

Whirlwind (16-574)

FUSE LIST

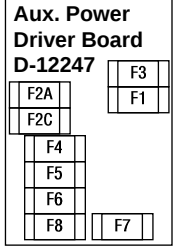
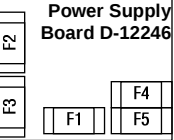
Power Supply Board D-12246		
F1	100V Display Power Input	3/8A, 250V, SB
F2	+100V Display Power Output	1/8A, 250V, SB
F3	-100V Display Power Output	1/8A, 250V, SB
F4, F5	5V & 12V Logic Power Input	7A, 250V, SB
Aux. Power Driver Board D-12247		
F1	+25V Special Solenoids	5A, 250V, SB
F2A	+25V A-Line Solenoids	2-1/2A, 250V, SB
F2C	+25V C-Line Solenoids	5A, 250V, SB
F3	+25V Controlled Solenoids	2-1/2A, 250V, SB
F4	+50V Solenoids	2-1/2A, 250V, SB
F5	+50V Solenoids	2A, 250V, SB
F6	Lower Flippers	2A, 250V, SB
F7	50Vac Input	4A, 250V, SB
F8	25Vac Input	7A, 250V, SB
Interconnect Board D-12313-50007		
F1	General Illumination (Brown)	5A, 250V, SB
F2	General Illumination (Yellow)	5A, 250V, SB
F3	General Illumination (Green)	5A, 250V, SB
F4	General Illumination (Violet)	5A, 250V, SB
BackBox Fuse		
F1	+18V Controlled Lamps	8A, 250V, N.B.
F1	C-13088 Triac Assembly Board	5A, 250V, SB
LINE FILTER		
Foreign		4A, 250V, SB
Domestic		8A, 250V, SB

Audio Board

CPU Board D-11883

Interconnect D-12313 Board

Triac Board C-13088



+18V Controlled Lamps

SOLENOID/FLASHER TABLE

Sol. No.	Function	Solenoid Type	Wire ¹ Color	Connections		Driver Transtr	Solenoid Part Number Flashlamp Type	
				CPU Brd	Playfield / Cabinet		Playfield	Insert
01A ³	Outhole	Switched	Vio-Brn	1P11-1	5J1-9: 5J4-9 (A)	Q33	AE-23-800	
01C ³	Bottom right flasher	Switched	Blk-Brn	(Gry-Brn)	5J5-9 (C)		#906	
02A ³	Shooter lane feeder	Switched	Vio-Red	1P11-3	5J1-7: 5J4-8 (A)	Q25	AE-23-800	
02C ³	Spinner flasher	Switched	Blk-Red	(Gry-Red)	5J5-8 (C)		#906	
03A ³	Right ramp lifter	Switched	Vio-Orn	1P11-4	5J1-6: 5J4-7 (A)	Q32	AE-24-900	
03C ³	Rt Ramp Top / Upper Jets flashers	Switched	Blk-Orn	(Gry-Orn)	5J5-7 (C)		#906 (2)	
04A ³	Left locking kickback	Switched	Vio-Yel	1P11-5	5J1-5: 5J4-6 (A)	Q24	AE-23-800	
04C ³	Rt Ramp Upper Mdl / Million flashers	Switched	Blk-Yel	(Gry-Yel)	5J5-5 (C)		#906 (2)	
05A ³	Top eject	Switched	Vio-Grn	1P11-6	5J1-4: 5J4-5 (A)	Q31	AE-23-800	
05C ³	Ramp Lwr Mdl / Lwr Jets flashers	Switched	Blk-Grn	(Gry-Grn)	5J5-4 (C)		#906 (2)	
06A ³	Knocker	Switched	Vio-Blu	1P11-7	5J1-3: 5J4-4 (A)	Q23	AE-23-800	
06C ³	Right ramp bottom flasher	Switched	Blk-Blu	(Gry-Blu)	5J5-3 (C)		#906	
07A ³	3-Bank dropt target reset	Switched	Vio-Blk	1P11-8	5J1-2: 5J4-2 (A)	Q30	AE-26-1200	
07C ³	3-Bank Dr Tgt / M Target flashers	Switched	Blk-Vio	(Gry-Vio)	5J5-2 (C)		#906 (2)	
08A ³	1-Bank drop target reset	Switched	Vio-Gry	1P11-9	5J1-1: 5J4-1 (A)	Q22	AE-23-800	
08C ³	Million + / Compass flashers	Switched	Blk-Gry	(Gry-Blk)	5J5-1 (C)		#906 (2)	
09	Left bottom jet bumper	Controlled	Brn-Blk	1P12-1	5J2-9: 5J6-9: 2J4-3	Q17	AE-23-800	
10	Top bottom jet bumper	Controlled	Brn-Red	1P12-2	5J2-8: 5J6-8: 2J4-5	Q9	AE-23-800	
11	Upper playfield G.I. relay	Controlled	Brn-Orn	1P12-4	5J2-6: 5J6-7: 2J4-6	Q16	5580-12145-00 ^{4b}	
12	A/C select relay	Controlled	Brn-Yel	1P12-5	5J2-5	Q8	5580-09555-01 ⁵	
13	Diverter	Controlled	Brn-Grn	1P12-6	5J2-4: 5J6-5	Q15	AE-26-1200	
14	Under Playfield kickbig	Controlled	Brn-Blu	1P12-7	5J2-3: 5J6-3	Q7	AE-26-1500	
15	Right bottom jet bumper	Controlled	Brn-Vio	1P12-8	5J2-2: 5J6-2	Q14	AE-23-800	
16	Lower playfield / Insert G.I. relays	Controlled	Brn-Gry	1P12-9	5J2-1: 5J6-1	Q6	5580-12145-00 ^{4b}	5580-09555-01 ^{4a}
17	Left top jet bumper	Special #1	Blu-Brn	1P19-7	5J3-7: 5J7-7	Q75	AE-23-800	
18	Left slingshot	Special #2	Blu-Red	1P19-4	5J3-6: 5J7-6	Q71	AE-26-1500	
19	Right top jet bumper	Special #3	Blu-Orn	1P19-3	5J3-3: 5J7-3	Q73	AE-23-800	
20	Right slingshot	Special #4	Blu-Yel	1P19-6	5J3-4: 5J7-5	Q69	AE-26-1500	
21	Lower top jet bumper	Special #5	Blu-Grn	1P19-8	5J3-2: 5J7-2	Q77	AE-23-800	
22	Right ramp down	Special #6	Blu-Red	1P19-9	5J3-1: 5J7-1	Q79	SM-26-600-DC	
23	BP lightning (L) flashers	Snd O/L 1	Gry-Brn	1P21	SOL J2: SOL J4-6	Q1 ⁶		#906 (3)
24	Blower motor (atop backbox)	Snd O/L 2	Gry-Red	(Ribbon	SOL J2: SOL J4-5	Q4 ⁶		14-7956 via Triac Bd
25	BP Thunder (M) flasher	Snd O/L 3	Gry-Orn	cable	SOL J2: SOL J4-4	Q7 ⁶		#906
26	BP Thunder (R) flasher	Snd O/L 4	Gry-Yel	to SOL	SOL J2: SOL J4-2	Q10 ⁶		#906 (2)
27	Spin wheels motor	Snd O/L 5	Gry-Grn	board)	SOL J2: SOL J4-1	Q13 ⁶		14-7955
Flipper Circuits								
	Lower right flipper	Flipper	Orn-Vio	1P19-1	2J5-5: 2J10-7		FL11630/50VDC	
	Lower right flipper switch ²	Switch	Blu-Vio		2J10-1: 2J8-15			
	Lower left flipper	Flipper	Orn-Gry	1P19-2	2J5-4: 2J10-8		FL11630/50VDC	
	Lower left flipper switch ²	Switch	Blu-Gry		2J10-2: 2J8-14			
	Upper right flipper	Flipper	Blu-Yel		2J10-3: 2J8-13		FL11630/50VDC	
	Upper left flipper	Flipper						

- Notes:
- Wire colors, except flipper Orn-Vio and Orn-Gry, are ground connections (to coil terminal with unbanded end of diode). Flipper Org-Vio and Orn-Gry wires connect from CPU Board to flipper button switch on cabinet.
 - Flipper connections are from flipper button switch to flipper coil.
 - "A" circuits are pulsed, when Sol. 12 is de-energized; "C" circuits are pulsed, with Sol. 12 energized. Wire colors in brackets are those from respective A and C terminals corresponding to the J1-terminal connection listed for the Aux. Power Driver Board, which controls the device pulsing by Sol. 12.
 - Relay is mounted on Relay Board: (4a) p/n C-11998-1: (4b) C-11902-1.
 - Relay is mounted on Aux. Power Driver Board, D-12247, in the backbox.
 - Transistor designations refer to Sound Overlay Solenoid Board parts.

LAMP MATRIX

Column Row	Red ← Yellow (B+) →							
	1 Yellow-Brown 1J7-1 Q66	2 Yellow-Red 1J7-2 Q64	3 Yellow-Orange 1J7-3 Q62	4 Yellow-Black 1J7-4 Q60	5 Yellow-Green 1J7-6 Q58	6 Yellow-Blue 1J7-7 Q56	7 Yellow-Violet 1J7-8 Q54	8 Yellow-Grey 1J7-9 Q52
1 Red-Brown 1J6-1 Q80	Middle Standup 1	Left Outlane 9	S Arrow 17	Toll 1 25	Bottom Jets Left 33	Right Ramp Lock 41	Left Return Lane 49	Shoot Again 57
2 Red-Black 1J6-2 Q81	Up Jets On (Backglass) 2	Right Outlane 10	SW Arrow 18	Toll 2 26	Bottom Jets Top 34	Right Ramp Double 42	Left Loop 50	2X 58
3 Red-Orange 1J6-3 Q82	250K (Backglass) 3	Top Drop 50K 11	W Arrow 19	Toll 3 27	Bottom Jets Right 35	Left Ramp Million Plus 43	Left Standup 51	3X 59
4 Red-Yellow 1J6-5 Q83	Ex. Ball On (Backglass) 4	Top Drop 75K 12	NW Arrow 20	Toll 4 28	Top Jets Left 36	Left Ramp Million 44	Inner Loop Arrow 52	4X 60
5 Red-Green 1J6-6 Q84	3-Bank 100K (Backglass) 5	Top Drop 100K 13	N Arrow 21	Toll 5 29	Top Jets Right 37	Left Ramp Release 45	Right Ramp Left Standup 53	5X 61
6 Red-Blue 1J6-7 Q85	500K (Backglass) 6	Top Drop 150K 14	NE Arrow 22	Toll 30 30	Top Jets Bottom 38	Skill Shot Right 46	Right Ramp Right Standup 54	6X Lites Extra Ball 62
7 Red-Violet 1J6-8 Q86	Lite Million (Backglass) 7	Top Drop Quick 15	E Arrow 23	Toll 20 31	Left Cellar Sign 39	Skill Shot Middle 47	Right Loop 55	6X Lites Special 63
8 Red-Grey 1J6-9 Q87	Low Jets On (Backglass) 8	Top Drop Extra Ball 16	SE Arrow 24	Toll 10 32	Right Cellar Sign 40	Skill Shot Left 48	Right Standup 56	Right Spinner 64

SWITCH MATRIX

Column Row	White → Green							
	1 Green-Brown 1J8-1 Q45	2 Green-Red 1J8-2 Q49	3 Green-Orange 1J8-3 Q44	4 Green-Yellow 1J8-4 Q48	5 Green-Black 1J8-5 Q43	6 Green-Blue 1J8-7 Q47	7 Green-Violet 1J8-8 Q42	8 Green-Grey 1J8-9 Q46
1 White-Brown 1J10-9	Plump Bob Tilt 1	Not Used 9	Left Outlane 17	Right Standup 25	Enter Left Ramp 33	Spinner 41	Top Jet Bumper (left) 49	Right Flipper 57
2 White-Red 1J10-8	A/C Relay C-Side 2	Outhole 10	Left Return Lane 18	Top Single Drop Target 26	Left Ramp Score (top) 34	Right Ramp Down 42	Top Jet Bumper (right) 50	Left Flipper 58
3 White-Orange 1J10-7	Start Button 3	Ball Trough 1 (left) 11	Right Cellar 19	M 3-Bank Drop Target (lower) 27	Left Ramp Score (bottom) 35	Top Right Eject 43	Top Jet Bumper (bottom) 51	Shooter Lane 59
4 White-Yellow 1J10-6	Right Coin Switch 4	Ball Trough 2 (middle) 12	Left Cellar 20	M 3-Bank Drop Target (middle) 28	Left Loop (top) 36	Right Ramp Score (top) 44	Bottom Jet Bumper (left) 52	Left 110 Points 60
5 White-Green 1J10-5	Center Coin Switch 5	Ball Trough 3 (right) 13	Left Standup 21	M 3-Bank Drop Target (top) 29	Left Loop (bottom) 37	Right Ramp Score (bottom) 45	Bottom Jet Bumper (right) 53	Right 110 Points 61
6 White-Blue 1J10-3	Left Coin Switch 6	Not Used 14	Left Lock 1 (lower) 22	Middle Standup 30	Right Loop (top) 38	Not Used 46	Bottom Jet Bumper (top) 54	Not Used 62
7 White-Violet 1J10-2	Slam Tilt 7	Right Return Lane 15	Left Lock 2 (middle) 23	Not Used 31	Right Loop (bottom) 39	Left Standup (Right Ramp) 47	Left Slingshot 55	Not Used 63
8 White-Grey 1J10-1	High Score Reset 8	Right Outlane 16	Left Lock 3 (top) 24	Not Used 32	Inner Loop 40	Right Standup (Right Ramp) 48	Right Slingshot 56	Not Used 64