

Model # 512

FUSE LIST

Power Supply Board D-8345			Sound Board D-8223 (Type-2)		
F1	100V Display Power Input	0.25A, 250V, SB	F1	Power Input	4A, 250V, SB
F2	Solenoids	2.5A, 250V, SB	F2	Power Input	4A, 250V, SB
F3	Controlled lamps 18V	8A, 250V, SB	Back Box		
F4	Flippers	10A, 250V SB	BR1	Bridge Rectifier 18V	8A, 250V, SB
F5	5V & 12V Logic Power Input	7A, 250V, SB	BR2	Bridge Rectifier 34V	8A, 250V, SB
F6	5V & 12V Logic Power Input	7A, 250V, SB	Line Filter		
F7	General Illumination	20A, 250V	Foreign	(220-230V)	4A, 250V, SB
			Domestic	(110-120V)	8A, 250V, SB



SOLENOID/FLASHER TABLE

Sol. No.	Function	Solenoid Type	Wire Color ¹	Connections		Driver Transistor	Solenoid Part Number
				Driver Board	Playfield / Cabinet		
1	Outhole Eject (Upper Playfield)	Controlled	Gry-Brn	2J11-4	8P3-1	Q15	SG1-23-850-DC
2	Outhole Eject (Lower Playfield)	Controlled	Gry-Red	2J11-5	8P3-2	Q17	SG1-23-850-DC
3	Ramp Chamber	Controlled	Gry-Orn	2J11-7	8P3-3	Q19	SG1-23-850-DC
4	Rear Panel Lightning Bolt (Top)	Controlled	Gry-Yel	2J11-8	8P3-4	Q21	Flash lamps
5	Rear Panel Lightning Bolt (Middle)	Controlled	Gry-Grn	2J11-9	8P3-5	Q23	Flash lamps
6	Rear Panel Lightning Bolt (Bottom)	Controlled	Gry-Blu	2J11-3	8P3-6	Q25	Flash lamps
7	Not Used	Controlled	Gry-Vio	2J11-2	8P3-7	Q27	
8	Not Used	Controlled	Gry-Blk	2J11-1	8P3-8	Q29	
9	Not Used	Controlled	Brn-Blk	2J9-9	8P3-9	Q31	
10	General Illumination (Upper Playfield)	Controlled	Brn-Red	2J9-7	8P3-10	Q33	5580-09613-00
11	General Illumination (Cabinet)	Controlled	Brn-Orn	2J9-1	3P7-1	Q35	5580-09555-00 ³
12	General Illumination (Lower Playfield)	Controlled	Brn-Yel	2J9-2	8P3-12	Q37	5580-09613-00
13	Upper/Lower Flipper Select	Controlled	Brn-Grn	2J9-3	8P3-13	Q39	5580-09613-00
14	Upper/Lower Flipper Select	Controlled	Brn-Blu	2J9-4	8P3-14	Q41	5580-09613-00
15	Not Used	Controlled	Brn-Vio	2J9-5	7P1-17	Q43	
16	Coin Lockout Coil	Controlled	Brn-Gry	2J9-6	7P1-18, 7P2-4	Q45	904218-696
17	Jet Bumper	Special #1	Blu-Brn	2J12-7	8P3-17	Q2	SG-23-850-DC
		Sp. Switch #1	Orn-Brn	2J13-5	8P3-24	IC6	
18	Right Slingshot	Special #2	Blu-Red	2J12-4	8P3-18	Q4	SA-23-850-DC
		Sp. Switch #2	Orn-Red	2J13-3	8P3-25	IC6	
19	Not Used	Special #3	Blu-Orn	2J12-3	8P3-19	Q6	
		Sp. Switch #3	Orn-Blk	2J13-2	8P3-26	IC6	
20	Not Used	Special #4	Blu-Yel	2J12-6	8P3-20	Q8	
		Sp. Switch #4	Orn-Yel	2J13-4	8P3-27	IC6	
21	Not Used	Special #5	Blu-Grn	2J12-8	8P3-21	Q10	
		Sp. Switch #5	Orn-Grn	2J13-8	8P3-28	IC7	
22	Not Used	Special #6	Blu-Blk	2J12-9	8P3-22	Q12	
		Sp. Switch #6	Orn-Blu	2J13-5	8P3-29	IC7	
Flipper Circuits							
	Left Flipper (Lower Playfield)	Flipper	Wht-Brn	Upper Playfield	8P5-18		SFL-22-400 / 30-1000-DC
	Right Flipper (Lower Playfield)	Flipper	Wht-Orn	Upper Playfield	8P5-19		SFL-22-400 / 30-1000-DC
	Left Flipper (Upper Playfield)	Flipper	Orn-Gry	2P12-2	7P1-9		SFL-19-400 / 30-750-DC
	Left Flipper switch ²	Switch	Blu-Gry	7J1-10	8P2-5		
	Right Flipper	Flipper	Orn-Vio	2P12-1	7P1-7		SFL-19-400 / 30-750-DC
	Right Flipper switch ²	Switch	Blu-Vio	7J1-8	8P2-4		
Notes:							
1. Wire colors, except flipper Orn-Vio and Orn-Gry, are ground connections (to coil terminal with unbanded end of diode).							
Flipper Orn-Vio and Orn-Gry wires connect from CPU Board to flipper button switch on cabinet.							
2. Flipper connections are from flipper button switch to flipper coil.							
3. Relay is mounted on Power Supply Board D-8345 in the backbox.							

LAMP MATRIX

Column Row	Red ← Yellow (B+) →							
	1 Yel-Brn 2J5-8 Q63	2 Yel-Red 2J5-9 Q65	3 Yel-Orn 2J5-6 Q67	4 Yel-Blk 2J5-7 Q69	5 Yel-Grn 2J5-3 Q71	6 Yel-Blu 2J5-5 Q73	7 Yel-Vio 2J5-1 Q75	8 Yel-Gry 2J5-2 Q77
1 Red-Brn 2J7-1 Q47	Shoot Again (Backbox) 1	2X Bonus Multiplier Lower Playfield 9	6 Target Lower Playfield 17	2 Target 25	2X Bonus Multiplier 33	A Lane 41	Ramp Chamber Lane 5,000 49	Spinner Ramp 57
2 Red-Blk 2J7-2 Q49	Ball in Play 2	3X Bonus Multiplier Lower Playfield 10	7 Target Lower Playfield 18	1 Target 26	3X Bonus Multiplier 34	V Lane 42	Ramp Chamber Lane 10,000 50	Ramp Chamber Lane 58
3 Red-Orn 2J7-3 Q51	Tilt 3	4X Bonus Multiplier Lower Playfield 11	8 Target Lower Playfield 19	Extra Ball 27	5X Bonus Multiplier 35	R Return Lane 43	Ramp Chamber Lane 15,000 51	Spinner Ramp 59
4 Red-Yel 2J7-4 Q53	Game Over 4	5X Bonus Multiplier Lower Playfield 12	9 Target Lower Playfield 20	1,000 Bonus 28	10X Bonus Multiplier 36	K 44	Ramp Chamber Lane 20,000 52	Spinner Ramp 60
5 Red-Grn 2J7-5 Q55	Match 5	20K Bonus Lower Playfield 13	10 Target Lower Playfield 21	2,000 Bonus 29	Jet Bumper 30 37	O 45	Jet Bumper 53	Spinner Ramp (Nearest Spinner) 61
6 Red-Blu 2J7-6 Q57	Not Used 6	40K Bonus Lower Playfield 14	5 Target 22	4,000 Bonus 30	Jet Bumper 300 38	N 46	Spinner Ramp (Nearest Spinner) 54	Extra Ball 25,000 62
7 Red-Vio 2J7-9	B Arrow Lower Playfield	60K Bonus Lower Playfield	4 Target	8,000 Bonus	Jet Bumper 3000	Spinner 1000	Spinner Ramp	Left EYE Special Lower Playfield
8 Red-Gry 2J7-8 Q59	A Arrow Lower Playfield 8	80K Bonus Lower Playfield 16	3 Target 24	16,000 Bonus 32	1-Player Start Button (Front Panel) 40	2-Player Start Button (Front Panel) 48	Spinner Ramp 56	Right EYE Special Lower Playfield 64

SWITCH MATRIX

Column Row	White → Green ←							
	1 Grn-Brn 2J2-9 IC17	2 Grn-Red 2J2-8 IC17	3 Grn-Orn 2J2-7 IC17	4 Grn-Yel 2J2-6 IC17	5 Grn-Blk 2J2-5 IC18	6 Grn-Blu 2J2-3 IC18	7 Grn-Vio 2J2-2 IC18	8 Grn-Gry 2J2-1 IC18
1 Wht-Brn 2J3-9 IC15	Plumb Bob Tilt 1	2-Player Start Button 9	8 Target 17	Bull's-Eye Target 25	Jet Bumper 33	Right Slingshot 41	Not Used 49	Not Used 57
2 Wht-Red 2J3-8 IC15	Not Used 2	Outhole 10	9 Target 18	A Lane 26	Ramp Chamber 34	Not Used 42	Not Used 50	Not Used 58
3 Wht-Orn 2J3-7 IC15	1-Player Start Button 3	Not Used 11	10 Target 19	V Lane 27	Outhole 35	Not Used 43	Not Used 51	Not Used 59
4 Wht-Yel 2J3-6 IC15	Right Coin Chute 4	Not Used 12	5 Target 20	R Return Lane 28	Top Left Rebounce 36	Not Used 44	Not Used 52	Not Used 60
5 Wht-Grn 2J3-5 IC16	Center Coin Chute 5	B Target 13	4 Target 21	K Target 29	Bottom Left Rebounce 37	Not Used 45	Not Used 53	Not Used 61
6 Wht-Blu 2J3-4 IC16	Left Coin Chute 6	A Target 14	3 Target 22	O Target 30	Center Left Rebounce 38	Not Used 46	Not Used 54	Not Used 62
7 Wht-Vio 2J3-3 IC16	Slam Tilt 7	6 Target 15	2 Target 23	N Target 31	Right Lane Change 39	Not Used 47	Not Used 55	Not Used 63
8 Wht-Gry 2J3-1 IC16	High Score Reset 8	7 Target 16	1 Target 24	Spinner 32	Left Lane Change 40	Not Used 48	Not Used 56	Not Used 64
Lower Level Playfield				Upper Level Playfield				