

25th Anniversary

FUSE LIST

Power Supply Board 520-5047-00			Power Supply Board 520-5047-00 F1 F2 F3 F7 F4 F5 F6	CPU Board 520-5003-03
F1	5V & 12V Logic Power Input	7A, 250V, SB		
F2	5V & 12V Logic Power Input	7A, 250V, SB		
F3	Not used			
F4	18V Controlled lamps	8A, 250V, SB		
F5	34V Solenoids 1-16	4A, 250V, SB		
F6	34V Special Solenoids & Flash	5A, 250V, SB		
F7	90VAC Display Regulator	0.5A, 250V, SB		
Back Box fuses				
F1	13VAC Controlled lamps	8A, 250V, SB		
F2	25VAC Solenoids	8A, 250V, SB		
Playfield Power Board fuses 520-5021-05			F1 F2 F2 F3 F4 F6 Playfield Power Board 520-5021-05	Sound Board 520-5050-01
F1	General Illumination (Violet)	5A, 250V, SB		
F2	General Illumination (Green)	5A, 250V, SB		
F3	General Illumination (Yellow)	5A, 250V, SB		
F4	General Illumination (Brown)	5A, 250V, SB		
F5	50V Flipper Power	5A, 250V, SB		
F6	34V Flashers & Solenoids	5A, 250V, SB		
Solid State Flipper Board Fuses 520-5033-00				
F1	Coil A	3A, 250V, SB		
F2	Coil (hold power)	3A, 250V, SB		
F3	Coil B	3A, 250V, SB		
F4	Coil (hold power)	3A, 250V, SB		
Line Filter			Under the Playfield Fuses 3 fuses for the Turbo bumpers 2 fuses for the Slingshots	2.5A, 250V, SB 2.5A, 250V, SB
Foreign	(220V)	4A, 250V, SB		
Domestic	(110V)	8A, 250V, SB		

Switched, CPU Controlled Auxiliary & Constant Power Solenoids									
Coil No.	Coil or Flashlamp Description	Drive Transistor	CPU wire	CPU connection	PPB wire	PPB connection	Power Line	Power Description	Coil or Flash Type
1L	Outhole	Q46	Gry-Brn (to PPB)	CN11-1 to PPB J1-1	Vio-Brn	J2-9	Brn	34V L	23-840
1R	4 playfield flashers				Blk-Brn	J9-5	Orn	34V R	#89 (2), #906 (2)
2L	Ball Trough Eject	Q45	Gry-Red (to PPB)	CN11-3 to PPB J1-2	Vio-Red	J2-8	Brn	34V L	23-840
2R	2 ramp, 2 insert flashers				Blk-Red	J9-6	Orn	34V R	#89 (2), #906 (2)
3L	Turbo Boost Kicker (launch ball)	Q5 PPB	Gry-Orn (to PPB)	CN11-4 to PPB J1-3	Wht-Orn/Vio-Orn	J2-7 J8-1/J8-2	Yel-Vio	50V	22-600
3R	2 insert, 2 playfield flashers	Q44 CPU			Blk-Orn	J9-7	Orn	34V R	#89 (2), #906 (2)
4L	Left Drop Targets	Q43	Gry-Yel (to PPB)	CN11-5 to PPB J1-4	Vio-Yel	J2-6	Brn	34V L	23-800
4R	2 insert, 2 playfield flashers				Blk-Yel	J9-8	Orn	34V R	#89 (2), #906 (2)
5L	Ramp Up	Q42	Gry-Grn (to PPB)	CN11-6 to PPB J1-5	Vio-Grn	J2-5	Brn	34V L	23-840
5R	2 ramp, 2 insert flashers				Blk-Grn	J9-9	Orn	34V R	#89 (2), #906 (2)
6L	Ramp Down	Q2 PPB	Gry-Blu (to PPB)	CN11-7 to PPB J1-6	Wht-Blu/Vio-Blu	J2-4 J8-9/J8-10	Yel-Vio	50V	31-1800
6R	2 ramp, 2 insert flashers	Q41 CPU			Blk-Blu	J9-10	Orn	34V R	#89 (2), #906 (2)
7L	Right Drop Targets	Q40	Gry-Vio (to PPB)	CN11-8 to PPB J1-7	Vio-Blk	J2-2	Brn	34V L	23-800
7R	3 insert, 1 playfield flashers				Blk-Vio	J9-11	Orn	34V R	#89 (3), #906 (1)
8L	Knocker	Q4 PPB	Gry-Blk (to PPB)	CN11-9 to PPB J1-8	Wht-Gry/Vio-Gry	J2-1 J8-3/J8-4	Yel-Vio	50V	23-800
8R	3 insert, 1 playfield flashers	Q39 CPU			Blk-Gry	J9-12	Orn	34V R	#89 (3), #906 (1)
9	1 insert, 3 playfield flashers	Q30	Brn-Blk	CN12-1 to PPB J1-9	Brn-Blk	J9-13	Orn	34V	#89 (4)
10	L/R Power Relay	Q29	Blk-Red	CN12-2 to PPB J6-9		J6-7	Red-Wht	34V	Relay: 24VDC
11	General Illumination Relay (PSB)	Q28	Brn-Orn	CN12-4		(PSB) CN7-1	Red	34V	Relay: 24VDC
12	2 back panel, 2 playfield flashers	Q27	Brn-Yel	CN12-5 to PPB J1-10	Brn-Yel	J9-14	Red	34V	#89 (4)
13	Transporter Special Effects Motor (via relay board)	Q26	Brn-Grn	CN12-6			Red	34V	Relay: 24VDC
14	Transporter Launch (VUK)	Q3 PPB Q25 CPU	Wht-Blu	CN12-7 to PPB J8-6	Brn-Blu	J8-7	Vio-Yel	50V	23-800
15	Laser Kick	Q1 PPB Q24 CPU	Wht-Vio	CN12-8 to PPB J8-11	Brn-Vio	J8-12	Vio-Yel	50V	23-800
16	Swinging Target Motor (via relay board)	Q23	Brn-Gry	CN12-9			Red	34V	Relay: 24VDC
17	Left Turbo Bumper	Q8	Blu-Orn	CN19-3			Red	34V	23-800
18	Center Turbo Bumper	Q9	Blu-Red	CN19-4			Red	34V	23-800
19	Right Turbo Bumper	Q10	Blu-Yel	CN19-6			Red	34V	23-800
20	Left Slingshot	Q11	Blu-Brn	CN19-7			Red	34V	23-800
21	Right Slingshot	Q12	Blu-Grn	CN19-8			Red	34V	23-800
22	Gate	Q13	Blu-Blk	CN19-9			Red	34V	31-1800
Flipper Circuits (SSFB)		SSFB Drive Transistor	SSFB to coil	SSFB Connection	SSFB to Flipperswitch	SSFB Sw. Connect	SSFB Power Wire	Power Description	Coil
	Left Flipper (coil "B")	SR2, Q10-Q9	Gry-Yel	CN2-1,2	Blu-Gry	CN1-9	Blk-Wht / Blk-Wht	CN2-8,9 50VDC	23-1100 (090-5030-00)
	Right Flipper (coil "A")	SR1, Q2-Q3	Blu-Yel	CN2-4,5	Blu-Vio	CN1-1	Gry / Gry Grn	CN2-6,7 9VAC	23-1100 (090-5030-00)

LAMP MATRIX

Column (*)	Red				Yellow (B+)			
	1 YEL-BRN (41) CN7-1 Q71	2 YEL-RED (42) CN7-2 Q70	3 YEL-ORN (43) CN7-3 Q69	4 YEL-BLK (40) CN7-4 Q68	5 YEL-GRN (45) CN7-6 Q67	6 YEL-BLU (46) CN7-7 Q66	7 YEL-VIO (47) CN7-8 Q65	8 YEL-GRY (48) CN7-9 Q64
1 RED-BRN (21) CN6-1 Q72	2X	Left Phaser #1	Right Phaser #1	Extra Ball Arrow	Left Top Lane	Ship's Left Engine	Shoot Again	Crystal Bank #5
2 RED-BLK (20) CN6-2 Q73	4X	Left Phaser #2	Right Phaser #2	Playfield Crystal #2	Center Top Lane	Ship's Right Engine	L. & R. Turbo Bumpers	Crystal Bank #6
3 RED-ORN (23) CN6-3 Q74	6X	Left Phaser #3	Right Phaser #3	Right Scoop	Right Top Lane	Jackpot Arrow	Unlimited Millions	Crystal Bank #7
4 RED-YEL (24) CN6-5 Q75	8X	Left Phaser #4	Right Phaser #4	Playfield Crystal #1	Backbox #5	Left Ramp Red	Playfield Crystal #4 Left	Crystal Bank #8
5 RED-GRN (25) CN6-6 Q76	10X	Left Phaser #5	Right Phaser #5	Backbox #4	Ship's Body	Left Million Green	Crystal Bank #1	Crystal Bank #9
6 RED-BLU (26) CN6-7 Q77		Ice Planet Extra Ball	Playfield Crystal #3	Backbox #3	Ball Launch Button	Laser Kick	Lite Scanner Arrow	Crystal Bank #2
7 RED-VIO (27) CN6-8 Q78		Playfield Crystal #7	Backbox #2	Ice Planet 10 Million	Cabinet Start Button	Playfield Crystal #6	Playfield Crystal #9	Crystal Bank #3
8 RED-GRY (28) CN6-9 Q79		Backbox #1	Playfield Crystal #5	Playfield Crystal #8	Re-lite Laser Kick	Left Shields On	Right Shields On	Crystal Bank #4

(*) 2 digit number in parentheses indicates resistor/wire color code number displayed during diagnostics.

SWITCH MATRIX

Column (*)	White				Green			
	1 GRN-BRN (51) CN8-1 Q55	2 GRN-RED (52) CN8-2 Q54	3 GRN-ORN (53) CN8-3 Q53	4 GRN-YEL (54) CN8-4 Q52	5 GRN-BLK (50) CN8-5 Q51	6 GRN-BLU (56) CN8-7 Q50	7 GRN-VIO (57) CN8-8 Q49	8 GRN-GRY (58) CN8-9 Q48
1 WHT-BRN (91) CN10-9	Plump Bob Tilt	Not Used	Left Outlane	Moving Target	Left Turbo Bumper	Left Top Lane	Right Outlane	Not Used
2 WHT-RED (92) CN10-8	Not Used	Outhole	Left Return Lane	Right Standup Target	Center Turbo Bumper	Center Top Lane	Right Return Lane	Not Used
3 WHT-ORN (93) CN10-7	Start Button	Trough #1 Left	Left Slingshot	Lower Left Hole	Right Turbo Bumper	Right Top Lane	Right Slingshot	Not Used
4 WHT-YEL (94) CN10-6	Right Coin Switch	Trough #2 Center	Left Drop Targets 1 Bottom	Upper Left Hole Top	Enter Left Ramp	Right Drop Targets 1 Top	Upper Left Hole Bottom	Not Used
5 WHT-GRN (95) CN10-5	Center Coin Switch	Trough #3 Right	Left Drop Targets 2	Moving Target Hole	Exit Center Ramp	Right Drop Targets 2	Not Used	Not Used
6 WHT-BLU (96) CN10-3	Left Coin Switch	Shooter Lane	Left Drop Targets 3	Ball Launch Button	Enter Right Ramp	Right Drop Targets 3	Not Used	Not Used
7 WHT-VIO (97) CN10-2	Slam Tilt	Left Flipper (via SSFB)	Left Drop Targets 4 Top	Transporter Crew Visible	Up/Down Ramp Up	Right Drop Targets 4 Bottom	Not Used	Not Used
8 WHT-GRY (98) CN10-1	Not Used	Right Flipper (via SSFB)	Left Standup Target	Transporter Crew Gone	VUK	Top Right Rollover	Not Used	Not Used

(*) 2 digit number in parentheses indicates resistor/wire color code number displayed during diagnostics.