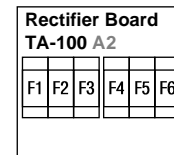
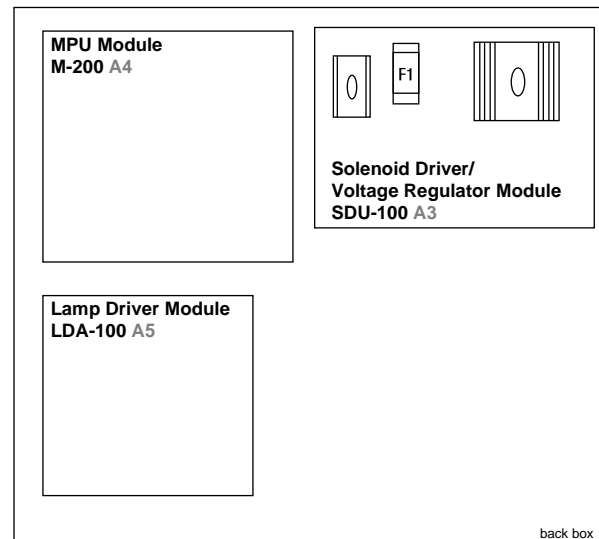


### Fuse List

Rectifier Board TA-100		
F1	6.5V Switched illumination	10A, 250V
F2	230V Display power input	0.75A, 250V, SB
F3	5V Unregulated input	4A, 250V
F4	43V Solenoids	5A, 250V, SB
F5	6.5V General illumination	20A, 250V
F6	Main fuse	3A, 250V, SB
Sol. Dr./Volt. Reg. SDU-100		
F1	190V Display power output (if present)	0.25A, 250V
Under the Playfield fuses		
F1	Playfield Solenoids	1A, 250V, SB



in the cabinet

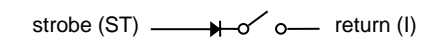
### Controlled Lamps Chart

SCR	connector	lamp description	wire color	tr type	SCR	connector	lamp description	wire color	tr type
Q58	A5J3-2	Bonus 2K	Yel-Grn	2N5060	Q22	A5J1-10	Planet Mars	Gry-Blu	MCR-106
Q20	A5J1-13	Bonus 4K	Wht-Blu	2N5060	Q60	A5J3-3	Planet Mercury	Gry	2N5060
Q25	A5J1-6	Bonus 6K	Brn-Red	2N5060	Q34	A5J1-2	Planet Neptune	Pur-Wht	MCR-106
Q04	A5J1-28	Bonus 8K	Blk-Wht	2N5060	Q09	A5J1-14	Planet Pluto	Gry-Orn	MCR-106
Q59	A5J3-4	Bonus 10K	Red-Wht	2N5060	Q55	A5J3-9	Planet Saturn	Wht-Red	MCR-106
Q32	A5J3-27	Bonus 20K	Orn-Wht	2N5060	Q48	A5J3-16	Planet Uranus	Red-Blk	MCR-106
Q26	A5J1-7	Bonus 30K	Yel-Grn	2N5060	Q37	A5J3-23	Planet Venus	Wht-Gry	2N5060
Q11	A5J1-16	Bonus 40K	Blk	2N5060	Q03	A5J1-26/J2-21	Shoot Again (Playfield / Backglass)	Gry-Red	MCR-106
Q46	A5J3-18	Bonus Multiplier 2X	Red-Blu	2N5060	Q56	A5J3-10	Special Left Outlane	Gry-Blk	MCR-106
Q41	A5J3-20	Bonus Multiplier 3X	Wht-Orn	MCR-106	Q42	A5J3-21	Special Right Outlane	Blk-Grn	MCR-106
Q17	A5J1-11	Bonus Multiplier 4X	Blk-Orn	MCR-106	Q14	A5J1-18	Spinner	Brn-Blk	2N5060
Q02	A5J1-25	Bonus Multiplier 5X	Pur-Blk	MCR-106	Q28	A5J1-8	Spot "X" Outlane	Grn-Blk	2N5060
Q24	A5J1-5	Extra Ball Left	Blu-Orn	MCR-106	Q13	A5J1-17	Spot "Y" Outlane	Pur	2N5060
Q01	A5J1-24	Extra Ball Right	Brn-Blu	MCR-106	Q23	A5J1-4	Spot Star (Left & Right Return Lane)	Pur-Yel	MCR-106
Q54	A5J3-11	Galaxy "G" Lane	Wht	MCR-106	Q29	A5J1-1	Sun Special	Blu-Red	2N5060
Q49	A5J3-17	Galaxy "A" Lane	Yel-Blu	MCR-106	Q47	A5J2-10	Tilt	Gry-Blk	MCR-106
Q35	A5J1-3	Galaxy "L" Lane	Red-Grn	MCR-106	Q53	A5J2-3	Top 2K	Blk-Wht	2N5060
Q08	A5J1-23	Galaxy "A" Rollover Button	Blu-Wht	MCR-106	Q39	A5J2-4	Top 4K	Pur-Blk	2N5060
Q51	A5J3-15	Galaxy "X" Return Lane	Wht-Blu	2N5060	Q21	A5J2-12	Top 6K	Wht-Yel	2N5060
Q44	A5J3-19	Galaxy "Y" Return Lane	Blk-Red	2N5060	Q07	A5J2-13	Top 8K	Gry-Grn	2N5060
Q33	A5J2-11	Game Over	Gry-Wht	MCR-106	Q52	A5J2-5	Top 10K	Blk-Yel	2N5060
Q16	A5J2-22	High Score to Date	Gry-Orn	MCR-106	Q40	A5J2-9	Top 10X Score	Gry	MCR-106
Q50	A5J3-12	Kicker Lane "G"	Orn-Red	2N5060	Q05	A5J2-16			2N5060
Q38	A5J3-25	Kicker Lane "A" (1st)	Red-Yel	2N5060	Q06	A5J2-14			2N5060
Q27	A5J1-9	Kicker Lane "L"	Gry	2N5060	Q15	A5J2-23			MCR-106
Q12	A5J1-19	Kicker Lane "A" (2nd)	Gry-Grn	2N5060	Q18	A5J2-20			2N5060
Q57	A5J3-1	Kicker Lane "X"	Grn-Red	2N5060	Q19	A5J2-15			2N5060
Q36	A5J3-26	Kicker Lane "Y"	Blk	2N5060	Q30	A5J2-6			2N5060
Q45	A5J2-1	Match	Gry-Yel	2N5060	Q31	A5J2-2			2N5060
Q10	A5J1-15	Planet Jupiter	Gry-Yel	MCR-106	Q43	A5J2-7			2N5060

### Coil Table

Sol. No	Solenoid description	Solenoid Type	Wire Color	Connector	Driver Transistor	Solenoid Coil Type
1	Left Slingshot	Momentary	Pur-Wht	A3J2-9, J1-2	Q1	J-27-1700
2	Right Slingshot	Momentary	Brn	A3J2-4, J1-3	Q2	J-27-1700
3	Knocker	Momentary	Blk-Yel	A3J2-5, J3-4	Q3	N-26-1200
4	Lower Right Thumper	Momentary	Brn-Yel	A3J1-5	Q4	J-26-1200
5	Top Thumper	Momentary	Grn-Red	A3J2-10	Q5	J-26-1200
6	4-Bank Drop Target Reset	Momentary	Gry	A3J2-11	Q6	B-27-2300
7	Ball Kicker	Momentary	Yel-Red	A3J2-12	Q7	J-28-2300
8	Saucer	Momentary	Blk-Yel	A3J5-10	Q8	J-28-2300
9	Outhole	Momentary	Orn-Red	A3J5-9	Q9	J-26-1000
10	Lower Left Thumper	Momentary	Blk-Blu	A3J5-15	Q10	J-26-1200
11	Drop Target Trip Black Star	Momentary	Yel-Blu	A3J5-14	Q11	C1-34-3400
12	Drop Target Trip Yellow Star	Momentary	Orn-Wht	A3J5-13	Q12	C1-34-3400
13	Drop Target Trip Red Star	Momentary	Orn-Blk	A3J5-12	Q13	C1-34-3400
14	Drop Target Trip Blue Star	Momentary	Blk	A3J5-11	Q14	C1-34-3400
15	Flipper enabling relay	Continuous	--	--	Q15	48V Relay
16		Momentary		A3J5-8, J2-6, J3-7,	Q16	
17	G.I. Relay	Continuous	Wht-Blu	A3J5-7	Q17	48V Relay
18		Continuous		A3J5-3, J2-15, J3-9	Q18	
19	Coin Lockout	Continuous	Yel-Wht	A3J2-8	Q19	C-36-5300
Flipper Circuits	Power Wire	Flipper Coil Wire	Flipper Button Wire	Coil		
Left Flipper	Blu-Wht	Grn A3J1-8	Blu A3J2-2	J-25-450/34-4500		
Right Flipper	Blu-Wht	Orn A3J1-9	Red A3J2-1	J-25-450/34-4500		

### Switch Matrix



Column	STROBE 0 A4J2-1 Wht-Red A4J3-2 Red-Yel	STROBE 1 A4J2-2 Brn-Wht A4J3-3 (not used)	STROBE 2 A4J2-3 Wht-Blu	STROBE 3 A4J2-4 Wht-Yel	STROBE 4 A4J2-5 Yel-Red
Row					
<b>RETURN I 0</b> A4J2-8 Brn A4J3-9 Red-Wht	Coin Chute I (Center) 1	Drop Target (Black Star) 9	Not Used 17	Not Used 25	Outhole 33
<b>RETURN I 1</b> A4J2-9 Gry A4J3-10 Brn-Wht	Coin Chute II (Left) 2	Drop Target (Yellow Star) 10	Center Rollover Buttons (2) 18	Stand-Up Target (Blue Star) 26	Not Used 34
<b>RETURN I 2</b> A4J2-10 Wht-Orn A4J3-11 Blu	Coin Chute III (Right) 3	Drop Target (Blue Star) 11	Right Return "Y" Lane 19	Not Used 27	Ball Kicker 35
<b>RETURN I 3</b> A4J2-11 Wht-Blk A4J3-12 not used	Drop Target (Red Star) 4	Top Thumper 12	Right Middle Extra Ball Lane 20	Not Used 28	Top Left "G" Lane 36
<b>RETURN I 4</b> A4J2-12 Wht-Grn A4J3-13 not used	Spin Target 5	Lower Right Thumper 13	Left Return "X" Lane 21	Stand-Up Target (Yellow Star) 29	Top Middle "A" Lane 37
<b>RETURN I 5</b> A4J2-13 Wht-Brn A4J3-14 Blu-Wht	Credit Button 6	Lower Left Thumper 14	Left Middle Extra Ball Lane 22	Stand-Up Target (Black Star) 30	Top Right "L" Lane 38
<b>RETURN I 6</b> A4J2-14 Brn-Yel A4J3-15 Blu-Orn	Tilt 7	Right Slingshot 15	Right Outlane 23	Not Used 31	Top Right "A" Rollover Button 39
<b>RETURN I 7</b> A4J2-15 Orn A4J3-16 Yel	Slam (3) 8	Left Slingshot 16	Left Outlane 24	Not Used 32	Saucer 40