

Black Knight 2000 (16-563)

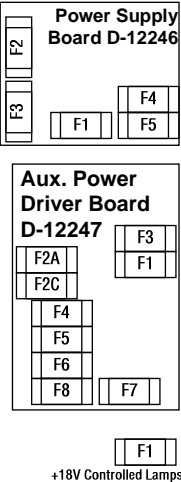
FUSE LIST

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	2-1/2A, 250V, SB
F2A	+25V A-Line Solenoids	2-1/2A, 250V, SB
F2C	+25V C-Line Solenoids	5A, 250V, SB
F3	+25V Controlled Solenoids	5A, 250V, SB
F4	+50V Solenoids	5A, 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, SB
LINE FILTER		
Foreign		4A, 250V, SB
Domestic		8A, 250V, SB

Audio Board

CPU Board D-11883

Interconnect D-12313 Board



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 kicker	Switched	Vio-Brn	1P11-1	5J1-9: 5J4-9 (A)	Q33	AE-23-800	
01C ³	Upper playfield big red bolt flasher	Switched	Blk-Brn	(Gry-Brn)	5J5-9 (C)		#906 (2)	#89 (2)
02A ³	Shooter lane feeder	Switched	Vio-Red	1P11-3	5J1-7: 5J4-8 (A)	Q25	AE-23-800	
02C ³	Upper playfield big blue bolt flasher	Switched	Blk-Red	(Gry-Red)	5J5-8 (C)		#906 (2)	#89 (2)
03A ³	Left 3-bank drop target reset	Switched	Vio-Orn	1P11-4	5J1-6: 5J4-7 (A)	Q32	AE-26-1200	
03C ³	Bolt cicle center flasher	Switched	Blk-Orn	(Gry-Orn)	5J5-7 (C)		#906 (2)	#89 (2)
04A ³	Right 3-bank drop target reset	Switched	Vio-Yel	1P11-5	5J1-5: 5J4-6 (A)	Q24	AE-26-1200	
04C ³	Flipper lane flasher	Switched	Blk-Yel	(Gry-Yel)	5J5-5 (C)		#906 (2)	#89 (2)
05A ³	Not used	Switched	Vio-Grn	1P11-6	5J1-4: 5J4-5 (A)			
05C ³	Drop target flasher	Switched	Blk-Grn	(Gry-Grn)	5J5-4 (C)	Q31	#906	#89 (2)
06A ³	Ball popper	Switched	Vio-Blu	1P11-7	5J1-3: 5J4-4 (A)	Q23	AE-23-800	
06C ³	Lower playfield ramp flasher	Switched	Blk-Blu	(Gry-Blu)	5J5-3 (C)		#906 (2)	#89 (2)
07A ³	Upper playfield lockup kickback	Switched	Vio-Blk	1P11-8	5J1-2: 5J4-2 (A)	Q30	AE-24-900	
07C ³	Right eject / upper flipper flashers	Switched	Blk-Vio	(Gry-Vio)	5J5-2 (C)		#89	#89 (2)
08A ³	Right eject	Switched	Vio-Gry	1P11-9	5J1-1: 5J4-1 (A)	Q22	AE-26-1500	
08C ³	Upper playfield lockup kickback flasher	Switched	Blk-Gry	(Gry-Blk)	5J5-1 (C)		#906	#89 (2)
09	Insert G.I. relay	Controlled	Brn-Blk	1P12-1	5J2-9: 5J6-9: 2J4-3	Q17	5580-09555-01 ^{4a}	
10	Upper playfield G.I. relay	Controlled	Brn-Red	1P12-2	5J2-8: 5J6-8: 2J4-5	Q9	5580-09555-01 ^{4a}	
11	Lower playfield G.I. relay	Controlled	Brn-Orn	1P12-4	5J2-6: 5J6-7: 2J4-6	Q16	5580-09555-01 ^{4b}	
12	A/C select relay	Controlled	Brn-Yel	1P12-5	5J2-5	Q8	5580-09555-01 ⁵	
13	Kickback (left outlane)	Controlled	Brn-Grn	1P12-6	5J2-4: 5J6-5	Q15	AE-23-800	
14	Knocker	Controlled	Brn-Blu	1P12-7	5J2-3: 5J6-3	Q7	AE-23-800	
15	Magna Save TM driver	Controlled	Brn-Vio	1P12-8	5J2-2: 5J6-2	Q14	C-12493	
16	Motor targets relay (upper playfield)	Controlled	Brn-Gry	1P12-9	5J2-1: 5J6-1	Q6	5580-12145-01 ^{4b}	
17	Left 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 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 jet bumper	Special #5	Blu-Grn	1P19-8	5J3-2: 5J7-2	Q77	AE-23-800	
22	Not used	Special #6	Blu-Blk	1P19-9	5J3-1: 5J7-1	Q79		
Flipper Circuits								
	Lower right flipper	Flipper	Orn-Vio	1P19-1	2J5-5: 2P10-7		FL11630/50VDC	
	Lower right flipper switch ²	Switch	Blu-Vio		2J10-1: 2P8-15			
	Lower left flipper	Flipper	Orn-Gry	1P19-2	2J5-4: 2P10-8		FL11630/50VDC	
	Lower left flipper switch ²	Switch	Blu-Gry		2J10-2: 2P8-14			
	Upper right flipper	Flipper	Blk-Blu		2J10-4: 2P8-12		FL11630/50VDC	
	Upper left flipper	Flipper	Blk-Yel		2J10-3: 2P8-15			

- 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.

LAMP MATRIX

Column	Red ← Yellow (B+)							
	1 Yellow-Brown 1J6-1 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
Row	1 Red-Brown 1J6-1 Q80	2 Red-Black 1J6-2 Q81	3 Red-Orange 1J6-3 Q82	4 Red-Yellow 1J6-5 Q83	5 Red-Green 1J6-6 Q84	6 Red-Blue 1J6-7 Q85	7 Red-Violet 1J6-8 Q86	8 Red-Grey 1J6-9 Q87
	R (Speaker Panel)	U-Turn Bolt (Right)	Extra Ball Bolt	"W" Lane (in WIN)	Motor Target Bolt 3	"G" Right 3-Bank Drop Target	Extra Ball (Bolt Circle)	Special (Bolt Circle)
	1	9	17	25	33	41	49	57
	A (Speaker Panel)	Spin Bolt (Ball Popper)	Red Bolt (Upper Playfield Right)	"I" Lane (in WIN)	Motor Target Bolt 2	"H" Right 3-Bank Drop Target	50,000 (Bolt Circle)	20,000 (Bolt Circle)
	2	10	18	26	34	42	50	58
	N (Speaker Panel)	Lock Bolt (Right Eject)	Magna Save TM	"N" Lane (in WIN)	Motor Target Bolt 1	"T" Right 3-Bank Drop Target	Magna Save (Bolt Circle)	Kickback (Bolt Circle)
	3	11	19	27	35	43	51	59
	S (Speaker Panel)	B	Blue Bolt (Upper Playfield Left)	"W" Lane (in WAR)	2X Bolt (Left)	"K" Left 3-Bank Drop Target	10,000 (Bolt Circle)	150,000 (Bolt Circle)
	4	12	20	28	36	44	52	60
	Bolt Circle Center	L	Last Chance (Right Outlane)	"A" Lane (in WAR)	3X Bolt	"N" Left 3-Bank Drop Target	Multiball (Bolt Circle)	Drawbridge (Bolt Circle)
	5	13	21	29	37	45	53	61
	O (Speaker Panel)	A	U-Turn Bolt (Left)	"R" Lane (in WAR)	Bonus Hold	"I" Left 3-Bank Drop Target	100,000 (Bolt Circle)	75,000 (Bolt Circle)
	6	14	22	30	38	46	54	62
	M (Speaker Panel)	C	Kickback (Left Outlane)	Jackpot Bolt	4X Bolt	Skyway Bolt	Ransom (Bolt Circle)	Hurry-Up (Bolt Circle)
	7	15	23	31	39	47	55	63
	Last Chance (Left Outlane)	K	Shoot Again	Advance Ransom Bolt	5X Bolt (Right)	Hurry-Up Bolt	200,000 (Bolt Circle)	250,000 (Bolt Circle)
	8	16	24	32	40	48	56	64

SWITCH MATRIX

Column	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
Row	1 White-Brown 1J10-9	2 White-Red 1J10-8	3 White-Orange 1J10-7	4 White-Yellow 1J10-6	5 White-Green 1J10-5	6 White-Blue 1J10-3	7 White-Violet 1J10-2	8 White-Grey 1J10-1
	Plump Bob Tilt	Playfield Tilt	Left Jet Bumper	"W" Lane (in WIN)	Motor Targets (Upper)	Right 3-Bank Drop Target (Left)	U-Turn (Left)	Right Flipper
	1	9	17	25	33	41	49	57
	A/C Relay C-Side	Outhole	Left Slingshot	"I" Lane (in WIN)	Motor Targets (Middle)	Right 3-Bank Drop Target (Middle)	U-Turn	Left Flipper
	2	10	18	26	34	42	50	58
	Start Button	Ball Trough #1 (right)	Right Jet Bumper	"N" Lane (in WIN)	Motor Targets (Lower)	Right 3-Bank Drop Target (Right)	U-Turn	Magna Save TM
	3	11	19	27	35	43	51	59
	Right Coin Switch	Ball Trough #2 (middle)	Right Slingshot	"W" Lane (in WAR)	UPF Lock Lower Lock	Left 3-Bank Drop Target (Lower)	U-Turn (Right)	Not Used
	4	12	20	28	36	44	52	60
	Center Coin Switch	Ball Trough #3 (left)	Lower Jet Bumper	"A" Lane (in WAR)	UPF Lock Middle Lock	Left 3-Bank Drop Target (Middle)	Ball Shooter	Not Used
	5	13	21	29	37	45	53	61
	Left Coin Switch	Not Used	Upper Playfield Loop Left	"R" Lane (in WAR)	UPF Lock Upper Lock	Left 3-Bank Drop Target (Upper)	Right Return Lane	Not Used
	6	14	22	30	38	46	54	62
	Slam Tilt	Not Used	Upper Playfield Loop Right	Upper Ramp Entry	Left Outlane	Ball Popper	Left Return Lane	Not Used
	7	15	23	31	39	47	55	63
	High Score Reset	Up Motor Targets	Down Motor Targets	Lower Ramp Exit	Right Eject	Right Outlane	Not Used	Not Used
	8	16	24	32	40	48	56	64