

Fuse List:

| Wire in                     | Value          | Wire out                       | description                                       | location     |
|-----------------------------|----------------|--------------------------------|---------------------------------------------------|--------------|
| Orn / Blk-Red-Red (022)     | 5 Amp Slo-Blo  | Blu / Blk-Brn-Bm (011)         | 115V Primary Fuse                                 | Bottom Board |
|                             | 2½ Amp Slo-Blo |                                | 230V Primary Fuse                                 | Bottom Board |
| Bm / Blk-Orn-Orn (033)      | 1 Amp Slo-Blo  | Bm                             | Small transformer primary fuse                    | Bottom Board |
| Wht-Blu / Yel-Blk-Blk (400) | 2 Amp          | Lug 6                          | Small transformer secondary fuse 11VAC            | Bottom Board |
| Wht-Bm / Yel-Red-Red (422)  | 3/4 Amp        | Lug 7                          | Small transformer secondary fuse 14VAC            | Bottom Board |
| Wht-Yel / Yel-Blu-Blu (466) | ¼ Amp Slo-Blo  | Blu-Wht-Red / Gm-Blk-Blk (500) | Displays 69VAC                                    | Bottom Board |
| Yel / Blk-Blu-Blu (066)     | 5 Amp Slo-Blo  | Wht-Red / Red-Slt-Slt (288)    | Coils 25VAC                                       | Bottom Board |
| Blu-Blk / Orn-Blk-Blk (300) | 5 Amp Slo-Blo  | Orn-Blk / Orn-Brn-Bm (311)     | Controlled lamps 8VAC                             | Bottom Board |
| Yel-Red / Red-Blu-Blu (266) | 10 Amp         | Bm-Red / Red-Orn-Orn (233)     | G.I. Playfield (via Tilt Relay) & Coin Chute 6VAC | Bottom Board |
| Yel-Red / Red-Blu-Blu (266) | 10 Amp         | Wht-Red / Red-Red-Red (222)    | G.I. Name & Scene Lights 6VAC                     | Bottom Board |
|                             |                |                                |                                                   |              |
| Brn-Blk / Orn-Red-Red (322) | 2 Amp Slo-Blo  | Orn-Blk                        | #1-7 Target Bank Reset                            | Playfield    |
|                             |                |                                | #9-15 Target Bank Reset                           | Playfield    |

Switch Matrix

|                                                                    | RETURN 0<br>A1J7-12 & A1J6-3<br>Yellow<br>Blk- Blu-Blu (066)    | RETURN 1<br>A1J7-13<br>Blue-White<br>Brn-Blk-Blk (100)          | RETURN 2<br>A1J7-14<br>Orange-White<br>Brn-Red-Red (122)            | RETURN 3<br>A1J7-17<br>Brown-White<br>Brn-Orn-Orn (133)          | RETURN 4<br>A1J7-16<br>Green-White<br>Brn-Yel-Yel (144)         | RETURN 5<br>A1J7-15<br>Purple-White<br>Brn-Gm-Gm (155)                 | RETURN 6<br>A1J7-11<br>Yellow-White<br>Brn-Blu-Blu (166)               | RETURN 7<br>A1J7-10<br>Yellow-Black<br>Orn-Blu-Blu (366)              |
|--------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>STROBE 0</b><br>A1J7-2<br>A1J6-8<br>Blue<br>Blk-Bm-Brn (011)    | Test Button<br><br>Blue-White<br>Brn-Blk-Blk (100)<br>SW.00     | #1 Drop Target<br><br>White-Black<br>Yel_Blk-Blk (400)<br>SW.10 | #5 Drop Target<br><br>Green-Black<br>Om-Yel-Yel (344)<br>SW.20      | "B" Rollover<br><br>White-Red<br>Red-Red-Red (222)<br>SW.30      | #8 Rollover<br><br>Orange-White<br>Brn-Red-Red (122)<br>SW.40   | Pop Bumper<br><br>Orange-Black<br>Orn-Brn-Bm (311)<br>SW.50            | #9 Drop Target<br><br>Blue-White-Black<br>Blu-Blk-Blk (600)<br>SW.60   | #13 Drop Target<br><br>Brown-White-Red<br>Gm-Red-Red (522)<br>SW.70   |
| <b>STROBE 1</b><br>A1J7-3<br>A1J6-4<br>Orange<br>Blk-Red-Red (022) | #1 Coin Chute<br><br>Orange-White<br>Brn-Red-Red (122)<br>SW.01 | #2 Drop Target<br><br>White-Orange<br>Yel-Bm-Brn (411)<br>SW.11 | #6 Drop Target<br><br>Purple-Black<br>Orn-Gm-Gm (355)<br>SW.21      | Not Used<br><br><br>SW.31                                        | Right Hole<br><br>Blue-White-White<br>Brn-Brn-Bm (111)<br>SW.41 | Not Used<br><br><br>SW.51                                              | #10 Drop Target<br><br>Brown-White-Black<br>Blu-Red-Red (622)<br>SW.61 | #14 Drop Target<br><br>Purple-White-Red<br>Gm-Yel-Yel (544)<br>SW.71  |
| <b>STROBE 2</b><br>A1J7-4<br>A1J6-5<br>Brown<br>Blk-Orn-Orn (033)  | #2 Coin Chute<br><br>Brown-White<br>Brn-Orn-Orn (133)<br>SW.02  | Not Used<br><br><br>SW.12                                       | Not Used<br><br><br>SW.22                                           | "C" Rollover<br><br>Green-Red<br>Red-Yel-Yel (244)<br>SW.32      | Left Hole<br><br>Blue-White<br>Brn-Blk-Blk-(100)<br>SW.42       | Not Used<br><br><br>SW.52                                              | Not Used<br><br><br>SW.62                                              | Not Used<br><br><br>SW.72                                             |
| <b>STROBE 3</b><br>A1J7-7<br>A1J6-6<br>Green<br>Blk-Yel-Yel (044)  | Replay Button<br><br>Green-White<br>Brn-Yel-Yel (144)<br>SW.03  | #3 Drop Target<br><br>White-Brown<br>Yel-Red-Red (422)<br>SW.13 | 10 Point Switches (6)<br><br>Purple-Red<br>Red-Gm-Gm (255)<br>SW.23 | Not Used<br><br><br>SW.33                                        | Not Used<br><br><br>SW.43                                       | Outside Rollover (2)<br><br>Yellow-White<br>Brn-Blu-Blu (166)<br>SW.53 | #11 Drop Target<br><br>Green-White-Black<br>Blu-Orn-Orn (633)<br>SW.63 | 50 Point Switches (4)<br><br>Blue-Red<br>Red-Blk-Blk (200)<br>SW.73   |
| <b>STROBE 4</b><br>A1J7-6<br><br>Purple<br>Blk-Gm-Gm (055)         | Tilt<br><br>Yellow-White<br>Brn-Blu-Blu (166)<br>SW.04          | #4 Drop Target<br><br>White-Green<br>Yel-Orn-Orn (433)<br>SW.14 | #7 Drop Target<br><br>Brn-Slt-Slt (188)<br>SW.24                    | "A" Rollover (2)<br><br>Orange-Red<br>Red-Brn-Brn (211)<br>SW.34 | Not Used<br><br><br>SW.44                                       | Rollover Button (2)<br><br>Yellow-Red<br>Red-Blu-Blu (266)<br>SW.54    | #12 Drop Target<br><br>Yellow-White<br>Blu-Gm-Gm (655)<br>SW.64        | #15 Drop Target<br><br>White-Purple-Red<br>Pur-Yel-Yel (744)<br>SW.74 |

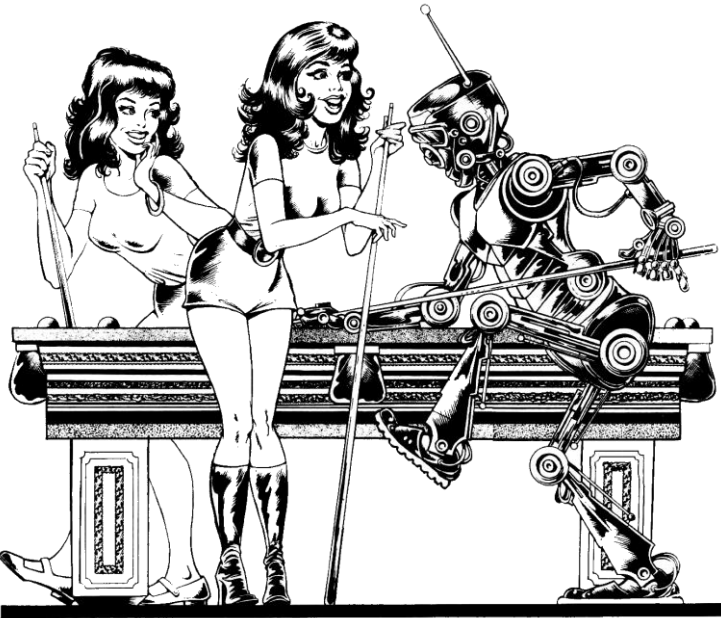
Solenoids

|        | Solenoid description         | Solenoid Type | Power Wire        | Fuse          | Transfer Wire | Coil Wire Color   | Connector | Driver Transistor        | Transistor Type  | Coil Type    |
|--------|------------------------------|---------------|-------------------|---------------|---------------|-------------------|-----------|--------------------------|------------------|--------------|
| L01    | Game Over Relay              | Controlled    | Red-Pur-Pur (277) |               |               | Yel-Blk-Blk (400) | A3J5-18   | Q01                      | MPS-U45          | A-16890      |
| L02    | Tilt Relay                   | Controlled    | Red-Pur-Pur (277) |               |               | Yel-Bm-Brn (411)  | A3J5-19   | Q02                      | MPS-U45          | A-16890      |
| Sol. 1 | Outhole                      | Controlled    | Red-Pur-Pur (277) |               |               | Red-Blk-Blk (200) | A3J4-6    | Q32                      | 2N6043           | A-16570      |
| Sol. 2 | Knocker                      | Controlled    | Red-Pur-Pur (277) |               |               | Red-Brn-Bm (211)  | A3J2-1    | Q25                      | 2N6043           | A-5195       |
| Sol. 3 | 10's chime                   | Controlled    |                   |               |               | Orn-Brn-Bm (311)  | A3J2-2    | Q26                      | 2N6043           | Sound Board  |
| Sol. 4 | 100's chime                  | Controlled    |                   |               |               | Red-Yel-Yel (244) | A3J2-3    | Q27                      | 2N6043           | Sound Board  |
| Sol. 5 | 1000's chime                 | Controlled    |                   |               |               | Red-Gm-Gm (255)   | A3J2-4    | Q28                      | 2N6043           | Sound Board  |
| Sol. 6 | Right Hole Kicker            | Controlled    | Red-Pur-Pur (277) |               |               | Red-Blu-Blu (266) | A3J4-5    | Q31                      | 2N6043           | A-16570      |
| Sol. 7 | Left Hole Kicker             | Controlled    | Red-Pur-Pur (277) |               |               | Orn-Blk-Blk (300) | A3J4-4    | Q30                      | 2N6043           | A-16570      |
| Sol. 8 | #9-15 Drop Target Bank Reset | Controlled    | Orn-Red-Red (322) | 2 Amp Slo-Blo | Orn-Blk       | Orn-Brn-Bm (311)  | A3J4-2    | Q29 - Q45                | MPS-U45 - 2N3055 | A-18102 (2)  |
| L17    | #1-7 Drop Target Bank Reset  | Controlled    |                   |               |               | Blu-Yel-Yel (644) | A3J5-1    | Q17 - UPT                | MPS-U45 - 2N5875 | A-18102 (2)  |
| L18    | Drop Target Control Relay    | Controlled    | Blk-Slt-Slt (088) |               |               | Blu-Gm-Gm (655)   | A3J5-2    | Q18                      | MPS-U45          | A-16890      |
|        | Drop Target 1-15 (Trip)      | Directly      | Blu-Blk & Slt-Blk |               |               | various           |           | Switch                   |                  | A-19217 (14) |
|        | Left Kicking Rubber          | Directly      | Orn-Red-Red (322) |               |               |                   |           | Switch                   |                  | A-5194       |
|        | Right Kicking Rubber         | Directly      | Orn-Red-Red (322) |               |               |                   |           | Switch                   |                  | A-5194       |
|        | Left Pop Bumper              | Directly      | Orn-Red-Red (322) |               |               |                   |           | Switch                   |                  | A-5194       |
|        | Right Pop Bumper             | Directly      | Orn-Red-Red (322) |               |               |                   |           | Switch                   |                  | A-5194       |
|        | Coin Lockout                 | Directly      | Red-Pur-Pur (277) |               |               |                   | A6J1-11   | Directly wired to ground |                  | A-16890      |
|        | Left Flipper                 | Directly      | Orn-Yel-Yel (344) |               |               |                   | A6J5-4    | Button                   |                  | A-17875      |
|        | Right Flipper                | Directly      | Orn-Gm-Gm (355)   |               |               |                   | A6J5-5    | Button                   |                  | A-17875      |

2N6043 can be replaced with a TIP 102  
UTP = Under Playfield Transistor

D. Gottlieb & Co.

PINBALL POOL



Lamps and solenoids

| transistor | connector | code       | description                   | wire code | wire color  | transistor type  |
|------------|-----------|------------|-------------------------------|-----------|-------------|------------------|
| Q01        | J5-18     | L01        | Game Over Relay (Q)           | 400       | Yel-Blk-Blk | MPS-U45          |
| Q Relay    |           |            | Match / Game Over Light       | 366       | Orn-Blu-Blu |                  |
| Q Relay    |           |            | Ball in Play                  | 255       | Red-Gm-Gm   |                  |
| Q02        | J5-19     | L02        | Tilt Relay (T)                | 411       | Yel-Bm-Brn  | MPS-U45          |
| T Relay    |           |            | Tilt Light                    | 822       | Slt-Red-Red |                  |
| Q03        | J5-17     | L03        | High Game to Date             | 422       | Yel-Red-Red | MPS-U45          |
| Q04        | J5-15     | L04        | Same Player Shoot Again       | 433       | Yel-Orn-Orn | MPS-U45          |
| Q05        | J5-13     | L05        | #7 Bonus                      | 455       | Yel-Gm-Gm   | MPS-A13          |
| Q06        | J5-14     | L06        | #8 Bonus                      | 466       | Yel-Blu-Blu | MPS-A13          |
| Q07        | J5-12     | L07        | #6 Bonus                      | 500       | Gm-Blk-Blk  | MPS-A13          |
| Q08        | J5-11     | L08        | #8 Rollover                   | 511       | Gm-Brn-Bm   | MPS-A13          |
| Q09        | J5-9      | L09        | Right Score Bonus             | 522       | Gm-Red-Red  | MPS-A13          |
| Q10        | J5-10     | L10        | Extra Ball                    | 533       | Gm-Orn-Orn  | MPS-A13          |
| Q11        | J5-8      | L11        | Right Special                 | 544       | Gm-Yel-Yel  | MPS-A13          |
| Q12        | J5-7      | L12        | Left Special                  | 566       | Gm-Blu-Blu  | MPS-A13          |
| Q13        | J5-5      | L13        | Top "C" Rollover              | 600       | Blu-Blk-Blk | MPS-A13          |
| Q14        | J5-6      | L14        | Left Score Bonus              | 611       | Blu-Bm-Brn  | MPS-A13          |
| Q15        | J5-4      | L15        | Top "B" Rollover              | 622       | Blu-Red-Red | MPS-A13          |
| Q16        | J5-3      | L16        | Top "A" Rollover              | 633       | Blu-Orn-Orn | MPS-A13          |
| Q17        | J5-1      | L17        | #1-7 Drop Target Bank Reset   | 644       | Blu-Yel-Yel | MPS-A13          |
| Q18        | J5-2      | L18        | Drop Target Control Relay (B) | 655       | Blu-Gm-Gm   | MPS-A13          |
| Q19        | J3-20     | L19        | 5X Bonus                      | 700       | Pur-Blk-Blk | MPS-A13          |
| Q20        | J3-18     | L20        | 4X Bonus                      | 711       | Pur-Bm-Bm   | MPS-A13          |
| Q21        | J3-16     | L21        | 2X Bonus                      | 722       | Pur-Red-Red | MPS-A13          |
| Q22        | J3-17     | L22        | 3X Bonus                      | 733       | Pur-Orn-Orn | MPS-A13          |
| Q23        | J3-15     | L23        | Bottom "C" Rollover           | 744       | Pur-Yel-Yel | MPS-A13          |
| Q24        | J3-14     | L24        | Bottom "A" Rollover           | 755       | Pur-Gm-Gm   | MPS-A13          |
| Q33        | J3-12     | L25        | #15 Bonus                     | 800       | Slt-Blk-Blk | MPS-A13          |
| Q34        | J3-13     | L26        | #1 Bonus                      | 811       | Slt-Brn-Brn | MPS-A13          |
| Q35        | J3-11     | L27        | #14 Bonus                     | 822       | Slt-Red-Red | MPS-A13          |
| Q36        | J3-9      | L28        | #13 Bonus                     | 833       | Slt-Orn-Orn | MPS-A13          |
| Q37        | J3-7      | L29        | #2 Bonus                      | 844       | Slt-Yel-Yel | MPS-A13          |
| Q38        | J3-8      | L30        | #3 Bonus                      | 855       | Slt-Gm-Gm   | MPS-A13          |
| Q39        | J3-6      | L31        | #12 Bonus                     | 111       | Bm-Bm-Bm    | MPS-A13          |
| Q40        | J3-5      | L32        | #11 Bonus                     | 333       | Orn-Orn-Orn | MPS-A13          |
| Q41        | J3-4      | L33        | #5 Bonus                      | 444       | Yel-Yel-Yel | MPS-A13          |
| Q42        | J3-3      | L34        | #4 Bonus                      | 555       | Gm-Gm-Gm    | MPS-A13          |
| Q43        | J3-2      | L35        | #10 Bonus                     | 666       | Blu-Blu-Blu | MPS-A13          |
| Q44        | J3-1      | L36        | #9 Bonus                      | 777       | Pur-Pur-Pur | MPS-A13          |
| Q32        | J4-6      | Solenoid 1 | Outhole Kicker                | 200       | Red-Blk-Blk | 2N6043           |
| Q25        | J2-1      | Solenoid 2 | Knocker                       | 211       | Red-Bm-Bm   | 2N6043           |
| Q26        | J2-2      | Solenoid 3 | 10's chime                    | 311       | Orn-Bm-Bm   | 2N6043           |
| Q27        | J2-3      | Solenoid 4 | 100's chime                   | 244       | Red-Yel-Yel | 2N6043           |
| Q28        | J2-4      | Solenoid 5 | 1000's chime                  | 255       | Red-Gm-Gm   | 2N6043           |
| Q31        | J4-5      | Solenoid 6 | Right Hole Kicker             | 266       | Red-Blu-Blu | 2N6043           |
| Q30        | J4-4      | Solenoid 7 | Left Hole Kicker              | 300       | Orn-Blk-Blk | 2N6043           |
| Q29 - Q45  | J4-2      | Solenoid 8 | #9-15 Drop Target Bank Reset  | 311       | Orn-Bm-Bm   | MPS-U45 - 2N3055 |