

Model # 521
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	SG1-23-850-DC
2	Ball Release	Controlled	Gry-Red	2J11-5	8P3-2	Q17	SA3-23-850-DC
3	Eject Hole	Controlled	Gry-Orn	2J11-7	8P3-3	Q19	SG1-23-850-DC
4	Orbit Complete Flash Lamps	Controlled	Gry-Yel	2J11-8	8P3-4	Q21	Lamp #83
5	Not Used	Controlled	Gry-Grn	2J11-9	8P3-5	Q23	
6	Not Used	Controlled	Gry-Blu	2J11-3	8P3-6	Q25	
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	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	Not Used	Controlled	Brn-Blu	2J9-4	8P3-14	Q41	
15	Bell	Controlled	Brn-Vio	2J9-5	7P1-17	Q43	SM-29-1000-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	Right Slingshot	Special #2	Blu-Red	2J12-4	8P3-18	Q4	SG1-23-850-DC
		Sp. Switch #2	Orn-Red	2J13-3	8P3-25	IC6	
19	Lower Left 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 Right 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	Upper Left Jet Bumper	Special #5	Blu-Grn	2J12-8	8P3-21	Q10	SG1-23-850-DC
		Sp. Switch #5	Orn-Grn	2J13-8	8P3-28	IC7	
22	Lower Right Jet Bumper	Special #6	Blu-Blk	2J12-9	8P3-22	Q12	SG1-23-850-DC
		Sp. Switch #6	Orn-Blu	2J13-5	8P3-29	IC7	
Flipper Circuits							
	Right Flipper	Flipper	Blu-Vio	7P1-8	8P3-34		SFL19-400 / 30-750-DC
	Right Flipper switch ²	Switch	Orn-Vio	2P12-1	7P1-7		
	Left Flipper	Flipper	Blu-Gry	7J1-10	8P3-32		SFL19-400 / 30-750-DC
	Left Flipper switch ²	Switch	Orn-Gry	2P12-2	7P1-9		
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.							

Column Row	LAMP MATRIX							
	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	1,000 Bonus 9	9,000 Bonus 17	F 25	R 33	Lower Left Jet Bumper 41	2X 49	Release Target 100K 57
2 Red-Blk 2J7-2 Q49	Match 2	2,000 Bonus 10	10,000 Bonus 18	I 26	A 34	Upper Right Jet Bumper 42	3X 50	Release Target 150K 58
3 Red-Orn 2J7-3 Q51	Tilt 3	3,000 Bonus 11	20,000 Bonus 19	R 27	B 35	Upper Left Jet Bumper 43	5X 51	Release Arrow 59
4 Red-Yel 2J7-4 Q53	High Score 4	4,000 Bonus 12	40,000 Bonus 20	E 28	C 36	Lower Right Jet Bumper 44	Eject Hole 10K 52	Spinner 60
5 Red-Grn 2J7-5 Q55	Shoot Again (Backbox) 5	5,000 Bonus 13	60,000 Bonus 21	P 29	D 37	Left Flipper Return Lane 45	Eject Hole 20K 53	Not Used 61
6 Red-Blu 2J7-6 Q57	Shoot Again (Playfield) 6	6,000 Bonus 14	80,000 Bonus 22	O 30	Left Outlane Special 38	Right Flipper Return Lane 46	Eject Hole 50K 54	Not Used 62
7 Red-Vio 2J7-9 Q61	Double Score 7	7,000 Bonus 15	Bonus Holdover 23	W 31	Right Outlane Special 39	Mystery 47	Eject Hole Lock Arrow 55	Not Used 63
8 Red-Gry 2J7-8 Q59	Bonus Holdover Arrow 8	8,000 Bonus 16	Fire Power Special 24	E 32	Ball in Play 40	Extra Ball 48	Release Target 50K 56	Not Used 64

Column Row	SWITCH MATRIX							
	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	Rebounce 100 Points 17	F Target 25	R Target 33	Lower Left Jet Bumper 41	Playfield Tilt 49	Not Used 57
2 Wht-Red 2J3-8 IC15	Ball Roll Tilt 2	Right Ball Trough 10	Spinner 18	I Target 26	A Rollover 34	Upper Right Jet Bumper 42	Not Used 50	Not Used 58
3 Wht-Orn 2J3-7 IC15	Credit Button 3	Left Ball Trough 11	Orbit Enter Roll Under 19	R Target 27	B Rollover 35	Upper Left Jet Bumper 43	Not Used 51	Not Used 59
4 Wht-Yel 2J3-6 IC15	Left Coin Chute 4	Ball Shooter Lane 12	Upper Left Rebounce 50 Points 20	E Target 28	C Rollover 36	Lower Right Jet Bumper 44	Not Used 52	Not Used 60
5 Wht-Grn 2J3-5 IC16	Center Coin Chute 5	Lane Change 13	Not Used 21	P Target 29	D Rollover 37	Left Flipper Return Lane 45	Not Used 53	Not Used 61
6 Wht-Blu 2J3-4 IC16	Right Coin Chute 6	Ramp Enter Roll Under 14	Upper Right Rebounce 50 Points 22	O Target 30	Left Outlane 38	Right Flipper Return Lane 46	Not Used 54	Not Used 62
7 Wht-Vio 2J3-3 IC16	Slam Tilt 7	Ramp Exit Roll Under 15	Eject Hole 23	W Target 31	Right Outlane 39	Left Slingshot 47	Not Used 55	Not Used 63
8 Wht-Gry 2J3-1 IC16	High Score Reset 8	Center Left Rebounce 100 Points 16	Release Target 24	E Target 32	Orbit Exit Roll Under 40	Right Slingshot 48	Not Used 56	Not Used 64