



Pocket Guide

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Malfunction and Game Codes

Table 1: Malfunction and Game Codes

#	Code
20	Coin in Jam
21	Inappropriate Coin In
22	Invalid Coin
23	Coin Not Sensed
24	Coin Reverse
50-26 ¹	Bill Paused
50-27 ¹	Bill Jam
50-29 ¹	Bill Acceptor Communication Error
30	Hopper Overpay
31	Hopper Coin-Out Jam
32	Hopper Empty
33	Reset During Payout
5x-36 ¹	Printer Failure
5x-37 ¹	Printer Jammed
5x-38 ¹	Printer Empty
5x-39 ¹	Printer Low ²
40	Reel Initialization Error
41	Reel #1 Improper Spin
42	Reel #2 Improper Spin
43	Reel #3 Improper Spin
44	Reel #4 Improper Spin
45	Reel #5 Improper Spin
50	Slot Door Open
51	Belly Door Open



Table 1: Malfunction and Game Codes

#	Code
52	Bill Acceptor Stacker Access
53	Lower Door Open (Slant)
54	Drop Door Open
55	Bill Acceptor Stacker Removed
56 ³	Logic Door Access with Power On
57 ³	System (sView/Tahoe) Door Access with Power ON
58 ³	Latched Door Detector Board Low Battery
60	Reset During Bill Change
65	Mechanical Meter Disconnect
70	Door Open During Reel Spin
71	Reel #1 Movement
72	Reel #2 Movement
73	Reel #3 Movement
74	Reel #4 Movement
75	Reel #5 Movement
77	Secondary Device Communication Fault During Game/Top box Wheel Feature Tilt
80 ⁴	ROM Checksum Error
81 ⁴	Battery Low
82	Door Open with Power OFF
83 ⁴	SafeRAM EPROM
83-6	Personality SafeRAM checksum mismatch
83-7	Game History SafeRAM checksum mismatch
83-8	Option Table SafeRAM checksum mismatch
83-9	Bill Record SafeRAM checksum mismatch
83-A	EFT History SafeRAM checksum mismatch
83F	SafeRAM Format Error



Table 1: Malfunction and Game Codes

#	Code
83F-0	Invalid SafeRAM EPROM
83F-1	Invalid Main EPROM
83F-2	Invalid Personality EPROM
83F-3	Invalid Coin Denomination
84 ²	RAM Error
85	MPU Removed with Power OFF
86	Secondary Device Communication Fault
87-x	Memory Failure During Win Evaluation
88	Catastrophic Failure
89	Cash Out to Host Error
90	Display Error
91	Communication Error
91-0	No Communication
91-1	Serial Checksum Error
91-2	Optioning Error
91-4	Mystery Progressive Hit during Game Over
91-5	Jackpot Missing
91-7	Game Error Lockout
91-8	Host Defined Lockout in Configuration
91-9	Game in Host Configuration
91-A	Game not Configured
91-B	Game In Host Disabled
91-b	Game Locked Out by the Host
91-C	Host Disabled for Timeout
91-D	Host Disabled for Status
91-d	Game in ROM Signature Calculation
91-E	Event Log Full



Table 1: Malfunction and Game Codes

#	Code
91-FF	Feature Fault
91nC	No Communication between Machine and Top box
91 JP/Pd	The Result from a Key Switch Activation after a Code 86 Lockup Condition
91-p	SAS Poll Timeout
EP	Awards Available but not Acknowledged by Controller
EP	
HP	
HdiS	Communication Loss
99	Sever Failure (recoverable)
<p>*Door Codes: 50=Main Door, 51=Belly Door, 52=Bill Acceptor Cash Box Door, 53=Slant Lower Door, 54=Drop Door, 55=Bill Acceptor Cash Box.</p> <p>¹Malfunction codes with prefix "5x" appear only while the door is open.</p> <p>²The tower service light will flash for ½ second every 2½ seconds.</p> <p>³Requires Latched Door Detector Board for proper operation.</p> <p>⁴Malfunction codes 80, 81, 83, and 84 are part of the machine self-test during power ON or a system reset.</p> <p>Upon an error, all of the machine's lamps flash. The lamps flash one or more times per second depending on the problem.</p>	



Malfunction Flash Codes

A memory tilt generates an 8x code and flashes the tower and button lamps at a coded rate.

Table 2: Malfunction Flash Codes

Error	Flash Rate (per second)	Location
Main EPROM Checksum Error	1	U28/U43
Personality EPROM Checksum Error	2	U18/U20
Volatile RAM Write/Read Failure	4	U30/U45
Non-Volatile RAM (SafeRAM) Write/Read Failure	4	U30/U45
Battery Low	Continuous	BAT1

A hopper 31 tilt flashes the hopper control board LEDs.

Table 3: Hopper LEDs Errors

Hopper LEDs	Error Description
Green (FWD) LED Flashing	A reverse entry condition occurred. The dual optic switches detected an incorrect direction of coin travel and notified the micro controller.
Red (REV) LED Flashing	A coin reverse condition occurred. The dual coin-out optic switches detected an incorrect transition while trying to clear a coin jam.
Red/Green LEDs Flashing	An external light source struck the optic switch. The optic switches are modulated and an out-of-phase light source was detected.



Diagnostic Tests and Functions

Table 4: Diagnostic Tests

Test	Diagnostic
01	Model Information
02	Output Test
03	Input Test
04	Hopper Test
05	Reel Function Test
06	Reel Tape Test
07	Reel Tilt Records
08	Slot Communications

Test	Diagnostic
09	Display Test
10	Payout Test
11	Game Optioning
12	Peripherals Test
13	Data Vault Meters
14	Memory View
15	Hopper Dump
16	Top Box Test

01 Model Information

Table 5: Model Information

Description	Code
Personality EPROM ID	010d
Payback Percentages (Nominal and/or Basic Percentages)	011d
Reel Map and Win Table	012d
Market Code	013d
Diverter Optic	014d

Description	Code
Crazy Reels	015d
Bill Acceptor	016d
Denomination	017d
WBA CRC Checksum	018d
Time and Date	019d



02 Output

Table 6: Output Test

Port	Bit	Output Description	Output Voltage
0	0	Top Tower Lamp	6.5 VAC
0	1	Bottom Tower Lamp	6.5 VAC
0	2	Bill Acceptor Ready	6.5 VAC
0	3	Bill Acceptor Not Ready	6.5 VAC
0	4	Coin Accepted Lamp	6.5 VAC
0	5	Insert Coin Lamp	6.5 VAC
0	6	Hold 3 Lamp	6.5 VAC
0	7	Hold 4 Lamp	6.5 VAC
0	8	Hold 5 Lamp	6.5 VAC
0	9	Coin 8/Hold Attract Lamp	6.5 VAC
0	A	Coin 7/Hold 2 Lamp	6.5 VAC
0	B	Coin 6/Hold 1 Lamp	6.5 VAC
0	C	Cash/Credit Lamp	6.5 VAC
0	D	Bet One & Bet Max Lamps	6.5 VAC
0	E	Spin Lamp	6.5 VAC
0	F	Change Lamp	6.5 VAC
1	0	Coin 1 Lamp	6.5 VAC
1	1	Coin 2 Lamp	6.5 VAC
1	2	Coin 3 Lamp	6.5 VAC
1	3	Coin 4 Lamp	6.5 VAC
1	4	Coin 5 Lamp	6.5 VAC
1	5	Middle Tower Lamp	6.5 VAC
1	6	4th Tower Lamp	6.5 VAC
1	7	Jackpot Bell	6.5 VAC
1	8	Feature 1 Lamp	6.5 VAC



Table 6: Output Test

Port	Bit	Output Description	Output Voltage
1	9	Feature 2 Lamp	6.5 VAC
1	A	Feature 3 Lamp	6.5 VAC
1	B	Feature 4 Lamp	6.5 VAC
1	C	Feature 5 Lamp	6.5 VAC
1	D	Feature 6 Lamp	6.5 VAC
1	E	Feature 7 Lamp	6.5 VAC
1	F	Feature 8 Lamp	6.5 VAC
2	0	Coin Deflector Solenoid	+24 VDC
2	1	Total In Meter	+24 VDC
2	2	Total Out Meter	+24 VDC
2	3	Combined Drop Meter	+24 VDC
2	4	Attendant Paid Meter	+24 VDC
2	5	Bill Hopper Motor	+24 VDC
2	6	Spare Meter	+24 VDC
2	7	Coin Mechanism Enable	+24 VDC
2	8	Jackpot 1 Relay	+24 VDC
2	9	Jackpot 2 Relay	+24 VDC
2	A	Jackpot 3 Relay	+24 VDC
2	B	Tilt Relay	+24 VDC
2	C	Tivoli Lamps (chase lights for Millionaire Sevens)	+24 VDC
2	D	Total In Relay	+24 VDC
2	E	Game Door Open Signal	+24 VDC
2	F	Handle Release Solenoid	+24 VDC
3	8	Total In Signal	+5 VDC
3	9	Jackpot 1 Signal	+5 VDC
3	A	End of Game Signal	+5 VDC



Table 6: Output Test

Port	Bit	Output Description	Output Voltage
3	B	Door Switch Signal	+5 VDC
3	C	Key Switch Signal	+5 VDC
3	D	Jackpot/Auxiliary Hopper Signal	+5 VDC
3	E	Reserved	+5 VDC
3	F	Reserved	

03 Input

Bill Acceptor Test: Insert a bill. It will be returned. An invalid bill is rejected with nothing displayed. A valid, accepted bill shows denomination and credits. A valid rejected bill shows the following codes:

Table 7: Input Test

Code	Description
8A	Rejected by the machine
8B	Rejected by bill acceptor

Code	Description
8C	Failure: Abnormal
8D	Stacker Full

Coin Acceptor Test: An inserted coin displays 09. Each coin is counted. A malfunction displays 0A.

Table 8: Input Test

Port	Bit	Input Description
0	0	HOLD 1 Switch
0	1	HOLD 2 Switch
0	2	HOLD 3 Switch
0	3	HOLD 4 Switch



Table 8: Input Test

Port	Bit	Input Description
0	4	HOLD 5 Switch
0	5	Hopper Low (Probe) Switch
0	6	Coin Out Switch
0	7	Meter Detection
0	8	Belly Door Switch
0	9	Coin Credit Signal
0	A	Coin Error Signal
0	B	CHANGE Switch
0	C	SPIN Switch
0	D	BET ONE Switch
0	E	BET MAX Switch
0	F	CASH/CREDIT Switch
1	0	Bill Door Switch
1	1	Drop Door Switch
1	2	Key Switch
1	3	Hopper Full (Probe) Signal
1	4	Bill Acceptor Busy Signal
1	5	Handle Signal
1	6	Stacker Signal
1	7	Tournament Signal
1	8	Bill Hopper Bill Out Signal
1	9	Bill Hopper Diverter Signal
1	A	Bill Hopper Present Switch
1	B	Bill Hopper Mid Signal
1	C	Bill Hopper Cassette In Switch
1	D	Bonus Trigger
1	E	Bill Hopper Rear Signal



Table 8: Input Test

Port	Bit	Input Description
1	F	Reserved
2	3	"Knockoff" Switch
2	4	Coin Mech Switch
2	6	Slant Door
2	9	Pseudo Coin Button
2	B	Drop/Diverter Optic

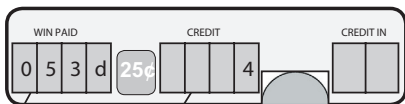
04 Hopper/Printer Test

Coin - The hopper attempts to pay out ten coins.

couP - The printer will dispense a voided coupon or voucher.

05 Reel Function Test

The reels index to the "0" position, then spin and stop at the highest number reel position.



The third digit of WIN PAID shows which reel malfunctioned. Example, reel 3.

CREDIT shows the number of reel malfunctions for all reels



Note: Holding CHANGE when entering Test #5 initiates a reel calibration and stores the reel-stop center position in SafeRAM.



06 Reel Tape Test

The reels slow-spin to position 0 and stop. After a pause, the reels simultaneously advance to position 21. The CREDIT display shows the reel position. The sequence continues until this test is exited.

07 Reel Tilt and System Reset Records (Requires Key Switch)

Table 9: Reel Tilt and System Reset Records

Tilt	Description
2	Reels moving improperly
4	Accelerating improperly
5	Running improperly
6	Decelerating improperly

Tilt	Description
7	Reels in wrong position
8	Power Fail Resets
9	Door Resets
A	Hardware Resets
B	CPU Error Resets



08 Slot Communications

Table 10: Slot Communications

Port	DUART	Name	Location	Connector	Jumper
0	1A (U38)	Link RS-485	Backplane Board	J14	CBL-30284-0001
1	1B	Auxiliary	MPU Board	J3	CBL-30293-0001
2	2A (U39)	Bill Acceptor	Backplane Board	J4	CBL-20243-0001
3	2B	System	Backplane Board	J10	CBL-30298-0001
4	3A (U37)	Spare RS-232	Backplane Board	J18	CBL-30283-0001
5	3B	Spare RS-485	Backplane Board	J15	CBL-20239-0001

09 Display Test

Observe to make sure all LED segments in each of the ten display positions are properly functioning.

10 Payout Test

After selecting the reel positions, press BET ONE to select the number of credits to wager. Press SPIN. The CREDIT display shows the win for the reel-symbol combination, the wager, and the credits to be paid from the hopper.

Repeat the procedures above to confirm payouts for any reel combination and wager.



11 Game Optioning

Table 11: Game Options

#	Option	Setting	Description
27	Bet Mode	(0001) 0003	Credit game Coin to credit (Default if MC=16)
26	Rebet- Autospin	0000 (0001) 0002 0003 0004 0005	No rebet, no autospin No rebet, autospin at max credit No rebet, autospin at max coins or credit Rebet, no autospin Rebet, autospin at max credits Rebet, autospin at max coins or credits
09	Jackpot Bell	0000 0001 0002 0003 0004 0005 (0006)	No bell Bell rings on all wins Rings on wins of 20 or more Rings on wins of 50 or more Rings on wins of 100 or more Rings on wins of 200 or more Rings on wins causing lockup
10	Coin Denomi- nation (Read-Only; Coin Denomi- nation is set by DS2 Sw 1, 2, 3, and 4.)	0000 0001 0002 0003 0004 0005 0006 0007 0008 0009 0010 0011 0012 0013 0014 0015 0016 0017	500.00 250.00 100.00 50.00 25.00 20.00 10.00 5.00 2.00 1.00 0.50 0.25 0.20 0.10 0.05 0.01 4.00 2.50
11	Change Coin/ Credit	0000 (0001)	Coins from hopper Credits to CREDIT meter



Table 11: Game Options

#	Option	Setting	Description
02	Progressive Type	(0000) 0001 0002 0003 0004 0005 0006 0007 0008	Off — lockup JPS for awarding prizes SPL — Serial Progressive Link PPL — Parallel Progressive Link MAPS — Multi Area Progressive System S/MPI — Serial/Multiplex Progressive Interface MPI — Multiplex Progressive Interface SAS [®] — Progressive 3.xx OTT — Over the Top SAS — Progressive 4.xx
07	Number of External Game Jackpots	(0000) 0001 0002 0003 0004	None One Two Three Four
18	Jackpot 4 Signal	(0000) 0001 0002 0003 0004	Combination of 2 & 3 Combination of 1 & 2 Combination of 1 & 3 Combination of 1, 2, & 3 Discrete Serial (Mikohn [®])
80	Test 2 & 10 Enable	(0000) 0001	Off Test 2 output to electromechanical meters, or Test 10, External Jackpot Signal.
01	Tournament Minutes	(0000) 0001-0099	Off Minutes for tournament
47	Attract Feature	0000 (0001)	Off On
38	Reel Stop Sound	(0000) 0001	Sound from speaker Handle solenoid click
48	Tower Configuration	(0000) 0001-0007	This option has specialized settings.
50Hi	Machine ID	(0000) 0000-9999	Upper four digits of 8-digit identification number.
50Lo	Machine ID	(0000) 0000-9999	Lower four digits of 8-digit identification number.
54	Coin Hopper Pay Amount	(0000) 0000-9999	Amount paid from hopper upon a lockup under the settings of 56 Credit Lockup and 51 Credit Limit.
56	Credit Collect Lockup	(0800) 0000-9999	Number of credits for a lockup upon any collect. Cannot be greater than Option 67, Maximum Voucher Pay. If MC=16, default is 4999.



Table 11: Game Options

#	Option	Setting	Description
62	Tournament Kitty	(0000) 0000-9999	Starting amount of credits for tournament operation.
63	Reset Prog. Amt. (MC=3 or MC=4)	(0000) 0000-9999	Credits added to counter upon progressive jackpot reset.
78Hi	SAS ID	(0000) 0001-9997 9998 9999	None SAS 3.x, 4.x and 5.x/GRIPS Coin Free (MC=6) Non-Cashable Credits
78Lo	Machine Number	(0000) 0000-0032	S/MPI identification number (must match progressive controller).
79Hi	Secondary SAS ID	(0000) 0001-9997 9998 9999	None Sas 3.x, 4.x, and 5.x/GRIPS Coin free (MC=6) Non-cashable credits
79Lo	—	—	—
04	Even Handpay - Collect Lockup	(0000) 0001 0002 0003 0004	Off Even Handpay by 10s Even Handpay by 100s Even Handpay by 1000s Machine Pays to Next 1.00
51	Credit Top Limit	(0800) 0000-9999	Maximum number of credits allowed on CREDIT meter. Follows Option 56 by default. If MC=16, default is 4999.
03	Tournament Seconds	(0000) 0001-0059	Seconds for Tournament



Table 11: Game Options

#	Option	Setting	Description
22*	Tokenization (All Markets Except 16, 27, and 30 - See Below)	(0000) 0001	Off \$1.00 Token
	Second Coin Denomination (MC=16)	(0001) 0002 0003 0004 0005	1.00 Wager Coin (1:1) 0.50 Wager Coin (1:2) 0.20 Wager Coin (1:5) 0.10 Wager Coin (1:10) 0.05 Wager Coin (1:20)
	Tokenization (MC = 27)	0001 0002 0003	1.00 Euro 0.50 Euro 5.00 Euro
	Tokenization (MC = 30)	0001 0002 0003 0004	2.00 Token 5.00 Token 10.00 Token 100.00 Token
	Tokenization (MC = 31)	0001 0002	1.00 Token - supports \$0.01 - \$0.50 10.00 Token - supports \$0.01 - \$5.00
	Tokenization (MC = 21)	0001	1000.00 Token - supports all denomination values for MC = 21
15	Residual Cred- its	(0000) 0001	Residual credits must be played. Residual credits forced to an Attendant pay.
70 71 72	MAPS Progres- sive Cabinet ID	0000	The ID can be represented as XXXX- YYYYZZZZ where Option 70=XXXX, Option 71=YYYY and Option 72=ZZZZ.
58	Win Lockup	(0800) 0000-9999	Amount of win for a lockup. Follows Option 56 by default. Must be greater than Option 57 SAS Lockup if SAS enabled. If MC=16, default is 4999
06	Progressive Group ID	(0000) 0000-0255	SAS Progressive 4.xx Group ID
57	SAS Lockup (MC=6)	0800 (0000)-9999	A win that is less than the setting of Option 58, Win Lockup, and greater than the set- ting of Option 57, SAS Lockup, causes a win lockup that is released by the Host Accounting System. Option 90, Host Remote Jackpot Release, must be set to enable this option.



Table 11: Game Options

#	Option	Setting	Description
12	Win Lockup Credit Release	(0000) 0001-9999	Off Win lockup credits lower than the setting of Option 12 which are added to CREDIT meter by actuation of a second key switch.
90	Host Remote Jackpot Release	(0000) 0001	Off Lockups may be released by Host.
91	Host Queue	(0000) 0001	No Queue Multiple lockups queued for processing.
95	Voucher Denomination Mismatch	(0000) 0001	Redeemable vouchers must be evenly divisible by the machine's denomination to be accepted by the machine. Machine accepts all vouchers and prints a change voucher for odd amount.
73	Voucher Vali- dation Level	0000 0001 0002 (0003)	Standard Host Enhanced Validation Host Secure Enhanced Validation Host System Validation
76	Voucher Receipt Enable	(0000) 0001	Printer dispensed only redeemable vouch- ers. Printer dispenses redeemable vouchers and informational receipts.
61	Machine Directed Pay- ment Configu- ration	(0001) 0002 0003	Hopper Only Printer Only Printer and Hopper
81	Coin Acceptor Enable	0000 (0001)	No Coin Acceptor Coin Acceptor Enabled
74	Voucher Expi- ration	0000 (0001)-0255	No Expiration Days Before Voucher Expires
		(MC=00) 0000 (0030)-0255	No Expiration Days Before Voucher Expires
64	Minimum Voucher Pay	8000 (0000)-9999	Minimum credits paid by voucher.
67	Maximum Voucher Pay	(8000) 0000-9999	Maximum credits paid by voucher.



Table 11: Game Options

#	Option	Setting	Description
14	Even Voucher Pay	(0000) 0001 0002 0003 0004 0005 0006 0007 0008 0009 0010	Off Even Voucher Pay by 1.00 Even Voucher Pay by 2.00 Even Voucher Pay by 5.00 Even Voucher Pay by 10.00 Even Voucher Pay by 20.00 Even Voucher Pay by 50.00 Even Voucher Pay by 100.00 Even Voucher Pay by 200.00 Even Voucher Pay by 500.00 Even Voucher Pay by 1000.00
77A 77B 77C	Site Location Label	(0100) 00-FF	Allows the operator to enter three (3) lines of address to be printed on vouchers.
08	Credit Snap	(0000) 0001	Wins added incrementally to CREDIT meter. Wins over 20 added as a sum to CREDIT meter.
05	Even Handpay-Win Lockup	(0000) 0001 0002 0003 0004	Off Even Handpay by 10s Even Handpay by 100s Even Handpay by 1000s Machine Pays to Next 1.00
20	Extra Coin	(0000) 0001	Extra coins returned to the player. Extra coins applied to wager for next game.
68	Game Sounds	0000 (0001)	Disables ProSound Board I or II, and uses internal device for sound (re-play reel spin sounds) External ProSound I or II Board (regular reel spin sounds)
23	GRIPS Host	(0000) 0001	No GRIPS Host, or MC=28 without AFT. GRIPS Host (Also 78Hi>0000)
92	SAS Bonusing	(0000) 0001 0002 0003	Disabled SAS 5.01 Bonusing Only AFT Bonusing Only Both SAS 5.01 and AFT Bonusing
98	Primary Host	(0000) 0001 0002	Host Disabled SAS Host (Also 78Hi>0000) SDS Host
99	Secondary Host	(0000) 0001 0002	Host Disabled SAS Host (Also 78Hi>0000) SDS Host
69	Coin Acceptor	(0000) 0001	Coin Mechanisms, Inc. CC-16 IDX X-20 (Default if MC=16)



Table 11: Game Options

#	Option	Setting	Description
19Hi	AFT Asset Number	(0000)-9999	Allows the operator to enter the upper four digits of the AFT Asset Number.
19Lo	AFT Asset Number	(0000)-9999	Allows the operator to enter the lower four digits of the AFT Number.
75	Coins to Dispense (MC=16)	(0125) 0000-9999	Number of coins to dispense for diagnostic (Float Level).
93	Bank Meter Transfer (MC=16)	(0000) 0001	No transfer to bank meter. Transfers 2£ from bank to credit each time the TRANSFER button is pressed.
17	Set SAS Version	(0000) 0001	SAS 5.01 SAS 6.01
29	AFT Registration	0000 0001 0002	Exit Initiate AFT registration cycle Cancel AFT registration
79	VLC Identification	0000-(4000)	The ID is represented by numbers 0000-4000, 4000 is the default. VLC Jurisdictions only
24	Print Promotional/Restricted Vouchers	(0000) 0001	Disallow printing of Promotional/Restricted vouchers. Allow printing of Promotional/Restricted vouchers.
30Hi	Game Serial Number Upper	(0000) 0000-9999	The upper four digits of the Game Machine Serial Number is sent to the SAS host in response to a 54 long poll.
30Lo	Game Serial Number Lower	(0000) 0000-9999	The lower four digits of the Game Machine Serial Number is sent to the SAS host in response to a 54 long poll.
82	Machine Control Functionality	(0001) 0002	Assigned to Primary Host Assigned to Secondary Host
83	AFT/EFT Functionality	0001) 0002	Assigned to Primary Host Assigned to Secondary Host
84	Progressive	0001) 0002	Assigned to Primary Host Assigned to Secondary Host
85	Legacy Bonusing	0001) 0002	Assigned to Primary Host Assigned to Secondary Host
86	Validation (TITO)	0001) 0002	Assigned to Primary Host Assigned to Secondary Host
87	Tournament	0001) 0002	Assigned to Primary Host Assigned to Secondary Host



Table 11: Game Options

#	Option	Setting	Description
88	SAS Busy Timing	0001) 0000	Enabled Disabled
96	Filtering of SAS Control Polls	0001) 0000	Enabled Disabled

* Option 22, Tokenization, is only displayed if DS 3, Switch 6 is in the OFF position.

12 Peripherals

The last two digits of the CREDIT display show the settings of DIP Switch DS1 in hexadecimal representing the value of the eight switches.

Table 12: Peripherals

SW 1 & 5	SW 2 & 6	SW 3 & 7	SW 4 & 8	Hex Digits 1 st & 2 nd
ON	ON	ON	ON	0
OFF	ON	ON	ON	1
ON	OFF	ON	ON	2
OFF	OFF	ON	ON	3
ON	ON	OFF	ON	4
OFF	ON	OFF	ON	5
ON	OFF	OFF	ON	6
OFF	OFF	OFF	ON	7
ON	ON	ON	OFF	8
OFF	ON	ON	OFF	9
ON	OFF	ON	OFF	A
OFF	OFF	ON	OFF	B
ON	ON	OFF	OFF	C
OFF	ON	OFF	OFF	D
ON	OFF	OFF	OFF	E
OFF	OFF	OFF	OFF	F



Win Paid	Credit	Device
121d	Value	DIP Switch DS1 in hexadecimal
122d	Value	DIP Switch DS2 in hexadecimal
123d	Value	DIP Switch DS3 in hexadecimal
124d	Value	Battery voltage in hexidecimal
125d	-0	Bet One sound at current volume level
125d	-1	Bet Max at full volume (ALARM)
126d	Value	Current Real Time Clock
127d	E400	Expanded EPROM memory status for 2MB

13 Data Vault Records

If Data Vault is installed, test #13 displays contents in the Message Center.

Table 13: Data Vault Records

Sub Group	Name	Description
00	Total In	Increments for each coin or credit wagered.
01	Total Out	Increments for each until won by a Player without a win lockup.
02	Attendant Paid	Increments for each credit paid by an Attendant upon a jackpot lockup.
03	Coin Drop	Increments for each coin diverted to a container because the hopper is full.
04	Door Opens	Times the main door of the machine was opened with power ON.
05	Games Played	Increments once for each completed game.
06	Super Jackpots	Number of times the top awards have been won when Option 07, Number of External jackpots, is greater than zero.



If a unit is defective, WIN PAID indicates the error as “bb-n,” where “n” is the error code.

Code	Description
1	No Response
2	Bad Data Transfer
3	No Response and Bad Data
4	Bad CRC

Code	Description
5	No Response and Bad CRC
6	Bad Data and Bad CRC
7	No Response, Bad Data and Bad CRC

15 Hopper Dump

If the amount of coins in the hopper is less than the amount set in Option 75, Coins to Dispense, the WIN PAID meter reads X/LESS. "X" being the difference between the amount set in Option 75 and the actual amount of coins in the hopper.

If the amount of coins in the hopper is equal to the amount set in Option 75, the WIN PAID meter reads X/FULL. "X" being the amount set in Option 75.

If the amount of coins in the hopper is more than the amount set in Option 75, the WIN PAID meter reads X/PLUS. "X" being the difference between the actual amount of coins in the hopper, and the amount set in Option 75.

16 Top Box Test

Using a Lucky Wheel machine, Test #16 verifies that all lights are wired and working properly, and that the wheel spins correctly. Each spin of the wheel is displayed in the CREDITS meter (0001-9999), and its reel index is displayed in the CREDIT IN meter.



Switch Functions

Table 14: Switch Functions

Switch	Location	Function
CHANGE	Main Door	Activate CHANGE lamp
		Restart or activate some tests
		Exit time and date setting after SafeRAM Clear
		Turns off jackpot bell/music during win lockup
CASH/CREDIT PRINT TICKET	Main Door	Cashout/Credits
BET ONE	Main Door	Wagers 1 credit
		Select previous option
SPIN	Main Door	Spin reels
		Pause test display
		Pause meter display
		Change options
		Speeds up addition of all win credits to CREDIT meter
BET MAX	Main Door	Wagers maximum credits
		Select previous option
Audit Key Switch (Upright)	Right Side of Machine	Displays bookkeeping meters
		Releases jackpot lockup
		Triggers some output tests
Audit Key Switch (Slant Top)	Front Panel, Above Door	Displays bookkeeping meters
		Releases jackpot lockup
		Triggers some output tests



Table 14: Switch Functions

Switch	Location	Function
2 nd Key Switch	Near Audit Key Switch	Selects between revenue or tournament game
		Same as Test (MC=12)
		Adds or removes credits (International)
		Win lockup credit release (Option 12)
Test	MPU Assembly	Selects test or function
		Activates next test or function
		Selects level of SafeRAM Clear
Coin Acceptor	MPU Assembly	Enable or disable coin acceptor and bill acceptor
Pseudo Coin	MPU Assembly	Simulates coin in while main door is open
		Select next option
		Select a level of SafeRAM Clear
Reset	MPU Assembly	Releases a machine tilt
		Exits test and diagnostics
Volume*	MPU Assembly	Adjusts the level of sound
*Not applicable to machines containing ProSound boards. Volume adjustment is located on the ProSound board.		

Machine Meter Groups

The availability of some machine meter groups depends upon hardware configuration and jurisdiction setting.

Table 15: Machine Meter Groups

#	Meter Group
00	Model Information (MC=3 or MC=4)
01	Bookkeeping
02	Win Records



Table 15: Machine Meter Groups

#	Meter Group
03	Game Recall
04	Games Summary
05	Bill Acceptor Records
06	Bill Acceptor Transaction History
07	Progressive Jackpots
08	Current Progressive Values
09	Host EFT History
10	Host EFT Totals
11	Doors (MC=8)
12	Secondary Game Bookkeeping
13	Data Vault
14	Voucher Out Transaction History
15	Coinless Payment System Transaction Records
16	Voucher In Transaction History
17	Meter Dump
18	SAS General Meters
19	NGCB Bookkeeping Meters
20	NGCB Bill Meters
21	Payback Percentage Display
22	Fund Transfer History

Table 16: Machine Meter Group 14, Subgroup 04, Validation Type Code Values

Code	Description
00	Cashable ticket from cashout or win, no handpay lockup
01	Restricted promotional ticket from cashout
02	Cashable ticket from AFT transfer



Code	Description
03	Restricted ticket from AFT transfer
04	Debit ticket from AFT transfer
10	Handpay from cashout (receipt printed)
20	Handpay from single win (receipt printed)
40	Handpay from cashout (no receipt)
60	Handpay from single win (no receipt)
80	Cashable ticket redeemed
81	Restricted promotional ticket redeemed
82	Nonrestricted promotional ticket redeemed



00: Model Information

Table 17: Model Information

Seq.	Sub Group	Description
1	01	EPROM Program Number
2	02	Reel Map and Win Table (Usually 0000)
3	03	Payback Percentage of the Game
4	04	Main Part Number

01: Bookkeeping

Table 18: Bookkeeping

Sub Group	Meter	Description
00	Total In	Credits wagered.
01	Total Out	Credits won without a win lockup.
02	Coin Drop	Coins sent to a separate container because the hopper was full.
03	Combined Drop	Coin drop plus CHNG bill (Bill Drop — see Bill Acceptor Records meter group).
04	Coin In	Coins accepted by the machine.
05	Coin Out	Coins dispensed by the hopper for credits won.
06	Total Games	Games played. Incremented at the start of each spin.
07	Current Credits	Credits available to the Player when the machine returns to revenue operation.
08	Lockups	Number of times attendant has released a jackpot lockup. Incremented when the Attendant activates the audit key switch.
09	Attendant Paid Credits	Credits paid by an attendant upon a lockup.
10*	Credit Collect Lockup Credits	Attendant paid credits for lockup from setting of Option 56.



Table 18: Bookkeeping

Sub Group	Meter	Description
11*	Win Lockup Credits	Attendant paid credits for a lockup from the setting of Option 58, Win Lockup (if not SDS EFT) (Win Hand Paid Credits for a lockup SDS EFT Only).
12*	Super Jackpots	Number of times top awards have been won when Option 07>0.
13*	Door Opens	Number of times the main door of the machine was opened with power ON.
14*	Cash Box Door Opens	Number of times the bill acceptor cash box door was opened with power ON.
15*	Games Since Door Open	Games played since the last time the door was opened.
16*	Games Since Reset	Games played since System reset.
17*	Drop Door Opens	Number of times the drop door has been opened (if drop door switch is connected).
18*	Partial SafeRAM Clears	Number of times the Partial SafeRAM Clear Procedure has been executed.
19*	Full SafeRAM Clears	Number of times the Full SafeRAM Clear Procedure has been executed.
20*	Extra Coins Sent to Drop	Coins that should have been rejected by the coin acceptor but were diverted into the drop bucket because the hopper was full.
21*	Soft Attendant Paid	Purchased credits paid by an Attendant. Purchased credits are from a bill transaction, Key On Credits, EFT, ACT, or from coins when 27=03.
22*	Soft Credit Collects	Coins paid by the hopper from purchased credits.
23*	Bill Stacker Door	Number of times stacker has been opened with power ON.
24*	Current Non-Cashable Credits	Current credits (Meter #7) that must be wagered
26*	Non-Cashable Coupon/Voucher Credits	Credits from non-government bills that must be wagered.



Table 18: Bookkeeping

Sub Group	Meter	Description
27* (24 VLC)	Token out	For machines with two hoppers, the numbers of tokens dispensed by the second hopper.
28* (25 VLC)	Key On Credits	Credits added by optional Key On key switch.
29* (26 VLC)	Hopper Fills	Coins added to hopper after 32 (hopper empty) tilt recovery.
27* VLC	MPU Access	Number of times MPU board assembly has been removed.
28* VLC	Door Opens with Power OFF	Number of times main door was opened with power OFF
30*	Games Since Power Fail	Games played since power ON.
31*	Wins	All wins (not including MC=16)
32	Belly Door Open	Number of times Belly Door and the Top Box door are opened.
33	Slant Style Door Open	Number of times the Lower Door of the Slant cabinet style has been opened.
34	Logic Door Open	Number of times the card cage has been accessed.
35	System Door Open	Number of times the System Door has been opened.
*Sequence and inclusion depends upon Main software version.		



01: Bookkeeping (MC=3 or MC=4)

Table 19: Bookkeeping (MC-3 or MC=4)

Sub Group	Meter
00	Total In
01	Coin Drop
02	Total Out
03	Attendant Paid Credits
04	Credit Collect Lockup Credits
05	Win Lockup Credits
06	Total Games
07	Coin In
08	Coin Out
09	Combined Drop
10	Current Credits
11	Lockups
12	Super Jackpots
13	Door Opens
14	Cash Box Door Opens
15	Games Since Door Open
16	Games Since Reset
17	Drop Door Opens
18	Partial SafeRAM Clears
19	Full SafeRAM Clears
20	Extra Coins Sent to Drop
21	Soft Attendant Paid
22	Soft Credit Collects
23	Tokens Out
24	Knock-Off Credits



Table 19: Bookkeeping (MC-3 or MC=4)

Sub Group	Meter
25	Total Win Meter
26	Belly Door Open
27	Slant Style Door Open



01: Bookkeeping (MC=16)

Table 20: Bookkeeping (MC=16)

Sub Group	Meter
00	Total In
01	Total Out
02	Coin Drop Credits
03	Combined Drop
04	Extra Coin Credits Sent to Drop
05	Coin-In Credits
06	Coin-Out Credits
07	Games Played
08	Current Credits
09	Door Open
10	Cash Box Door Opens
11	Drop Door Opens
12	Bill Stacker Door
13	Games Since Door Open
14	Games Since Reset
15	Games Since Power Fail
16	Number of Partial SafeRAM Clears
17	Number of Full SafeRAM Clears
18	Hopper Fills
19	Belly Door Open
20	Slant Style Door Open



02: Win Records

The Win Record meter group displays the quantity of wins for each winning reel combination in the Message Center until every possible winning combination has been displayed.

03: Game Recall

Shows information about last ten completed games.

04: Game Summary



Note: See the latest version of the ProSlot Setup and Operations Manual for further description on Meter Groups.



05: Bill Acceptor Records

Table 21: Bill Acceptor Records

ID Message	Description
1 bill	Number of \$1.00 bills accepted
2 bill	Number of \$2.00 bills accepted
5 bill	Number of \$5.00 bills accepted
10 bill	Number of \$10.00 bills accepted
20 bill	Number of \$20.00 bills accepted
50 bill	Number of \$50.00 bills accepted
100 bill	Number of \$100.00 bills accepted
200 bill	Number of \$200.00 bills accepted (MC=6)
500 bill	Number of \$500.00 bills accepted (International)
CHNG bill	Total credits (or pounds if MC=16) for all bills accepted
CASH bill	Total number of bills currently in the cashbox/stacker (Resets to 0 during soft drop)
Accp doll	Total value in dollars for all bills and coupons/vouchers accepted

06: Bill Acceptor Transaction History

The sequence of transactions is shown in the left position of WIN PAID, with “1” being the most recent transaction. The remaining positions of WIN PAID show the denomination of the bill, COUP for a coupon or VCHR for a voucher. CREDIT shows the number of credits given for the transaction.



07: Progressive Jackpots

Table 22: Progressive Jackpots

Sub Group	Description
00	Jackpot One (JP0)
01	Jackpot Two (JP1)
02	Jackpot Three (JP2)
03	Jackpot Four (JP3)
04	Jackpot Five (Mystery machine pay only)
05	Jackpot Six (Mystery machine pay only)
06	Jackpot Seven (Mystery machine pay only)
07	Jackpot Eight (Mystery machine pay only)

08: Current Progressive Values

Table 23: Current Progressive Values

Code	Explanation
Err 0	No serial traffic found within the last 500 milliseconds. The game is not receiving serial data from the progressive controller. This is most likely caused by an open connection between the machine and the progressive controller or incorrect configuration of the progressive controller.
Err 1	Serial checksum error. The data received by the game is not the same data sent by the progressive controller. This can be caused by an intermittent connection or too much noise on the data lines.
Err 2	Option error. Results when Option 02 Progressive Type is set to 0004 and Option 78Lo Machine Number is set to 0000.
Err 3	Coining error. Current Progressive Values are unavailable during a game. Exit the meter group and finish the game. The values will display upon re-entering this meter group.



09: Host EFT History

Table 24: SAS Host EFT History

Option 98, Primary Host = 0001 (SAS Host)		
Sub Group	Meter Name	Description
01	Non-Cashable	Credits transferred that must be wagered.
02	Cashable	Credits transferred that could be wagered or cashed out.
03	Promotional	Credits not won or purchased by a Player (Casino Promotion)
04	Forced Cashout to the System	Credits returned to the system when the Player pressed CASH/CREDIT.
05	Forced Cashout from the Hopper	Credits paid in coins by the hopper as instructed by the system from a cashout when the Player pressed CASH/CREDIT.

09: Host EFT History

Table 25: SDS Host EFT History

Option 98, Primary Host = 0002 (SDS Host)		
Sub Group	Meter Name	Description
00	Current Promotional Credits	Credits not won or purchased by a Player (Casino Promotion).
01	Promotional Credits Received	Total of all EFT credits sent to the game from the system, which are Promotional Credits (non-cashable).
02	Total EFT In	Total of all EFT credits sent to the game from the system, which are soft, cashable credits.



Table 25: SDS Host EFT History

Option 98, Primary Host = 0002 (SDS Host)		
Sub Group	Meter Name	Description
03	Total EFT Out	Total of all hard/soft EFT credits cashed out to the system because (1) the Player pressed CASH/ CREDIT, or (2) a Win to System (Certify Pay) occurred (a prize was won that was too large to pay to the CREDIT meter, so it was directly paid back to the EFT Host system).



10: Host EFT Totals

Table 26: Host EFT Totals

SAS Host EFT Totals	
Sub Group	Meter Name
01	Promotional
02	Non-Cashable (Blocked) Credits
03	Cashable (Non-Blocked) Credits
04	Forced Cashout to the System
05	Credits Won
06	Last Legacy bonus received for tax status 00 (Deductible)
07	Last Legacy bonus received for tax status 01 (Non-Deductible)
08	Last Legacy bonus for tax status 02 (Wager match)
09	Total Bonus for Tax Status Deductible
10	Total Bonus for Tax Status Non-Deductible
11	Total Bonus for Tax Status Wager Match
12	Last Multiplier Bonus for Tax Status Deductible
13	Last Multiplier Bonus for Tax Status Non-Deductible
14	Total Multiplier Bonus for Tax Status Deductible
15	Total Multiplier Bonus for Tax Status Non-Deductible

11: Doors (MC=8)

Table 27: Doors (MC=8)

Sub Group	Description
00	Main Door Access
01	Drop Door Access
02	Bill Acceptor Cashbox Access



12: Secondary Game Bookkeeping

Bookkeeping meters for the factory-installed secondary feature game are displayed. The information recorded and displayed depends upon the feature. Consult the documentation for the secondary game for more information.

13: Data Vault Bookkeeping System

Table 28: Data Vault Bookkeeping System

Sub Group	Name	Description
00	Total In	Increments for each coin or credit wagered
01	Total Out	Increments for each unit won by a Player.
02	Attendant Paid	Increments for each credit paid by an Attendant upon a jackpot lockup.
03	Coin Drop	Increments for each coin diverted to a container because the hopper is full.
04	Door Opens	Times the main door of the machine was opened with power on.
05	Games Played	Increments once for each completed game.
06	Super Jackpots	Number of times the top awards have been won when Option 07, Number of External Jackpots, is greater than 0.



14: Voucher Out Transaction History

Table 29: Voucher Out Transaction History

Sub Group	Description
01	Status
02	Date
03	Time
04	Transaction Type/System ID
05	Validation Number
06	Amount

15: Coinless Payment System Transaction Records

Table 30: Coinless Payment System Transaction Records

Sub Group	Description
01	Cashable Coupon Redeemed
02	Non-Cashable Coupon Redeemed
21	Cashable Voucher Redeemed
22	Promotional Voucher Redeemed
23	Cashable Promotional Voucher Redeemed
31	Cashable Voucher with No Lockup
32	Promotional Voucher from Cashout
33	Attendant Pay from Collect Lockup (Receipt Printed)
34	Attendant Pay from Win Lockup (Receipt Printed)
35	Attendant Pay from Collect Lockup (No Receipt)
36	Attendant Pay from Win Lockup (No Receipt)
37	Cashable Voucher from AFT Transfer
38	Restricted Voucher from AFT Transfer



Table 30: Coinless Payment System Transaction Records

Sub Group	Description
39	Debit Voucher from AFT Transfer

16: Voucher In Transaction History

Table 31: Voucher In Transaction History

Sub Group	Description
01	Status
02	Date
03	Time
04	Transaction Type/System ID
05	Validation Number
06	Amount



17: Meter Dump

Table 32: Meter Dump

Meters Displayed in English	Meters Displayed in French
TOTAL IN	ENTREES
TOTAL OUT	SORTIES
HOPPER OUT	TOTAL DE LA TREMIE
NET ATTEN. PAID	NET PAYE PAR EMPLOYE
COIN ACCEPTOR	ACCEPTEUR DE PIECES
TOTAL DROP	RECETTES
ATTEN. PAID	JACKPOT ET LOTS CUMULES
COIN TO DROP	PIECE INSEREE
HOPPER REFILL	REPLISSAGE DE TREMIE
GAMES PLAYED	JEUX JOUES
GAMES WON	JEUX GAGNE
CREDIT PLAYED	CREDITS JOUES
CREDIT WON	CREDITS GAGNE

18: SAS General Meters

Table 33: SAS General Meters

Sub Group	Description
00	Machine Paid External Bonus Deductible
01	Machine Paid External Bonus Non-Deductible
02	Machine Paid External Bonus Wager Match
03	Machine Paid External Bonus Payout



19: NGCB Bookkeeping Meters

Table 34: NGCB Bookkeeping Meters

Sub Group	Meter	Description
00	Coin In	Credits wagered, except Double-or-Nothing wagers.
01	Coin Out	Credits won, not including Progressive Awards and Win Lock-ups.
02	Coin Drop	Credits sent to a separate container because the hopper was full.
03	Physical Coin In	Coins accepted by the machine.
04	Physical Coin Out	Coins dispensed by the hopper.
05	Attendant Paid Jackpots	Credits paid an Attendant for a Win Lockup.
06	Attendant Paid Cancelled Credits	Soft credits paid by an Attendant.
07	Bill In	Credits from currency.
08	Voucher In	Credits from currency from items other than currency.
09	Voucher Out	Credits from currency from items vended to the Player.
10	Electronic Fund Transfer In	Credits transferred electronically from a financial institution.
11	Wagering Account Transfer In	Credits transferred electronically to machine from wagering account.
12	Wagering Account Transfer Out	Credits transferred electronically from machine to wagering account.
13	Non-Cashable Electronic Promotion In	Non-Cashable Credits transferred electronically to machine from a promotional account.
14	Cashable Electronic Promotion In	Credits transferred electronically to machine from a promotional account.



Table 34: NGCB Bookkeeping Meters

Sub Group	Meter	Description
15	Non-Cashable Electronic Promotion Out	Non-Cashable Credits transferred electronically from machine to a promotional account.
16	Cashable Electronic Promotion Out	Credits transferred electronically from machine to a promotional account.
17	Coupon Promotion In	Total accepted credits from coupons.
18	Coupon Promotion Out	Total dispensed credits from coupons.
19	Machine Paid External Bonus Payout	Total amount awarded from external bonus, paid by machine.
20	Attendant Paid External Bonus Payout	Total amount awarded from external bonus, paid by Attendant.
21	Attendant Paid Progressive Payout	Progressive awards paid by Attendant.
22	Machine Paid Progressive Payout	Progressive awards paid by machine.
23	Games Since Power Reset	Games played since a system reset.
24	Games Since Door Close	Games played since the last time the door was closed.
25	Games Since Game Initialization	Total of revenue games.

20: NGCB Bill Meters

NGCB Bill Meters records the amount of bills for each denomination that is entered in the machine.

The win paid display shows the value of the currency, and the credit display shows "BILL". The display then shows the amount for the particular denomination entered.



21: Payback Percentage Display

Payback Percentage Display shows, for each wager level, the theoretical payback percentage and the actual payback percentage.

22: Fund Transfer History

This meter displays only when it contains information.

Table 35: NGCB Fund Transfer Record Types

Type Number	Description
0	Voucher In
1	Voucher Out
2	Electronic Fund Transfer In
3	Wagering Account Transfer In
4	Wagering Account Transfer Out
5	Non-Cashable Electronic Promotion In
6	Cashable Electronic Promotion In
7	Non-Cashable Electronic Promotion Out
8	Cashable Electronic Promotion Out
9	Coupon Promotion In
10	Coupon Promotion Out



Jumper Configuration

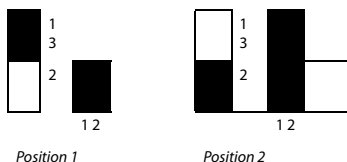


Table 36: Jumper Configuration

Jumper	Shipping Position	Purpose	Pos 1	Pos 2
JW1	OUT (OFF)	External Antenna	IN	OUT
JW2	2 MEG	EPROM Size	2 MEG	4 MEG
JW3	32K	Personality ROM Address	32K	64K
JW4	VBB	RAM Power Select	+5	VBB
JW5	RS232	RX Port 3B	RS232	RS422
JW6	OUT (OFF)	DSR Input 3A	IN	OUT
JW7	OUT (OFF)	DTR Output 3A	IN	OUT
JW8	RS232	Link RX	RS232	RS422
JW9	Enable	Link RS422 Enable	Disable	Enable
JW10	—	—	—	—
JW11	OUT (OFF)	MPU Detect Feature	IN	OUT
JW12	IN (ON)	SafeRAM Key	IN	OUT
JW13	ISOL TX	Bill Acceptor TX	ISOL	RS232
JW14	ISOL RX	Bill Acceptor RX	ISOL	Rs232
JW15	OUT (OFF)	VBB Door Open Latch	IN	OUT
JW16	ADC	Smart Socket Enable	ADC	+5
JW17	OUT(OFF)	Door Open Input	IN	OUT
JW18	OUT (OFF)	Alarm	IN	OUT



Table 36: Jumper Configuration

Jumper	Shipping Position	Purpose	Pos 1	Pos 2
JW19	IN (ON)	MPU Board Antenna	IN	OUT
JW20	OUT (OFF)	Battery	IN	OUT
JW21	OUT (OFF)	MPU Backplane Detach Detect	IN	OUT

DIP Switch Selections

Table 37: DIP Switch Selections

DIP Switch		Switch	Pack
Secondary Device Protocol		sw4 - sw6	DS1
Denomination		sw1 - sw4	DS2
Bill Acceptor		sw5 - sw6	DS2
Special Feature	Diverter Optic Support	sw8	DS2
	EFT Support (MC=01 or 13)	sw8	DS2
	Game Feature (Reel Spin)	sw7	DS2
Market Code		sw1 - sw4, sw7, sw8	DS3
Reel Map/Win Table		sw5 - sw6	DS3



Bill Acceptor

Table 38: Bill Acceptor

Bill Acceptor sw5, sw6			
sw5	sw6	Value	DS2
ON	ON	00	None
OFF	ON	01	GPT/ARDAC
ON	OFF	02	JCM WBA
OFF	OFF	03	MARS



DIP Switch Selections

Market	Code
NV, VLC, WV, DE, ME	00
New Jersey	01
Deadwood SD or QE	02
France Nominal %	03
France Basic %	04
Puerto Rico	05
South Africa	06
Arizona/Special International	07
Indiana	08
Colorado	10
USAF	11
OLGC	12
Mississippi	13
Germany	14
New Mexico	15
United Kingdom	16

Market	Code
Portugal	17
Italy	18
Greece	19
Russia	20
Chile	21
Venezuela	22
Estonia	23
Phillippines	24
Finland	25
Ireland	26
Euro	27
Switzerland	28
Manitoba	29
Hong Kong/Macau	30
Uruguay*	31
Korea	32



DIP Switch DS2 SW1 - SW4 Denomination

Market Codes 0 - 17, 20, 22₁, 25, 28, 29, 30, 31, 32₂

SW1	SW2	SW3	SW4	Value	Denomination
ON	ON	ON	ON	0000	500
OFF	ON	ON	ON	0001	250
ON	OFF	ON	ON	0002	100
OFF	OFF	ON	ON	0003	50
ON	ON	OFF	ON	0004	25
OFF	ON	OFF	ON	0005	20
ON	OFF	OFF	ON	0006	10
OFF	OFF	OFF	ON	0007	5
ON	ON	ON	OFF	0008	2
OFF	ON	ON	OFF	0009	1
ON	OFF	ON	OFF	0010	0.50
OFF	OFF	ON	OFF	0011	0.25
ON	ON	OFF	OFF	0012	0.20
OFF	ON	OFF	OFF	0013	0.10
ON	OFF	OFF	OFF	0014	0.05
OFF	OFF	OFF	OFF	0015	0.01
ON	ON	ON	ON	0016	4 (Non-Int'l MC=07)
ON	ON	ON	ON	0017	2.5 (Int'l MC=07)

- 1 - MC 17 only supports 25, 50, and 100 denominations (values 10 - 17).
- 2 - MC 22 does not support denominations less than 2.00.
- 3 - MC 25 does not support denominations less than 1.00 or values 4 or 2.5.
- 4 - MC 32 supports 500 and 100 denominations.



Market Code 18, 20					
SW1	SW2	SW3	SW4	Value	Denomination
ON	OFF	ON	ON	0002	1000
OFF	OFF	ON	ON	0003	500
OFF	ON	OFF	ON	0005	200

Market Code 19					
SW1	SW2	SW3	SW4	Value	Denomination
ON	ON	ON	ON	0000	1000
OFF	ON	ON	ON	0001	500
ON	OFF	ON	ON	0002	250
ON	ON	OFF	ON	0004	50
OFF	ON	OFF	ON	0005	25

Market Code 21					
SW1	SW2	SW3	SW4	Value	Denomination
ON	ON	ON	ON	0000	1000
OFF	ON	ON	ON	0001	500
ON	OFF	ON	ON	0002	250
OFF	OFF	ON	ON	0003	200
ON	ON	OFF	ON	0004	100
ON	OFF	OFF	ON	0006	20



Market Code 23					
SW1	SW2	SW3	SW4	Value	Denomination
ON	ON	ON	ON	0000	500
ON	OFF	ON	ON	0002	100
OFF	OFF	ON	ON	0003	50
ON	ON	OFF	ON	0004	25
ON	OFF	OFF	ON	0006	10
OFF	OFF	OFF	ON	0007	5
ON	ON	ON	OFF	0008	1
OFF	ON	ON	OFF	0009	0.50
ON	OFF	ON	OFF	0010	0.25
OFF	OFF	ON	OFF	0011	0.20
ON	ON	OFF	OFF	0012	0.10
OFF	ON	OFF	OFF	0013	0.05
ON	OFF	OFF	OFF	0014	0.02
OFF	OFF	OFF	OFF	0015	0.01

Market Code 24					
SW1	SW2	SW3	SW4	Value	Denomination
ON	ON	ON	ON	0000	500
ON	OFF	ON	ON	0002	100
ON	ON	OFF	ON	0004	50



Market Code 24					
SW1	SW2	SW3	SW4	Value	Denomination
ON	OFF	OFF	ON	0006	10
OFF	OFF	OFF	ON	0007	5
ON	ON	ON	OFF	0008	2
OFF	ON	ON	OFF	0009	1

Market Code 26					
SW1	SW2	SW3	SW4	Value	Denomination
ON	ON	ON	ON	0000	250
OFF	ON	ON	ON	0001	100
ON	OFF	ON	ON	0002	50
OFF	OFF	ON	ON	0003	25
ON	ON	OFF	ON	0004	20
OFF	ON	OFF	ON	0005	10
ON	OFF	OFF	ON	0006	5
OFF	OFF	OFF	ON	0007	2
ON	ON	ON	OFF	0008	1
OFF	ON	ON	OFF	0009	0.50
ON	OFF	ON	OFF	0010	0.25
OFF	OFF	ON	OFF	0011	0.20
ON	ON	OFF	OFF	0012	0.10



Market Code 26					
SW1	SW2	SW3	SW4	Value	Denomination
OFF	ON	OFF	OFF	0013	0.05
ON	OFF	OFF	OFF	0014	0.02
OFF	OFF	OFF	OFF	0015	0.01

Market Code 27					
SW1	SW2	SW3	SW4	Value	Denomination
ON	OFF	OFF	ON	0006	5
OFF	OFF	OFF	ON	0007	2
ON	ON	ON	OFF	0008	1
OFF	ON	ON	OFF	0009	0.50
ON	OFF	ON	OFF	0010	0.25
OFF	OFF	ON	OFF	0011	0.20
ON	ON	OFF	OFF	0012	0.10
OFF	ON	OFF	OFF	0013	0.05
ON	OFF	OFF	OFF	0014	0.02

DIP Switch DS3 (SW1 - SW4 and SW7 - SW8 (Market Code))						
Code	SW1	SW2	SW3	SW4	SW7	SW8
00	ON	ON	ON	ON	ON	ON
01	OFF	ON	ON	ON	ON	ON

**DIP Switch DS3 (SW1 - SW4 and SW7 - SW8 (Market Code))**

Code	SW1	SW2	SW3	SW4	SW7	SW8
02	ON	OFF	ON	ON	ON	ON
03	OFF	OFF	ON	ON	ON	ON
04	ON	ON	OFF	ON	ON	ON
05	OFF	ON	OFF	ON	ON	ON
06	ON	OFF	OFF	ON	ON	ON
07	OFF	OFF	OFF	ON	ON	ON
08	ON	ON	ON	OFF	ON	ON
10	ON	OFF	ON	OFF	ON	ON
11	OFF	OFF	ON	OFF	ON	ON
12	ON	ON	OFF	OFF	ON	ON
13	OFF	ON	OFF	OFF	ON	ON
14	ON	OFF	OFF	OFF	ON	ON
15	OFF	OFF	OFF	OFF	ON	ON
16	ON	ON	ON	ON	OFF	ON
17	OFF	ON	ON	ON	OFF	ON
18	ON	OFF	ON	ON	OFF	ON
19	OFF	OFF	ON	ON	OFF	ON
20	ON	ON	OFF	ON	OFF	ON
21	OFF	ON	OFF	ON	OFF	ON
22	ON	OFF	OFF	ON	OFF	ON



DIP Switch DS3 (SW1 - SW4 and SW7 - SW8 (Market Code))						
Code	SW1	SW2	SW3	SW4	SW7	SW8
23	OFF	OFF	OFF	ON	OFF	ON
24	ON	ON	ON	OFF	OFF	ON
25	OFF	ON	ON	OFF	OFF	ON
26	ON	OFF	ON	OFF	OFF	ON
27	OFF	OFF	ON	OFF	OFF	ON
28	ON	ON	OFF	OFF	OFF	ON
29	OFF	ON	OFF	OFF	OFF	ON
30	ON	OFF	OFF	OFF	OFF	ON
31	OFF	OFF	OFF	OFF	OFF	ON
32	ON	ON	ON	ON	ON	OFF

DIP Switch Selections

Reel Map-Win Table

The default MAP 00-WIN 00 is the only configuration supported. DS3 sw5 - sw6 should be left in the default ON position.



Secondary Device Protocol

Table 39: Secondary Device Protocol

DIP Switch DS1 (sw4, sw5, sw6 Secondary Device Protocol)			
System	sw4	sw5	sw6
Bally Secondary Game (BSG)	OFF	ON	OFF
Secondary Device (SED ¹)	ON	OFF	ON
None	ON	ON	On

¹Requires wheel control chip.

DIP Switch DS1 (sw1 - 3 and sw7 - 8 Switch Functions)	
Switch	Game Function
SW1	Message Center
ON	Four-digit message center CREDIT and WIN PAID
OFF	Five-digit message center CREDIT and WIN PAID
SW2	Tokenization
ON	Tokenization unavailable
OFF	Tokenization available as Machine Option #22
SW3	Win Evaluation Memory Corruption Tilt Lock
ON	Non-recoverable 87-x exception. Requires SafeRAM Clear
OFF	Recoverable 87-x exception
SW7	Hardware Exception Lock
ON	Lock to 88 Code (requires SafeRAM Clear)
OFF	Release to 99 Code
SW8	Reserved, Leave ON



Special Features

Table 40: Special Features

DS 2 sw7 - 8 Special Features	
sw7	Game Features
ON	Normal Reel Spin
OFF	Crazy Reel Spin
sw8	EFT Support
ON	Not Present
OFF	Present, if Market Code 01 or 13

DS3 sw5 - 6 Reel Map/Win Table	
sw5	sw6
ON	ON

SafeRAM Clear Procedure

SafeRAM Clear EPROMs (S6Sx000CLR07-01) may be required.

Complete: Erases and reformats SafeRAM. Game options are restored to factory default. All counters (soft meters) reset to zero. Press and hold the PSEUDO COIN and TEST buttons, then switch power ON. When the message **CH C** displays in WIN PAID, release the buttons. The **CH C** is followed by **CL C**.

Note: For machines configured for MAPS operation, a Complete SafeRAM Clear is required whenever the MPU board is changed.

Full: Erases and reformats SafeRAM. Game options are Resets all counters to zero except the SafeRAM Clear



counter. Game options are restored to factory default. Press and hold the PSEUDO COIN button, then switch power ON. When the message **CH F** appears in WIN PAID, release the button. The **H F** is followed by **CL F**.

Partial: Zeros all counters except SafeRAM Clear. All game configurations defined by DIP switches, jumper selections, and game options are preserved. Switch power ON. The **CH P** displays in WIN PAID. The **CH P** is followed by **CL P**.

If an error occurs during SafeRAM Clear as designated by **E C**, **E F**, **E P** in WIN PAID, repeat the operation.

Upon a successful SafeRAM Clear, the button and tower lamps flash. Switch power OFF and replace the SafeRAM Clear chips with the corresponding Mains. Replace MPU Assembly and switch machine power ON. The machine will enter a Reel Calibration procedure whereby the home position is recorded in SafeRAM. For tilt-free operation it is important that the procedure completes without interruption.



Tower Light Settings

Table 41: Tower Light Settings

Lights (Setting)	Function	Tower Display
2-Light (0000)	Service	Top Flashing
	Jackpot	Top Steady
	Tilts	Bottom Flashing
	Door(s)	Bottom Steady
	Hopper Pay	Not Applicable
3-Light (0001)	Service	Bottom Flashing
	Jackpot	Top Flashing
	Tilts	Middle Steady
	Door(s)	Middle Flashing
	Hopper Pay	Not Applicable
4-Light (0002)	Service	Middle Flashing
	Jackpot	Top Steady
	Tilts	Middle Flashing
	Door(s)	Bottom Steady
	Hopper Pay	Not Applicable
2-Light (0003)	Service	Top Flashing
	Jackpot	Top Steady
	Tilts	Bottom Flashing
	Door(s)	Bottom Steady
	Hopper Pay	Top Steady
3-Light (0004)	Service	Bottom Flashing
	Jackpot	Top Flashing
	Tilts	Middle Flashing
	Door(s)	Bottom Steady
	Hopper Pay	Not Applicable



Table 41: Tower Light Settings

3-Light (0005)	Service	Bottom Flashing
	Jackpot	Top Flashing
	Tilts	Middle Steady
	Door(s)	Middle Flashing
	Hopper Pay	Not Applicable
2-Light (0006)	Service	Top Steady
	Jackpot	Top Flashing
	Tilts	Top Flashing
	Door(s)	Bottom Flash or Fast Flash if Drop*
	Hopper Pay	Not Applicable
	Host Disabled	Top/Bottom Steady
2-Light (0007)	Service	Top Steady
	Jackpot	Top/Bottom Slow Flash
	Tilts	Top Slow Flash
	Door(s)	Bottom Flash or fast flash if Drop
	Hopper Pay	Not Applicable
	Host Disabled	Top/Bottom Steady
	Administration	Top Fast Flash
*Light remains illuminated until the start of the next game.		



Progressive Settings

(External) Mikohn Link

Table 42: Progressive Settings

CON2-A Settings		
PSP	F3	SNGL
	F4	M-08
	F5	3 SEC
	F6	JP0
	F7	\$\$\$\$
	F8	MS00
MPU Jumpers	JW8	2 - 3
	JW9	2 - 3
	U24	Removed
	Opto-Isolator 4N35	Iso 1 on Backplane
Options	02	0004
	07	Desired number of Jack-pots
	78Lo	Machine ID (1-32)

Jumper Configuration

V7000/V7200/V8000

Jumper	Shipping Position	Game Maker (V700/V7200) Game Magic (V8000)
W1	Disabled	Enables external antenna circuit
W2	Open	Connects pin 7 (PRE) of U3 (NMC93C56) and ground
W3	Open	Connects pin 6 (PE) of U3 (NMC93C56) and ground



W4	Open	Connects pin 14 (CTS) of U19 (82510) and pin 4 (EN) of U12 (75ALS194) to ground
W5	Open	Connects pin 14 (1A+) of U13 (75ALS194) and pin 10 (1Y+) of U12 (75ALS194) to VCC
W6	Open	Connects pin 11 (1Y-) of U12 (75ALS194) and pin 15 (1A-) of U13 (75ALS195) to ground
W7	On	Connects pin 2 of U32 (74HC14) to HSYNC
W8	On	Connects pin 4 of U32 (74HC14) to VSYNC
W9	On	Connects TP1 with VSYNC
W10	Off	Connects TP2 with HSYNC
W11	Off	Connects VCC with VDOOR
W12	On	Connects VBACKUP and VDOOR
W13	Off	Connects pin 12 (Q7) of U22 (74HC273) and pin 7 of U10 (ULN2813). Allows of either high or low output signal for COIN 2 LOCKOUT
W14	Off	Connects pin 6 (Q6) of U22 (74HC273) and pin 7 of U10 (ULN2813). Allows of either high or low output signal for COIN 1 LOCKOUT
W15	1-3	Connects CSTBY to VBAT or ground
W16	Open	Connects ALARM to Q17
W17	1-3	Enables B1 battery circuit
W18	Open	Connects pin 4 of RP8 (MODCK) and ground
W19	In	Connects pin 31 of EPROM socket M0 to A19
W20	Open	Connects pin 31 (A18) of EPROM socket M0 (U51) to VCC
W21	Open	Connects pin 29 (A14) of EPROM socket M0 (U51) to WELS
W22	In	Connects pin 29 (A14) of EPROM socket M0 (U51) to A15
W23	In	Connects pin 30 (A17) of EPROM socket M0 (U51) to A18
W22	In	Connects pin 29 (A14) of EPROM socket M0 (U51) to A15
W23	In	Connects pin 30 (A17) of EPROM socket M0 (U51) to A18
W24	Open	Connects pin 30 (A17) of EPROM socket M0 (U51) to VCC
W25	Open	Connects pin 29 (A14) of EPROM socket M1 (U58) to A15
W26	In	Connects pin 19 (A14) of EPROM socket M1 (U58) to A15
W27	In	Connects pin 31 (A15) of EPROM sockets P1 (U78), P2 (U79), P4 (U46), P5 (U52), and P6 (U59) to VCC
W28	Open	Connects pin 31 (A15) of EPROM sockets P1 (U78), P2 (U79), P4 (U46), and P5 (U52), and P6 (U59) to BMA14
W29	Open	Connects pin 29 (/WE) of EPROM sockets P1 (U78), P2 (U79), P4 (U46), P5 (U52), and P6 (U59) to BMWEHS



W30	In	Connects pin 29 (/WE) of EPROM sockets P1 (U78), P2 (U79), P4 (U46), P5 (U52), and P6 (U59) to BMA14
W31	In	Connects pin 31 (A15) of EPROM sockets P3 (U86), P7 (U67), P8 (U73), P9 (U80), and P10 (U87) to VCC
W32	Open	Connects pin 31 (A15) of EPROM sockets P3 (U86), P7 (U67), P8 (U73), P9 (U80), and P10 (U87) to BMA14
W33	Open	Connects pin 29 (/WE) of EPROM sockets P3 (U86), P7 (U67), P8 (U80), and P10 (U87) to BMWEHS
W34	In	Connects pin 29 (/WE) of EPROM sockets P3 (U86), P7 (U67), P8 (U73), P9 (U80), and P10 (U87) to BMA14
W35	In	Connects pin 31 (A18) of sockets G0 and G1 to VCC
W36	Open	Connects pin 31 (A18) of sockets G0 and G1 to VA18
J2	1-2	Sound Mute
JP1	Open	DataVault
JP4	2-3	External sound select
JP5	2-3	External sound select
JT1	Open	—
JT2	Open	—
JT3	Open	—
JT4	Open	—
JW1	1-2	Pins 1-2 for battery monitoring



Jumper Configuration

V8700/S8700

Table 43: Jumper Configuration V8700/S8700

Jumper	Shipping Position	EVO (V8700) EVO Hybrid (S8700)
JW2	2-3 (off)	Battery on/off, pins 2-3 for storage, otherwise on, pins 1-2
JW3	1-2	Pins 1-2=current loop bill acceptor, pins 3-4 RS-232 bill acceptor
JW4	1-2	Pins 1-2=current loop bill acceptor, pins 3-4 RS-232 bill acceptor
JW5	1-2	Pins 1-2=offboard serial port, pins 3-4=DataVault output
JW6	2-3	Pins 1-2=offboard serial port, pins 3-4=DataVault output
JW7	2-3	Pins 1-2=development only
JW8	2-3	Pins 1-2=development only
W1	1-6, 3-4	Pins 1-6=Vbat to RTC, pins 3-4=CPU not battery backed
W4	Open	~berr input used for development only
W6	Open	External antenna connection
W11	Jumped	A15 for main ROM
W12	Open	Write enable for main RAM development
W13	Jumped	A18 for main ROM
W14	Open	Vcc for main RAM development
W15	Jumped	A19 for Main ROM
W16	Open	Vcc for main ROM
W17	Open	Write enable for main RAM development
W18	2-3	Pins 1-2 for battery extended RAM, pins 2-3 otherwise
W19	Jumped	A15 for main ROM
W20	1-2	Pins 1-2 for battery extended RAM, pins 2-3 otherwise
W21	Open	Pins 1-2 for extended RAM battery back



W22	Jumped	Battery to door circuit
W23	Open	Vcc to door 4 circuit
W24	Jumped	Battery to door circuit
W25	1-2	Coin enable polarity
W26	1-2	Coin deflector polarity
W33	Open	Future Use
W40	Open	System port TTL
W41	Open	System port TTL
W42	Open	Future Use
W43	Open	RS422 termination resistor
W44	Open	RS422 termination resistor
W45	Open	Future Use
W46	Open	RS232 Jmodem disable
W47	—	—
W48	1-2	Pins 1-2 for extended RAM battery back
W49	1-2	Pins 1-2 for SRAM battery back
W50	Open	Development-PGM select, P1, P2, P4, P5, P6
W51	Jumped	PGM Select, P1, P2, P4, P5, P6
W52	Open	Development-A14 Select P1, P2, P4, P5, P6
W53	Jumped	A14 Select P1, P2, P4, P5, P6
W54	Open	Development-PGM Select P3, P7, P8, P9, P10
W55	Jumped	PGM Select P3, P7, P8, P9, P10
W56	Open	Development-A14 Select P3, P7, P8, P9, P10
W57	Jumped	A14 Select P3, P7, P8, P9, P10
W58	Jumped	RS232 modem TSD
W59	Jumped	RS232 modem TSD
W60	Jumped	RS232 modem DTR
W61	Jumped	RS232 modem DTR
W62	Jumped	RS232 modem RXD
W63	Jumped	RS232 modem RXD



W64	Jumped	RS232 modem DCD
W65	Jumped	RS232 modem DCD
W66	Jumped	A18 high, on board video
W67	Open	A18 active, on board video
W68	Open	HSYNC, on board video
W69	Open	VSYNC, on board video
W70	Open	Crystal config jumper
W71	Open	Crystal config jumper

DIP Switch Operation

V7000/V7200/V8000/V8700/S8700

Table 44: DIP Switch Operation

Switch	DIPSW1		DIPSW2	
	Level	Description	Level	Description
1	ON	Autoplay	—	Reserved
2	ON	Ignore Checksum	ON	Deluxe Sound
3	ON	Show State Status	—	Reserved
4	ON	Host Override	ON	Enable 12 Button Deck
5	ON	Printer/Hopper Override	ON	Bill to Tray Option
6	ON	Watchdog Override	ON	Touchscreen Not Installed
7	ON	EEPROM Clear	ON	Enable Progressive Change
8	ON	SafeRAM Clear	ON	Show Error Log



EEPROM Options

V7000/V7200/V8000/V8700/S8700

Table 45: EEPROM Options

EEPROM Options	V7	V72	V8	V87	S87
Current Jurisdiction	X	X		X	X
Primary Host/ Secondary Host	X	X		X	X
Host Protocol			X		
SAS Version	X	X		X	X
Chassis Type	X	X		X	X
Coin Acceptor	X	X		X	X
Bill Acceptor	X	X	X	X	X
Printer Type		X		X	X
Hopper Type	X	X		X	X
Door Type	X	X		X	X
Double Down	X	X		X	X
Knock Off Options			X		
Tournament	X	X		X	X
Electronic Funds Transfer (EFT)		X		X	X
Secondary Device	X	X		X	X
Residual Credit Mode	X	X		X	X
Win Evaluation Preference		X		X	X



Current Jurisdiction

V7000/V7200

Table 46: Current Jurisdiction

Jurisdiction	Market
Locked	VLC
1	International 60 Hz
2 (Locked)	New Jersey
3 (Locked)	GLI
4	International 50 Hz
5	Default
6	Uruguay
7	South Africa
8	Puerto Rico
9	Delaware
10	New Mexico
11	OLGC
12	Swiss B Wager Limit
13	Swiss A No Wager Limit/Slovenia
14	USAF 2000 Win Limit
15	USAF No Win Limit
16	Manitoba



Denomination Format

V7000/V7200/V8700/S8700

Table 47: Currency Symbol

Currency Symbol	
NONE	R
TOKEN	CHF
\$	BS
P	€
EU	£
KR	

Currency formatting is configurable by the Operator. Selecting NONE or TOKEN shows all bookkeeping values in credits or integers instead of monetary amounts.



Accounting Sub Menu

V7000/V7200/V8000/V8700/S8700

Game Maker (V7200/V7000)

Meters	Bookkeeping and Event Counters
	Bill Acceptor Transactions
	Voucher Accounting
	Game Activity
	Double Down Activity
	Total Weighted Theoretical Percentage
	Internal Progressive Meters
	Slot Accounting System (SAS®)
	SAS® Bonus Meters
	SAS® Progressive Meters
Win Records	All Games
	Game Personality
Game Recall	All Games
	Game Personality
SD Admin	
Printed Ticket History	
Redemption History	

Game Magic (V8000)

Meters	Bookkeeping and Event Counters
	Game Activity
	Double or Nothing Activity
	Hold Percentage Performance
	Bill Acceptor Transactions
Win Records	Game Personality
Game Recall	All Games
	Game Personality



EVO (V8700)/EVO Hybrid (S8700)

Meters	Bookkeeping and Event Counters
	Bill Acceptor Transactions
	Vouchers/Coupon Accounting
	Game Activity
	Double Down Activity
	SAS® Bonus Meters
	SAS® Progressive Meters
	Total Weighted Theoretical Percentage
	Internal Progressive Meters
	External Progressive Controllers
	Slot Accounting System (SAS®)
Win Records	All Games
	Game Personality
Game Recall	All Games
	Game Personality
SD Admin	
Validation History	
Redemption History	

Bookkeeping and Event Counters

V7000/V7200/V8000/V8700/S8700

Table 48: Bookkeeping and Event Counters

Meter	Description	V7	V72	V8	V87	S87
Current Credits	Credits available to the Play-er when the machine returns to revenue operation.	X	X	X	X	X
Games Played Since Reset	Total of games completed since the last system reset.	X	X	X	X	X
Games Played Since Door Closed	Total of games completed since closing of main door.	X	X	X	X	X
Total In	Amount wagered on all games in machine.	X	X	X	X	X
Total Out	Amount of winnings paid by machine.	X	X	X	X	X



Table 48: Bookkeeping and Event Counters

Total Drop	Combined COIN to DROP and BILL DROP.	X	X	X	X	X
Total Bill Acc. In	Amount accepted by the bill acceptor.	X	X		X	X
Attend. Paid	Amount accepted by the bill acceptor.	X	X	X	X	X
Soft Atten. Paid	Purchased credits (from a bill transaction) paid by Attendant.				X	X
Net Atten. Paid	Amount of ATTEN. PAID for credits won by the Player.	X	X			
Gamble Played	Residual credits wagered.	X	X		X	X
Gamble Won	Gambled credits won.	X	X		X	X
Money Won	Value of credits won by the Player.				X	X
Prog. Jackpot	Quantity of jackpots hit for games configured for a prog. JP or merchandise award.	X	X			
SD Wins	Amount of winnings from a secondary device.	X	X			
Jackpot/ Handpay	Portion of ATTEN. PAID resulting from a win lockup.	X	X	X	X	X
Coin Acceptor	Amount accepted by coin acceptor.	X	X	X	X	X
Hopper Out	Amount dispensed by the hopper.		X	X	X	X
Machine Resets and Times-tamps: WARM	Number of system resets from causes other than power OFF.		X	X	X	X



Table 48: Bookkeeping and Event Counters

Machine Resets and Times-tamps: COLD	Number of system resets from power OFF.	X	X	X	X
Printer Out	Amount of redeemable vouchers dispensed by the printer.	X	X		
Hopper Overpay	Amount of extra coins dispensed by the hopper.	X	X	X	X
Bill Drop	Amount of currency accepted.	X	X	X	X
Coin to Drop	COIN ACCEPTOR occurring while the hopper is full.	X	X	X	X
Soft Collect	Coins paid from hopper from purchased credits.	X	X		X
Other Collect	Electronic (EFT or ECT) Transfers	X	X	X	X
Cancel Credits	Soft credits (non win credits) and hard credits (won credits) paid by an Attendant.	X	X	X	X
Host Bonuses	Number of bonuses from SAS host communications.	X	X		X
Bonuses Paid	An accumulated value of bonuses from SAS host communications.	X	X		X
Door Access; Logic, Main, Drop, Service, Bill, Stack	Number of times each door has been opened.	X	X	X	X
Last Access; Logic, Main, Drop, Service, Bill, Stack	Time and date stamp for the most recent access for each door.	X	X		X



SafeRAM Clear Procedure

V7000/V7200/V8000/S8700

With power OFF, set DIPSW1 sw8 to ON. Insert V7S1000CLEAR-02 EPROM into P10 for Game Maker machines and U85 in EVO machines and switch power ON (some Main versions do not require CLEAR Chips). When “SAFERAM CLEAR ENABLED” appears, actuate the audit key switch. Follow the on-screen instructions.

Tower Light Settings

V7000/V7200/V8000/V8700/S8700

Table 49: Tower Light Settings

Lights (Setting)	Function	Tower Display
2-Light 0000	Door(s)	Bottom Steady
	Tilt	Bottom Flash
	Jackpot	Top Steady
	Service	Top Flash
	Hopper Pay	—
	Host Disabled	—
	Printer Jam or Empty	Top Flash
	Paper Low	Top Slow Flash
*3-Light 0001	Door(s)	Bottom/Middle Flash (Top flash if Drop)
	Tilt	Bottom Flash
	Jackpot	Top Flash
	Service	Middle Flash
	Hopper Pay	—
	Host Disabled	—
	Printer Jam or Empty	Middle Flash
	Paper Low	Middle Slow Flash



Table 49: Tower Light Settings

4-Light 0002	Door(s)	Bottom Steady
	Tilt	Top Flash
	Jackpot	4th Light Steady (light above top light)
	Service	Middle Flash
	Hopper Pay	—
	Host Disabled	—
	Printer Jam or Empty	Middle Flash
	Paper Low	Middle Slow Flash
2-Light 0003	Door(s)	Bottom Steady
	Tilt	Bottom Flash
	Jackpot	Top Steady
	Service	Top Flash
	Hopper Pay	Top Steady
	Host Disabled	—
	Printer Jam or Empty	Top Flashing
	Paper Low	Top Slow Flash
*3-Light 0004	Door(s)	Bottom Steady
	Tilt	Middle Flash
	Jackpot	Top Flash
	Service	Bottom Flash
	Hopper Pay	—
	Host Disabled	—
	Printer Jam or Empty	Bottom Flash
	Paper Low	Bottom Slow Flash
*3-Light 0005	Door(s)	Middle Flash
	Tilt	Top Flash
	Jackpot	Top Flash
	Service	Bottom Flash
	Hopper Pay	—
	Host Disabled	—
	Printer Jam or Empty	Bottom Flash
	Paper Low	Bottom Slow Flash



Table 49: Tower Light Settings

2-Light 0006	Door(s)	Bottom Flash or Fast Flash if Drop+
	Tilt	Top Flash
	Jackpot	Top Flash
	Service	Top Steady
	Hopper Pay	—
	Host Disabled	Top and Bottom Steady
	Printer Jam or Empty	Top Flash
	Paper Low	Bottom Slow Flash
2-Light 0007	Door(s)	Bottom Flash or Fast Flash if Drop
	Tilt	Top Slow Flash
	Jackpot	Top and Bottom Slow Flash
	Service	Top Steady
	Hopper Pay	—
	Host Disabled	Top and Bottom Steady
	Printer Jam or Empty	—
	Paper Low	—
	Administration	Top Fast Flash
*The machine must have a 10-button player panel. +Light remains illuminated until the start of the next game.		

Progressive Settings

(External) Mikohn Link

V7000/V7200/V8700/S8700

CON2-A Settings	GameMaker V7000/V7200		EVO V8700 EVO Hybrid S8700	
PSP	F3	SNGL	F3	SNGL
	F4	M-08	F4	M-08
	F5	3 SEC	F5	3 SEC
	F6	JP0	F6	JP0
	F7	\$\$\$\$	F7	\$\$\$\$
	F8	MS00	F8	MS00



CON2-A Settings	GameMaker V7000/V7200		EVO V8700 EVO Hybrid S8700	
MPU Jumpers	W4	Installed	W46	Installed
	Opto-Isolator 4N35	U1 (V72) U4 (V7)	Opto-Isolator 4N35	U1
Options	Progressive Number	1	Progressive Number	1
	Game ID	1-32	Game ID	1-32
	On Screen Display	ON	On Screen Display	ON
Ensure that the appropriate WIN LEVEL is set. More than one game may be assigned to one controller.				