

Model # 488

FUSE LIST

Power Supply Board D-7999			Sound Board D-8066 (Type-1A)		
F1	100V Display Power Input	0.25A, 250V, SB	F1	Power Input	4A, 250V, SB
F2	Solenoids	2.5A, 250V, SB	Back Box		
F3	Controlled lamps 18V	8A, 250V	Fuse Card	General Illumination	20A, 250V
F4	Not Used		BR1	Bridge Rectifier 18V	8A, 250V, SB
F5	5V Logic Power	4A, 250V	BR2	Bridge Rectifier 34V	8A, 250V, SB
Line Filter			Under Playfield		
Foreign	(220-230V)	4A, 250V, SB	F1	Flippers	15A, 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-23-900-DC
2	Joker Target Reset	Controlled	Gry-Red	2J11-5	8P3-2	Q17	SG-23-900-DC
3	Left Jack Target Reset	Controlled	Gry-Orn	2J11-7	8P3-3	Q19	SA3-23-900-DC
4	Right Jack Target Reset	Controlled	Gry-Yel	2J11-8	8P3-4	Q21	SA3-23-900-DC
5	Top Queen Target Reset	Controlled	Gry-Grn	2J11-9	8P3-5	Q23	SA3-23-900-DC
6	Bottom Queen Target Reset	Controlled	Gry-Blu	2J11-3	8P3-6	Q25	SA3-23-900-DC
7	Pin Down	Controlled	Gry-Vio	2J11-2	8P3-7	Q27	SG-23-900-DC
8	Pin Up	Controlled	Gry-Blk	2J11-1	8P3-8	Q29	SM-29-1000-DC
9	Sound (10 Points)	Controlled	Brn-Blk	2J9-9	8P3-9	Q31	
10	Sound (100 Points)	Controlled	Brn-Red	2J9-7	8P3-10	Q33	
11	Sound (1,000 Points)	Controlled	Brn-Orn	2J9-1	3P7-1	Q35	
12	Sound (10,000 Points)	Controlled	Brn-Yel	2J9-2	8P3-12	Q37	
13	Sound (Alternator)	Controlled	Brn-Grn	2J9-3	8P3-13	Q39	
14	Credit Klocker	Controlled	Brn-Blu	2J9-4	8P3-14	Q41	SA2-23-900-DC
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	SM-35-4000-DC
17	Top Jet Bumper	Special #1	Blu-Brn	2J12-7	8P3-17	Q2	SG-23-900-DC
		Sp. Switch #1	Orn-Brn	2J13-5	8P3-24	IC6	
18	Left Jet Bumper	Special #2	Blu-Red	2J12-4	8P3-18	Q4	SG-23-900-DC
		Sp. Switch #2	Orn-Red	2J13-3	8P3-25	IC6	
19	Bottom Jet Bumper	Special #3	Blu-Orn	2J12-3	8P3-19	Q6	SG-23-900-DC
		Sp. Switch #3	Orn-Blk	2J13-2	8P3-26	IC6	
20	Left Slingshot	Special #4	Blu-Yel	2J12-6	8P3-20	Q8	SG-23-900-DC
		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	Right Slingshot	Special #6	Blu-Blk	2J12-9	8P3-22	Q12	SG-23-900-DC
		Sp. Switch #6	Orn-Blu	2J13-5	8P3-29	IC7	
Flipper Circuits							
	Lower Right Flipper	Flipper	Blu-Vio	7P1-8	8P3-3		SFL-20-300 / 30-800-DC
	Right Flipper switch ²	Switch	Orn-Vio	2P12-1	7P1-7		
	Upper Right Flipper	Flipper	Blk-Yel		Lower Right Flipper		SFL-20-300 / 30-800-DC
	Lower Left Flipper	Flipper	Blu-Gry	7J1-10	8P3-4		SFL-20-300 / 30-800-DC
	Left Flipper switch ²	Switch	Orn-Gry	2P12-2	7P1-9		
	Upper Left Flipper	Flipper	Blk-Blu		Lower Left Flipper		SFL-20-300 / 30-800-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	1		2		3		4		5		6		7		8	
	Yel-Brn 2J5-8 Q63	Yel-Red 2J5-9 Q65	Yel-Orn 2J5-6 Q67	Yel-Blk 2J5-7 Q69	Yel-Grn 2J5-3 Q71	Yel-Blu 2J5-5 Q73	Yel-Vio 2J5-1 Q75	Yel-Gry 2J5-2 Q77								
1	Red-Brn 2J7-1 Q47	Spade King 1	Spade Ace 9	P 17	2X 25	5.000 Bonus 33	4 Jacks (Two) 41	Not Used 48	#1 Player Up 57							
2	Red-Blk 2J7-2 Q49	Heart King 2	Heart Ace 10	O 18	3X 26	6.000 Bonus 34	4 Kings (Two) 42	1 Can Play 50	#2 Player Up 58							
3	Red-Orn 2J7-3 Q51	Club King 3	Club Ace 11	K 19	4X 27	7.000 Bonus 35	Special When Lit 43	2 Can Play 51	#3 Player Up 59							
4	Red-Yel 2J7-4 Q53	Diamond King 4	Diamond Ace 12	E 20	5X 28	8.000 Bonus 36	Extra Ball When Lit 44	3 Can Play 52	#4 Player Up 60							
5	Red-Grn 2J7-5 Q55	Diamond Ten 5	4 Jacks (Center) 13	R 21	1.000 Bonus 29	9.000 Bonus 37	Spinner 1,000 45	4 Can Play 53	Tilt 61							
6	Red-Blu 2J7-6 Q57	Club Ten 6	4 Queens (Two) 14	I 22	2.000 Bonus 30	Not Used 38	Left Outlane Special 46	Match 54	Game Over 62							
7	Red-Vio 2J7-9 Q61	Heart Ten 7	4 Tens 15	N 23	3.000 Bonus 31	10.000 Bonus 39	Right Outlane Special 47	Ball in Play 55	Shoot Again (Backbox) 63							
8	Red-Gry 2J7-8 Q59	Spade Ten 8	4 Aces (Two) 16	O 24	4.000 Bonus 32	20.000 Bonus 40	Shoot Again (Playfield) 48	Credits (Playfield) 56	High Score 64							

SWITCH MATRIX

Column	1		2		3		4		5		6		7		8	
	Gm-Brn 2J2-9 IC17	Gm-Red 2J2-8 IC17	Gm-Orn 2J2-7 IC17	Gm-Yel 2J2-6 IC17	Gm-Blk 2J2-5 IC18	Gm-Blu 2J2-3 IC18	Gm-Vio 2J2-2 IC18	Gm-Gry 2J2-1 IC18								
1	Wht-Brn 2J3-9 IC15	Plumb Bob Tilt 1	Top Left Lane Star Rollover 9	Diamond Queen Drop Target 17	Heart Jack Drop Target 25	Diamond Jack Drop Target 33	Ten Star Rollover 41	Not Used 49	Not Used 57							
2	Wht-Red 2J3-8 IC15	Ball Roll Tilt 2	Captive Ball Star Rollover 10	Club Queen Drop Target 18	Spade Jack Drop Target 26	Club Jack Drop Target 34	Joker Drop Target 42	Not Used 50	Not Used 58							
3	Wht-Orn 2J3-7 IC15	Credit Button 3	Top Left Rebounce 11	Heart Queen Drop Target 19	Right Outlane Special 27	Jack Drop Target Series 35	Inner Flipper 43	Not Used 51	Not Used 59							
4	Wht-Yel 2J3-6 IC15	Right Coin Chute 4	Left Slingshot 12	Spade Queen Drop Target 20	Right Slingshot 28	Spinner 36	Outer Flipper 44	Not Used 52	Not Used 60							
5	Wht-Grn 2J3-5 IC16	Center Coin Chute 5	Spade Ace Star Rollover 13	Queen Drop Target Series 21	Outhole 29	Upper Left Rebounce 37	Left Jack Drop Target Rebounce 45	Not Used 53	Not Used 61							
6	Wht-Blu 2J3-4 IC16	Left Coin Chute 6	Club Ace Star Rollover 14	Queen Drop Target Rebounce 22	Left Slingshot 30	Top Jet Bumper 38	Right Jack Drop Target Rebounce 46	Not Used 54	Not Used 62							
7	Wht-Vio 2J3-3 IC16	Slam Tilt 7	Diamond Ace Star Rollover 15	Right Center Rebounce 23	Left Outlane Special 31	Left Jet Bumper 39	Not Used 47	Not Used 55	Not Used 63							
8	Wht-Gry 2J3-1 IC16	High Score Reset 8	Top Right Lane Star Rollover 16	Playfield Tilt 24	Bottom Left Rebounce 32	Bottom Jet Bumper 40	Not Used 48	Not Used 56	Not Used 64							