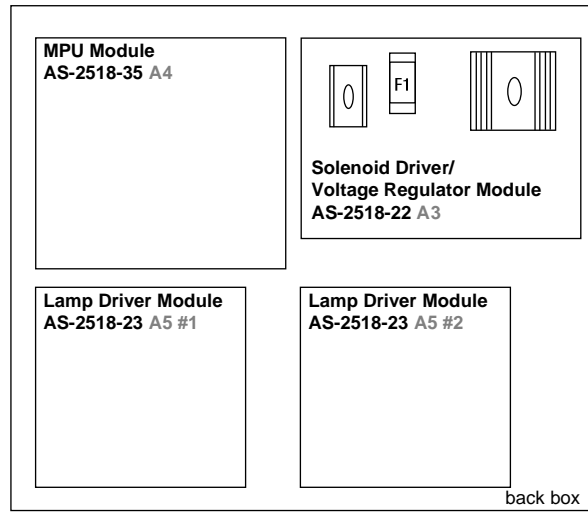
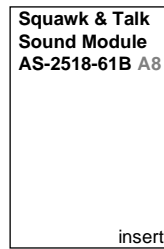
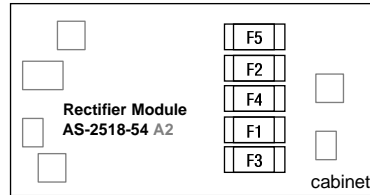


Fuse List

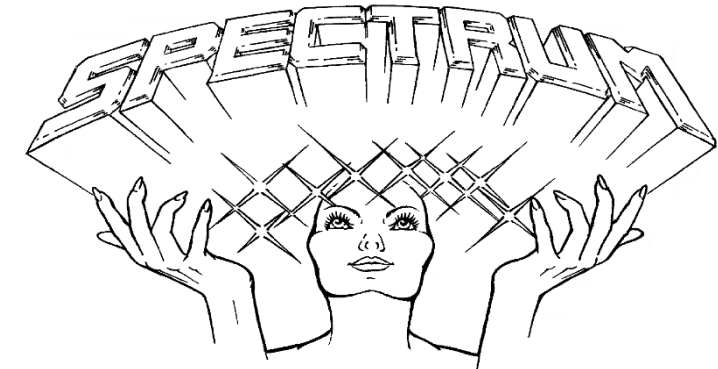
Rectifier Module AS-2518-54		
F1	6.5V Switched illumination	20A, 250V
F2	230V Display power input	0.75A, 250V
F3	5V Unregulated input	4A, 250V
F4	43V Solenoids (3 flippers)	5A, 250V
F5	6.5V General illumination	20A, 250V
Sol. Dr./Volt. Reg. AS-2518-22		
F1	190V Display power output	0.25A, 250V
Under the Playfield fuses		
F1	Solenoids	1A, 250V, SB
Transformer Module		
F1	Main fuse	3A, 250V, SB



Controlled Lamps Chart

SCR	connector	lamp description	code	wire color	tr type	SCR	connector	lamp description	code	wire color	tr type
Q16	A5J2-22	Ball-in-Play (Back Box)	62	Brn-Blu	MCR-106	Q50	A5J3-12	Red Row 2 Left	21	Blu-Red	2N5060
Q11	A5J1-16	Balls to Play 1	15	Red-Wht	2N5060	Q46	A5J3-18	Red Row 2 Right	56	Wht-Brn	2N5060
Q26	A5J1-7	Balls to Play 2	34	Yel-Grn	2N5060	Q59	A5J3-4	Red Row 3 Center	14	Red-Grn	2N5060
Q32	A5J3-27	Balls to Play 3	40	Grn	2N5060	Q51	A5J3-15	Red Row 3 Left	53	Wht-Yel	2N5060
Q59	A5J3-4	Balls to Play 4	14	Red-Grn	2N5060	Q52	A5J3-13	Red Row 3 Right	35	Yel-Wht	2N5060
Q04	A5J1-28	Balls to Play 5	78	Orn-Blk	2N5060	Q58	A5J3-2	Red Row 4 Center	95	Gry-Wht	2N5060
Q09	A5J1-14	Blue Row 1 Top Center	67	Brn-Orn	MCR-106	Q54	A5J3-11	Red Row 4 Left	20	Blu	MCR-106
Q14	A5J1-18	Blue Row 1 Top Left	58	Wht-Blk	2N5060	Q53	A5J3-14	Red Row 4 Right	84	Blk-Grn	2N5060
Q01	A5J1-24	Blue Row 1 Top Right	50	Wht	MCR-106	Q60	A5J3-3	Saucer Left Red Arrow	81	Blk-Red	2N5060
Q10	A5J1-15	Blue Row 2 Center	13	Red-Yel	MCR-106	Q37	A5J3-23	Saucer Left Yellow Arrow	98	Gry-Blk	2N5060
Q12	A5J1-19	Blue Row 2 Left	80	Brn	2N5060	Q10	A5J1-15	Saucer Right Blue Arrow	13	Red-Yel	MCR-106
Q02	A5J1-25	Blue Row 2 Right	75	Orn-Wht	MCR-106	Q22	A5J1-10	Saucer Right Green Arrow	95	Gry-Wht	MCR-106
Q11	A5J1-16	Blue Row 3 Center	15	Red-Wht	2N5060	Q33	A5J2-11	Spectrum (X)	38	Yel-Blk	MCR-106
Q13	A5J1-17	Blue Row 3 Left	57	Wht-Orn	2N5060	Q15	A5J2-23	Spectrum (Y)	47	Grn-Orn	MCR-106
Q03	A5J1-26	Blue Row 3 Right	91	Gry-Red	MCR-106	Q16	A5J2-22	Spectrum (Z)	54	Wht-Grn	MCR-106
Q04	A5J1-28	Blue Row 4 Center	78	Orn-Blk	2N5060	Q09	A5J1-14	Spinner Left Blue Arrow	67	Brn-Orn	MCR-106
Q08	A5J1-23	Blue Row 4 Left	12	Red-Blu	MCR-106	Q34	A5J1-2	Spinner Left Green Arrow	52	Wht-Blu	MCR-106
Q07	A5J1-27	Blue Row 4 Right	53	Wht-Yel	2N5060	Q14	A5J1-18	Spinner Left Lights	58	Wht-Blk	2N5060
Q25	A5J1-6	Bonus Multiplier 2X	94	Gry-Grn	2N5060	Q29	A5J1-1	Spinner Left Spectral	41	Grn-Red	2N5060
Q20	A5J1-13	Bonus Multiplier 3X	30	Yel	2N5060	Q57	A5J3-1	Spinner Right Lights	10	Red	2N5060
Q58	A5J3-2	Bonus Multiplier 4X	95	Gry-Wht	2N5060	Q55	A5J3-9	Spinner Right Red Arrow	15	Red-Wht	MCR-106
Q52	A5J3-13	Credit Indicator	35	Yel-Wht	2N5060	Q36	A5J3-26	Spinner Right Spectral	43	Grn-Yel	2N5060
Q08	A5J1-23	Drop Targets Blue	12	Red-Blu	MCR-106	Q48	A5J3-16	Spinner Right Yellow Arrow	25	Blu-Wht	MCR-106
Q35	A5J1-3	Drop Targets Green	45	Grn-Wht	MCR-106	Q01	A5J1-24	Super Star #1 (Left)	50	Wht	MCR-106
Q54	A5J3-11	Drop Targets Red	20	Blu	MCR-106	Q24	A5J1-5	Super Star #2	48	Grn-Blk	MCR-106
Q49	A5J3-17	Drop Targets Yellow	13	Red-Yel	MCR-106	Q42	A5J3-21	Super Star #3	64	Brn-Gm	MCR-106
Q41	A5J3-20	Flipper Button Right	78	Orn-Blk	MCR-106	Q56	A5J3-10	Super Star #4 (Right)	91	Gry-Red	MCR-106
Q33	A5J2-11	Game Over (Back Box)	95	Gry-Wht	MCR-106	Q02	A5J1-25	Super Star 500,000	75	Orn-Wht	MCR-106
Q12	A5J1-19	Green Rollover Button #1 Left	60	Brn	2N5060	Q47	A5J2-10	Tilt (Back Box)	31	Yel-Red	MCR-106
Q27	A5J1-9	Green Rollover Button #2	43	Gm-Yel	2N5060	Q53	A5J2-3	to Aux. Driver J1-3 (Insert)	15	Red-Wht	2N5060
Q38	A5J3-25	Green Rollover Button #3	36	Yel-Brn	2N5060	Q43	A5J2-7	to Flasher Driver board (Insert)	25	Blu-Wht	2N5060
Q50	A5J3-12	Green Rollover Button #4 Right	21	Blu-Red	2N5060	Q03	A5J1-26	to G.I. Flasher Board #1	91	Gry-Red	MCR-106
Q34	A5J1-2	Green Row 1 Top Center	52	Wht-Blu	MCR-106	Q40	A5J3-22	to G.I. Flasher Board #2	23	Blu-Yel	MCR-106
Q29	A5J1-1	Green Row 1 Top Left	41	Gm-Red	2N5060	Q13	A5J1-17	Top Saucer Blue Arrow	57	Wht-Orn	2N5060
Q24	A5J1-5	Green Row 1 Top Right	48	Gm-Blk	MCR-106	Q28	A5J1-8	Top Saucer Green Arrow	51	Wht-Red	2N5060
Q22	A5J1-10	Green Row 2 Center	32	Yel-Blu	MCR-106	Q51	A5J3-15	Top Saucer Red Arrow	53	Wht-Yel	2N5060
Q27	A5J1-9	Green Row 2 Left	43	Gm-Yel	2N5060	Q44	A5J3-19	Top Saucer Yellow Arrow	67	Brn-Orn	2N5060
Q17	A5J1-11	Green Row 2 Right	65	Brn-Wht	MCR-106	Q39	A5J2-4	Twinkle (Left) "D"	75	Orn-Wht	2N5060
Q26	A5J1-7	Green Row 3 Center	34	Yel-Grn	2N5060	Q21	A5J2-12	Twinkle (Left) "E"	61	Brn-Red	2N5060
Q28	A5J1-8	Green Row 3 Left	51	Wht-Red	2N5060	Q07	A5J2-13	Twinkle (Left) "F"	53	Wht-Yel	2N5060
Q23	A5J1-4	Green Row 3 Right	35	Yel-Wht	MCR-106	Q30	A5J2-6	Twinkle Right (A)	43	Gm-Yel	2N5060
Q25	A5J1-6	Green Row 4 Center	25	Blu-Wht	2N5060	Q18	A5J2-20	Twinkle Right (B)	50	Wht	2N5060
Q35	A5J1-3	Green Row 4 Left	45	Gm-Wht	MCR-106	Q05	A5J2-16	Twinkle Right (C)	57	Wht-Orn	2N5060
Q21	A5J1-12	Green Row 4 Right	61	Brn-Red	2N5060	Q48	A5J3-16	Yellow Row 1 Top Center	25	Blu-Wht	MCR-106
Q15	A5J2-23	High Score to Date (Back Box)	97	Gry-Orn	MCR-106	Q36	A5J3-26	Yellow Row 1 Top Left	43	Gm-Yel	2N5060
Q06	A5J2-14	Keyboard Blue	12	Red-Blu	2N5060	Q42	A5J3-21	Yellow Row 1 Top Right	64	Brn-Gm	MCR-106
Q05	A5J2-16	Keyboard Blue	34	Yel-Grn	2N5060	Q37	A5J3-23	Yellow Row 2 Center	98	Gry-Blk	2N5060
Q19	A5J2-15	Keyboard Green	23	Blu-Yel	2N5060	Q38	A5J3-25	Yellow Row 2 Left	36	Yel-Brn	2N5060
Q18	A5J2-20	Keyboard Green	98	Gry-Blk	2N5060	Q41	A5J3-20	Yellow Row 2 Right	78	Orn-Blk	MCR-106
Q45	A5J2-1	Keyboard Red	60	Brn	2N5060	Q32	A5J3-27	Yellow Row 3 Center	40	Gm	2N5060
Q43	A5J2-7	Keyboard Red	91	Gry-Red	2N5060	Q44	A5J3-19	Yellow Row 3 Left	67	Brn-Orn	2N5060
Q31	A5J2-2	Keyboard Yellow	20	Blu	2N5060	Q40	A5J3-22	Yellow Row 3 Right	23	Blu-Yel	MCR-106
Q30	A5J2-6	Keyboard Yellow	85	Blk-Wht	2N5060	Q20	A5J1-13	Yellow Row 4 Center	30	Yel	2N5060
Q23	A5J2-8	Match (Back Box)	70	Orn	MCR-106	Q49	A5J3-17	Yellow Row 4 Left	13	Red-Yel	MCR-106
Q17	A5J1-11	Outlane Left Special	65	Brn-Wht	MCR-106	Q39	A5J3-24	Yellow Row 4 Right	72	Orn-Blu	2N5060
Q46	A5J3-18	Outlane Right Special	70	Orn	2N5060	Q45	A5J2-1		60	Brn	2N5060
Q55	A5J3-9	Red Row 1 Top Center	15	Red-Wht	MCR-106	Q47	A5J2-10		35	Yel-Wht	MCR-106
Q57	A5J3-1	Red Row 1 Top Left	10	Red	2N5060	Q06	A5J2-14		12	Red-Blu	2N5060
Q56	A5J3-10	Red Row 1 Top Right	91	Gry-Red	MCR-106	Q19	A5J2-15		23	Blu-Yel	2N5060
Q60	A5J3-3	Red Row 2 Center	81	Blk-Red	2N5060	Q31	A5J2-2		--	Pink	2N5060

A5 = Lamp Driver Board AS-2518-23 #2



Coil Table

Sol. No	Solenoid description	Solenoid Type	Wire Code	Wire Color	Connector	Driver Transistor	Solenoid Coil Type
1	Knocker	Momentary	85	Blk-Wht	A3J2-5, J3-4	Q3	AR-26-1200
2	Outhole	Momentary	81	Blk-Red	A3J2-12	Q7	AO-27-1300
3	Left Side Middle Saucer	Momentary	71	Orn-Red	A3J2-10	Q5	AO-29-1700
4	Top Saucer Kick to Left	Momentary	74	Orn-Grn	A3J1-3, J2-4	Q2	AO-29-2100
5	Top Saucer Kick to Right	Momentary	78	Orn-Blk	A3J1-2, J2-9	Q1	AO-29-2100
6	Right Side Middle Saucer	Momentary	91	Gry-Red	A3J2-11	Q6	AO-29-1700
7	Blue Drop Target Reset	Momentary	78	Orn-Blk	A3J5-11	Q14	NO-26-1900
8	Green Drop Target Reset	Momentary	71	Orn-Red	A3J5-9	Q9	NO-26-1900
9	Yellow Drop Target Reset	Momentary	74	Orn-Grn	A3J5-15	Q10	NO-26-1900
10	Red Drop Target Reset	Momentary	67	Brn-Orn	A3J5-13	Q12	NO-26-1900
11	Left Side Bottom Saucer	Momentary	85	Blk-Wht	A3J5-10	Q8	AO-28-1700
12	Right Side Bottom Saucer	Momentary	80	Blk	A3J5-12	Q13	AO-28-1700
13	Flipper enabling relay	Continuous	--	--	--	Q15	48V Relay
14	Coin Lockout	Continuous	36	Yel-Brn	A3J2-8	Q19	FO-36-7000
15		Momentary			A3J5-14	Q11	
16		Momentary			A3J2-6, J3-7, J5-8	Q16	
17		Continuous			A3J5-7	Q17	
18		Continuous			A3J2-15, J3-9, J5-3	Q18	
19		Momentary			A3J1-5	Q4	
		Flipper Circuits	Power Wire	Flipper Coil Wire	Flipper Button Wire	Flipper Connector	
		Left Flipper	60 (Brn)	40 (Gm)	A3J1-8	A3J2-2	AQ-25-500/34-4500
		Right Flipper	60 (Brn)	70 (Orn)	A3J1-9	A3J2-1	AQ-25-500/34-4500

Switch Matrix

Column	strobe (ST) — return (I)					
	STROBE 0 A4J2-1 Wht-Red (51) A4J3-2 Red-Yel (13)	STROBE 1 A4J2-2 Orn (70) A4J3-3 Red-Grn (14)	STROBE 2 A4J2-3 Gry-Yel (93)	STROBE 3 A4J2-4 Wht-Yel (53)	STROBE 4 A4J2-5 Yel-Red (31)	STROBE 5 A4J4-5 Blk-Wht (85)
RETURN I 0 A4J2-8 Wht-Gm (54) A4J3-9 Red-Wht (15)	Right Flipper Button 1	Coin Chute III (Right) 9	Left Side Bottom Saucer 17	Left Side Lane Upper (3) cap. 25	Left Spinner Lane Rollover Buttons (2) cap. 33	Left Side Middle Saucer 41
RETURN I 1 A4J2-9 Brn-Yel (63) A4J3-10 Brn-Wht (65)	Left Flipper Button 2	Coin Chute I (Left) 10	Left Side Lane Before Bottom Saucer 18	Left Spinner 26	Green Drop Target (Left) 34	Blue Drop Target (Left) 42
RETURN I 2 A4J2-10 Wht-Orn (57) A4J3-11 Blu (20)	Not Used 3	Coin Chute II (Middle) 11	Top Left Side Rollover Button (3) 19	Green Rollover Button #1 (Left) cap. 27	Green Drop Target (Center) 35	Blue Drop Target (Center) 43
RETURN I 3 A4J2-11 Orn-Blk (78) A4J3-12 (not used)	Not Used 4	Not Used 12	Left Outlane 20	Green Rollover Button #2 cap. 28	Green Drop Target (Right) 36	Blue Drop Target (Right) 44
RETURN I 4 A4J2-12 Brn (60) A4J3-13 (not used)	Not Used 5	Not Used 13	Top Right Side Rollover Button (3) 21	Green Rollover Button #3 cap. 29	Yellow Drop Target (Left) 37	Red Drop Target (Left) 45
RETURN I 5 A4J2-13 Wht-Brn (56) A4J3-14 Blu-Wht (25)	Credit Button 6	Not Used 14	Right Outlane 22	Green Rollover Button #4 (Right) cap. 30	Yellow Drop Target (Center) 38	Red Drop Target (Center) 46
RETURN I 6 A4J2-14 Brn-Wht (65) A4J3-15 Blu-Orn (27)	Top Saucer 7	Tilt (3) 15	Right Side Lane Before Bottom Saucer 23	Right Spinner 31	Yellow Drop Target (Right) 39	Red Drop Target (Right) 47
RETURN I 7 A4J2-15 Wht-Blu (52) A4J3-16 Yel (30)	Outhole 8	Slam (2) 16	Right Side Bottom Saucer 24	Right Side Lane Upper (3) cap. 32	Right Spinner Lane Rollover Buttons (2) cap. 40	Right Side Middle Saucer 48