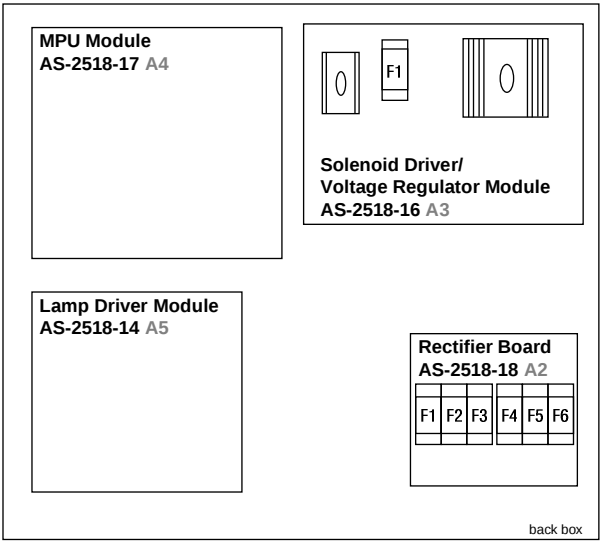


Fuse List

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 (2 flippers)	5A, 250V
F5	6.5V General illumination	20A, 250V
F6	Main fuse	3A, 250V, SB
Sol. Dr./Volt. Reg. AS-2518-16		
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
Q10	A5J1-15	"A B" Lanes Value 1K	13	Red-Yel	MCR-106	Q30	A5J2-6	Can Play 3	85	Blk-Wht	2N5060
Q22	A5J1-10	"A B" Lanes Value 2K	32	Yel-Blu	MCR-106	Q43	A5J2-7	Can Play 4	91	Gry-Red	2N5060
Q37	A5J3-23	"A B" Lanes Value 3K	98	Gry-Blk	2N5060	Q52	A5J3-13	Credit Indicator	13	Red-Yel	2N5060
Q60	A5J3-3	"A B" Lanes Value 4K	81	Blk-Red	2N5060	Q51	A5J3-15	Drop Target Special	53	Wht-Yel	2N5060
Q11	A5J1-16	"A B" Lanes Value 5K	12	Red-Blu	2N5060	Q33	A5J2-11	Game Over	95	Gry-Wht	MCR-106
Q26	A5J1-7	"A B" Lanes Value Extra Ball	34	Yel-Grn	2N5060	Q15	A5J2-23	High Score to Date	97	Gry-Orn	MCR-106
Q32	A5J3-27	"A B" Lanes Value Special	40	Grn	2N5060	Q23	A5J2-8	Match	93	Gry-Yel	MCR-106
Q54	A5J3-11	"A" Target (2 lamps)	20	Blu	MCR-106	Q58	A5J3-2	Outlane Left 50K	95	Gry-Wht	2N5060
Q49	A5J3-17	"B" Target (2 lamps)	27	Blu-Orn	MCR-106	Q20	A5J1-13	Outlane Right 50K	96	Gry-Brn	2N5060
Q06	A5J2-14	1st Player Up	12	Red-Blu	2N5060	Q03	A5J2-21	Same Player Shoot Again (Back Box)	47	Grn-Orn	MCR-106
Q19	A5J2-15	2nd Player Up	32	Yel-Blu	2N5060	Q40	A5J3-22	Same Player Shoot Again (Playfield)	23	Blu-Yel	MCR-106
Q31	A5J2-2	3rd Player Up	20	Blu	2N5060	Q46	A5J3-18	Saucer Arrow 2X	56	Wht-Bm	2N5060
Q45	A5J2-1	4th Player Up	60	Bm	2N5060	Q41	A5J3-20	Saucer Arrow 3X	64	Bm-Grn	MCR-106
Q16	A5J2-22	Ball-in-Play	62	Bm-Blu	MCR-106	Q17	A5J1-11	Saucer Arrow 5X	65	Bm-Wht	MCR-106
Q14	A5J1-18	Bonus 1K	58	Wht-Blk	2N5060	Q56	A5J3-10	Thumper Bumper Left Bottom	91	Gry-Red	MCR-106
Q29	A5J1-1	Bonus 2K	41	Grn-Red	2N5060	Q42	A5J3-21	Thumper Bumper Right Bottom	30	Yel	MCR-106
Q36	A5J3-26	Bonus 3K	38	Yel-Blk	2N5060	Q47	A5J2-10	Tilt	98	Gry-Blk	MCR-106
Q57	A5J3-1	Bonus 4K	10	Red	2N5060	Q09	A5J1-14		54	Wht-Grn	MCR-106
Q12	A5J1-19	Bonus 5K	60	Bm	2N5060	Q34	A5J1-2		43	Grn-Yel	MCR-106
Q27	A5J1-9	Bonus 6K	52	Wht-Blu	2N5060	Q08	A5J1-23		56	Wht-Bm	MCR-106
Q38	A5J3-25	Bonus 7K	36	Yel-Bm	2N5060	Q01	A5J1-24		50	Wht	MCR-106
Q50	A5J3-12	Bonus 8K	21	Blu-Red	2N5060	Q02	A5J1-25		90	Gry	MCR-106
Q13	A5J1-17	Bonus 9K	57	Wht-Orn	2N5060	Q07	A5J1-27		53	Wht-Yel	2N5060
Q28	A5J1-8	Bonus 10K	51	Wht-Red	2N5060	Q04	A5J1-28		78	Orn-Blk	2N5060
Q44	A5J3-19	Bonus 20K	67	Bm-Orn	2N5060	Q35	A5J1-3		45	Grn-Wht	MCR-106
Q53	A5J3-14	Bonus Multiplier 2X	84	Blk-Grn	2N5060	Q24	A5J1-5		48	Grn-Blk	MCR-106
Q39	A5J3-24	Bonus Multiplier 3X	72	Orn-Blu	2N5060	Q25	A5J1-6		25	Blu-Wht	2N5060
Q21	A5J1-12	Bonus Multiplier 5X	61	Bm-Red	2N5060	Q48	A5J3-16		25	Blu-Wht	MCR-106
Q05	A5J2-16	Can Play 1	34	Yel-Grn	2N5060	Q59	A5J3-4		14	Red-Grn	2N5060
Q18	A5J2-20	Can Play 2	35	Yel-Wht	2N5060	Q55	A5J3-9		15	Red-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	63	Bm-Yel	A3J1-5	Q4	AN-26-1200
2	Knocker	Momentary	83	Blk-Yel	A3J3-4, J2-5	Q3	AR-26-1200
3	Chime 10	Momentary	58	Wht-Blk	A3J2-9, J1-2	Q1	CN-31-2000
4	Chime 100	Momentary	57	Wht-Orn	A3J2-10	Q5	CN-31-2000
5	Chime 1000	Momentary	56	Wht-Bm	A3J2-11	Q6	CN-31-2000
6	Chime Extra	Momentary	54	Wht-Grn	A3J2-12	Q7	CN-31-2000
7	Bottom Left Thumper Bumper	Momentary	74	Orn-Grn	A3J5-10	Q8	AN-26-1200
8	Top Left Thumper Bumper	Momentary	75	Orn-Wht	A3J5-12	Q13	AN-26-1200
9	Top Right Thumper Bumper	Momentary	78	Orn-Blk	A3J5-11	Q14	AN-26-1200
10	Bottom Right Thumper Bumper	Momentary	71	Orn-Red	A3J5-9	Q9	AN-26-1200
11	Left Slingshot	Momentary	85	Blk-Wht	A3J5-15	Q10	AN-26-1200
12	Right Slingshot	Momentary	83	Blk-Yel	A3J5-14	Q11	AN-26-1200
13	Saucer	Momentary	53	Wht-Yel	A3J1-3, J2-4	Q2	AO-27-1300
14	Drop Target Reset Left	Momentary	80	Blk	A3J5-13	Q12	NO-26-1900
15	Drop Target Reset Right	Momentary	18	Red-Blk	A3J5-8, J2-6, J3-7,	Q16	NO-26-1900
16	Coin Lockout	Continuous	36	Yel-Bm	A3J2-8	Q19	FO-36-7000
17	Flipper enabling relay	Continuous	--	--	--	Q15	48V Relay
		Continuous	67	Bm-Orn	A3J5-7	Q17	
		Continuous	81	Blk-Red	A3J5-3, J2-15, J3-9	Q18	
Flipper Circuits		Power Wire	Flipper Coil Wire		Flipper Button Wire		Coil
	Left Flipper	60 (Bm)	40 (Grn)	A3J1-8		A3J2-2	AQ-25-500/34-5050
	Right Flipper	60 (Brn)	70 (Orn)	A3J1-9	10 (Red)	A3J2-1	AQ-25-500/34-5050

Switch Matrix

		strobe (ST)  return (I)				
Column		STROBE 0 A4J2-1 Wht-Red (51) A4J3-2 Red-Yel (13)	STROBE 1 A4J2-2 Gry-Yel (93) A4J3-3 Red-Grn (14)	STROBE 2 A4J2-3 Wht-Blu (52)	STROBE 3 A4J2-4 Wht-Yel (53)	STROBE 4 A4J2-5 Yel-Red (31)
Row						
RETURN I 0 A4J2-8 Wht-Grn (54) A4J3-9 Red-Wht (15)		Not Used 1	Coin Chute III (Right) 9	Right Drop Target D (Bottom) 17	Right Flipper Feeder Lane 25	Right Outlane 33
RETURN I 1 A4J2-9 Wht-Bm (56) A4J3-10 Bm-Wht (65)		Not Used 2	Coin Chute I (Left) 10	Right Drop Target C 18	Left Flipper Feeder Lane 26	Left Outlane 34
RETURN I 2 A4J2-10 Wht-Orn (57) A4J3-11 Blu (20)		Not Used 3	Coin Chute II (Middle) 11	Right Drop Target B 19	10 Point Drop Target Rebound (2) 27	Right Slingshot 35
RETURN I 3 A4J2-11 Wht-Blk (58) A4J3-12 Blu-Red (21)		Not Used 4	Not Used 12	Right Drop Target A (Top) 20	Right 'B' Lane 28	Left Slingshot 36
RETURN I 4 A4J2-12 Bm (60) A4J3-13 Blu-Yel (23)		Not Used 5	Not Used 13	Left Drop Target D (Bottom) 21	Left 'A' Lane 29	Bottom Right Thumper Bumper 37
RETURN I 5 A4J2-13 Bm-Yel (63) A4J3-14 Blu-Wht (25)		Credit Button 6	Not Used 14	Left Drop Target C 22	Top 'B' Lane 30	Bottom Left Thumper Bumper 38
RETURN I 6 A4J2-14 Bm-Wht (65) A4J3-15 Blu-Orn (27)		Tilt (3) 7	Not Used 15	Left Drop Target B 23	Top 'A' Lane 31	Top Right Thumper Bumper 39
RETURN I 7 A4J2-15 Om (70) A4J3-16 Yel (30)		Outhole 8	Slam (2) 16	Left Drop Target A (Top) 24	Top Saucer 32	Top Left Thumper Bumper 40