

Model # 502
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	Controlled	Gry-Brn	2J11-4	8P3-1	Q15	SA-23-850-DC
2	Ball Release	Controlled	Gry-Red	2J11-5	8P3-2	Q17	SG1-23-850-DC
3	Top Eject Hole	Controlled	Gry-Orn	2J11-7	8P3-3	Q19	SG1-23-850-DC
4	Bottom Eject Hole	Controlled	Gry-Yel	2J11-8	8P3-4	Q21	SG1-23-850-DC
5	Left 3-Bank Drop Target Reset	Controlled	Gry-Grn	2J11-9	8P3-5	Q23	SA3-23-850-DC
6	Bottom 3-Bank Drop Target Reset	Controlled	Gry-Blu	2J11-3	8P3-6	Q25	SA3-23-850-DC
7	Right 3-Bank Drop Target Reset	Controlled	Gry-Vio	2J11-2	8P3-7	Q27	SA3-23-850-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	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	SM-29-1000-DC
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	Left Jet Bumper	Special #3	Blu-Orn	2J12-3	8P3-19	Q6	SG-23-850-DC
		Sp. Switch #3	Orn-Blk	2J13-2	8P3-26	IC6	
20	Center Jet Bumper	Special #4	Blu-Yel	2J12-6	8P3-20	Q8	SG-23-850-DC
		Sp. Switch #4	Orn-Yel	2J13-4	8P3-27	IC6	
21	Bottom Jet Bumper	Special #5	Blu-Grn	2J12-8	8P3-21	Q10	SG-23-850-DC
		Sp. Switch #5	Orn-Grn	2J13-8	8P3-28	IC7	
22	Right Jet Bumper	Special #6	Blu-Blk	2J12-9	8P3-22	Q12	SG-23-850-DC
		Sp. Switch #6	Orn-Blu	2J13-5	8P3-29	IC7	
Flipper Circuits							
	Right Flipper	Flipper	Blu-Vio	7P1-8	8P3-34		SFL-19-400 / 30-750-DC
	Right Flipper switch ²	Switch	Orn-Vio	2P12-1	7P1-7		
	Left Flipper	Flipper	Blu-Gry	7J1-10	8P3-32		SFL-19-400 / 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.							

LAMP MATRIX									
		Red				Yellow (B+)			
Column	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	
Row									
1 Red-Brn 2J7-1 Q47	Shoot Again (Backbox) 1	X Lane 9	40K (Right Lane) 17	Top Eject Hole Lock Arrow 25	A Arrow 33	B Right 41	In Sequence (Left 3-Bank) 49	Bonus 4,000 57	
2 Red-Blk 2J7-2 Q49	Ball in Play 2	Y Lane 10	50K (Right Lane) 18	Bottom Eject Hole Lock Arrow 26	B Arrow 34	C Left 42	In Sequence (Center 3-Bank) 50	Bonus 8,000 58	
3 Red-Orn 2J7-3 Q51	Tilt 3	1 Lane 11	60K (Right Lane) 19	Bottom Eject Hole Extra Ball Arrow 27	C Arrow 35	C Center 43	In Sequence (Right 3-Bank) 51	Bonus 16,000 59	
4 Red-Yel 2J7-4 Q53	Game Over 4	2 Lane 12	2X Scoring (Right Lane) 20	Top Eject Hole (10,000) 28	A Left 36	C Right 44	20,000 Each (Left 3-Bank) 52	Bonus 32,000 60	
5 Red-Grn 2J7-5 Q55	Match 5	3 Lane 13	1-2-3 Lanes 10K 21	Top Eject Hole (20,000) 29	A Center 37	Cosmic Ball Player 1 45	20,000 Each (Center 3-Bank) 53	2X Bonus Multiplier 61	
6 Red-Blu 2J7-6 Q57	High Score 6	Advance X (Right Lane) 14	1-2-3 Lanes 20K 22	Top Eject Hole (30,000) 30	A Right 38	Cosmic Ball Player 2 46	20,000 Each (Right 3-Bank) 54	3X Bonus Multiplier 62	
7 Red-Vio 2J7-9 Q61	All All Scores 2X (Right Lane) 7	20K (Right Lane) 15	1-2-3 Lanes 40K 23	Top Eject Hole (50,000) 31	B Left 39	Cosmic Ball Player 3 47	Bonus 1,000 55	4X Bonus Multiplier 63	
8 Red-Gry 2J7-8 Q59	Cosmic Ball Timer 8	30K (Right Lane) 16	1-2-3 Lanes 80K 24	Top Eject Hole (100,000) 32	B Center 40	Cosmic Ball Player 4 48	Bonus 2,000 56	5X Bonus Multiplier 64	

SWITCH MATRIX		White				Green			
Column \ Row	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	X Rollover 9	Not Used 17	Top Eject Hole 25	A-B-C Left Standup Target 33	Left 3-Bank Center Drop Target 41	Right Flipper Lane Change 49	Not Used 57
2	Wht-Red 2J3-8 IC15	Ball Roll Tilt 2	Y Rollover 10	Right 3-Bank Rebounce 18	Lower Eject Hole 26	A-B-C Center Standup Target 34	Left 3-Bank Top Drop Target 42	Top Center Rebounce 50	Not Used 58
3	Wht-Orn 2J3-7 IC15	Credit Button 3	1 Rollover 11	Lower Right Rebounce 19	Right Ball Trough 27	A-B-C Right Standup Target 35	Center 3-Bank Left Drop Target 43	Ball Shooter Lane 51	Not Used 59
4	Wht-Yel 2J3-6 IC15	Right Coin Chute 4	2 Rollover 12	Lower Left Rebounce 20	Left Ball Trough 28	Left Slingshot 36	Center 3-Bank Center Drop Target 44	Left Flipper Lane Change 52	Not Used 60
5	Wht-Grn 2J3-5 IC16	Center Coin Chute 5	3 Rollover 13	Left Jet Bumper 21	Outhole 29	Right Slingshot 37	Center 3-Bank Right Drop Target 45	Not Used 53	Not Used 61
6	Wht-Blu 2J3-4 IC16	Left Coin Chute 6	Top Right Side Lane Rollover 14	Center Jet Bumper 22	Playfield Tilt 30	Left Flipper Return Lane 38	Right 3-Bank Bottom Drop Target 46	Not Used 54	Not Used 62
7	Wht-Vio 2J3-3 IC16	Slam Tilt 7	Top Left Rebounce 15	Right Jet Bumper 23	Left Outlane 31	Right Flipper Return Lane 39	Right 3-Bank Center Drop Target 47	Not Used 55	Not Used 63
8	Wht-Gry 2J3-1 IC16	High Score Reset 8	Top Right Rebounce 16	Bottom Jet Bumper 24	Right Outlane 32	Left 3-Bank Bottom Drop Target 40	Right 3-Bank Top Drop Target 48	Not Used 56	Not Used 64