinet		A-16909 (Trans.)	
F7	SW-1A-194	*Upper Left Flipper EOS	35	A-16908 (LED)	Ramp Completion
F8	A-17316	*Upper Left Flipper Cabinet		A-16909 (Trans.)	
11	5647-12693-19	Left Lane	36	A-16908 (LED)	Escalator Popper
12	20-9683-9	Buy-In		A-16909 (Trans.)	
13	20-9683-1	Start Button	37	A-16908 (LED)	Wheel Exit
14	A-15361	*Plumb Bob Tilt		A-16909 (Trans.)	
15	5647-12693-19	Right Lane	38	A-17795-6	"Hag" Stand-up
16	SW-11A-37	Left Jet	41	A-17226-4	Two Bank (2)
17	SW-11A-37	Right Jet	42	5647-12693-19	Center Lane
18	SW-11A-37	Center Jet	43	5647-12693-25	↑ Lockup Upper
21	A-17238	*Slam Tilt	44	5647-12693-25	↑ Lockup Center
22	5643-09288-00	*Coin Door Closed	45	5647-12693-25	↑ Lockup Lower
23	20-9683-B-4	Ball Launch	46	A-17069	↑ Wheel Opto 1
24	5643-09112-00	*Always Closed	47	A-17069	↑ Wheel Opto 2
25	5647-12693-19	Left Loop	48	A-17069	↑ Wheel Opto 3
26	A-17778-15	Popeye "E1"	51	A-16927 (LED)	Right Trough
27	A-17778-15	Popeye "Y"		A-16926 (Trans.)	
28	A-17778-15	Popeye "E2"	52	A-16927 (LED)	Trough 2nd
31	A-16908 (LED)	Left Popper	53	A-16927 (LED)	Trough 3rd
	A-16909 (Trans.)			A-16926 (Trans.)	

## SWITCH LOCATIONS Continued



Item	Switch Part #	Where Used
54	A-16927 (LED)	Trough 4th
	A-16926 (Trans.)	
55	A-16927 (LED)	Trough 5th
	A-16926 (Trans.)	
56	A-16927 (LED)	Left Trough
	A-16926 (Trans.)	
57	A-16927 (LED)	Trough Jam
	A-16926 (Trans.)	
58	A-17795-6	"Sea" Stand-up
61	A-17799-4	Left Cheek
62	A-17799-4	Right Cheek
63	5647-12693-19	Escalator Exit
64	5647-12693-21	Animal Dolphin
65	5647-12693-21	Animal Eagle
66	5647-12693-21	Animal Tiger
67	5647-12693-21	Animal Panda
68	5647-12693-21	Animal Rhino
71	A-17799-15	Popeye "P1"
72	A-17799-15	Popeye "O"
73	A-17799-15	Popeye "P2"
74	5647-12693-19	Left Outlane
75	5647-12693-19	Left Flipper Lane
76	SW-1A-114	Left Slingshot (kicker)
	SW-1A-120	(score)
77	SW-1A-114	Right Slingshot (kicker)
	SW-1A-120	(score)
78	5647-12693-19	Right Flipper Lane
81	A-16908 (LED)	Upper Exit to Wheel
	A-16909 (Trans.)	
82	A-16908 (LED)	Upper Ramp Left
	A-16909 (Trans.)	
83	A-16908 (LED)	Upper Ramp Right
	A-16909 (Trans.)	
84	5647-12693-25	Animal Jackpot
85	5647-12693-19	Right Outlane
86	5647-12693-19	Shooter Lane
87	5647-12693-25	↑ Lockup Kicker
88	5647-12693-19	Upper Shot Exit

\* Not Shown  
† Located Under Playfield



## SOLENOID TABLE

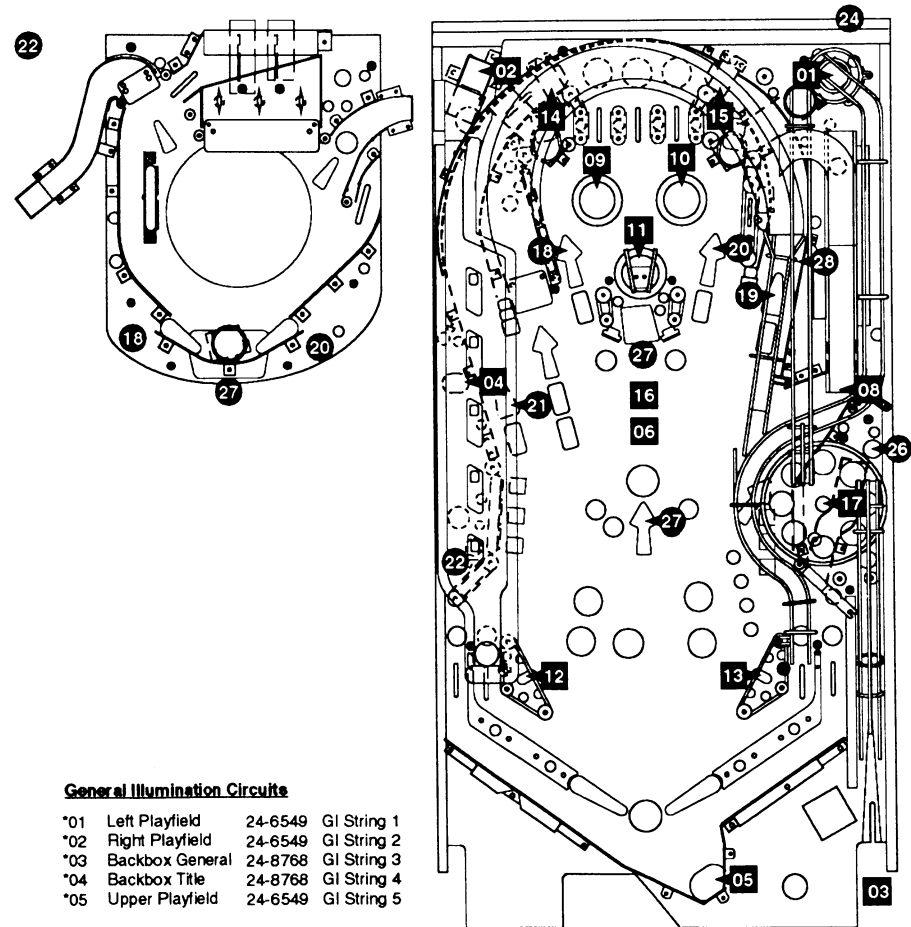
Sol. No.	Function	Solenoid Type	Voltage Connections			Drive Driver	Drive Connections			Drive Wire Color	Solenoid Part Number	
			Playfield	Backbox	Cabinet		Playfield	Backbox	Cabinet		Flashlamp Type	Backbox
01	Right Popper	High Power	J130-1			Q82	J107-3			Vio-Bm	AE-26-1200	
02	Left Popper	High Power	J130-2			Q80	J107-3			Vio-Red	AE-24-900	
03	Ball Shooter	High Power	J130-4			Q78	J107-3			Vio-Grn	AE-23-800	
04	Animal Diverter	High Power	J130-5			Q76	J107-3			Vio-Yel	AE-26-1200	
05	Trough Coil	High Power	J130-6			Q64	J107-3			Vio-Grn	AE-26-1500	
06	Lockup Kicker	High Power	J130-7			Q66	J107-3			Vio-Blu	AE-23-800	
07	Knocker	High Power		J130-8		Q68		J107-3		Vio-Bk		AE-23-800
08	Escalator Popper	High Power	J130-9			Q70	J107-3			Vio-Grn	AE-23-800	
09	Left Jet	Low Power	J127-1			Q58	J107-2			Bm-Bk	AE-26-1200	
10	Right Jet	Low Power	J127-3			Q56	J107-2			Bm-Red	AE-26-1200	
11	Center Jet	Low Power	J127-4			Q54	J107-2			Bm-Grn	AE-26-1200	
12	Left Slingshot	Low Power	J127-5			Q52	J107-2			Bm-Yel	AE-26-1200	
13	Right Slingshot	Low Power	J127-6			Q50	J107-2			Bm-Grn	AE-26-1200	
14	Left Gate	Low Power	J127-7			Q48	J107-2			Bm-Blu	A-14406	
15	Right Gate	Low Power	J127-8			Q46	J107-2			Bm-Vio	A-14406	
16	Lockup Release	Low Power	J127-9			Q44	J107-2			Bm-Grn	AE-26-1500	
17	Wheel Motor	Flasher	J128-1			Q42	J107-6			Bk-Bm	14-7990	
18	Upper Playfield Left	Flasher	J128-2			Q40	J107-6			Bk-Red	#906, #98(2)	
19	Right Loop Backbox	Flasher	J128-3	J125-5		Q38	J107-6	J106-5		Bk-Grn	#906 (1)	#906 (1)
20	Fight Bluto	Flasher	J128-4			Q36	J107-6			Bk-Yel	#906, #98(2)	
21	Left Loop Bkbox	Flasher	J128-5	J125-6		Q28	J107-6	J106-5		Bk-Grn	#906 (1)	#906 (1)
22	Animal Ramp	Flasher	J128-6	J125-7		Q30	J107-6	J106-5		Bk-Bk	#906 (2)	#906 (1)
23	Skill Wheel	Flasher	J128-7	J125-8		Q34	J107-6	J106-5		Bk-Vio	#906 (1)	#906 (1)
24	R Popper Bkbox	Flasher	J128-8	J125-9		Q32	J107-6	J106-5		Bk-Grn	#906 (1)	#906 (1)
25	Not Used	Gen. Purpose				Q26				Bk-Bm		
26	Ramp Jackpot	Gen. Purpose	J122-2	J124-2		Q24	J107-6	J106-5		Bk-Bk	#906 (1)	#906 (1)
27	Lockjaw Arrow	Gen. Purpose	J122-3	J124-3		Q22	J107-6	J106-5		Bk-Grn	#98 (2)	#906 (1)
28	Escalator Bkbox Turtle	Gen. Purpose	J122-4	J124-4		Q20	J107-6	J106-5		Bk-Yel	#906 (1)	#906 (1)
General Illumination												
01	Left Playfield	G.I.	J121-1			Q18	J121-7			Whl-Bm	24-6549	
02	Right Playfield	G.I.	J121-2			Q10	J121-8			Whl-Grn	24-6549	
03	Backbox General	G.I.		J120-3		Q14		J120-9		Whl-Yel		24-8788
04	Backbox Title	G.I.		J120-5		Q16		J120-10		Whl-Gm		24-8788
05	Upper Playfield	G.I.	J121-6			Q12	J121-11			Whl-Vio		
Voltage Connections												
Flipper Circuits			Playfield		Drive Transistors	Playfield		Drive Wire	Colors	Coil Part	Coil Colors	
					Power Hold			Power	Hold	Number		
Lower Left Flipper			Lwr. Lt. Power	J807-7 (Grn-Yel)	Q3	Q9	J802-9	Bk-Grn	Org-Bk	FL-11629	BLUE	
			Lwr. Lt. Hold	J807-7 (Grn-Yel)			J802-7					
Lower Right Flipper			Lwr. Rt. Power	J807-8 (Bk-Yel)	Q4	Q11	J802-13	Blu-Vio	Org-Grn	FL-11629	BLUE	
			Lwr. Rt. Hold	J807-9 (Bk-Yel)			J802-11					
Upper Left Flipper			Up Lt. Power	J807-1 (Grn-Yel)	Q1	Q5	J802-1	Bk-Blu	Org-Grn	FL-11722	GREEN	
			Up Lt. Hold	J807-1 (Grn-Yel)			J802-1					
Upper Right Flipper			Up Rt. Power	J807-4 (Bk-Yel)	Q2	Q7	J802-6	Bk-Yel	Org-Vio	FL-11722	GREEN	
			Up Rt. Hold	J807-4 (Bk-Yel)			J802-4					

J10X = Power Driver Board; J60X = Fliptron II Board; 24-6549 = #44 Bulb; 24-8704 = #89 Bulb; 24-8788 = #555 Bulb; 24-8802 = #906 Bulb

## SOLENOID/FLASHER LOCATIONS

Item	Coil/Flasher Number	Assembly Number	Description	Item	Coil/Flasher Number	Assembly Number	Description
01	AE-26-1200	A-17258	Right Popper	16	AE-26-1500	A-17505	† Lockup Release
02	AE-24-900	A-17180	Left Popper	17	14-7990	A-17623	Wheel Motor
03	AE-23-800	A-14525	Ball Shooter	18	24-8802	A-12336-1	Upper Playfield Left (2)
04	AE-26-1200	A-17251	Animal Diverter		24-8704	A-17803	
05	AE-26-1500	A-16765	Trough Coil	19	24-8704	A-17803	Right Loop Backbox (2)
06	AE-23-800	A-17505	† Lockup Kicker	20	24-8802	A-12336-1	Fight Bluto (2)
07	---	B-16086-1	* Knocker		24-8704	A-17803	
08	AE-23-800	A-17774	Escalator Popper	21	24-8704	A-17803	Left Loop Bkbox. (2)
09	AE-26-1200	A-9415-2	Left Jet	22	24-8802	A-12336-1	Animal Ramp (3)
10	AE-26-1200	A-9415-2	Right Jet		24-8802	A-17626-4	
11	AE-26-1200	A-9415-2	Center Jet	23	24-8802	A-12336-1	Skill Wheel (2)
12	AE-26-1200	A-17809	Left Slingshot	24	24-8802	C-13337	R. Popper Bkbox. Ex.B. (2)
13	AE-26-1200	A-17809-1	Right Slingshot	25	---	---	Not Used
14	A-14406	A-17796	Left Gate	26	24-8704	A-17803	Ramp Jackpot (2)
15	A-14406	A-17796	Right Gate	27	24-8704	A-17803	Lockjaw Arrow (3)
				28	24-8802	A-12336-1	Escalator Bkbox. Turtle (2)

## SOLENOID LOCATIONS Continued



### General Illumination Circuits

*01	Left Playfield	24-6549	GI String 1
*02	Right Playfield	24-6549	GI String 2
*03	Backbox General	24-8768	GI String 3
*04	Backbox Title	24-8768	GI String 4
*05	Upper Playfield	24-6549	GI String 5

### Flipper Coils Assembly

*FL-11629	(Blue)	A-15849-L-2	Lower Left Flipper
*FL-11629	(Blue)	A-15849-R-2	Lower Right Flipper
*FL-11722	(Green)	A-16976-L-1	Upper Left Flipper
*FL-11722	(Green)	A-16976-R	Upper Right Flipper

\*Not Shown  
† Located Under Playfield

24-6549 = #44 Bulb  
24-8704 = #89 Bulb  
24-8768 = #555 Bulb  
24-8802 = #906 Bulb

■ Square indicates coil, P.C.B. or Magnet  
● Circle indicates flasher

## UPPER PLAYFIELD PARTS LIST

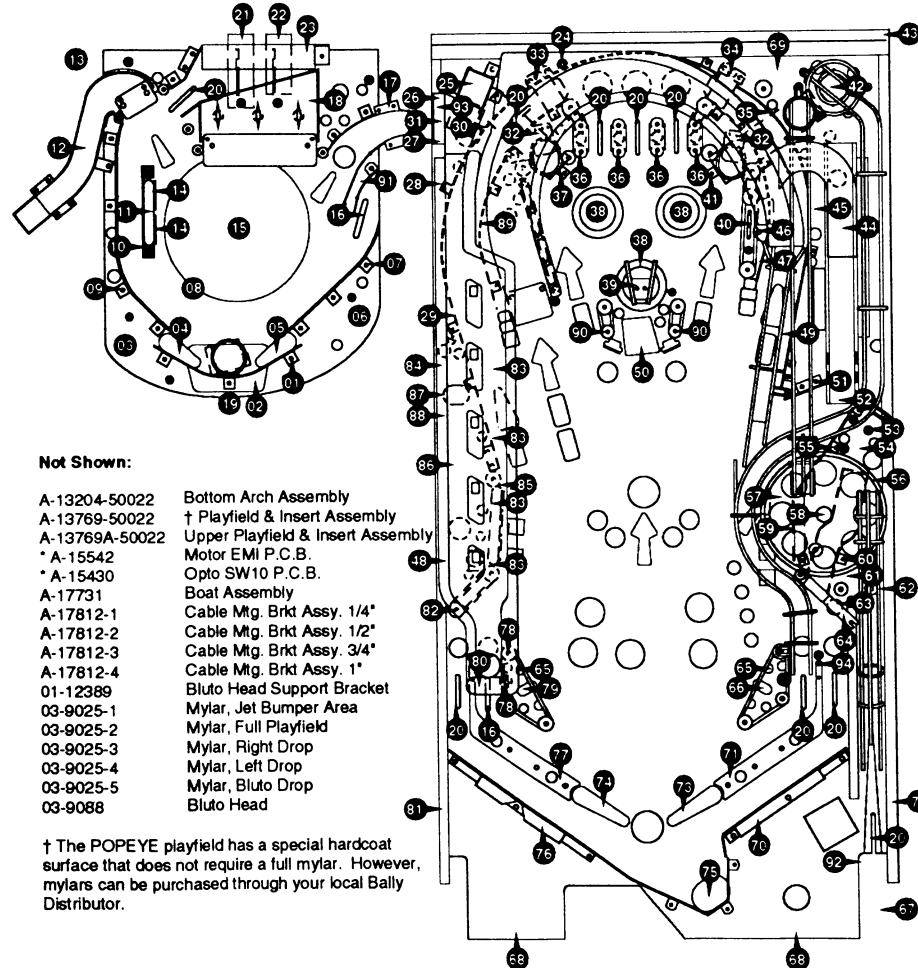
### Item Part Description

1	01-12173	Ball Guide
2	A-17567	Upper Level Drain Assembly
3	A-17648	Left Cover Assembly
4	A-16976-L-1	Flipper Assembly Complete
5	20-9732-5	Small Flipper & Shaft
6	A-16976-R	Flipper Assembly Complete
7	20-9732-5	Small Flipper & Shaft
8	A-17649	Right Cover Assembly
9	01-11815	Ball Guide
10	* A-17838	Stud Plate Assembly (5)
11	01-11816	Ball Guide
12	01-12171	Ball Guide
13	A-17647	Light Cover Assembly
14	A-17736	Exit Ramp Assembly
15	A-17626-4	Playfield Plastic Assembly
16	A-17226-4	Stationary Target, Red
17	03-8947	Upper Playfield Window
18	A-17813-1	Rollover Switch Assembly
19	A-17403	Upper Right Exit Assembly
20	A-17462	Upper Level Ramp Assembly
21	A-17817	Light & Bracket Assembly
22	A-17813	Rollover Switch Assembly
23	A-17738	Opto Bracket Assembly
24	A-17737	Opto Bracket Assembly
25	A-17769	Upper Ramp Deflector Assy.
26	02-4765-6	Mounting Post 3.13"
27	A-17180	Ball Popper Assembly
28	01-12460	Cover, Left Ball Popper
29	02-4176-30	Standoff 1 7/8"
30	02-4176-54	Standoff 3 3/16"
31	02-4176-54	Standoff 3 3/16"
32	02-4968-1	Standoff 2.94"
33	01-11818	Ball Guide
34	02-4176-30	Standoff 1 7/8"
35	02-4765-8	Mounting Post 4.31"
36	01-12133	Bracket, Left Drop Ramp
37	01-11160	Ball Deflector Bracket
38	A-17797-2	Special Ball Gate Assembly
39	A-17796	Ball Gate Actuator Assembly
40	A-17797-1	Special Ball Gate Assembly
41	A-17796	Ball Gate Actuator Assembly
42	01-12387	Ball Guide
43	03-8318-16	Light Hood, Yellow
44	01-11921	Ramp, Left Ball Popper
45	A-9415-2	Jet Bumper Coil Assembly
46	B-9414-3	Jet Bumper Assembly
47	B-12030-2	Jet Bumper Switch Assembly
48	03-8254-10	Jet Bumper Cap, Blue
49	A-17626-7	Playfield Plastic Assembly
50	12-6466-5	Ball Guide Wire 1 1/4"
51	01-11973	Ramp, Right Ball Popper
52	A-17258	Ball Popper Assembly
53	A-17129	Back Rail Assembly
54	A-17401	Back Panel Assembly
55	A-17777	Guide Ramp Assembly
56	A-17536	Opto Bracket Assembly
57	02-4765-6	Mounting Post 3.13"
58	01-11817	Ball Guide
59	02-4968-1	Standoff 2.94"
60	A-17626-3	Playfield Plastic Assembly
61	* A-17505	Center Ball Lock Assembly
62	01-12329	Ball Guide
63	* A-17774	Kicker Coil Assembly
64	02-4765-7	Mounting Post 3.44"
65	A-17626-1	Playfield Plastic Assembly
66	01-12330	Ball Guide
67	A-17895	Wheel Ring Assembly
68	A-17145	Rotating Plate Assembly

58	A-17639	Decal Ring Cover Assembly
59	* A-17623	Wheel Motor Assembly
60	A-17783	Target & Cable Assembly
61	A-17402	Wheel Drop Guide Assembly
62	A-17626-5	Playfield Plastic Assembly
63	02-4765-7	Mounting Post 3.44"
64	* 01-12214	Post Adjustment Plate
65	A-17339	Gate Assembly
66	A-17801	Kicker Count Switch Assembly
67	A-17811	Slingshot Kicker Assembly
68	A-17809-1	Coil & Bracket Assembly
69	A-14525	Kicker Assembly
70	01-9211	Playfield Hanger Bracket
71	A-17626-8	Playfield Plastic Assembly
72	01-12296	Ball Guide
73	A-17577-2	Flipper Guide & Plastic Assy.
74	01-11806	Right Playfield Rail
75	A-15849-R-2	Flipper Assembly Complete
76	20-9734-5	Flipper & Shaft Assembly
77	A-15849-L-2	Flipper Assembly Complete
78	20-9734-5	Flipper & Shaft Assembly
79	A-16765	Outsole Ball Trough Assy.
80	01-12448	Ball Guide
81	A-17577-1	Flipper Guide & Plastic Assy.
82	02-4436-25	Standoff 1 9/16"
83	A-17811	Slingshot Kicker Assembly
84	A-17809	Coil & Bracket Assembly
85	01-12166	Ramp Ball Deflector
86	01-11805	Left Playfield Rail
87	* 01-9510	Post Adjustment Plate
88	A-17906	Switch Assembly
89	02-4968-1	Standoff 2.94"
90	12-7183	Ball Guide Wire
91	A-17626-2	Playfield Plastic Assembly
92	A-17251	Coil & Bracket Assembly
93	* 02-4724	Entry Ramp Rollover
94	* 12-6227	Hair Pin Clip
95	A-17560	5 Position Kicker Assembly
96	01-11814	Ball Guide
97	02-4903	Mounting Post
98	01-12305	Ball Guide
99	02-12417	Ball Guide
100	01-12461	Cover Bracket
101	02-4020	Support Post (8)

\* Located Under Playfield.

## UPPER PLAYFIELD PARTS LOCATIONS



## RUBBER PARTS

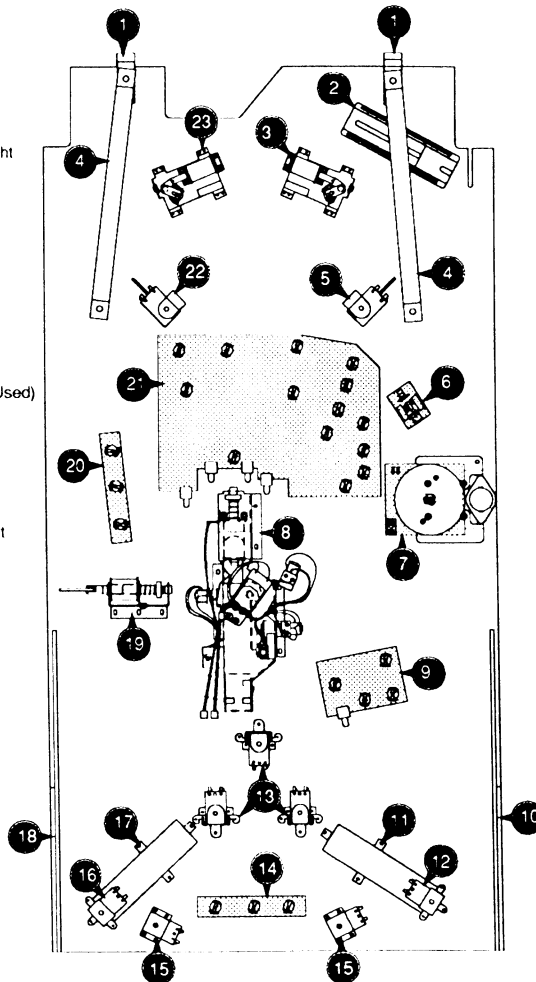
### LOWER PLAYFIELD PARTS

#### Item Part Number Description

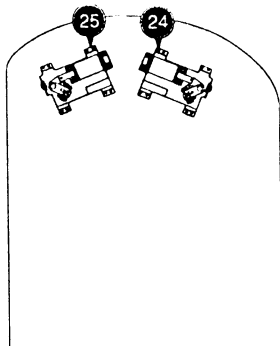
1. 01-9211 Pfl'd. Hanger Bracket (2 Used)
2. A-16765 Outhole Ball Trough Assembly
3. A-15849-R-2 Flipper Assembly, Lwr. Right
4. 01-11781 Leg Support (2 Used)
5. A-17811 Kicker Arm (Slingshot) Assy., Right
- A-17809 Coil & Bracket Assembly
- 10-128 Spring
6. A-15542 Motor EMI Assembly
7. A-17623 Wheel Motor Assembly
8. A-17505 Center Ball Lock Assembly
9. A-17600 5-Lamp PC Board Assy.
10. A-17749-2 Pfl'd. Slide Mechanism, Right
11. 01-11973 Right Ramp-Ball Popper
12. A-17258 Ball Popper Assembly
13. A-9415-2 Jet Bumper Coil Assembly
14. A-17624 3-Lamp PC Board Assy.
15. A-17796 Ball Gate Actuator Assembly (2 Used)
16. A-17180 Popper Assembly - Left
17. 01-11921 Left Ramp-Ball Popper
18. A-17749-1 Pfl'd. Slide Mechanism, Left
19. A-17251 Coil & Bracket Assembly
20. A-17603 3-Lamp PC Board Assy.
21. A-17602 18-Lamp PC Board Assy.
22. A-17811 Kicker Arm (Slingshot) Assy., Left
- A-17809-1 Coil & Bracket Assembly
- 10-128 Spring
23. A-15849-L-2 Flipper Assembly, Lwr. Left

#### Lower Playfield Parts on Mini-Playfield:

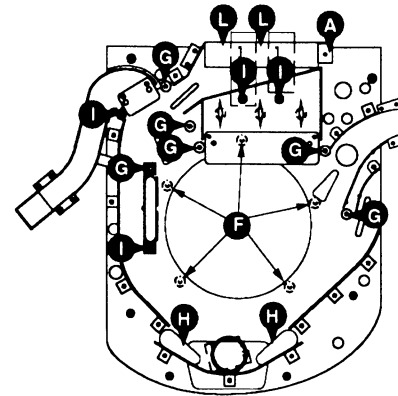
24. A-16976-R Flipper Assembly, Right
25. A-16976-L-1 Flipper Assembly, Left



Underside of Playfield, Viewed in Raised Position

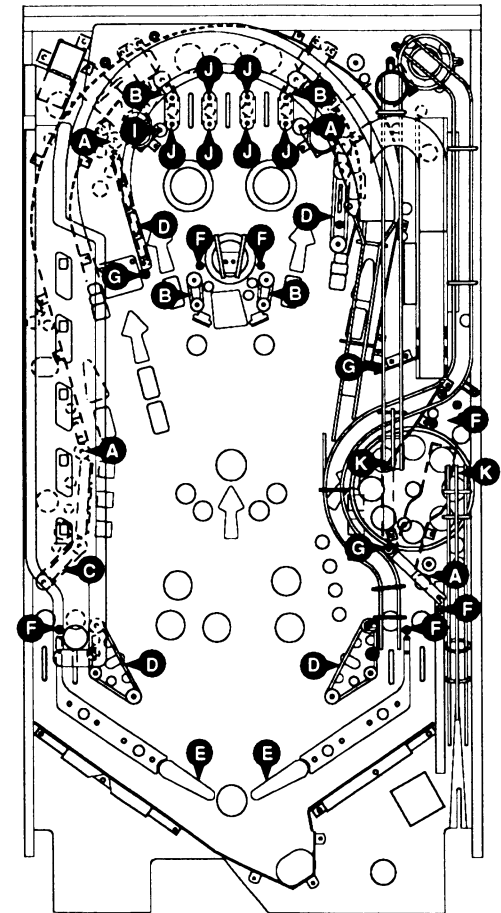


Underside of Mini-Playfield



#### ITEM PART# DESCRIPTION QTY.

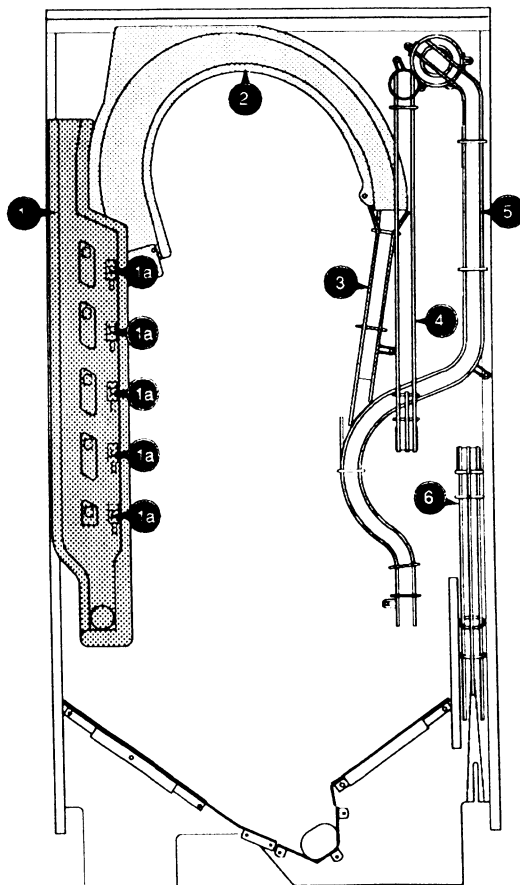
- |    |           |                    |    |
|----|-----------|--------------------|----|
| A. | 23-6300   | 5/16" Ring         | 5  |
| B. | 23-6301   | 3/4" Ring          | 4  |
| C. | 23-6303   | 1 1/4" Ring        | 1  |
| D. | 23-6306   | 2 1/2" Ring        | 4  |
| E. | 23-6519-4 | Flipper Ring-Red   | 2  |
| F. | 23-6535   | Grommet            | 13 |
| G. | 23-6552   | Yellow Sleeve      | 9  |
| H. | 23-6553-4 | Small Flipper Ring | 2  |
| I. | 23-6556   | Black Sleeve       | 5  |
| J. | 23-6641-1 | 15/64" Ring        | 6  |
| K. | 23-6686   | Bumper Pad         | 2  |
| L. | 23-6702   | Bumper Plug        | 2  |



## RAMPS

### Item Part Number Description

1. A-17404 Main Ramp Assembly
- a) A-17906 U-Switch Subminiature Assy.
2. A-17177 Ramp Assembly
3. 12-7184 Wire Ramp - Center
4. A-17406 Wheel Feeder Wire Ramp Assy.
5. 12-7132 Ramp, Right
6. A-17405 Wire Ramp Chute Assembly



## FUSE LIST

### Fliptronic II Controller Board

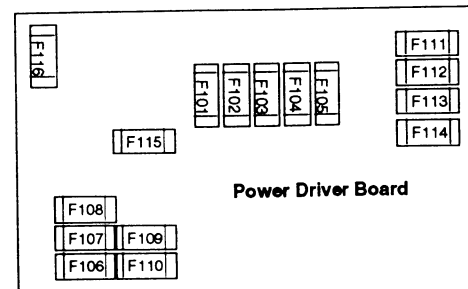
F901	F903
F902	F904

### Audio Board

F501
F502

### Dot Matrix Controller Board

F602
F601



### Audio Board

F501	-25V Circuit	3A, 250V, S.B.
F502	+25V Circuit	3A, 250V, S.B.

### Dot Matrix Controller Board

F601	+62V Circuit	3/8A, 250V, F.B.
F602	-113V and -125V Circuits	3/8A, 250V, F.B.

### Power Driver Board

F101	Left Flipper	3A, 250V, S.B. (Not Used)
F102	Right Flipper	3A, 250V, S.B. (Not Used)
F103	Solenoid #25-#28	3A, 250V, S.B.
F104	Solenoid #9-#16	3A, 250V, S.B.
F105	Solenoid #1-#8	3A, 250V, S.B.
F106	G.I. #5 Wht-Vio	5A, 250V, S.B.
F107	G.I. #4 Wht-Grn	5A, 250V, S.B.
F108	G.I. #3 Wht-Yel	5A, 250V, S.B.

### Fliptronic II Controller Board

F901	Upper Right Flipper	3A, 250V, S.B.
F902	Upper Left Flipper	3A, 250V, S.B.
F903	Lower Right Flipper	3A, 250V, S.B.
F904	Lower Left Flipper	3A, 250V, S.B.

### Line Filter

Domestic Game	8A
Foreign Game	5A, S.B.

F109	G.I. #2 Wht-Org	5A, 250V, S.B.
F110	G.I. #1 Wht-Brn	5A, 250V, S.B.
F111	Flasher Secondary	5A, 250V, S.B.
F112	Solenoid Secondary	7A, 250V, S.B.
F113	+5V Logic	5A, 250V, S.B.
F114	+18V Lamp Matrix	8A, 32V, N.B.
F115	+12V Switch Matrix	3/4A, 250V, F.B.
F116	+12V Secondary	3A, 250V, S.B.



## **WARNINGS & NOTICES**

### **WARNING**

**FOR SAFETY AND RELIABILITY**, substitute parts and equipment modifications are not recommended. Use of Non-BALLY parts or modifications of game circuitry, may adversely affect game play, or may cause injuries.

**SUBSTITUTE PART OR EQUIPMENT MODIFICATIONS** may void FCC Type Acceptance.

**BECAUSE THIS GAME IS PROTECTED** by Federal copyright, trademark, and patent laws, unauthorized game conversions may be illegal under Federal law.

**THIS 'CONVERSION' PRINCIPLE ALSO APPLIES** to unauthorized facsimiles of BALLY equipment, logos, designs, publications, assemblies and games (or game feature not deemed to be public domain), whether manufactured with BALLY components or not.

### **Notice**

MIDWAY® is a registered trademark of Midway Manufacturing Company. POPEYE™ and BALLY® are trademarks used by Midway with permission. WILLIAMS, Lane-change and Multi-ball are trademarks of WILLIAMS Electronics Games, Inc. Entire contents of this manual ©1993 MIDWAY MANUFACTURING COMPANY, manufacturers of BALLY Amusement Games. All rights reserved.

### **WARNING**

**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generated, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### **RF Interference Notice**

CABLE HARNESS PLACEMENTS and ground strap routing on this game have been designed to keep RF radiation and conduction within levels accepted by the FCC Rules.

TO MAINTAIN THESE LEVELS, reposition harnesses and reconnect ground straps to their original placements, if they become disconnected during maintenance.

**FCC STICKER.** Check the back of your game to verify that an FCC-certification sticker was attached to your game at the factory. All Games that leave the BALLY plant have been tested and found to comply with FCC Rules. Because the sticker is proof of this fact, legal repercussions to the owner and distributor may result, if the sticker is missing. If you receive a game, manufactured after December 1982, that has no FCC sticker, call BALLY for advice or write us a note on your Game Registration Card. Be sure that the card bears your game's serial number.

**FOR SERVICE...**  
CALL your authorized  
BALLY Distributor

**MIDWAY Manufacturing Company**  
3401 N. California  
Chicago, IL 60618

©1993 Midway Manufacturing Company

The Popeye Family of Characters™  
©1993 King Features Syndicate, Inc.  
Used by Permission.

**CAUTION: Transport this game ONLY  
with hinged backbox DOWN!**