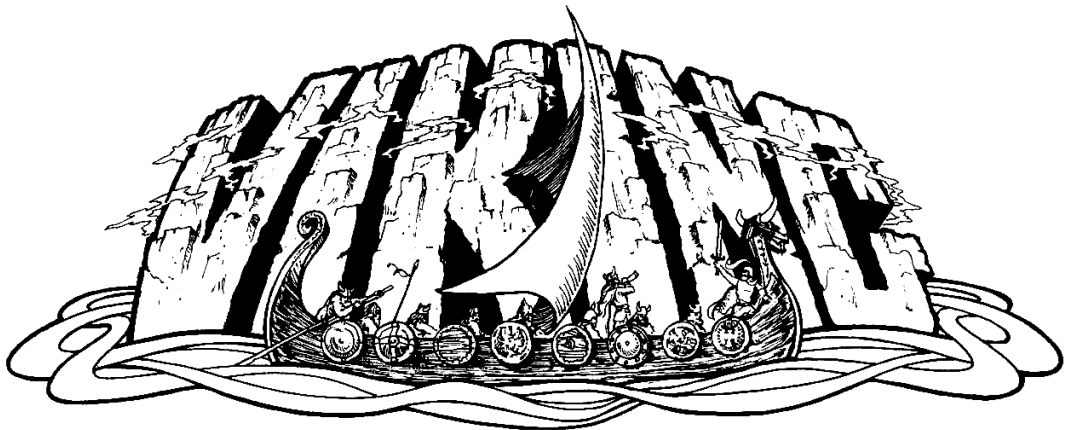
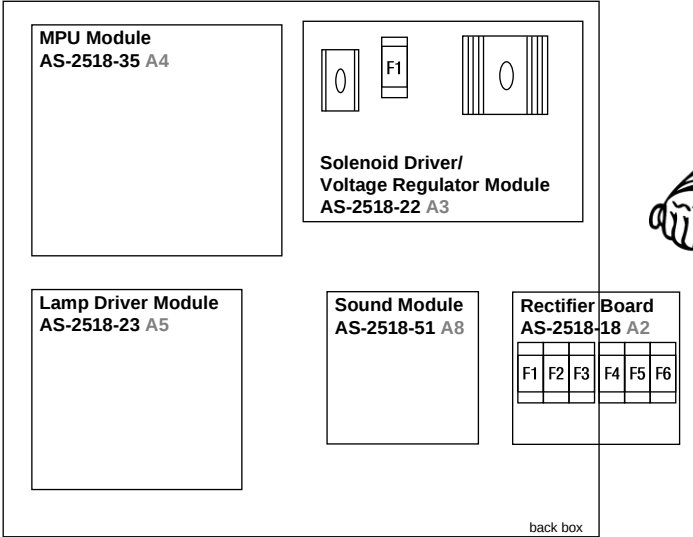
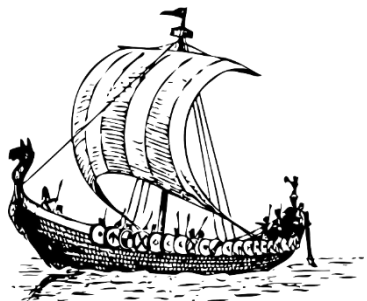




Fuse List

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-2518-22		
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
Q05	A5J2-16	3-Bank Drop Target 2K	34	Yel-Grn	2N5060	Q25	A5J1-6	In-line Drop Targets 2K	25	Blu-Wht	2N5060
Q18	A5J2-20	3-Bank Drop Target 4K	98	Gry-Blk	2N5060	Q20	A5J1-13	In-line Drop Targets 3K	96	Gry-Brn	2N5060
Q30	A5J2-6	3-Bank Drop Target 6K	85	Blk-Wht	2N5060	Q58	A5J3-2	In-line Drop Targets 4K	95	Gry-Wht	2N5060
Q43	A5J2-7	3-Bank Drop Target 8K	91	Gry-Red	2N5060	Q01	A5J1-24	In-line Drop Targets 5K	50	Wht	MCR-106
Q06	A5J2-14	3-Bank Drop Target 10K	12	Red-Blu	2N5060	Q24	A5J1-5	In-line Drop Targets Special	48	Grn-Blk	MCR-106
Q19	A5J2-15	3-Bank Drop Target Multiplier 10X	23	Blu-Yel	2N5060	Q56	A5J3-10	In-line Target 50K	91	Gry-Red	MCR-106
Q16	A5J2-22	Ball-in-Play (Back Box)	62	Brn-Blu	MCR-106	Q42	A5J3-21	Left Red Target 50K	30	Yel	MCR-106
Q14	A5J1-18	Bonus 1K	58	Wht-Blk	2N5060	Q23	A5J2-8	Match (Back Box)	70	Orn	MCR-106
Q29	A5J1-1	Bonus 2K	41	Grn-Red	2N5060	Q53	A5J3-14	Outlane Left 25K	84	Blk-Grn	2N5060
Q36	A5J3-26	Bonus 3K	43	Grn-Yel	2N5060	Q07	A5J1-27	Outlane Right 25K	53	Wht-Yel	2N5060
Q57	A5J3-1	Bonus 4K	10	Red	2N5060	Q02	A5J1-25	Right Lane Arrow	75	Orn-Wht	MCR-106
Q12	A5J1-19	Bonus 5K	60	Brn	2N5060	Q45	A5J2-1	Rollover "A"	60	Brn	2N5060
Q27	A5J1-9	Bonus 6K	43	Grn-Yel	2N5060	Q31	A5J2-2	Rollover "B"	20	Blu	2N5060
Q38	A5J3-25	Bonus 7K	36	Yel-Brn	2N5060	Q03	A5J2-21	Same Player Shoot Again (Back Box)	47	Grn-Orn	MCR-106
Q50	A5J3-12	Bonus 8K	21	Blu-Red	2N5060	Q03	A5J1-26	Same Player Shoot Again (Playfield)	91	Gry-Red	MCR-106
Q13	A5J1-17	Bonus 9K	57	Wht-Orn	2N5060	Q17	A5J1-11	Saucer Bonus & Center Arrow	65	Brn-Wht	MCR-106
Q28	A5J1-8	Bonus 10K	51	Wht-Red	2N5060	Q46	A5J3-18	Special Arrow	56	Wht-Brn	2N5060
Q44	A5J3-19	Bonus 20K	67	Brn-Orn	2N5060	Q09	A5J1-14	Spinner 1 (Bottom)	54	Wht-Grn	MCR-106
Q51	A5J3-15	Bonus 40K	53	Wht-Yel	2N5060	Q34	A5J1-2	Spinner 2	52	Wht-Blu	MCR-106
Q08	A5J1-23	Bonus Multiplier 2X	12	Red-Blu	MCR-106	Q48	A5J3-16	Spinner 3	25	Blu-Wht	MCR-106
Q35	A5J1-3	Bonus Multiplier 3X	45	Grn-Wht	MCR-106	Q55	A5J3-9	Spinner 4	15	Red-Wht	MCR-106
Q49	A5J3-17	Bonus Multiplier 4X	13	Red-Yel	MCR-106	Q10	A5J1-15	Spinner 5	13	Red-Yel	MCR-106
Q54	A5J3-11	Bonus Multiplier 5X	20	Blu	MCR-106	Q22	A5J1-10	Spinner 6	23	Blu-Yel	MCR-106
Q52	A5J3-13	Credit Indicator	35	Yel-Wht	2N5060	Q37	A5J3-23	Spinner 7	98	Gry-Blk	2N5060
Q41	A5J3-20	Extra Ball Arrow	64	Brn-Grn	MCR-106	Q60	A5J3-3	Spinner 8	81	Blk-Red	2N5060
Q39	A5J3-24	Flipper Feed Lane Special Left	72	Orn-Blu	2N5060	Q11	A5J1-16	Spinner 9	90	Gry	2N5060
Q21	A5J1-12	Flipper Feed Lane Special Right	61	Brn-Red	2N5060	Q26	A5J1-7	Spinner 10 (Top)	34	Yel-Grn	2N5060
Q33	A5J2-11	Game Over (Back Box)	95	Gry-Wht	MCR-106	Q32	A5J3-27	Spinner 100	40	Grn	2N5060
Q15	A5J2-23	High Score to Date (Back Box)	97	Gry-Orn	MCR-106	Q59	A5J3-4	Spinner 1000	14	Red-Grn	2N5060
Q04	A5J1-28	In-line Drop Targets 1K	78	Orn-Blk	2N5060	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 Kick Up	Momentary	74	Orn-Grn	A3J5-10	Q8	AO-30-3000
4	Saucer Kick Down	Momentary	75	Orn-Wht	A3J5-12	Q13	AO-29-2100
5	Left Slingshot	Momentary	83	Blk-Yel	A3J5-14	Q11	AO-26-1200
6	Right Slingshot	Momentary	18	Red-Blk	A3J5-8, J2-6, J3-7,	Q16	AO-26-1200
7	In-line Drop Target Reset	Momentary	81	Blk-Red	A3J1-3, J2-4	Q2	AN-26-1200
8	3-Bank Drop Target Reset	Momentary	91	Gry-Red	A3J1-2, J2-9	Q1	NO-26-1900
9	Top Left Thumper Bumper	Momentary	78	Orn-Blk	A3J5-11	Q14	AN-26-1200
10	Top Right Thumper Bumper	Momentary	71	Orn-Red	A3J5-9	Q9	AN-26-1200
11	Left Side Thumper Bumper	Momentary	85	Blk-Wht	A3J5-15	Q10	AN-26-1200
12	Right Side Thumper Bumper	Momentary	80	Blk	A3J5-13	Q12	AN-26-1200
13	3-Bank Drop Target #1 (Top)	Momentary	67	Brn-Orn	A3J2-10	Q5	CJ-31-2000
14	3-Bank Drop Target #2	Momentary	74	Orn-Grn	A3J2-11	Q6	CJ-31-2000
15	3-Bank Drop Target #3 (Bottom)	Momentary	81	Blk-Red	A3J2-12	Q7	CJ-31-2000
16	Coin Lockout	Continuous	36	Yel-Brn	A3J2-8	Q19	FO-36-7000
17	Flipper enabling relay	Continuous	--	--	--	Q15	48V Relay
18	Top Saucer	Continuous	81	Blk-Red	A3J5-7	Q17	AO-27-1300
		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

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)	Inline Drop Target A (Top) 1	Coin Chute III (Right) 9	3-Bank Drop Target 3 (Bottom) 17	Red Side Target 25	3-Bank Drop Target Rebound 33
Row	RETURN I 1 A4J2-9 Wht-Brn (56) A4J3-10 Brn-Wht (65)	Inline Drop Target B 2	Coin Chute I (Left) 10	3-Bank Drop Target 2 18	Right Outlane Rollover 26	Not Used 34
Row	RETURN I 2 A4J2-10 Wht-Orn (57) A4J3-11 Blu (20)	Inline Drop Target C 3	Coin Chute II (Middle) 11	3-Bank Drop Target 1 (top) 19	Flipper Feed Lane Right 27	Right Slingshot 35
Row	RETURN I 3 A4J2-11 Wht-Blk (58) A4J3-12 Blu-Red (21)	Inline Drop Target D (Bottom) 4	Top B Rollover 12	Not Used 20	Flipper Feed Lane Left 28	Left Slingshot 36
Row	RETURN I 4 A4J2-12 Brn (60) A4J3-13 Blu-Yel (23)	Inline Red Target 5	Top A Rollover 13	Not Used 21	Left Outlane 29	Right Side Thumper Bumper 37
Row	RETURN I 5 A4J2-13 Brn-Yel (63) A4J3-14 Blu-Wht (25)	Credit Button 6	Spinner 14	Not Used 22	Right Side Lane Rollover 30	Left Side Thumper Bumper 38
Row	RETURN I 6 A4J2-14 Brn-Wht (65) A4J3-15 Blu-Orn (27)	Tilt (3) 7	Side Rollover Button 15	Not Used 23	Not Used 31	Top Right Thumper Bumper 39
Row	RETURN I 7 A4J2-15 Orn (70) A4J3-16 Yel (30)	Outhole 8	Slam (2) 16	Top Saucer 24	Up-Down Saucer 32	Top Left Thumper Bumper 40