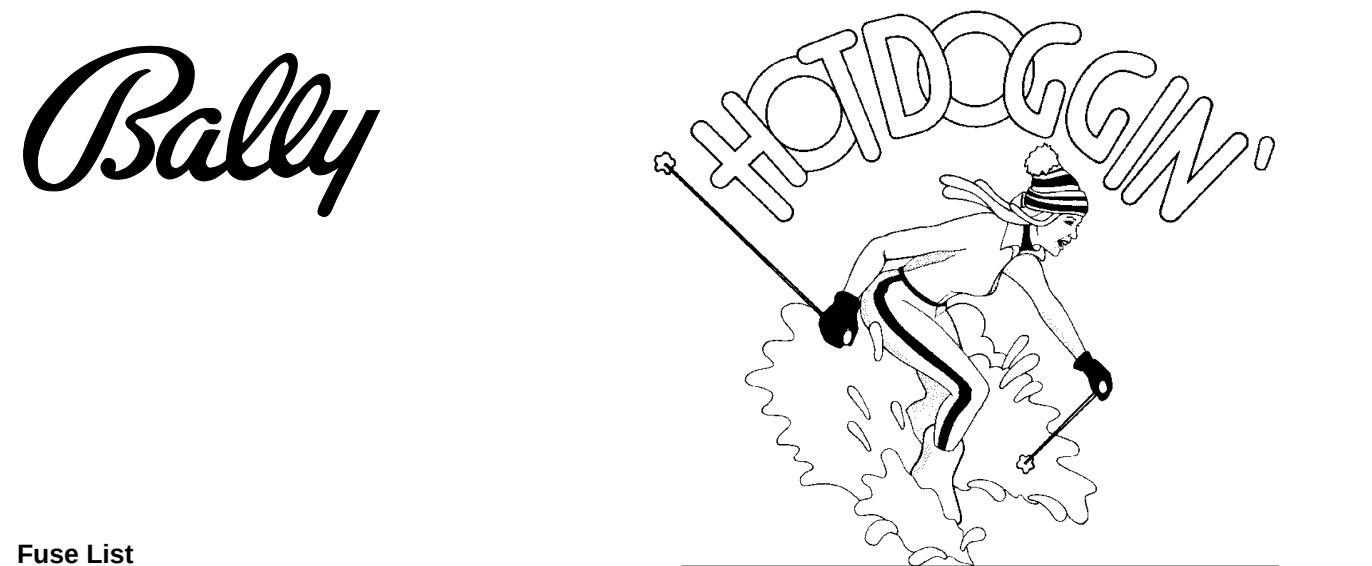
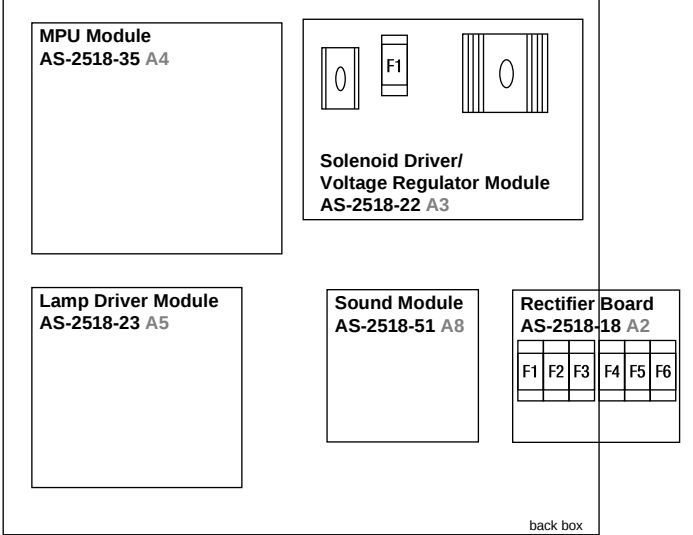




Fuse List

|                                |                            |              |
|--------------------------------|----------------------------|--------------|
| 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 (3 flippers) | 6A, 250V     |
| F5                             | 6.5V General illumination  | 20A, 250V    |
| F6                             | Main fuse                  | 3A, 250V, SB |
| Sol. Dr./Volt. Req. 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 |
|-----|-----------|---------------------------------|------|------------|---------|-----|-----------|------------------------------------|------|------------|---------|
| Q43 | A5J2-7    | 2K When Lit (IN Targets)        | 91   | Gry-Red    | 2N5060  | Q55 | A5J3-9    | Lower DOGGIN "I"                   | 15   | Red-Wht    | MCR-106 |
| Q05 | A5J2-16   | 3K When Lit (FUN Targets)       | 34   | Yel-Grn    | 2N5060  | Q10 | A5J1-15   | Lower DOGGIN "N"                   | 13   | Red-Yel    | MCR-106 |
| Q30 | A5J2-6    | 3K When Lit (HOT Targets)       | 85   | Blk-Wht    | 2N5060  | Q04 | A5J1-28   | Lower FUN "F"                      | 78   | Orn-Blk    | 2N5060  |
| Q18 | A5J2-20   | 4K When Lit (DOGG Drop Targets) | 35   | Yel-Wht    | 2N5060  | Q25 | A5J1-6    | Lower FUN "U"                      | 25   | Blu-Wht    | 2N5060  |
| Q21 | A5J1-12   | 5K When Lit (Top Left)          | 61   | Brn-Red    | 2N5060  | Q20 | A5J1-13   | Lower FUN "N"                      | 96   | Gry-Brn    | 2N5060  |
| Q07 | A5J1-27   | 5K When Lit (Top Right)         | 53   | Wht-Yel    | 2N5060  | Q09 | A5J1-14   | Lower SKI "S"                      | 54   | Whit-Grn   | MCR-106 |
| Q16 | A5J2-22   | Ball-in-Play (Back Box)         | 62   | Brn-Blu    | MCR-106 | Q34 | A5J1-2    | Lower SKI "K"                      | 43   | Grn-Yel    | MCR-106 |
| Q39 | A5J3-24   | Bonus 30K                       | 72   | Orn-Blu    | 2N5060  | Q48 | A5J3-16   | Lower SKI "I"                      | 25   | Blu-Wht    | MCR-106 |
| Q31 | A5J2-2    | Bonus Multiplier 3X             | 20   | Blu        | 2N5060  | Q23 | A5J2-8    | Match (Back Box)                   | 93   | Gry-Yel    | MCR-106 |
| Q19 | A5J2-15   | Bonus Multiplier 4X             | 23   | Blu-Yel    | 2N5060  | Q27 | A5J1-9    | Red Target "H"                     | 43   | Grn-Yel    | 2N5060  |
| Q45 | A5J2-1    | Bonus Multiplier 5X             | 60   | Brn        | 2N5060  | Q38 | A5J3-25   | Red Target "O"                     | 36   | Yel-Brn    | 2N5060  |
| Q53 | A5J3-14   | Bonus Special                   | 84   | Blk-Grn    | 2N5060  | Q50 | A5J3-12   | Red Target "T"                     | 21   | Blu-Red    | 2N5060  |
| Q52 | A5J3-13   | Credit Indicator                | 13   | Red-Yel    | 2N5060  | Q03 | A5J2-21   | Same Player Shoot Again (Back Box) | 47   | Grn-Orn    | MCR-106 |
| Q13 | A5J1-17   | Drop Target "D"                 | 57   | Whit-Orn   | 2N5060  | Q24 | A5J1-5    | Saucer 25K                         | 48   | Gm-Blk     | MCR-106 |
| Q28 | A5J1-8    | Drop Target "O"                 | 51   | Wht-Red    | 2N5060  | Q42 | A5J3-21   | Saucer Extra Ball                  | 30   | Yel        | MCR-106 |
| Q44 | A5J3-19   | Drop Target "G" (1ste)          | 67   | Brn-Orn    | 2N5060  | Q56 | A5J3-10   | Saucer Special Arrow               | 91   | Gry-Red    | MCR-106 |
| Q51 | A5J3-15   | Drop Target "G" (2nd)           | 53   | Wht-Yel    | 2N5060  | Q14 | A5J1-18   | SKI Rollover "S"                   | 58   | Whit-Blk   | 2N5060  |
| Q08 | A5J1-23   | Drop Target FUN "F"             | 56   | Wht-Brn    | MCR-106 | Q29 | A5J1-1    | SKI Rollover "K"                   | 52   | Whit-Blu   | 2N5060  |
| Q35 | A5J1-3    | Drop Target FUN "U"             | 45   | Grn-Whit   | MCR-106 | Q36 | A5J3-26   | SKI Rollover "I"                   | 38   | Yel-Blk    | 2N5060  |
| Q49 | A5J3-17   | Drop Target FUN "N"             | 27   | Blu-Orn    | MCR-106 | Q46 | A5J3-18   | Special Left Outlane               | 56   | Whit-Brn   | 2N5060  |
| Q33 | A5J2-11   | Game Over (Back Box)            | 95   | Gry-Whit   | MCR-106 | Q41 | A5J3-20   | Special Right Outlane              | 64   | Brn-Grn    | MCR-106 |
| Q15 | A5J2-23   | High Score to Date (Back Box)   | 97   | Gry-Orn    | MCR-106 | Q06 | A5J2-14   | Spinner 1K                         | 12   | Red-Blu    | 2N5060  |
| Q01 | A5J1-24   | Kicker Up Arrow                 | 50   | Whit       | MCR-106 | Q17 | A5J1-11   | Spots Letter Left Lane             | 65   | Brn-Whit   | MCR-106 |
| Q22 | A5J1-10   | Lower HOT "H"                   | 23   | Blu-Yel    | MCR-106 | Q02 | A5J1-25   | Spots Letter Right Lane            | 90   | Gry        | MCR-106 |
| Q37 | A5J3-23   | Lower HOT "O" (1st)             | 98   | Gry-Blk    | 2N5060  | Q40 | A5J3-22   | Thumper Bumper (Middle)            | 32   | Yel-Blu    | MCR-106 |
| Q60 | A5J3-3    | Lower HOT "T"                   | 81   | Blk-Red    | 2N5060  | Q58 | A5J3-2    | Thumper Bumper (Right)             | 95   | Gry-Whit   | 2N5060  |
| Q11 | A5J1-16   | Lower DOGGIN "D"                | 12   | Red-Blu    | 2N5060  | Q54 | A5J3-11   | Thumper Bumper (Top Left)          | 20   | Blu        | MCR-106 |
| Q26 | A5J1-7    | Lower DOGGIN "O" (2nd)          | 34   | Yel-Grn    | 2N5060  | Q47 | A5J2-10   | Tilt (Back Box)                    | 98   | Gry-Blk    | MCR-106 |
| Q32 | A5J3-27   | Lower DOGGIN "G" (1st)          | 40   | Grn        | 2N5060  | Q57 | A5J3-1    | White Target "I"                   | 10   | Red        | 2N5060  |
| Q59 | A5J3-4    | Lower DOGGIN "G" (2nd)          | 14   | Red-Grn    | 2N5060  | Q12 | A5J1-19   | White Target "N"                   | 60   | Brn        | 2N5060  |

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                | Top Right Thumper Bumper  | Momentary     | 74                | Orn-Grn    | A3J5-10                  | Q8                | AN-26-1200         |
| 4                | Top Left Thumper Bumper   | Momentary     | 75                | Orn-Whit   | A3J5-12                  | Q13               | AN-26-1200         |
| 5                | Middle Thumper Bumper     | Momentary     | 78                | Orn-Blk    | A3J5-11                  | Q14               | AN-26-1200         |
| 6                | Left Side Thumper Bumper  | Momentary     | 71                | Orn-Red    | A3J5-9                   | Q9                | AN-26-1200         |
| 7                | Left Slingshot            | Momentary     | 85                | Blk-Whit   | A3J5-15                  | Q10               | AO-26-1200         |
| 8                | Right Slingshot           | Momentary     | 80                | Blk        | A3J5-13                  | Q12               | AO-26-1200         |
| 9                | Kick Down Coil            | Momentary     | 83                | Blk-Yel    | A3J5-14                  | Q11               | AO-26-1200         |
| 10               | Saucer                    | Momentary     | 18                | Red-Blk    | A3J5-8, J2-6, J3-7,      | Q16               | AO-27-1300         |
| 11               | In-Line Drop Target Reset | Momentary     | 85                | Blk-Wht    | A3J1-3, J2-4             | Q2                | NO-26-1900         |
| 12               | 4-Bank Drop Target Reset  | Momentary     | 67                | Brn-Orn    | A3J1-2, J2-9             | Q1                | NO-26-1900         |
| 13               | 3-Bank Drop Target Reset  | Continuous    | 18                | Red-Blk    | A3J5-7                   | Q17               | NO-26-1900         |
| 14               | Coin Lockout              | Continuous    | 36                | Yel-Brn    | A3J2-8                   | Q19               | FO-36-7000         |
| 15               | Flipper enabling relay    | Continuous    | --                | --         | --                       | Q15               | 48V Relay          |
| 16               | Kick Up Coil              | Continuous    | 81                | Blk-Red    | A3J5-3, J2-15, J3-9      | Q18               | NO-26-1900         |
|                  |                           | Momentary     | 67                | Brn-Orn    | A3J2-10                  | Q5                |                    |
|                  |                           | Momentary     | 74                | Orn-Grn    | A3J2-11                  | Q6                |                    |
|                  |                           | Momentary     | 81                | Blk-Red    | A3J2-12                  | Q7                |                    |
| 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 Right Flipper       | 60 (Brn)      | 10 (Red)          |            | (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 Gry-Yel (93)<br>A4J3-3 Red-Grn (14) | STROBE 2<br>A4J2-3 Wht-Blu (52) | 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-Whit (15) | Coin Chute III (Right)                                 | 5000 Left Return Lane           | Red Target T in HOT             | Right Kicker Lane               |
|                                                             |                                 | 1                                                         | 9                                                      | 17                              | 25                              | 33                              |
| RETURN I 1<br>A4J2-9 Wht-Brn (56)<br>A4J3-10 Brn-Whit (65)  | When Lit Spots Letter Left Lane | 2                                                         | Coin Chute I (Left)                                    | In Line Drop Target #3          | Red Target O in HOT             | Spinner                         |
|                                                             |                                 | 2                                                         | 10                                                     | 18                              | 26                              | 34                              |
| RETURN I 2<br>A4J2-10 Wht-Orn (57)<br>A4J3-11 Blu (20)      | Left & Right Spots Letter Lane  | 3                                                         | Coin Chute II (Middle)                                 | In Line Drop Target #2          | Red Target H in HOT             | Right Slingshot                 |
|                                                             |                                 | 3                                                         | 11                                                     | 19                              | 27                              | 35                              |
| RETURN I 3<br>A4J2-11 Wht-Blk (58)<br>A4J3-12 Blu-Red (21)  | Right Outlane Special           | 4                                                         | Saucer                                                 | In Line Drop Target #1          | White Target N in IN            | Left Slingshot                  |
|                                                             |                                 | 4                                                         | 12                                                     | 20                              | 28                              | 36                              |
| RETURN I 4<br>A4J2-12 Brn (60)<br>A4J3-13 Blu-Yel (23)      | Left Outlane Special            | 5                                                         | Drop Target F in FUN                                   | Drop Target D in DOGG           | White Target I in IN            | Left Side Thumper Bumper        |
|                                                             |                                 | 5                                                         | 13                                                     | 21                              | 29                              | 37                              |
| RETURN I 5<br>A4J2-13 Brn-Yel (63)<br>A4J3-14 Blu-Whit (25) | Credit Button                   | 6                                                         | Drop Target U in FUN                                   | Drop Target O in DOGG           | Rollover I in SKI               | Middle Thumper Bumper           |
|                                                             |                                 | 6                                                         | 14                                                     | 22                              | 30                              | 38                              |
| RETURN I 6<br>A4J2-14 Brn-Whit (65)<br>A4J3-15 Blu-Orn (27) | Tilt (3)                        | 7                                                         | Drop Target N in FUN                                   | Drop Target G (1st) in DOGG     | Rollover K in SKI               | Right Thumper Bumper            |
|                                                             |                                 | 7                                                         | 15                                                     | 23                              | 31                              | 39                              |
| RETURN I 7<br>A4J2-15 Orn (70)<br>A4J3-16 Yel (30)          | Outhole                         | 8                                                         | Slam (2)                                               | Drop Target G (2nd) in DOGG     | Rollover S in SKI               | Top Left Thumper Bumper         |
|                                                             |                                 | 8                                                         | 16                                                     | 24                              | 32                              | 40                              |