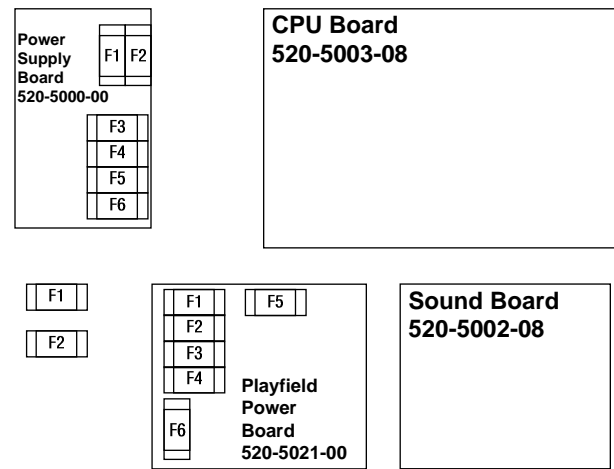




FUSE LIST

| Power Supply Board 520-5000-00 | | |
|---|----------------------------------|-----------------|
| F1 | 5V & 12V Logic Power Input | 7A, 250V, SB |
| F2 | 5V & 12V Logic Power Input | 7A, 250V, SB |
| F3 | 90V Display Power Input | 0.25A, 250V, SB |
| F4 | 18V Controlled lamps | 8A, 250V, SB |
| F5 | 34V Solenoids 1-16 | 4A, 250V, SB |
| F6 | 34V Special Solenoids & Flashers | 5A, 250V, SB |
| Back Box fuses | | |
| F1 | 13VAC Controlled lamps | 8A, 250V, SB |
| F2 | 25VAC Solenoids | 8A, 250V, SB |
| Playfield Power Board fuses 520-5021-00 | | |
| 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 | 3A, 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 | | |
| 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 | Insert Mask Flashers | Q46 | Gry-Brn (to PPB) | CN11-1 to PPB J1-1 | Vio-Brn | J9-5 | Brn | 34V L | #89 (3) |
| 1R | Outhole | | Blk-Brn | J2-9 | Orn | 34V R | 23-840 | | |
| 2L | Left Candelabra, Insert Mask Flashers | Q45 | Gry-Red (to PPB) | CN11-3 to PPB J1-2 | Vio-Red | J9-6 | Brn | 34V L | #906 (3), #89 (1) |
| 2R | Ball Trough Eject | | Blk-Red | J2-8 | Orn | 34V R | 23-840 | | |
| 3L | PoFo Phantom Mask Flashers | Q44 | Gry-Orn (to PPB) | CN11-4 to PPB J1-3 | Vio-Orn | J9-7 | Brn | 34V L | #906 (4) |
| 3R | Left Side Middle Up Kicker | | Blk-Orn | J2-7 | Orn | 34V R | 23-800 | | |
| 4L | Right Candelabra, Ballerina Flashers | Q43 CPU | Gry-Yel (to PPB) | CN11-5 to PPB J1-4 | Vio-Yel | J9-8 | Brn | 34V L | #906 (2), #89 (2) |
| 4R | Top Left Super Vertical Up Kicker | | Wht-Yel/Blk-Yel | J2-6 J8-3/J8-4 | Yel-Vio | 50V | 23-800 | | |
| 5L | Left Ramp, Organ Insert Flashers | Q42 CPU | Gry-Grn (to PPB) | CN11-6 to PPB J1-5 | Vio-Grn | J9-9 | Brn | 34V L | #906 (1), #89 (3) |
| 5R | Right Side Middle Super VUK | | Wht-Grn/Blk-Grn | J2-5 J8-6/J8-7 | Yel-Vio | 50V | 23-800 | | |
| 6L | Magic Mirror, Young Girl Flashers | Q41 | Gry-Blu (to PPB) | CN11-7 to PPB J1-6 | Vio-Blu | J9-10 | Brn | 34V L | #906 (2), #89 (2) |
| 6R | Not Used | | Blk-Blu | J2-4 | Orn | 34V R | | | |
| 7L | Spinner, Jackpot, Skullface Flashers | Q40 | Gry-Vio (to PPB) | CN11-8 to PPB J1-7 | Vio-Blk | J9-11 | Brn | 34V L | #906 (2), #89 (2) |
| 7R | Not Used | | Blk-Vio | J2-2 | Orn | 34V R | | | |
| 8L | Organ, Phantom Flashers | Q39 | Gry-Blk (to PPB) | CN11-9 to PPB J1-8 | Vio-Gry | J9-12 | Brn | 34V L | #906 (2), #89 (2) |
| 8R | Not Used | | Blk-Gry | J2-1 | Orn | 34V R | | | |
| 9 | Top Right Flashers | Q30 | Brn-Blk | CN12-1 to PPB J1-9 | Brn-Blk | J9-13 | Red | 34V | #906 (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 | Under Left Ramp Flashers | Q27 | Brn-Yel | CN12-5 to PPB J1-10 | Brn-Yel | J9-14 | Red | 34V | #906 (4) |
| 13 | Left Ramp Mini Mars Flashers | Q26 | Brn-Grn | CN12-6 to PPB J1-12 | Brn-Grn | J9-15 | Red | 34V | #906 (4) |
| 14 | Organ Motor (Relay Board) | Q25 | Brn-Blu | CN12-7 | | | Red | 34V | Relay: 24VDC |
| 15 | Right Mini Mars, Middle Left Mini Mars, Hanging Man Flashers | Q24 | Brn-Vio | CN12-8 to PPB J1-14 | Brn-Vio | J9-2 | Red | 34V | #906 (3), #89 (1) |
| 16 | Laser Kick | Q23 CPU | Wht-Gry | CN12-9 to PPB J8-1 | Brn-Gry | J8-2 | Vio-Yel | 50V | 23-800 |
| SP1 | Right Turbo Bumper | Q8 | Blu-Orn | CN19-3 | | | Red | 34V | 23-800 |
| SP2 | Center Turbo Bumper | Q9 | Blu-Red | CN19-4 | | | Red | 34V | 23-800 |
| SP3 | Left Slingshot | Q10 | Blu-Yel | CN19-6 | | | Red | 34V | 23-800 |
| SP4 | Left Turbo Bumper | Q11 | Blu-Brn | CN19-7 | | | Red | 34V | 23-800 |
| SP5 | Right Slingshot | Q12 | Blu-Grn | CN19-8 | | | Red | 34V | 23-800 |
| SP6 | Not Used | Q13 | Blu-Blk | CN19-9 | | | | | |
| 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 | 22-900 (090-5020-20) |
| | Right Flipper (coil "A") | SR1, Q2-Q3 | Blu-Yel | CN2-4,5 | Blu-Vio | CN1-1 | Gry / Gry Grn | CN2-6,7 9VAC | 22-900 (090-5020-20) |

LAMP MATRIX

| Column (*) | 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 | Right Square 4 | Right Mystery 9 | Left Square 4 17 | Right Circle 25 | Grass-hopper 1 33 | Top Lane 3 41 | P Phantom 49 | Box Lamp 57 |
| 2 RED-BLK (20) CN6-2 Q73 | Right Square 3 2 | Lock Arrow 10 | Left Candle 18 | 5X Bonus 26 | Grass-hopper 2 34 | Top Lane 2 42 | H Phantom 50 | Million Lamp 58 |
| 3 RED-ORN (23) CN6-3 Q74 | Right Square 2 3 | Lite Laser Kick 11 | Phantom Lamp 19 | 4X Bonus 27 | Grass-hopper 3 35 | Top Lane 1 43 | A Phantom 51 | Two Arrow 59 |
| 4 RED-YEL (24) CN6-5 Q75 | Right Square 1 4 | Right Candle 12 | Left Square 3 20 | Bonus Hold Arrow 28 | 2X Lit 36 | Left Return Lane 44 | N Phantom 52 | Two Arrow 60 |
| 5 RED-GRN (25) CN6-6 Q76 | Right Circle 5 | Extra Ball Arrow 13 | Left Square 2 21 | 3X Bonus 29 | Left Mystery 37 | Left Extra Ball 45 | T Phantom 53 | Two Arrow 61 |
| 6 RED-BLU (26) CN6-7 Q77 | Scorpion 3 6 | Scorpion 1 14 | Left Square 1 22 | 2X Bonus 30 | Special 38 | Laser Kick 46 | O Phantom 54 | One Arrow 62 |
| 7 RED-VIO (27) CN6-8 Q78 | Scorpion 2 7 | 100K Square 15 | Bonus Hold Square 23 | Right Extra Ball 31 | Back-Glass 1 39 | Back-Glass 3 47 | M Phantom 55 | One Arrow 63 |
| 8 RED-GRY (28) CN6-9 Q79 | Special Lite 8 | Lite Extra Ball 16 | Shoot Again 24 | Right Return Lane 32 | Back-Glass 2 40 | Back-Glass 4 48 | Not Used 56 | One Arrow 64 |

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

SWITCH MATRIX

| Column (*) | 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 | Not Used 9 | Left Outlane (Laser Kick) 17 | Left Top Lane 25 | Left Target 1 33 | Center Target 1 41 | Right Target 1 49 | Not Used 57 |
| 2 WHT-RED (92) CN10-8 | Not Used 2 | Outhole 10 | Left Return Lane 18 | Center Top Lane 26 | Left Target 2 34 | Center Target 2 42 | Right Target 2 50 | Not Used 58 |
| 3 WHT-ORN (93) CN10-7 | Start Button 3 | Trough #1 11 | Right Outlane 19 | Right Top Lane 27 | Left Target 3 35 | Center Target 3 43 | Right Target 3 51 | Not Used 59 |
| 4 WHT-YEL (94) CN10-6 | Right Coin Switch 4 | Trough #2 12 | Right Return Lane 20 | Left VUK #1 28 | Top Super VUK 36 | Right Super VUK 44 | Organ Open 52 | Not Used 60 |
| 5 WHT-GRN (95) CN10-5 | Center Coin Switch 5 | Trough #3 13 | Left Slingshot 21 | Left VUK #2 29 | Organ Cave 37 | Mirror Ramp 45 | Organ Closed 53 | Not Used 61 |
| 6 WHT-BLU (96) CN10-3 | Left Coin Switch 6 | Shooter Lane 14 | Right Slingshot 22 | Left Ramp Top 30 | Not Used 38 | Left Turbo Bumper 46 | Not Used 54 | Not Used 62 |
| 7 WHT-VIO (97) CN10-2 | Slam Tilt 7 | Left Flipper (via SSFB) 15 | Right Spinner 23 | Left Ramp Bottom 31 | Not Used 39 | Center Turbo Bumper 47 | Not Used 55 | Not Used 63 |
| 8 WHT-GRY (98) CN10-1 | Not Used 8 | Right Flipper (via SSFB) 16 | Not Used 24 | Not Used 32 | Not Used 40 | Right Turbo Bumper 48 | Not Used 56 | Not Used 64 |

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