

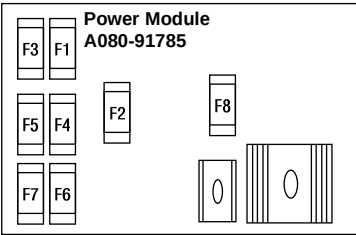


Fuse List

Power Module A080-91785		
F1	43V Solenoids (4 flippers)	7A, 250V
F2	230V Display Power input	0.75A, 250V
F3	5V & 12V Logic Power Input	6A, 250V
F4	20V Controlled lamps	8A, 250V
F5	20V Controlled lamps	8A, 250V
F6	6.3V General Illumination	15A, 250V
F7	6.3V General Illumination	15A, 250V
F8	190V Display Power output	0.25A, 250V
Under the Playfield fuses		
F1	Playfield Solenoids	1.5A, 250V, SB
Transformer Module		
F1	Main fuse	3A, 250V, SB

Sound Module
Turbo
Cheap
Squeak
(T.C.S.)
A080-91855

6803 Controller Module
A-084-91786



Controlled Lamps Chart

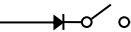
SCR	connector	lamp description	code	wire color	phase	tr type	SCR	connector	lamp description	code	wire color	phase	tr type
Q57	J10-18	Bolt #1	43	Grn-Yel	B	2N5060	Q48	J11-10/J12-7	Million I (first)	68	Brn-Blk	A	2N5060
Q26	J10-4	Bolt #2	15	Red-Wht	B	2N5060	Q49	J11-9/J12-8	Million I (second)	67	Brn-Orn	A	2N5060
Q43	J10-11	Bolt #3	31	Yel-Red	B	2N5060	Q63	J11-3/J12-2	Million L (first)	59	Wht-Gry	A	2N5060
Q58	J10-19	Bolt #4	45	Grn-Wht	B	2N5060	Q32	J11-14/J12-12	Million L (second)	74	Orn-Grn	A	2N5060
Q27	J10-5	Bolt #5	18	Red-Blk	B	2N5060	Q31	J11-13/J12-13	Million M	73	Orn-Yel	A	2N5060
Q44	J10-12	Bolt #6	32	Yel-Blu	B	2N5060	Q33	J11-15/J12-11	Million N	75	Orn-Wht	A	2N5060
Q47	J11-11/J12-6	Flipper Light	71	Orn-Red	B	2N5060	Q64	J11-2/J12-3	Million O	58	Wht-Blk	A	2N5060
Q51	J12-15/J13-8	Left "Red" Arrow	93	Gry-Yel	A	MCR-106	Q34	J12-17/J13-1	Right "Red" Arrow	81	Blk-Red	A	MCR-106
Q66	J12-16/J13-6	Left "Yellow" Arrow	87	Blk-Orn	A	MCR-106	Q35	J13-2	Right "Yellow" Arrow	83	Blk-Yel	A	MCR-106
Q53	J13-12	Left Bumper	96	Gry-Brn	B	MCR-106	Q37	J13-4	Right Bumper	85	Blk-Wht	B	2N5060
Q53	J13-12	Left Outlane	96	Gry-Brn	A	MCR-106	Q68	J13-10	Right Outlane	94	Gry-Grn	A	MCR-106
Q62	J11-4/J12-1	Left Saucer Collect Bonus	61	Brn-Red	A	2N5060	Q54	J13-11	Right Saucer #1	95	Gry-Wht	B	2N5060
Q47	J11-11/J12-6	Left Saucer Gate Open	71	Orn-Red	A	2N5060	Q69	J13-7	Right Saucer #2	91	Gry-Red	B	2N5060
Q25	J10-3	Left Select	14	Red-Grn	A	2N5060	Q42	J10-9	Right Select	26	Blu-Brn	A	2N5060
Q57	J10-18	Left Spinner 1000	43	Grn-Yel	A	2N5060	Q29	J11-8	Right Spinner 1000	64	Brn-Grn	A	2N5060
Q26	J10-4	Left Spinner 2000	15	Red-Wht	A	2N5060	Q45	J10-10	Right Spinner 300	28	Blu-Blk	A	2N5060
Q43	J10-11	Left Spinner 3000	31	Yel-Red	A	2N5060	Q46	J11-16	Right Spinner 3000	78	Orn-Blk	A	2N5060
Q58	J10-19	Left Spinner 4000	45	Grn-Wht	A	2N5060	Q60	J10-13	Right Spinner 500	36	Yel-Brn	A	2N5060
Q27	J10-5	Left Spinner 5000	18	Red-Blk	A	2N5060	Q61	J11-6/J12-10	Right Spinner 5000	62	Brn-Blu	A	2N5060
Q44	J10-12	Left Spinner 6000	32	Yel-Blu	A	2N5060	Q30	J11-12/J12-14	Right Spinner Spot	72	Orn-Blu	A	2N5060
Q59	J10-14	Left Spinner 7000	37	Yel-Orn	A	2N5060	Q50	J11-7/J12-9	Right Star	63	Brn-Yel	B	2N5060
Q28	J10-6	Left Spinner 8000	21	Blu-Red	A	2N5060	Q62	J11-4/J12-1	Same Player Shoots Again	61	Brn-Red	B	2N5060
Q33	J11-15/J12-11	Left Star	75	Orn-Wht	B	2N5060	Q55	J10-16	Target Reset #1	38	Yel-Blk	B	2N5060
Q23	J10-1	Level 1 Bottom	12	Red-Blu	A	2N5060	Q70	J10-7	Target Reset #2	24	Blu-Grn	B	2N5060
Q24	J10-2	Level 1 Top	13	Red-Yel	A	2N5060	Q23	J10-1	Target Reset #3	12	Red-Blu	B	2N5060
Q70	J10-7	Level 2 Bottom	24	Blu-Grn	A	2N5060	Q52	J13-13	Targets "25,000"	97	Gry-Orn	A	MCR-106
Q41	J10-8	Level 2 Top	25	Blu-Wht	A	2N5060	Q67	J13-5	Targets "Extra Ball"	86	Blk-Brn	A	MCR-106
Q55	J10-16	Level 3 Bottom	38	Yel-Blk	A	2N5060	Q36	J13-3	Targets Special	84	Blk-Grn	A	MCR-106
Q56	J10-17	Level 3 Top	41	Grn-Red	A	2N5060	Q65	J11-1/J12-4	Top "50,000"	48	Grn-Blk	A	MCR-106
Q68	J13-10	Middle Bumper	94	Gry-Grn	B	MCR-106	Q69	J13-7	Top Lane "M"	91	Gry-Red	A	2N5060
Q57	J10-18	Bolt #1	43	Grn-Yel	B	2N5060	Q54	J13-11	Top Lane "P"	95	Gry-Wht	A	2N5060
Q26	J10-4	Bolt #2	15	Red-Wht	B	2N5060	Q37	J13-4	Top Lane "R"	85	Blk-Wht	A	2N5060
Q43	J10-11	Bolt #3	31	Yel-Red	B	2N5060	Q50	J11-7/J12-9			A	2N5060	
Q58	J10-19	Bolt #4	45	Grn-Wht	B	2N5060	Q24	J10-2			B	2N5060	
Q27	J10-5	Bolt #5	18	Red-Blk	B	2N5060	Q25	J10-3			B	2N5060	
Q44	J10-12	Bolt #6	32	Yel-Blu	B	2N5060	Q28	J10-6			B	2N5060	
Q47	J11-11/J12-6	Flipper Light	71	Orn-Red	B	2N5060	Q29	J11-8			B	2N5060	
Q51	J12-15/J13-8	Left "Red" Arrow	93	Gry-Yel	A	MCR-106	Q30	J11-12/J12-14			B	2N5060	
Q66	J12-16/J13-6	Left "Yellow" Arrow	87	Blk-Orn	A	MCR-106	Q31	J11-13/J12-13			B	2N5060	
Q53	J13-12	Left Bumper	96	Gry-Brn	B	MCR-106	Q32	J11-14/J12-12			B	2N5060	
Q53	J13-12	Left Outlane	96	Gry-Brn	A	MCR-106	Q34	J12-17/J13-1			B	MCR-106	
Q62	J11-4/J12-1	Left Saucer Collect Bonus	61	Brn-Red	A	2N5060	Q35	J13-2			B	MCR-106	
Q47	J11-11/J12-6	Left Saucer Gate Open	71	Orn-Red	A	2N5060	Q36	J13-3			B	MCR-106	
Q25	J10-3	Left Select	14	Red-Grn	A	2N5060	Q41	J10-8			B	2N5060	
Q57	J10-18	Left Spinner 1000	43	Grn-Yel	A	2N5060	Q42	J10-9			B	2N5060	

Lamps #555 are used in phase A (10) Red wire and phase B (80) Black wire.

Coil Table

Sol. No.	Solenoid description	Solenoid Type	Wire Code	Wire Color	Connections	Driver Transistor	Solenoid Coil Type
1	Left Thumper Bumper	Momentary	31	Yel-Red	J6-1, J8-5	Q11	AN-26-1200
2	Middle Thumper Bumper	Momentary	32	Yel-Blu	J6-2, J8-4	Q12	AN-26-1200
3	Right Thumper Bumper	Momentary	34	Yel-Grn	J6-3	Q13	AN-26-1200
4	Left Slingshot	Momentary	35	Yel-Wht	J6-4	Q14	AN-26-1200
5	Right Slingshot	Momentary	27	Blu-Orn	J8-7, J7-1	Q16	AN-26-1200
6	Left Saucer	Momentary	25	Blu-Wht	J8-6	Q15	AO-27-1300
7	Single Drop Target	Momentary	36	Yel-Brn	J6-5	Q17	AO-27-1300
8	Right Saucer	Momentary	51	Wht-Red	J9-1	Q18	AO-27-1300
9	Top Bright Lites	Momentary	52	Wht-Blu	J9-2	Q19	Lamp #912 (3 in series)
10	Middle Bright Lites	Momentary	53	Wht-Yel	J9-3	Q20	Lamp #912 (3 in series)
11	Left Bright Lites	Momentary	54	Wht-Grn	J9-4	Q21	Lamp #912 (3 in series)
12	Right Bright Lites	Momentary	56	Wht-Brn	J9-6	Q22	Lamp #912 (3 in series)
13	(German games)	Momentary	57	Wht-Orn	J9-7	Q38	--
14	Outhole	Momentary	58	Wht-Blk	J9-8	Q39	AO-26-1200
15	Knocker	Momentary	59	Wht-Gry	J7-2, J8-2, J9-11	Q40	AO-26-1200
16	Left Gate	Continuous	511	Wht-Vio	J9-9	Q9	GA-34-4000
17	Right Gate	Continuous	24	Blu-Grn	J7-3, J8-1, J9-10	Q8	GA-34-4000
18	Middle Gate	Momentary	311	Yel-Vio	J6-7, J7-4	Q10	GA-34-4000
19	Flipper enabling relay	Continuous	--	--	--	Q7	48V Relay
Flipper Circuits		Power Wire	Return Wire		Connector		Coil
	Left Flipper	Brn (60)	90	Gry	J6-9		A-24-570/34-3600
	Right Flipper	Brn (60)	98	Gry-Blk	J6-8		A-24-570/34-3600
	Upper Left Flipper	Brn (60)	75	Orn-Wht	(to lower left flipper)		A-24-570/34-3600
	Upper Right Flipper	Brn (60)	95	Gry-Wht	(to lower right flipper)		A-24-570/34-3600

Switch Matrix

		strobe (ST)  return (I)					
Row	Column	STROBE 0 J4-15 Wht-Red (51) J3-15 Red-Yel (13)	STROBE 1 J4-14 Wht-Blu (52) J3-14 Red-Grn (14)	STROBE 2 J4-13 Wht-Yel (53) J3-13 Orn-Grn (74)	STROBE 3 J4-12 Wht-Grn (54) J3-12 Yel-Wht (35)	STROBE 4 J4-11 Wht-Brn (56) J3-11 (not used)	STROBE 5 J4-1 Wht-Vio (511) Not Used
		RETURN I 0 CJ4-10 Red (10) CJ3-10 Red-Wht (15) 01	Shooter Lane 09	Coin Chute III (Right) 17	Left Spinner 25	Left Thumper Bumper 33	Target Bolt #1 (Bottom) 41
		RETURN I 1 CJ4-9 Blu (20) CJ3-9 Brn-Wht (65) 02	Drop Target 10	Coin Chute I (Left) 18	Right Ramp 26	Middle Thumper Bumper 34	Target Bolt #2 42
		RETURN I 2 CJ4-8 Yel (30) CJ3-8 Blu (20) 03	Left Saucer 11	Coin Chute II (Middle) 19	Not Used 27	Right Thumper Bumper 35	Target Bolt #3 43
		RETURN I 3 CJ4-7 Grn (40) CJ3-7 Blu-Red (21) 04	Right Saucer 12	Left Outlane 20	Left Return Lane 28	Left Slingshot 36	Target Bolt #4 (Top) 44
		RETURN I 4 CJ4-6 Wht (50) CJ3-6 Wht-Blk (58) 05	Left Flipper 13	Right Outlane 21	Right Return Lane 29	Right Slingshot 37	Not Used 45
		RETURN I 5 CJ4-4 Brn (60) CJ3-5 Yel (30) 06	Credit Button 14	Slam 22	"R" Top Lane 30	Middle Arrow 38	Not Used 46
		RETURN I 6 CJ4-3 Orn (70) CJ3-4 Blu-Orn (27) 07	Right Flipper 15	Tilt 23	"P" Top Lane 31	Left Arrow 39	Not Used 47
		RETURN I 7 CJ4-2 Blk (80) CJ3-2 (not used) 08	Outhole 16	Left Alley 24	"M" Top Lane 32	Right Arrow 40	Not Used 48