

Model # 520

FUSE LIST

Power Supply Board D-8345		Back Box fuses		
F1	100V Display Power Input	0.25A, 250V, SB	F1	General Illumination (Violet) 5A, 250V, SB
F2	Solenoids	2.5A, 250V, SB	F2	General Illumination (Yellow) 5A, 250V, SB
F3	Controlled lamps 18V	8A, 250V, SB	F3	General Illumination (Brown) 5A, 250V, SB
F4	Flippers	Not used	F4	General Illumination (Green) 5A, 250V, SB
F5	5V & 12V Logic Power Input	7A, 250V, SB	BR1	Bridge Rectifier 18V 8A, 250V, SB
F6	5V & 12V Logic Power Input	7A, 250V, SB	BR2	Bridge Rectifier 34V 8A, 250V, SB
F7	General Illumination	Jumper Wire	Under Playfield Fuses	
Flipper Power Supply Board C-9939				
F2	Flipper Power	5A, 250V, SB		
Sound Board D-8223 (Type-2)			Line Filter	
F1	Power Input	4A, 250V, SB	Foreign	(220-230V) 4A, 250V, SB
F2	Power Input	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	Controlled	Gry-Brn	2J11-4	8P3-1	Q15	SA-23-850-DC
2	Drop Target 1	Controlled	Gry-Red	2J11-5	8P3-2	Q17	SA5-24-750-DC
3	Drop Target 2	Controlled	Gry-Orn	2J11-7	8P3-3	Q19	SA5-24-750-DC
4	Drop Target 3	Controlled	Gry-Yel	2J11-8	8P3-4	Q21	SA5-24-750-DC
5	Drop Target 4	Controlled	Gry-Grn	2J11-9	8P3-5	Q23	SA5-24-750-DC
6	Drop Target 5	Controlled	Gry-Blu	2J11-3	8P3-6	Q25	SA5-24-750-DC
7	Drop Target Reset	Controlled	Gry-Vio	2J11-2	8P3-7	Q27	SA6-24-750-DC
8	Not Used	Controlled	Gry-Blk	2J11-1	8P3-8	Q29	
9	Not Used	Controlled	Brn-Blk	2J9-9	8P3-9	Q31	
10	Not Used	Controlled	Brn-Red	2J9-7	8P3-10	Q33	
11	General Illumination Relay	Controlled	Brn-Orn	2J9-1	3P7-1	Q35	5580-09555-00 ³
12	Not Used	Controlled	Brn-Yel	2J9-2	8P3-12	Q37	
13	Not Used	Controlled	Brn-Grn	2J9-3	8P3-13	Q39	
14	Bell	Controlled	Brn-Blu	2J9-4	8P3-14	Q41	SM-29-1000-DC
15	Knocker	Controlled	Brn-Vio	2J9-5	7P1-17	Q43	SA2-23-850-DC
16	Coin Lockout Coil	Controlled	Brn-Gry	2J9-6	7P1-18, 7P2-4	Q45	904218-696
17	Left Slingshot	Special #1	Blu-Brn	2J12-7	8P3-17	Q2	SG1-23-850-DC
		Sp. Switch #1	Orn-Brn	2J13-5	8P3-24	IC6	
18	Lower Jet Bumper	Special #2	Blu-Red	2J12-4	8P3-18	Q4	SG1-23-850-DC
		Sp. Switch #2	Orn-Red	2J13-3	8P3-25	IC6	
19	Right Jet Bumper	Special #3	Blu-Orn	2J12-3	8P3-19	Q6	SG1-23-850-DC
		Sp. Switch #3	Orn-Blk	2J13-2	8P3-26	IC6	
20	Upper Left Jet Bumper	Special #4	Blu-Yel	2J12-6	8P3-20	Q8	SG1-23-850-DC
		Sp. Switch #4	Orn-Yel	2J13-4	8P3-27	IC6	
21	Not Used	Special #5	Blu-Grn	2J12-8	8P3-21	Q10	SG1-23-850-DC
		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							
	Right Flipper	Flipper	Blu-Vio	7P1-8	8P3-34		FL24-600 / 30-2600-50VDC
	Right Flipper switch ²	Switch	Orn-Vio	2P12-1	7P1-7		
	Left Flipper	Flipper	Blu-Gry	7J1-10	8P3-32		FL24-600 / 30-2600-50VDC
	Left Flipper switch ²	Switch	Orn-Gry	2P12-2	7P1-9		

Notes:

- 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.
- Flipper connections are from flipper button switch to flipper coil.
- 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	Game Over 1	X2 9	1st Rack 17	C Target 25	1 Ball 33	9 Ball 41	6-Ball 10K 49	CUE Targets 10K 57
2 Red-Blk 2J7-2 Q49	Match 2	X3 10	2nd Rack 18	U Target 26	2 Ball 34	10 Ball 42	6-Ball 20K 50	CUE Targets 20K 58
3 Red-Orn 2J7-3 Q51	Tilt 3	X4 11	3rd Rack 19	E Target 27	3 Ball 35	11 Ball 43	6-Ball 30K 51	CUE Targets 30K 59
4 Red-Yel 2J7-4 Q53	High Score 4	X5 12	B Target 20	P Lane 28	4 Ball 36	12 Ball 44	6-Ball 50K 52	CUE Targets 50K 60
5 Red-Grn 2J7-5 Q55	Ball in Play 5	X7 13	A Target 21	O Lane 29	5 Ball 37	13 Ball 45	7-Ball 10K 53	8-Ball 20K 61
6 Red-Blu 2J7-6 Q57	Shoot Again (Backbox) 6	X10 14	L Target 22	O Lane 30	6 Ball 38	14 Ball 46	7-Ball 20K 54	8-Ball 40K 62
7 Red-Vio 2J7-9 Q61	Left Special 7	X15 15	L Target 23	L Lane 31	7 Ball 39	15 Ball 47	7-Ball 30K 55	8-Ball 60K 63
8 Red-Gry 2J7-8 Q59	Right Special 8	X20 16	Spinner 24	Top Extra Ball Arrow 32	8 Ball 40	Shoot Again (Playfield) 48	7-Ball 50K 56	8-Ball 100K 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	Outhole 9	Upper Left Jet Bumper 17	C 25	1 33	Left Slingshot 41	Not Used 49	Not Used 57
2 Wht-Red 2J3-8 IC15	Ball Roll Tilt 2	Flipper Return 10	Upper Right Jet Bumper 18	U 26	2 34	Lower Right Rebound 10-Points 42	Not Used 50	Not Used 58
3 Wht-Orn 2J3-7 IC15	Credit Button 3	Left Special 11	Lower Jet Bumper 19	E 27	3 35	Lane Change 43	Not Used 51	Not Used 59
4 Wht-Yel 2J3-6 IC15	Left Coin Chute 4	Right Special 12	B 20	P 28	4 36	Not Used 44	Not Used 52	Not Used 60
5 Wht-Grn 2J3-5 IC16	Center Coin Chute 5	Not Used 13	A 21	O 29	5 37	Not Used 45	Not Used 53	Not Used 61
6 Wht-Blu 2J3-4 IC16	Right Coin Chute 6	Not Used 14	L 22	O 30	6 38	Not Used 46	Not Used 54	Not Used 62
7 Wht-Vio 2J3-3 IC16	Slam Tilt 7	Right Rebound 50-Points 15	L 23	L 31	7 39	Not Used 47	Not Used 55	Not Used 63
8 Wht-Gry 2J3-1 IC16	High Score Reset 8	Upper Right Rebound 50-Points 16	Spinner 24	Playfield Tilt 32	8 40	Not Used 48	Not Used 56	Not Used 64