



FUSE LIST

Power Supply Board fuses 520-5047-02				CPU Board 520-5003-00NR
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	5A, 250V, SB		
F6	34V Solenoids	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				Sound Board 520-5050-02
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	Flipper Power & All 50V coils	5A, 250V, SB		
F6	34V Flashers (Right)	5A, 250V, SB		
F7	34V Coils (Left)	3A, 250V, SB		
F8	50V Coils	4A, 250V, SB		
F9	50V Laser Kick	5A, 250V, SB		
Solid State Flipper Board fuses 520-5070-00				
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			Foreign	
			(220V)	
			(110V)	
			4A, 250V, SB	
			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	6-Ball Assembly Lockout	Q46	Gry-Brn (to PPB)	CN11-1 to PPB J1-1	Vio-Brn	J2-10	Brn	34V L	25-1240
1R	Top right Police Lights flashers				Blk-Brn	J9-5	Orn	34V R	#89 (4)
2L	Ball Release	Q45	Gry-Red (to PPB)	CN11-3 to PPB J1-2	Vio-Red	J2-9	Brn	34V L	23-800
2R	1 insert, 3 playfield upper left flashers				Blk-Red	J9-6	Orn	34V R	#89 (4)
3L	Auto Launch	Q5 PPB	Gry-Orn (to PPB)	CN11-4 to PPB J1-3	Wht-Orn/Vio-Orn	J2-8 J8-1/J8-2	Yel-Vio	50V	23-800
3R	2 insert, 2 left ramp flashers	Q44 CPU			Blk-Orn	J9-7	Orn	34V R	#89 (4)
4L	Crane Lock	Q43	Gry-Yel (to PPB)	CN11-5 to PPB J1-4	Vio-Yel	J2-7	Brn	34V L	32-1800
4R	2 insert, 1 up. r. plfd, 1 panel flashers				Blk-Yel	J9-8	Orn	34V R	#89 (4)
5L	VUK	Q4 PPB	Gry-Grn (to PPB)	CN11-6 to PPB J1-5	Wht-Grn/Vio-Grn	J2-6 J8-3/J8-4	Yel-Vio	50V	23-800
5R	1 insert, 3 mid right playfield flashers	Q42 CPU			Blk-Grn	J9-9	Orn	34V R	#89 (4)
6L	Right Scoop Assembly	Q3 PPB	Gry-Blu (to PPB)	CN11-7 to PPB J1-6	Wht-Blu/Vio-Blu	J2-5 J8-6/J8-7	Yel-Vio	50V	23-800
6R	2 lower plfd, 2 Magnets flashers	Q41 CPU			Blk-Blu	J9-10	Orn	34V R	#89 (4)
7L	Left Ball Lock	Q40	Gry-Vio (to PPB)	CN11-8 to PPB J1-7	Vio-Blk	J2-3	Brn	34V L	23-840
7R	4 top left Police Lights flashers				Blk-Vio	J9-11	Orn	34V R	#89 (4)
8L	Knocker	Q39	Gry-Blk (to PPB)	CN11-9 to PPB J1-8	Vio-Gry	J2-2	Brn	34V L	23-800
8R	2 insert, 2 lower playfield flashers				Blk-Gry	J9-12	Orn	34V R	#89 (4)
9	2 insert, 2 Crane flashers	Q30	Brn-Blk	CN12-1			Red	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	Diverter	Q27	Brn-Yel	CN12-5			Red	34V	27-1400
13	Drop Target	Q26	Brn-Grn	CN12-6			Red	34V	23-800
14	Crane motor	Q25	Brn-Blu	CN12-7			Gry-Red	12VDC	motor
15	Middle Scoop	Q24	Brn-Vio	CN12-8			Red	34V	23-800
16	Shaker Motor	Q2 PPB Q23 CPU	Wht-Gry	CN12-9 to PPB J8-9	Brn-Gry	J8-10	Gry/Gry-Grn	9VAC	Motor 12VDC
17	Left Turbo Bumper	Q11	Blu-Brn	CN19-7			Red	34V	23-800
18	Center Turbo Bumper	Q9	Blu-Red	CN19-4			Red	34V	23-800
19	Right Turbo Bumper	Q8	Blu-Orn	CN19-3			Red	34V	23-800
20	Left Slingshot	Q10	Blu-Yel	CN19-6			Red	34V	23-800
21	Right Slingshot	Q12	Blu-Grn	CN19-8			Red	34V	23-800
22	Ripper Kickback	Q1 PPB Q13 CPU	Wht-Vio	CN19-9 CPU to J8-11 PPB	Blu/Blk	J8-12	Vio-Yel	50V	23-800
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	CN1-10	Blk-Wht / Blk-Wht	CN2-8,9 50VDC	23-900 (090-5020-30)
	Right Flipper (coil "A")	SR1, Q2-Q3	Blu-Yel	CN2-4,5	Blu-Vio	CN1-7	Gry / Gry Grn	CN2-6,7 8VAC	23-900 (090-5020-30)

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	Grid: Find Benedict 1	Grid: Fast Scoring 9	Crane C 17	Benedicts Eyeball Top 25	Shield Left 33	Spinner 41	Shoot Again 49	Smart Missile 57								
2 RED-BLK (20) CN6-2 Q73	Grid: Last 2	Grid: Go to the Movies 10	Crane R 18	Benedicts Eyeball Middle 26	Shield Left Center 34	Chicken 42	Lock Bottom (right) 50	Ripper R 58								
3 RED-ORN (23) CN6-3 Q74	Grid: Action 3	Grid: Save Danny 11	Crane A 19	Benedicts Eyeball Bottom 27	Shield Right Center 35	Outlanes (2 lamps) 43	Lock Top (left) 51	Ripper I 59								
4 RED-YEL (24) CN6-5 Q75	Grid: Hero 4	Grid: Light Extra Ball 12	Crane N 20	Top Rollover Left 28	Shield Right 36	The Roof 44	▣▣▣ Middle Scoop 52	Ripper P 60								
5 RED-GRN (25) CN6-6 Q76	Super Crane Chaos 5	Grid: Cat Millions 13	Crane E 21	Top Rollover Middle 29	More Time 37	Jackpot 45	▣▣▣ Middle Scoop 53	Ripper P 61								
6 RED-BLU (26) CN6-7 Q77	Left Turbo Bumper 6	Grid: To The Roof 14	Animated Cat Target 22	Top Rollover Right 30	Extra Ball 38	Ripper 46	▣▣▣ Middle Scoop 54	Ripper E 62								
7 RED-VIO (27) CN6-8 Q78	Top Turbo Bumper 7	Grid: Red Eye 15	Ramp 23	Captive Ball (2 lamps) 31	M-Ball 39	Save Danny 47	Shoot The Crane 55	Ripper R 63								
8 RED-GRY (28) CN6-9 Q79	Right Turbo Bumper 8	Grid: Big Mistake 16	Wild Card 24	Ticket 32	Return Lanes (2 lamps) 40	Right Scoop 48	▣▣▣ Middle Scoop 56	Credit Button 64								

(*) 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 1	Trough #1 Left 9	Drop Target C 17	Right Stand-Up Top 25	Left Turbo Bumper 33	Left Return Lane 41	Not Used 49	Middle Scoop Left 57								
2 WHT-RED (92) CN10-8	4th Coin Switch 2	Trough #2 10	Drop Target R 18	Right Stand-Up Middle 26	Bottom Turbo Bumper 34	Right Return Lane 42	Not Used 50	Middle Scoop Right 58								
3 WHT-ORN (93) CN10-7	Start Button 3	Trough #3 11	Drop Target A 19	Right Stand-Up Bottom 27	Right Turbo Bumper 35	Left Outlane 43	Not Used 51	Scoop Spinner 59								
4 WHT-YEL (94) CN10-6	Right Coin Switch 4	Trough #4 12	Drop Target N 20	Top Rollover Left 28	Left Slingshot 36	Right Outlane 44	Not Used 52	Crane Left Limit 60								
5 WHT-GRN (95) CN10-5	Center Coin Switch 5	Trough #5 13	Drop Target E 21	Top Rollover Middle 29	Right Slingshot 37	Left Ramp Exit 45	Not Used 53	Crane Right Limit 61								
6 WHT-BLU (96) CN10-3	Left Coin Switch 6	Trough #6 14	Left Lock Top 22	Top Rollover Right 30	Right Scoop Rollover 38	Left Ramp Enter 46	Drop Target Bar (2) 54	Smart Missile 62								
7 WHT-VIO (97) CN10-2	Slam Tilt 7	Trough #7 Right 15	Left Lock Bottom 23	Right Scoop Assembly 31	Left Captive Rollover 39	(VUK) Vertical Up Kicker 47	Right Captive Rollover 55	Left Flipper (via SSFB) 63								
8 WHT-GRY (98) CN10-1	Launch Trigger 8	Shooter Lane 16	Single Left Rollover 24	Animated Cat Target 32	Left Captive Ball Target 40	Ripper Kickback 48	Right Captive Target 56	Right Flipper (via SSFB) 64								

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