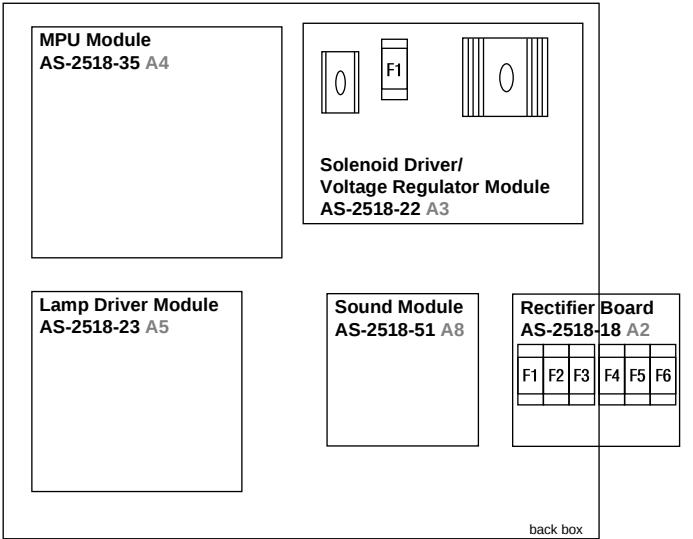




Fuse List

|                                |                            |              |
|--------------------------------|----------------------------|--------------|
| Rectifier Board AS-2518-18     |                            |              |
| F1                             | 6.5V Switched illumination | 10A, 250V    |
| F2                             | 230V Display power input   | 0.75A, 250V  |
| F3                             | 5V Unregulated input       | 4A, 250V     |
| F4                             | 43V Solenoids (4 flippers) | 7A, 250V     |
| F5                             | 6.5V General illumination  | 20A, 250V    |
| F6                             | Main fuse                  | 3A, 250V, SB |
| Sol. Dr./Volt. Reg. AS-2518-22 |                            |              |
| F1                             | 190V Display power output  | 0.25A, 250V  |
| Under the Playfield fuses      |                            |              |
| F1                             | Solenoids                  | 1A, 250V, SB |



Controlled Lamps Chart

| SCR | connector | lamp description             | code | wire color | tr type | SCR | connector | lamp description                    | code | wire color | tr type |
|-----|-----------|------------------------------|------|------------|---------|-----|-----------|-------------------------------------|------|------------|---------|
| Q01 | A5J1-24   | 1-2-3 Lane Special           | 50   | Wht        | MCR-106 | Q15 | A5J2-23   | High Score to Date (Back Box)       | 97   | Gry-Orn    | MCR-106 |
| Q16 | A5J2-22   | Ball-in-Play (Back Box)      | 62   | Brn-Blu    | MCR-106 | Q58 | A5J3-2    | Lane #1                             | 95   | Gry-Wht    | 2N5060  |
| Q14 | A5J1-18   | Bonus 1K                     | 58   | Wht-Blk    | 2N5060  | Q20 | A5J1-13   | Lane #2                             | 96   | Gry-Brn    | 2N5060  |
| Q29 | A5J1-1    | Bonus 2K                     | 41   | Grn-Red    | 2N5060  | Q25 | A5J1-6    | Lane #3                             | 25   | Blu-Wht    | 2N5060  |
| Q36 | A5J3-26   | Bonus 3K                     | 43   | Grn-Yel    | 2N5060  | Q48 | A5J3-16   | Lane A                              | 25   | Blu-Wht    | MCR-106 |
| Q57 | A5J3-1    | Bonus 4K                     | 10   | Red        | 2N5060  | Q34 | A5J1-2    | Lane B                              | 52   | Wht-Blu    | MCR-106 |
| Q12 | A5J1-19   | Bonus 5K                     | 60   | Brn        | 2N5060  | Q05 | A5J2-16   | Left Out Special                    | 34   | Yel-Grn    | 2N5060  |
| Q27 | A5J1-9    | Bonus 6K                     | 43   | Grn-Yel    | 2N5060  | Q23 | A5J2-8    | Match (Back Box)                    | 70   | Orn        | MCR-106 |
| Q38 | A5J3-25   | Bonus 7K                     | 36   | Yel-Brn    | 2N5060  | Q43 | A5J2-7    | Middle Drop Target 10K Left         | 91   | Gry-Red    | 2N5060  |
| Q50 | A5J3-12   | Bonus 8K                     | 21   | Blu-Red    | 2N5060  | Q18 | A5J2-20   | Middle Drop Target 10K Center       | 98   | Gry-Blk    | 2N5060  |
| Q13 | A5J1-17   | Bonus 9K                     | 57   | Wht-Orn    | 2N5060  | Q31 | A5J2-2    | Middle Drop Target 10K Right        | 20   | Blu        | 2N5060  |
| Q28 | A5J1-8    | Bonus 10K                    | 51   | Wht-Red    | 2N5060  | Q45 | A5J2-1    | Middle Drop Target 20K Left Arrow   | 60   | Brn        | 2N5060  |
| Q44 | A5J3-19   | Bonus 20K                    | 67   | Brn-Orn    | 2N5060  | Q19 | A5J2-15   | Middle Drop Target 20K Right Arrow  | 23   | Blu-Yel    | 2N5060  |
| Q51 | A5J3-15   | Bonus 40K                    | 53   | Wht-Yel    | 2N5060  | Q30 | A5J2-6    | Middle Drop Target 100K             | 85   | Blk-Wht    | 2N5060  |
| Q55 | A5J3-9    | Bonus 60K                    | 15   | Red-Wht    | MCR-106 | Q07 | A5J1-27   | Right Out Special                   | 53   | Wht-Yel    | 2N5060  |
| Q10 | A5J1-15   | Bonus Multiplier 2X          | 13   | Red-Yel    | MCR-106 | Q21 | A5J1-12   | Rollover Button, Lower              | 61   | Brn-Red    | 2N5060  |
| Q22 | A5J1-10   | Bonus Multiplier 3X          | 23   | Blu-Yel    | MCR-106 | Q39 | A5J3-24   | Rollover Button, Upper              | 72   | Orn-Blu    | 2N5060  |
| Q37 | A5J3-23   | Bonus Multiplier 4X          | 98   | Gry-Blk    | 2N5060  | Q03 | A5J2-21   | Same Player Shoot Again (Back Box)  | 47   | Grn-Orn    | MCR-106 |
| Q60 | A5J3-3    | Bonus Multiplier 5X          | 81   | Blk-Red    | 2N5060  | Q40 | A5J3-22   | Same Player Shoot Again (Playfield) | 23   | Blu-Yel    | MCR-106 |
| Q06 | A5J2-14   | Bonus Special                | 12   | Red-Blu    | 2N5060  | Q11 | A5J1-16   | Saucer 20K                          | 90   | Gry        | 2N5060  |
| Q52 | A5J3-13   | Credit Indicator             | 35   | Yel-Wht    | 2N5060  | Q26 | A5J1-7    | Saucer 30K                          | 34   | Yel-Grn    | 2N5060  |
| Q09 | A5J1-14   | Drop Target S                | 54   | Wht-Grn    | MCR-106 | Q32 | A5J3-27   | Saucer 50K                          | 40   | Grn        | 2N5060  |
| Q54 | A5J3-11   | Drop Target K                | 20   | Blu        | MCR-106 | Q04 | A5J1-28   | Saucer Collect Bonus                | 78   | Orn-Blk    | 2N5060  |
| Q49 | A5J3-17   | Drop Target A                | 13   | Red-Yel    | MCR-106 | Q59 | A5J3-4    | Saucer Extra Ball                   | 14   | Red-Grn    | 2N5060  |
| Q35 | A5J1-3    | Drop Target T                | 45   | Grn-Wht    | MCR-106 | Q53 | A5J3-14   | Spinner 1K                          | 84   | Blk-Grn    | 2N5060  |
| Q08 | A5J1-23   | Drop Target E                | 12   | Red-Blu    | MCR-106 | Q46 | A5J3-18   | Spots X                             | 56   | Wht-Brn    | 2N5060  |
| Q41 | A5J3-20   | Drop Target Top Left Arrow   | 64   | Brn-Grn    | MCR-106 | Q42 | A5J3-21   | Thumper Bumper Bottom               | 30   | Yel        | MCR-106 |
| Q17 | A5J1-11   | Drop Target Top Center Arrow | 65   | Brn-Wht    | MCR-106 | Q56 | A5J3-10   | Thumper Bumper Left                 | 91   | Gry-Red    | MCR-106 |
| Q02 | A5J1-25   | Drop Target Top Right Arrow  | 75   | Orn-Wht    | MCR-106 | Q24 | A5J1-5    | Thumper Bumper Right                | 48   | Grn-Blk    | MCR-106 |
| Q33 | A5J2-11   | Game Over (Back Box)         | 95   | Gry-Wht    | MCR-106 | Q47 | A5J2-10   | Tilt (Back Box)                     | 35   | Yel-Wht    | MCR-106 |

Coil Table

| Sol. No          | Solenoid description         | Solenoid Type | Wire Code         | Wire Color | Connector                | Driver Transistor | Solenoid Coil Type |
|------------------|------------------------------|---------------|-------------------|------------|--------------------------|-------------------|--------------------|
| 1                | Outhole Kicker               | Momentary     | 95                | Gry-Wht    | A3J1-5                   | Q4                | AN-26-1200         |
| 2                | Knocker                      | Momentary     | 85                | Blk-Wht    | A3J2-5, J3-7             | Q3                | AR-26-1200         |
| 3                | Saucer                       | Momentary     | 67                | Brn-Orn    | A3J1-2, J2-9             | Q1                | AO-27-1300         |
| 4                | Left Slingshot               | Momentary     | 83                | Blk-Yel    | A3J5-14                  | Q11               | AO-26-1200         |
| 5                | Right Slingshot              | Momentary     | 18                | Red-Blk    | A3J5-8, J2-6, J3-7,      | Q16               | AO-26-1200         |
| 6                | Thumper Bumper Left          | Momentary     | 71                | Orn-Red    | A3J5-9                   | Q9                | AN-26-1200         |
| 7                | Thumper Bumper Bottom        | Momentary     | 74                | Orn-Grn    | A3J5-15                  | Q10               | AN-26-1200         |
| 8                | Thumper Bumper Right         | Momentary     | 67                | Brn-Orn    | A3J5-13                  | Q12               | AN-26-1200         |
| 9                | 5 Drop Target Reset          | Momentary     | 85                | Blk-Wht    | A3J5-10                  | Q8                | NO-26-1900         |
| 10               | 3 Drop Target Reset (Top)    | Momentary     | 80                | Blk        | A3J5-12                  | Q13               | NO-26-1900         |
| 11               | 3 Drop Target Reset (Middle) | Momentary     | 78                | Orn-Blk    | A3J5-11                  | Q14               | NO-26-1900         |
| 12               | Coin Lockout                 | Continuous    | 36                | Yel-Brn    | A3J2-8                   | Q19               | FO-36-7000         |
| 13               | Flipper enabling relay       | Continuous    | --                | --         | --                       | Q15               | 48V Relay          |
|                  |                              | Momentary     | 67                | Brn-Orn    | A3J1-3, J2-4             | Q2                |                    |
|                  |                              | Momentary     | 81                | Blk-Red    | A3J2-10                  | Q5                |                    |
|                  |                              | Momentary     | 80                | Blk        | A3J2-11                  | Q6                |                    |
|                  |                              | Momentary     | 75                | Orn-Wht    | A3J2-12                  | Q7                |                    |
|                  |                              | Continuous    | 81                | Blk-Red    | A3J5-7                   | Q17               |                    |
|                  |                              | Continuous    | 80                | Blk        | A3J5-3, J2-15, J3-9      | Q18               |                    |
| Flipper Circuits |                              | Power Wire    | Flipper Coil Wire |            | Flipper Button Wire      |                   | Coil               |
|                  | Left Flipper                 | 60 (Brn)      | 40 (Grn)          | A3J1-8     | 20 (Blu)                 | A3J2-2            | AQ-25-500/34-4500  |
|                  | Right Flipper                | 60 (Brn)      | 70 (Orn)          | A3J1-9     | 10 (Red)                 | A3J2-1            | AQ-25-500/34-4500  |
|                  | Upper Left Flipper           | 60 (Brn)      | 81 (Blk-Red)      |            | (to lower left flipper)  |                   | AQ-25-500/34-4500  |
|                  | Upper Right Flipper          | 60 (Brn)      | 75 (Orn-Wht)      |            | (to lower right flipper) |                   | AQ-25-500/34-4500  |

Switch Matrix

|                                                            |        | strobe (ST)  return (I)                                |                                                    |                                                |                                  |                                 |
|------------------------------------------------------------|--------|--------------------------------------------------------|----------------------------------------------------|------------------------------------------------|----------------------------------|---------------------------------|
| Row                                                        | Column | STROBE 0<br>A4J2-1 Wht-Red (51)<br>A4J3-2 Red-Yel (13) | STROBE 1<br>A4J2-2 Orn (70)<br>A4J3-3 Red-Grn (14) | STROBE 2<br>A4J2-3 Gry-Yel (93)                | STROBE 3<br>A4J2-4 Wht-Yel (53)  | STROBE 4<br>A4J2-5 Yel-Red (31) |
|                                                            |        |                                                        |                                                    |                                                |                                  |                                 |
| RETURN I 0<br>A4J2-8 Wht-Grn (54)<br>A4J3-9 Red-Wht (15)   |        | Not Used<br><br>1                                      | Coin Chute III (Right)<br><br>9                    | 3 Drop Tagets & 4 30 Points Rebounds<br><br>17 | Not Used<br><br>25               | Spinner<br><br>33               |
| RETURN I 1<br>A4J2-9 Brn-Grn (63)<br>A4J3-10 Brn-Wht (65)  |        | Middle Right Drop Target<br><br>2                      | Coin Chute I (Left)<br><br>10                      | "B" Lane<br><br>18                             | Top Right Drop Target<br><br>26  | Right Out Special<br><br>34     |
| RETURN I 2<br>A4J2-10 Wht-Orn (57)<br>A4J3-11 Blu (20)     |        | Middle Center Drop Target<br><br>3                     | Coin Chute II (Middle)<br><br>11                   | "A" Lane<br><br>19                             | Top Center Drop Target<br><br>27 | Left Out Special<br><br>35      |
| RETURN I 3<br>A4J2-11 Orn-Blk (78)<br>A4J3-12 Blu-Red (21) |        | Middle Left Drop Target<br><br>4                       | Not Used<br><br>12                                 | Drop Target E<br><br>20                        | Top Left Drop Target<br><br>28   | Right Slingshot<br><br>36       |
| RETURN I 4<br>A4J2-12 Brn (60)<br>A4J3-13 Blu-Yel (23)     |        | Saucer<br><br>5                                        | #3 Lane<br><br>13                                  | Drop Target T<br><br>21                        | Not Used<br><br>29               | Left Slingshot<br><br>37        |
| RETURN I 5<br>A4J2-13 Wht-Brn (56)<br>A4J3-14 Blu-Wht (25) |        | Credit Button<br><br>6                                 | #2 Lane<br><br>14                                  | Drop Target A<br><br>22                        | Lower Rollover Button<br><br>30  | Right Thumper Bumper<br><br>38  |
| RETURN I 6<br>A4J2-14 Brn-Wht (65)<br>A4J3-15 Blu-Orn (27) |        | Tilt (3)<br><br>7                                      | #1 Lane<br><br>15                                  | Drop Target K<br><br>23                        | Upper Rollover Button<br><br>31  | Bottom Thumper Bumper<br><br>39 |
| RETURN I 7<br>A4J2-15 Wht-Blu (52)<br>A4J3-16 Yel (30)     |        | Outhole<br><br>8                                       | Slam (2)<br><br>16                                 | Drop Target S<br><br>24                        | Right Flipper Button<br><br>32   | Left Thumper Bumper<br><br>40   |