

Model # 494

FUSE LIST

Power Supply Board D-7999			Sound Board 1C-2001-137-4 (Type-1B)		
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	Back Box		
F4	Flippers	15A, 250V SB	F1	Logic AC	4A, 250V
F5	5V Logic Power	4A, 250V	F2	Logic AC	4A, 250V
Line Filter			F3	General Illumination	20A, 250V
Foreign	(220-230V)	4A, 250V, SB	BR1	Bridge Rectifier 18V	8A, 250V, SB
Domestic	(110-120V)	8A, 250V, SB	BR2	Bridge Rectifier 34V	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	Left 5-Bank Drop Target Reset	Controlled	Gry-Red	2J11-5	8P3-2	Q17	SA3-23-850-DC
3	Right 5-Bank Drop Target Reset	Controlled	Gry-Orn	2J11-7	8P3-3	Q19	SA3-23-850-DC
4	Top Left 3-Bank Drop Target Reset	Controlled	Gry-Yel	2J11-8	8P3-4	Q21	SA3-23-850-DC
5	Top Right 3-Bank Drop Target Reset	Controlled	Gry-Grn	2J11-9	8P3-5	Q23	SA3-23-850-DC
6	Ball Release	Controlled	Gry-Blu	2J11-3	8P3-6	Q25	SG-23-850-DC
7	Left Eject Hole	Controlled	Gry-Vio	2J11-2	8P3-7	Q27	SG-23-850-DC
8	Right Eject Hole	Controlled	Gry-Blk	2J11-1	8P3-8	Q29	SG-23-850-DC
9	Sound	Controlled	Brn-Blk	2J9-9	8P3-9	Q31	
10	Sound	Controlled	Brn-Red	2J9-7	8P3-10	Q33	
11	Sound	Controlled	Brn-Orn	2J9-1	3P7-1	Q35	
12	Sound	Controlled	Brn-Yel	2J9-2	8P3-12	Q37	
13	Sound	Controlled	Brn-Grn	2J9-3	8P3-13	Q39	
14	Credit Klocker	Controlled	Brn-Blu	2J9-4	8P3-14	Q41	SA2-23-850-DC
15	General Illumination Relay	Controlled	Brn-Vio	2J9-5	7P1-17	Q43	5A-9384
16	Coin Lockout Coil	Controlled	Brn-Gry	2J9-6	7P1-18, 7P2-4	Q45	SM-35-4000-DC
17	Bottom 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	Top Jet Bumper	Special #2	Blu-Red	2J12-4	8P3-18	Q4	SG-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	SG-23-850-DC
		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	Left Slingshot	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 Slingshot	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							
	Lower Right Flipper	Flipper	Blu-Vio	7P1-8	8P3-3		SFL-19-400 / 30-750-DC
	Right Flipper switch ²	Switch	Orn-Vio	2P12-1	7P1-7		
	Upper Right Flipper	Flipper	Blk-Yel		Lower Right Flipper		SFL-19-400 / 30-750-DC
	Lower Left Flipper	Flipper	Blu-Gry	7J1-10	8P3-4		SFL-19-400 / 30-750-DC
	Left Flipper switch ²	Switch	Orn-Gry	2P12-2	7P1-9		
	Upper Left Flipper	Flipper	Blk-Blu		Lower Left Flipper		SFL-19-400 / 30-750-DC
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.							

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 (Playfield) 1	1,000 Bonus Left 9	9,000 Bonus Left 17	7,000 Bonus Right 25	2X 33	Left Timer Lamp (Backbox) 41	Right Timer Lamp (Backbox) 49	#1 Player Up 57
2 Red-Blk 2J7-2 Q49	Left & Right Double Timer Bonus 2	2,000 Bonus Left 10	10,000 Bonus Left 18	8,000 Bonus Right 26	3X 34	1 Rollover 42	1 Can Play 50	#2 Player Up 58
3 Red-Orn 2J7-3 Q51	5-Bank Lites Timer Outlanes 3	3,000 Bonus Left 11	1,000 Bonus Right 19	9,000 Bonus Right 27	5X 35	2 Rollover 43	2 Can Play 51	#3 Player Up 59
4 Red-Yel 2J7-4 Q53	Right Jet Bumper 4	4,000 Bonus Left 12	2,000 Bonus Right 20	10,000 Bonus Right 28	3-Banks Score 10,000 36	3 Rollover 44	3 Can Play 52	#4 Player Up 60
5 Red-Grn 2J7-5 Q55	Spinner & Bottom Jet Bumper 5	5,000 Bonus Left 13	3,000 Bonus Right 21	Collect Double Timer Bonus 29	3-Banks Score 20,000 37	1 Bull's-Eye 45	4 Can Play 53	Tilt 61
6 Red-Blu 2J7-6 Q57	Top Jet Bumper 6	6,000 Bonus Left 14	4,000 Bonus Right 22	Return Lane Scores Special 30	3-Banks Score 30,000 38	2 Bull's-Eye 46	Match 54	Game Over 62
7 Red-Vio 2J7-9 Q61	Left Eject Hole 7	7,000 Bonus Left 15	5,000 Bonus Right 23	Return Lane Scores 5,000 31	3-Banks Score 50,000 39	3 Bull's-Eye 47	Ball in Play (Master) 55	Shoot Again (Backbox) 63
8 Red-Gry 2J7-8 Q59	Right Eject Hole 8	8,000 Bonus Left 16	6,000 Bonus Right 24	Return Lane Scores Extra Ball 32	3-Banks Score Special 40	Ball in Play (Display 4) 48	Credits (Playfield) 56	High Score 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	Right Ball Trough 9	Right Flipper Lane Change 17	Top Left 3-Bank Left Drop Target 25	5-Bank #1 (Left) Drop Target 33	Advance Left Lower Bull's-Eye 41	Upper Right Return Lane 49	Lower Right Rebounce 57
2 Wht-Red 2J3-8 IC15	Ball Roll Tilt 2	Left Ball Trough 10	Left Center Rollover 18	Top Left 3-Bank Center Drop Target 26	5-Bank #2 Drop Target 34	Advance Right Lower Bull's-Eye 42	Upper Left Flipper Rebounce 50	Not Used 58
3 Wht-Orn 2J3-7 IC15	Credit Button 3	Left Eject Hole 11	Left Inside Rollover 19	Top Left 3-Bank Right Drop Target 27	5-Bank #3 Drop Target 35	1 Target 43	Top Left 3-Bank Rebounce 51	Not Used 59
4 Wht-Yel 2J3-6 IC15	Right Coin Chute 4	Right Eject Hole 12	Right Inside Rollover 20	Top Right 3-Bank Left Drop Target 28	5-Bank #4 Drop Target 36	2 Target 44	Top Right 3-Bank Rebounce 52	Not Used 60
5 Wht-Grn 2J3-5 IC16	Center Coin Chute 5	Playfield Tilt 13	Right Center Rollover 21	Top Right 3-Bank Center Drop Target 29	5-Bank #5 Drop Target 37	3 Target 45	Lower Top Center Rebounce 53	Not Used 61
6 Wht-Blu 2J3-4 IC16	Left Coin Chute 6	Left Outlane 14	Right Jet Bumper 22	Top Right 3-Bank Right Drop Target 30	5-Bank Drop Targets Series 38	4 Rollover 46	5-Bank Rebounce 54	Not Used 62
7 Wht-Vio 2J3-3 IC16	Slam Tilt 7	Right Outlane 15	Bottom Jet Bumper 23	Top 3-Banks Drop Targets Series 31	Left Slingshot 39	5 Rollover 47	Upper Top Center Rebounce 55	Not Used 63
8 Wht-Gry 2J3-1 IC16	High Score Reset 8	Outhole 16	Top Jet Bumper 24	Spinner 32	Right Slingshot 40	6 Rollover 48	Top Right Rebounce 56	Not Used 64