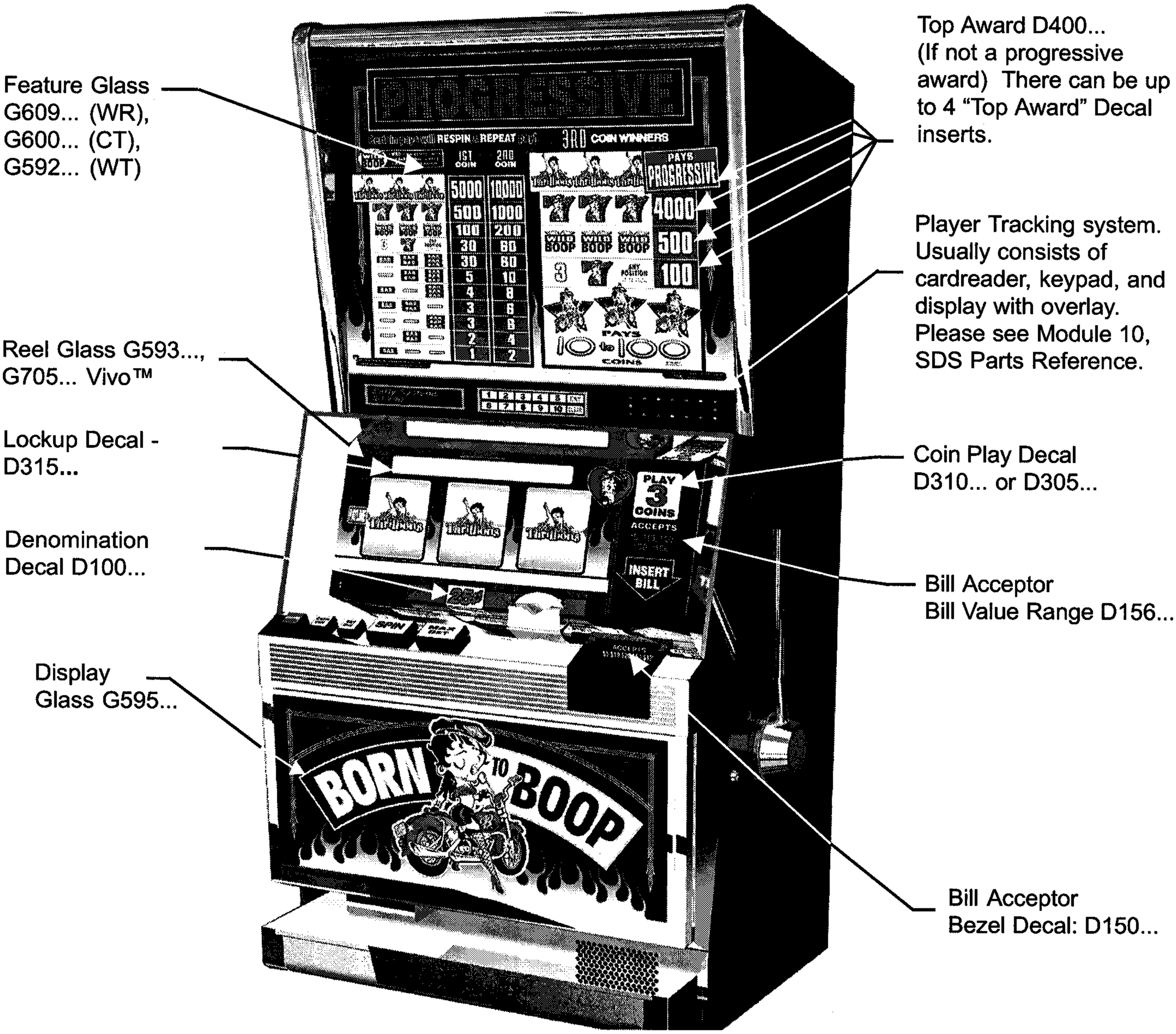
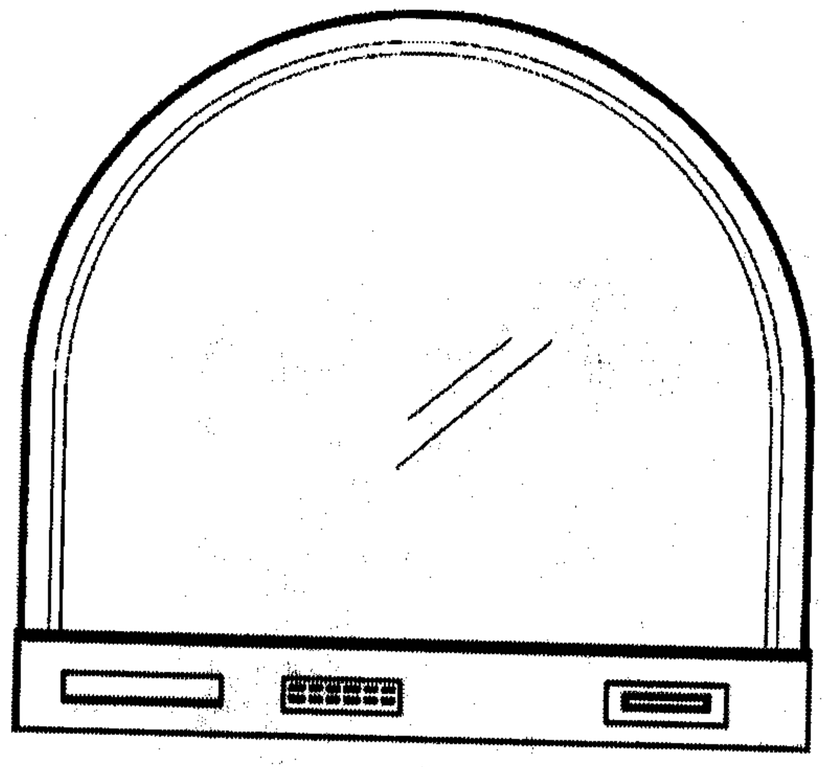
ProSlot® 6000



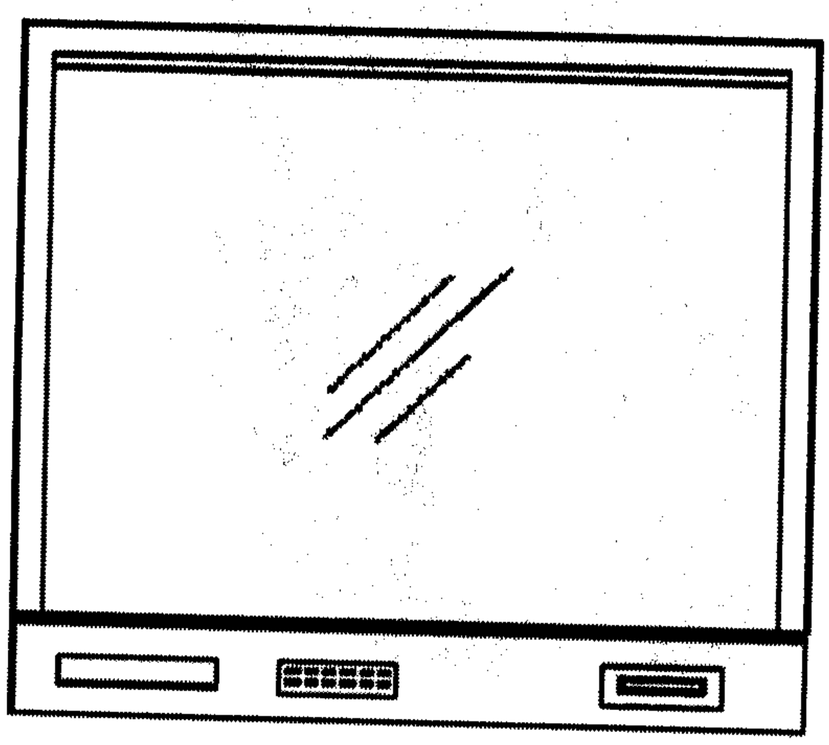
S6000 Upright Cabinet Styles



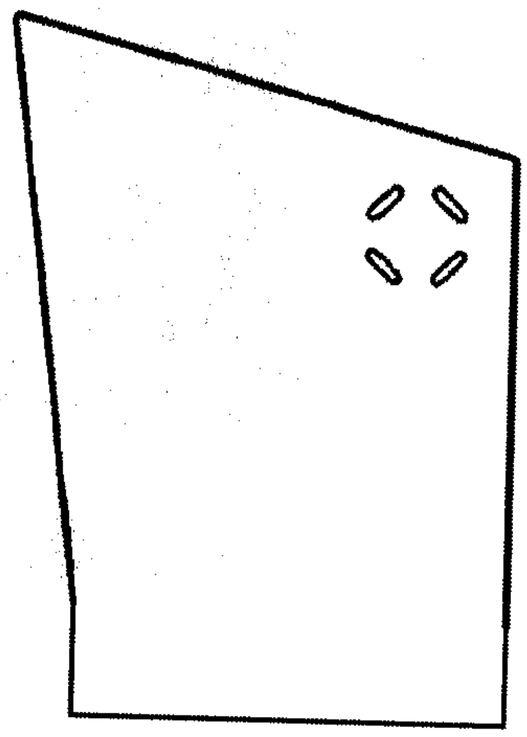
R6 style cabinet

C6 style cabinet

FRONT



SIDE



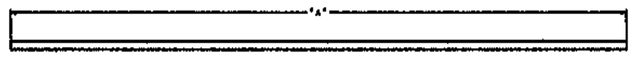
W6 style cabinet

ProSlot® 6000 Parts

Cabinet Assembly

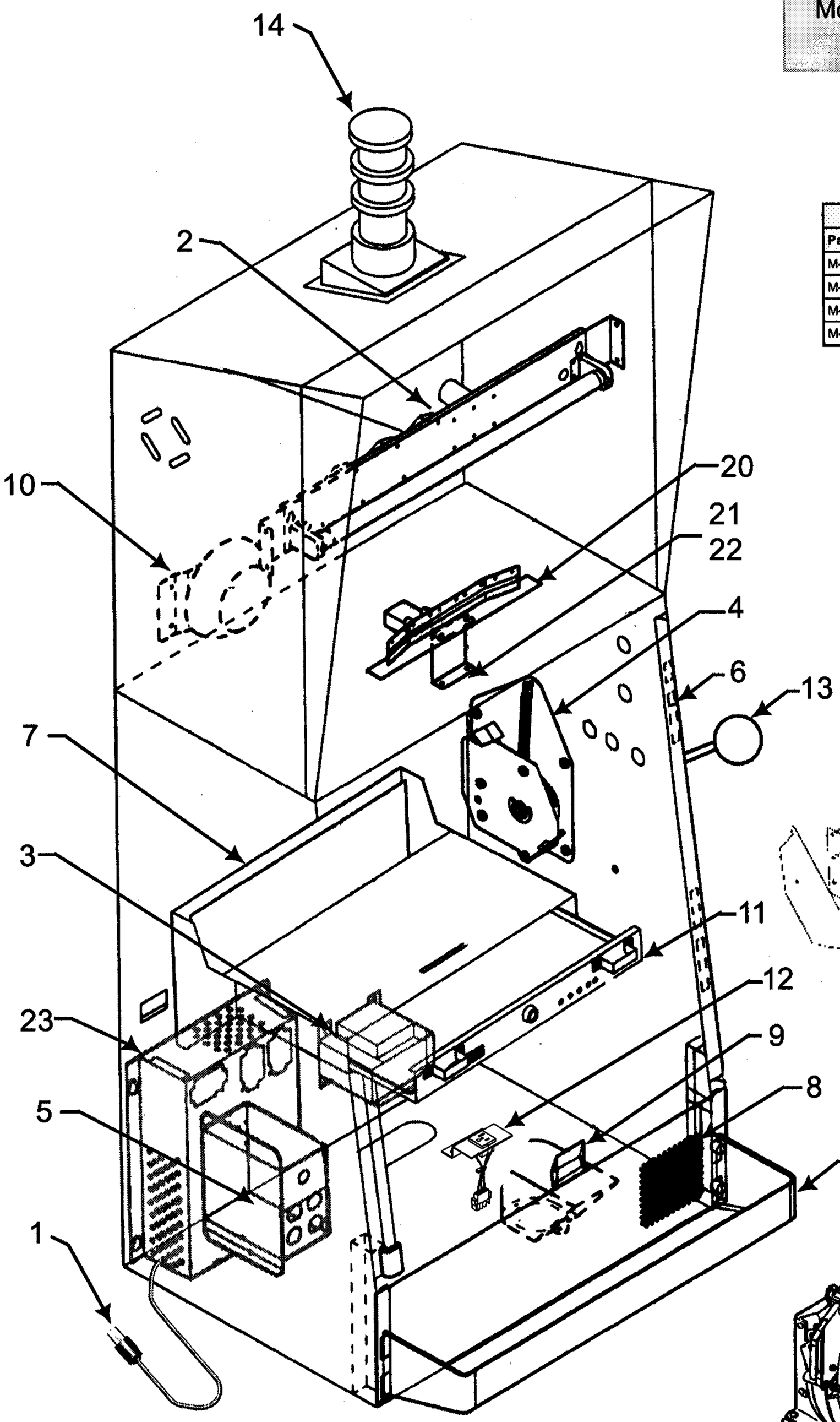
For Feature Glass selections, see Module 3A, Glass and Decals.

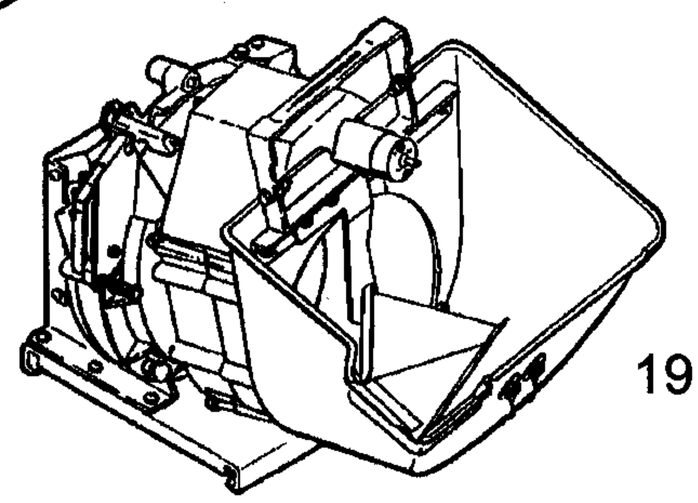
For more bracket selections, see Module 10, SDS Parts Reference



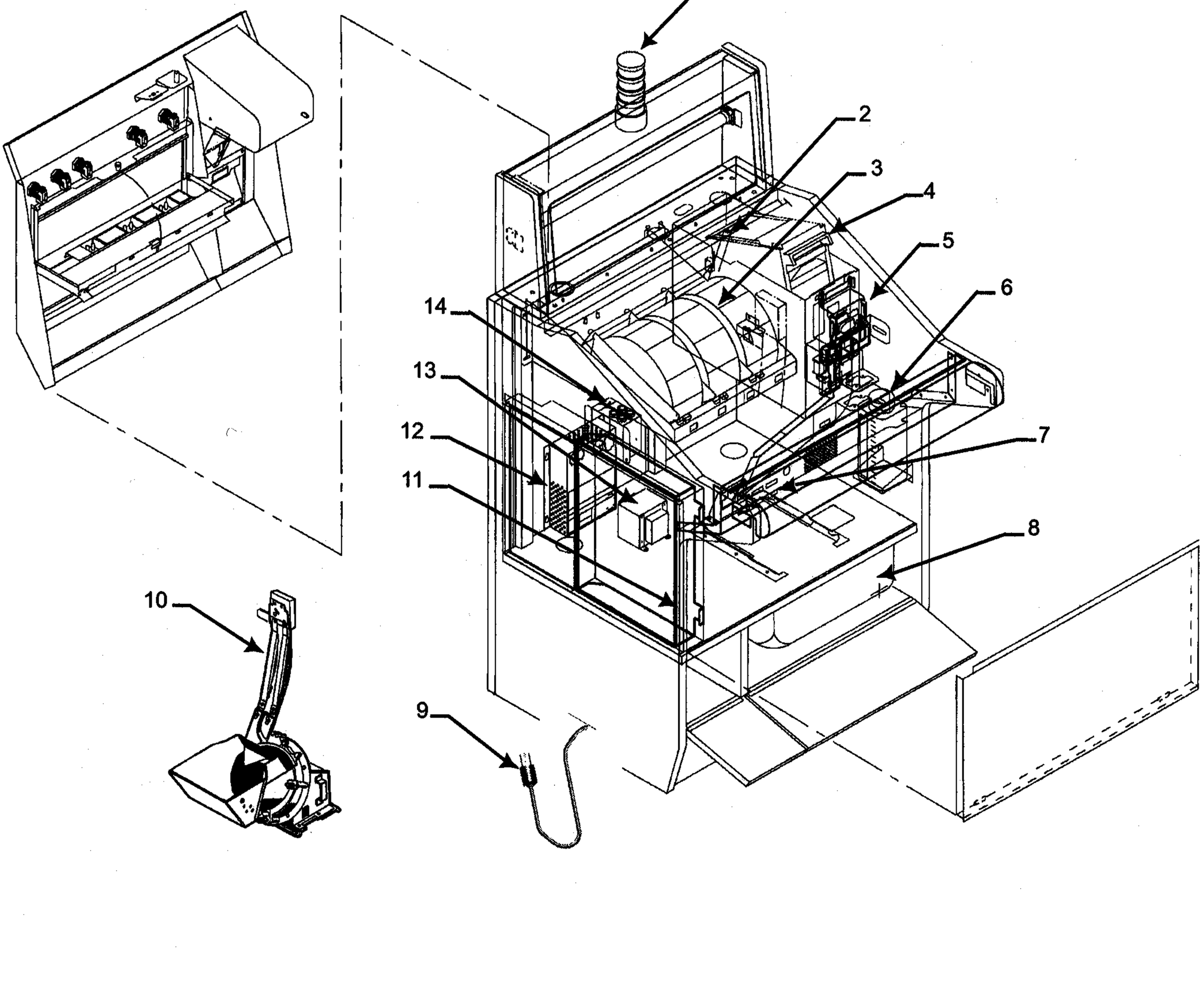
Feature Glass Channel				
Part #	Dimension A	Finish	Where Used	Material
M-03100-0001	14 11/16"	Chrome	W6 & W6E	Extruded Plastic ABS Mylar
M-03100-0002	9 3/16"		C6 & C6E	
M-03100-0007	14 11/16"	Brass	W6 & W6E	
M-03100-0008	9 3/16"		C6 & C6E	

C-06001-0001 Feature Glass Retaining Bracket, Non Extended





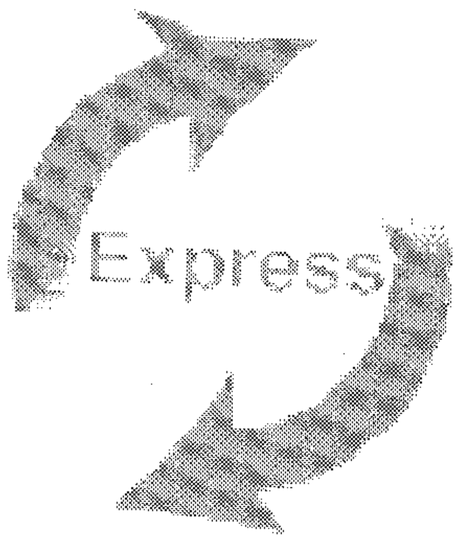
ProSlant® 6000 Parts



ProSlot® 6000 Circuit Boards

ProSlot® Circuit Boards	
Part #	**Description**
AS-03356-0214	Auxiliary LED Display Board Wide
AS-03356-0217	Auxiliary LED Dispaly Board (France) Wide
AS-03356-0208	Auxiliary Display Board
AS-03356-0431	Bill Acceptor Led Board, JCM WBA
AS-03356-0423	Backplane Board S6K Slant
AS-03356-0445	Backplane Board Upright, S6K
AS-03356-0454	Bill Exit Light Board
AS-03356-0303	Coin Optic Decoder Board
AS-03356-0108	Communication Interface Board
AS-03356-0466	Data Vault™ Memory Board
AS-03356-0362	Deluxe Sound Board
AS-03356-0426	Display Board
AS-03356-0428	Door Optic Detector Board
AS-03356-0427	Door Optic Emitter Board
AS-03356-0197	EPROM UIB With Piggyback Board MGM
AS-03356-0463	Flash UIB With Piggyback Board MGM
AS-03356-0384	Hopper Control Board, Bergmann
AS-03356-0339	Hopper Control Board, Dual Optic
AS-03356-0368	Hopper Control Board, FET, Dual Optic
AS-03356-0452	Memory Interface Board, C/C,
AS-03356-0198	Message Center Vacuum Fluorescent Display 16 Digit, MGM
AS-03356-0424	MPU Board
AS-03356-0438	MPU Board, MGM (Grand Hotel)
AS-03356-0478	MPU Board Data Vault™
AS-03356-0439	MPU Board, Standard, France, Puerto Rico
AS-03356-0440	MPU Board, New Jersey
AS-03356-0205	Reel Drive Board
AS-03356-0307	Tournament Meter Display Board

ProSlot® 6000 Illumination



Tower Lens Cover Selection

Tower Lens Covers				
Color	**Tower Lens Cover, Small**		**Tower Lens Cover, Large**	
	Top Part #	**Bottom Part #**	**Top Part #**	**Bottom Part #**
White	M-02100-0301	M-02100-0401	M-02100-0101	M-02100-0201
Red	M-02100-0302	M-02100-0402	M-02100-0102	M-02100-0202
Blue	M-02100-0303	M-02100-0403	M-02100-0103	M-02100-0203
Yellow	M-02100-0304	M-02100-0404	M-02100-0104	M-02100-0204
Green	M-02100-0305	M-02100-0405	M-02100-0105	M-02100-0205
Coral	M-02100-0306	M-02100-0406	M-02100-0106	M-02100-0206
Purple	M-02100-0307	M-02100-0407	M-02100-0107	M-02100-0207
Orange	M-02100-0308	M-02100-0408	M-02100-0108	M-02100-0208
Blue	M-02100-0309	M-02100-0409	M-02100-0109	M-02100-0209
Teal	M-02100-0310	M-02100-0410	M-02100-0110	M-02100-0210
Powder Blue	M-02100-0311	M-02100-0411	M-02100-0111	M-02100-0211
Pink	M-02100-0312	M-02100-0412	M-02100-0112	M-02100-0212
Amber	M-02100-0313	M-02100-0413	M-02100-0113	M-02100-0213

ProSlot® 6000 Programmable Devices and Batteries

Part #	**Description**	**Where Used**
E-00867-0035	(Blank) EPROM, CMOS, (512K) 32K X 8	Personality (U18, U20)
E-00867-0037	(Blank) EPROM, IC, 1MEG, 128K X 8, 80NS	JCM WBA Bill Acceptor
E-00867-0039	(Blank) EPROM, IC, 2MEG, 256K X 8,120NS	Mains (U28, U43)
E-00867-0046	(Blank) EPROM, IC, 8MEG, 1M X 8, 120NS	AS-03356-0362 Deluxe Sound Board
S6S1000CLE04-03	ProSlot® SafeRAM™ Clear	U28, U43
E-01056-0018	Programmed Controller, 16F84, FET-003	AS-03356-0368 Hopper Control Board
E-01056-0022	Programmed Controller, 16C84, DBL-022	AS-03356-0339 Hopper Control Board
E-01091-0004	Programmed COD Micro-controller, PIC16C54, V5.1	AS-03356-0303 COD Board
E-00628-0023	Battery, Lithium (3.6V @ 1800MAH)	BATT1
E-00882	Jumper	JWxx
E-00620-0673	IC, Dallas Smart Socket DS1213D	U30 and U45

WARNING: Attempting to recharge Lithium batteries can cause them to explode. Replace failed batteries with Bally Gaming part E-00628-0023 or its equivalent.

ProSlot® 6000 With XS1200 Hopper Coin-Specific Parts

Coin	Dimensions		Hopper	Hopper With Mixer	Back Plate	Bracket, Coin Head Clamp	Coin Guide
	Diameter	Thickness					
Dime	0.705" (17.90 mm)	0.053" (1.35 mm)	None	None	C-04110-1001	P-09319-0299	P-09319-0200
Penny	0.750" (19.05 mm)	0.062" (1.57 mm)	None	None	C-04110-1003	P-09319-0299	P-09319-0200
Nickel	0.825" (20.96 mm)	0.078" (1.98 mm)	AS-06793-0008	AS-06793-1008	C-04110-1005	P-09319-0299	P-09319-0200
Token .25	0.865" (21.97 mm)	0.067" (1.70 mm)	AS-06793-0001	AS-06793-1001	C-04110-1005	P-09319-0299	P-09319-0200
Quarter	0.955" (24.26 mm)	0.067" (1.70 mm)	AS-06793-0001	AS-06793-1001	C-04110-1008	P-09319-0299	P-09319-0200
Half	1.205" (30.61 mm)	0.086" (2.18 mm)	AS-06793-0005	AS-06793-1005	C-04110-1016	P-09319-0299	P-09322-0211
Dollar	1.500" (38.10 mm)	0.100" (2.54 mm)	AS-06793-0002	AS-06793-1002	C-04111-1006	P-09319-0300	P-09322-0211
$100	1.595" (40.51 mm)	0.090" (2.29 mm)	AS-06793-0010	AS-06793-1010	C-04111-1008	P-09319-0300	P-09322-0211
$10	1.740" (44.20 mm)	0.125" (3.18 mm)	None	None	C-04111-1011	P-09319-0300	P-09322-0211
$5	1.750" (44.45 mm)	0.125" (3.18 mm)	AS-06793-0006	AS-06793-1006	C-04111-1011	P-09319-0300	P-09322-0211
$25	1.875" (47.625 mm)	0.125" (3.18 mm)	AS-06793-0007	AS-06793-1007	C-04111-1012	P-09319-0300	P-09322-0211

Coin	Optic Board Mounting Block	Coin Acceptor	Mounting Bracket	Tower Lens	Tower Color	Denomination Decal	Coin Knife
Dime	M-01755-0965	E-00887-0209	P-06004-0037	M-02100-0205	Green	D100-10C++-BERM	M-03068-0006
Penny	M-01755-0965	E-00887-0209	P-06004-0037	M-02100-0202	Red	D100-1CENT-BERM	M-03068-0006
Nickel	M-01755-0946	E-00887-0201	P-06004-0037	M-02100-0202	Red	D100-.05++-BERM	M-03068-0006
Token .25	M-01755-0945	E-00887-0201	P-06004-0037	M-02100-0204	Yellow	D100-TOK25-BERM	M-03068-0006
Quarter	M-01755-0945	E-00887-0201	P-06004-0037	M-02100-0204	Yellow	D100-.25++-BERM	M-03068-0006
Half	M-01755-0947	E-00887-0205	P-06004-0037	M-02100-0206	Coral	D100-50C++-BERM	M-03068-0006
Dollar	M-01755-0943	E-00887-0203	P-06004-0037	M-02100-0203	Blue	D100-$1+++-BERM	M-03068-0006
$100	M-01755-0944	E-00887-0208	P-06004-0037	M-02100-0201	White	D100-$100+-BERM	M-03068-0006
$10	M-01755-0944	E-00887-0204	P-06004-0036	M-02100-0207	Purple	D100-$10++-BERM	M-03068-0007
$5	M-01755-0944	E-00887-0202	P-06004-0036	M-02100-0207	Purple	D100-$5+++-BERM	M-03068-0007
$25	M-01755-0948	E-00887-0202	P-06004-0036	M-02100-0207	Purple	D100-$25++-BERM	M-03068-0007

Coin	Pin Wheel	Shelf Wheel	Shelf Wheel Spacer	Cover Coin Outlet	Coin Deflector	Agitator	Hopper Bowl Spacer
Dime	P-00842-009B	P-00847-0001	None	P-00838-0011	P-00839	R-00526-0003	S-00231-1028
Penny	P-00842-009B	P-00847-0001	None	P-00838-0011	P-00839	R-00526-0003	S-00231-1028
Nickel	P-00842-009B	P-00847-0028	None	P-00838-0011	P-00839	R-00526-0003	None
Token .25	P-00842-010B	P-00847-0002	None	P-00838-0011	P-00839	R-00526-0003	None
Quarter	P-00842-010B	P-00847-0002	None	P-00838-0011	P-00839	R-00526-0003	None
Half	P-00842-010B	P-00847-0003	None	P-00838-0011	P-00839	R-00526-0003	None
Dollar	P-00842-011B	P-00847-0006	None	P-00838-0011	P-00839	R-00526-0003	None
$100	P-00842-013A	P-00847-0014	None	P-00838-0012	P-00839	R-00526-0001	None
$10	A-04308-001A	P-00847-0025	P-00847-0024	P-00838-0012	P-00839-0004	R-00526-0001	None
$5	A-04308-001A	P-00847-0023	P-00847-0024	P-00838-0012	P-00839-0004	R-00526-0001	None
$25	A-04308-001A	P-00847-0016	P-00847-0022	P-00838-0012	P-00839-0004	R-00526-0001	None

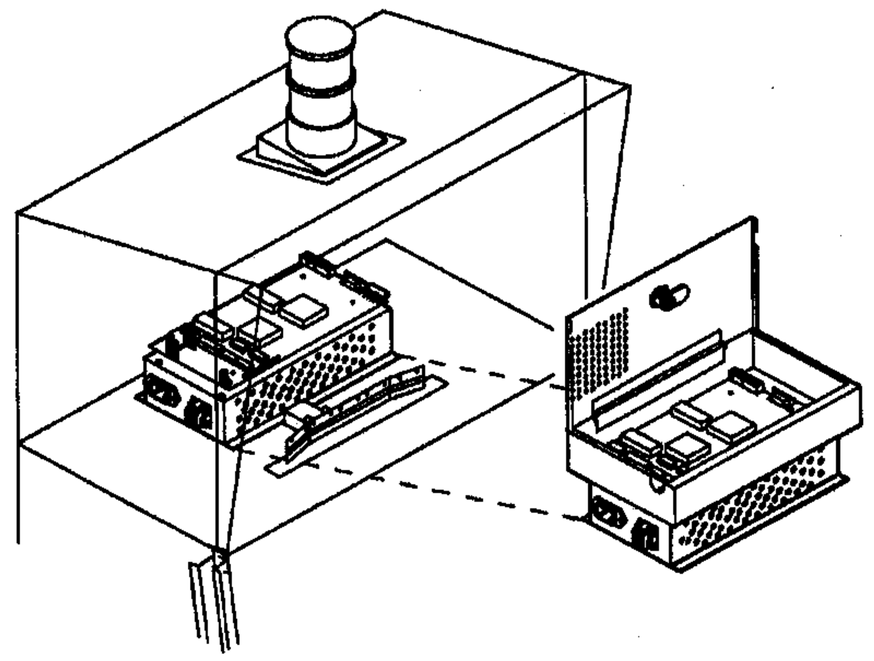
G609... Feature Glass WR (Round Top) (cont.)

Feature Glass	ART FORM	DESCRIPTION
G609-00488-PROG	NE7-5004	PARIS PAYDAY ANY 7, 12 CELL AURORA, $1/COIN PAYS
G609-00482-PROG	NE7-5005	PARIS PAYDAY NE7, 12 AURORA MINI, COIN PAYS
G609-00283-++++	OTT-5001	OVER THE TOP, COIN PAYS
G609-00262-++++	OV7-5001	BLUE 7'S 2C, COIN PAYS
G609-00263-$5++	OV7-5002	BLUE 7'S, $5 PAYS
G609-00263-$5MI	OV7-5002	BLUE 7'S, 12 CELL MINI, $5 PAYS
G609-00263-++++	OV7-5002	BLUE 7'S 3C, COIN PAYS
G609-00263-12MI	OV7-5002	BLUE 7'S 3C, 12 CELL MINI, COIN PAYS
G609-00263-SP++	OV7-5002	BLUE 7'S, SPANISH TEXT, COIN PAYS
G609-00323-++++	OV7-5005	GOLD FEVER, COIN PAYS
G609-00433-++++	OVR-5001	COUNT DE MONEE, COIN PAYS
G609-00084-++++	OVR-5001	OVERLOAD, COIN PAYS
G609-00469-$2++	PAW-5001	PARIS BALLOONS, $2 PAYS
G609-00469-$5++	PAW-5001	PARIS BALLOONS, $5 PAYS
G609-00529-12MI	QD7-5001	3 BLAZING 7'S QUICK HIT W/DOUBLE SYMBOL, COIN PAYS, 12 CELL MINI PROG.
G609-00530-$5MI(C)	QD7-5002	3 BLAZING 7'S QUICK HIT W/DOUBLE SYMBOL, $5 PAYS, 12 CELL MINI
G609-00530-$25M(C)	QD7-5002	3 BLAZING 7'S QUICK HIT W/DOUBLE SYMBOL, $25 PAYS, 12 CELL MINI
G609-00531-12MI	QD7-5003	BLACK & WHITE JACKPOT QUICK HIT, COIN PAYS, 12 CELL MINI
G609-00532-$5MI(C)	QD7-5004	BLACK & WHITE JACKOT QUICK HIT, $5 PAYS, 12 CELL MINI
G609-00533-++++	QDC-5001	5 X 10 QUICK HIT, COIN PAYS
G609-00536-12MI	QDC-5002	BLACK GOLD 5 X 10 QUICK HIT, COIN PAYS, 12 CELL MINI
G609-00535-$5MI(C)	QDC-5003	5 X10 QUICK HIT, $5 PAYS, 12 CELL MINI
G609-00537-$5MI	QDC-5004	BLACK GOLD 5 X 10 QUICK HIT, $5 PAYS, 12 CELL MINI
G609-00537-$25M	QDC-5004	BLACK GOLD 5 X 10 QUICK HIT, $25 PAYS, 12 CELL MINI
G609-00129-$20+	RAF-5001	RICH & FAMOUS, $20 PAYS
G609-00129-$4++	RAF-5001	RICH & FAMOUS, $4 PAYS
G609-00129-$5++	RAF-5001	RICH & FAMOUS, $5 PAYS
G609-00129-++++	RAF-5001	RICH & FAMOUS, COIN PAYS
G609-00129-FC++	RAF-5001	RICH & FAMOUS FRENCH CANADIAN, COIN PAYS
G609-00129-PROG	RAF-5001	RICH & FAMOUS, 12 CELL MINI, COIN PAYS
G609-00129-SP++	RAF-5001	RICH & FAMOUS, COIN PAYS, SPANISH TEXT
G609-00111-$5++	RAF-5002	RICH & FAMOUS, $5 PAYS
G609-00111-++++	RAF-5002	RICH & FAMOUS, COIN PAYS
G609-00163-++++	RAF-5004	RICH & FAMOUS, COIN PAYS
G609-00163-12MI	RAF-5004	RICH & FAMOUS, 12 CELL MINI, COIN PAYS
G609-00163-9DIG	RAF-5004	RICH & FAMOUS, 9 DIGIT MINI, COIN PAYS
G609-00163-PORT	RAF-5004	RICH & FAMOUS, $5 PAYS, PORTUGUESE TEXT
G609-00163-SP++	RAF-5004	SPANISH RICH & FAMOUS, COIN PAYS
G609-00133-++++	RAF-5006	WIN WITH THE STARS, GEORGE BURNS, COIN PAYS
G609-00134-++++	RAF-5006	WIN WITH THE STARS, ANN MARGARET, COIN PAYS
G609-00135-++++	RAF-5006	WIN WITH THE STARS, WAYNE NEWTON, COIN PAYS
G609-00166-$4++	RAF-5009	RED GOLD CUSTOM, $4 PAYS
G609-00215-$1C+	RAF-5014	RICH & FAMOUS, ENGLISH TEXT, $100 PAYS
G609-00215-FC1C	RAF-5014	RICH & FAMOUS, FRENCH CANADIAN, $100 PAYS
G609-00296-++++	RAF-5026	SILVER & GOLD, COIN PAYS
G609-00301-FR++	RAF-5027	GREEN LION, FRENCH TEXT, COIN PAYS
G609-00326-++++	RAF-5029	RICH & FAMOUS, COIN PAYS
G609-00326-2PRG	RAF-5029	RICH & FAMOUS, 2 TA NON METERED PROG SCREEN IN TA

Mikohn Cham II+®
Stand-alone Progressive

Bally Progressive Kits:

K-00721-5513 CHAMII+ 2x12 Mini
K-00721-5517 CHAMII+ 2x12 Micro
K-00721-5525 CHAMII+ 1x12 Mini
K-00721-5526 CHAMII+ 1x12 Micro
K-00721-5527 CHAMII+ 1x14 Mini
K-00721-5528 CHAMII+ 1x14 Micro
K-00721-5531 CHAMII+ 12 Mini/Micro



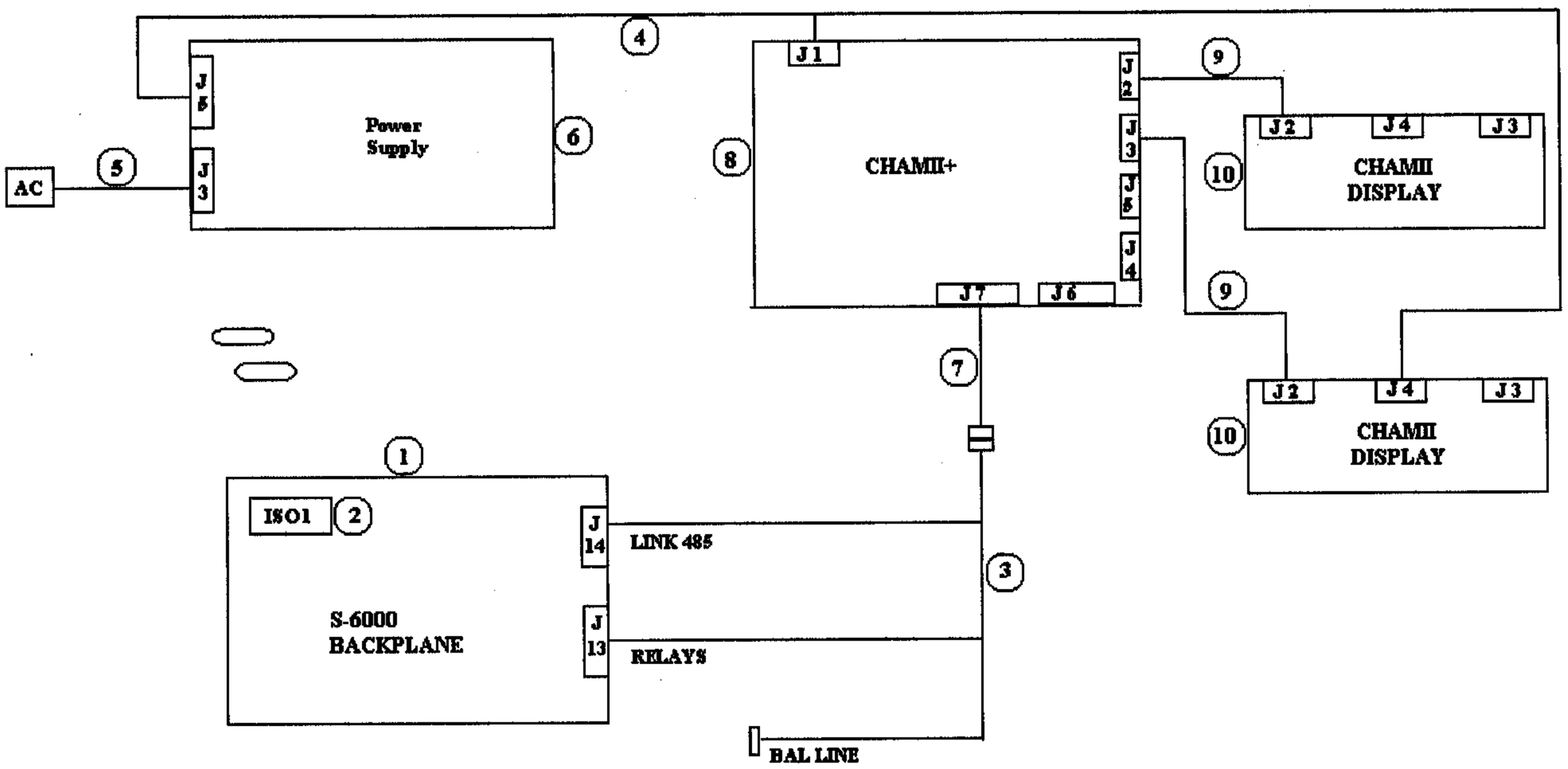
Please consult the following for more information on configuring the Mikohn CHAM II+.

Mikohn CHAM II+ Users Manual
Part # 990-219-00

Mikohn P.S.P. V2.0x
Progressive System Programmer Software
Configuration and User Manual

Mikohn Controller Kit (E-01040-0022)	
(5) AC Power Cable	311-010-22
(6) Power Supply	780-027-50
(7) Machine Cable	311-205-11
(8) CHAM II+ Controller	341-057-00

(#)s refer to the Stand-alone Progressive Wiring Diagram below. (1) is the S-6000 backplane board.

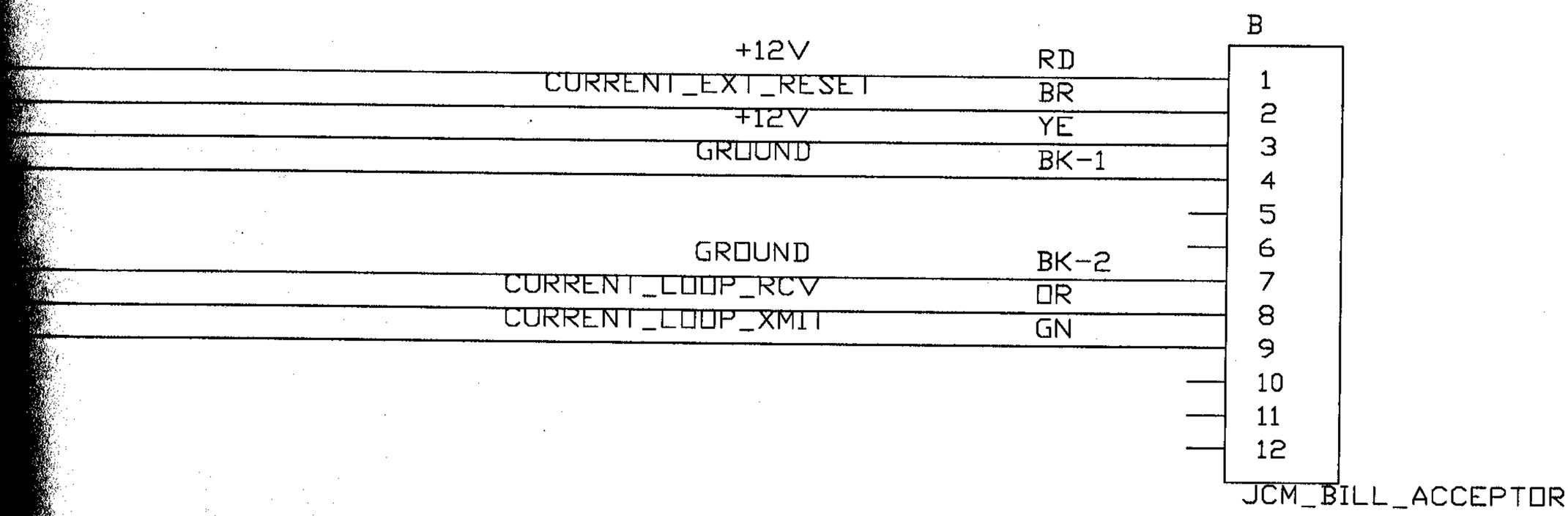


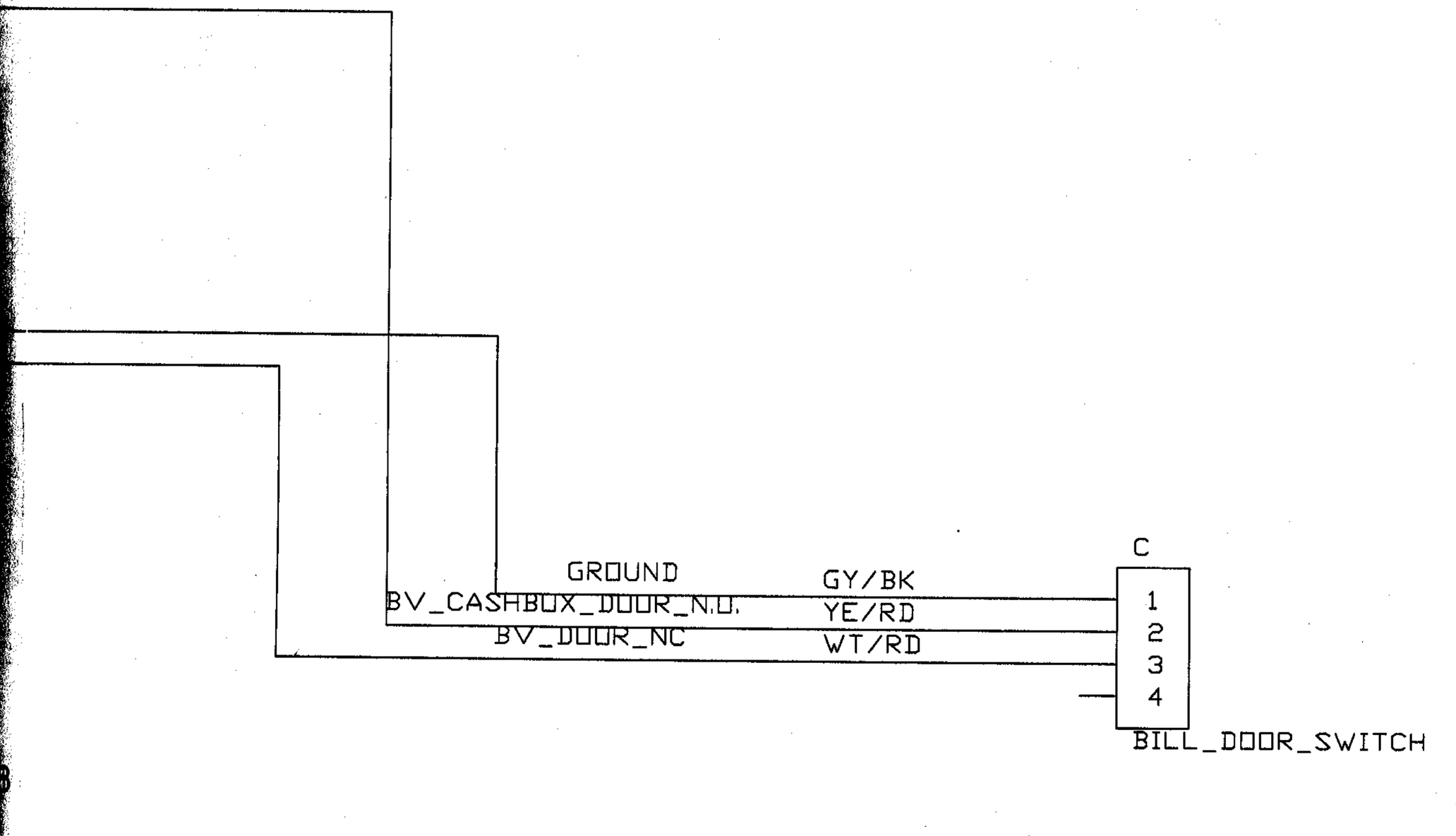
Bally Kit Number	(2) Opto-Isolator	(3) Machine Pig-tail	Controller Kit	(10) LED Display	(9) Ribbon Cable	(4) DC Power Cable
K-00721-5513	E-00620-0662	CBL-30314-0001	K-01040-0022	AS-03110-0025 AS-03110-0025	AS-02988-0226 AS-02988-0226	CBL-30195-0002
K-00721-5517	E-00620-0662	CBL-30314-0001	K-01040-0022	AS-03110-0026 AS-03110-0026	AS-02988-0226 AS-02988-0226	CBL-30195-0002
K-00721-5525	E-00620-0662	CBL-30314-0001	K-01040-0022	AS-03110-0025	AS-02988-0226	CBL-30195-0001
K-00721-5526	E-00620-0662	CBL-30314-0001	K-01040-0022	AS-03110-0026	AS-02988-0226	CBL-30195-0001
K-00721-5527	E-00620-0662	CBL-30314-0001	K-01040-0022	AS-03110-0027	AS-02988-0226	CBL-30195-0001
K-00721-5328	E-00620-0662	CBL-30314-0001	K-01040-0022	AS-03110-0028	AS-02988-0226	CBL-30195-0001
K-00721-5531	E-00620-0662	CBL-30314-0001	K-01040-0022	AS-03110-0025 AS-03110-0026	AS-02988-0226 AS-02988-0226	CBL-30195-0002

Coin Acceptor, CC-16

CONNECTS_TO_CBL-30218-0001

Slant Bill Acceptor, WBA 10/20
CBL-30252-0001





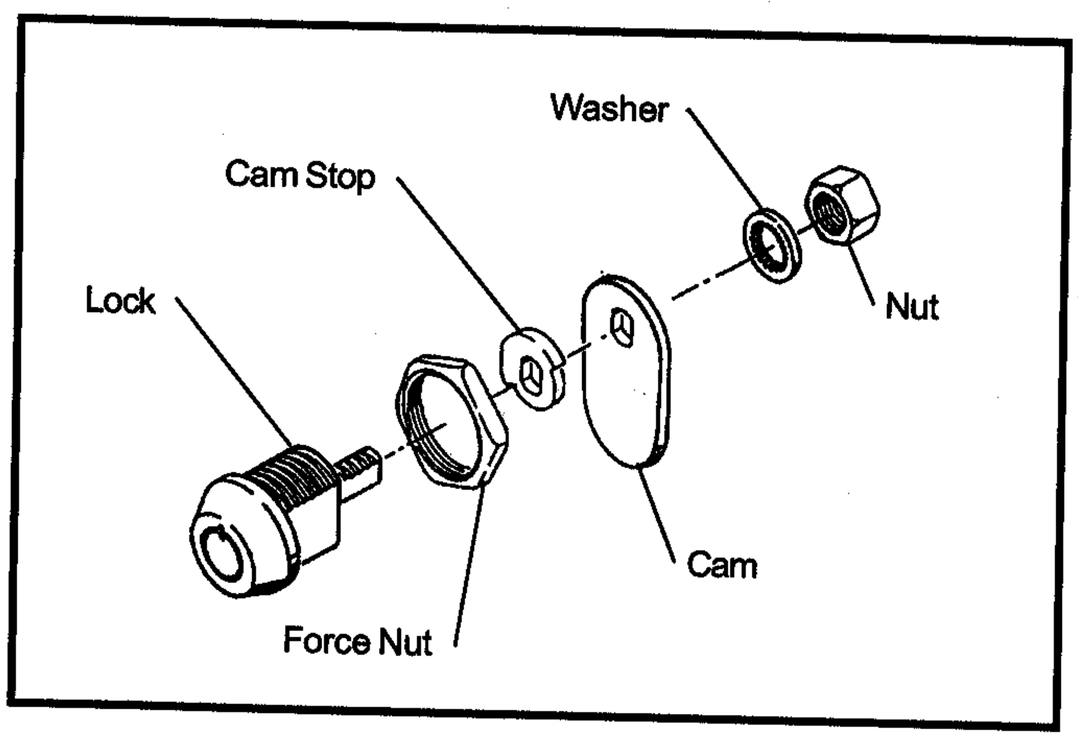
Securing the Machine

Remove the hopper. Mark the center of the stand. Drill the required mounting, drop chute, and power cord holes. Using a lifting device, place the machine on the stand and route the power cord through the stand hole. Bolt the machine to the stand. Inspect for loose connectors and verify all printed circuit boards are firmly seated.

Install Locks

Door, Stand, and other high-security locks should be ordered by the Operator from a reliable lock supplier. See Module 3 Assemblies, Parts, & Hardware for lock specifications.

Remove the large and small nuts from the lock and insert the lock into the lock opening. Check the lock for proper orientation before securing. Secure the lock with the large nut. Place the cam stop on the lock cylinder. Attach the lock cam to the shaft and verify that it moves in the correct direction. Secure the lock cam with the washer and small nut.



Typical Lock & Cam Assembly

Setup

Plug the line cord into a grounded power source, but do not turn the machine on.

WARNING: Attempting to charge Lithium batteries can cause them to explode.
Replace failed batteries with Bally Gaming and Systems part E-00628-0023 or its equivalent.

MPU Jumper Selections

Battery Enable

The Lithium battery may be disabled for shipping or storage. To enable the battery, locate jumper JW20 left of the battery and place the jumper across the two pins.

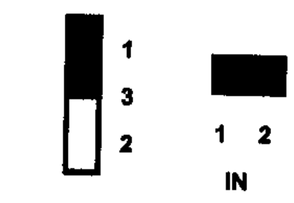
Door Open Detect Circuit

Some jurisdictions require a signal for a door opening while the machine power is OFF. To enable the Door Open Latch, place the jumper at JW15 in Position 2 and add a jumper at JW17. Default is OUT (OFF).

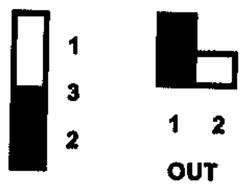
MPU Logic Detect Circuit

Some jurisdictions require a signal when the MPU Board Assembly is disconnected while the power is OFF. To enable the MPU Detach Latch, place JW15 in Position 2 and add a jumper at JW21. Default is OUT (OFF).

The following table lists 2-pin and 3-pin jumper selections.



Position 1



Position 2

MPU JUMPER SELECTIONS				
Jumper	**Shipping Position**	**Purpose**	**Position 1**	**Position 2**
JW1	OUT (off)	External Antenna	IN	OUT
JW2	2 MEG	EPROM Size	2 MEG	4 MEG
JW3	32K	Personality EPROM Size	32K	64K
JW4	VBB	RAM Power Select	+5	VBB
JW5	RS232	RX Port 3B	RS422	RS232
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
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 With Power OFF Input	IN	OUT
JW18	OUT (off)	Alarm	IN	OUT
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

Three eight-switch DIP packages labeled on the MPU board as DS1, DS2, and DS3 set the following machine functions:

DS1 - Communication Protocol

DIP Switch DS1			
sw1, sw2, and sw5 System Protocol			
System	**sw1**	**sw2**	**sw5**
Concept3®	ON	OFF	ON
SAS® 3.x ECT	OFF	OFF	ON
SAS® 3.x EFT	OFF	ON	ON
SAS® 4.x and 5.x ECT	OFF	OFF	OFF
SAS® 4.x and 5.x EFT	OFF	ON	OFF
SDS	ON	ON	ON
Bonusing	sw3	OFF	Enabled
		ON	Disabled
PRD	sw4	OFF	Enabled
		ON	Disabled
BSG (Requires PRD Enabled)	sw6	OFF	Enabled
		ON	Disabled
Reserved	sw7	Leave ON	
SafeRAM™ Clear (International)	sw8	OFF	Disabled
		ON	Enabled

DS2 - Denomination

DIP Switch DS2 sw1—sw4 Denomination					
Market Codes 0–17, 20, 22$_1$, 24, 25					
sw1	**sw2**	**sw3**	**sw4**	**Value**	**Denom**
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 (MC=07)
ON	ON	ON	ON	0017	2.5 (Init.)
[1]MC 22 does not support denominations less than 2.00.					
Market Code18					
sw1	**sw2**	**sw3**	**sw4**	**Value**	**Denom**
ON	ON	ON	ON	0000	5000
ON	OFF	ON	ON	0002	1000
OFF	OFF	ON	ON	0003	500
OFF	ON	OFF	ON	0005	200
Market Code19					
sw1	**sw2**	**sw3**	**sw4**	**Value**	**Denom**
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

DS2 - Denomination (cont.)

DIP Switch DS2 sw1—sw4 Denomination					
Market Code 21					
sw1	**sw2**	**sw3**	**sw4**	**Value**	**Denom**
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
Market Code 23					
sw1	**sw2**	**sw3**	**sw4**	**Value**	**Denom**
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 Codes 26$_1$, 27					
sw1	**sw2**	**sw3**	**sw4**	**Value**	**Denom**
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
[1]MC 26 supports denominations greater than 5. See MC 0.					

DS2 Switches 5-6 Bill Acceptor

DS2 sw5—sw6 Bill Acceptor			
sw5	**sw6**	**Value**	**Bill Acceptor**
ON	ON	00	No Acceptor
OFF	ON	01	GPT/ARDAC
ON	OFF	02	WBA
OFF	OFF	03	MARS

Note: GPT™ and ARDAC™ Bill Acceptors must use MPU Assembly AS-03356-0451.

DIP Switch Selections (cont.)

DS2 Switches 7-8 Special Features

DS2 sw7—sw8 Special Features	
sw 7	**Game Fature**
ON	Normal Reel Spin
OFF	Crazy Reel Spin
sw 8	**Diverter Optic Support**
ON	Not Present
OFF	Present
sw 8 and MC=01 or 13	**EFT Support**
ON	Not Present
OFF	Present

The ProSlot® 6000 supports crazy reel spin where the reels spin randomly forward or reverse. Also, some markets require an optic switch to verify Coin Diverter position. Market Code 01 requires an additional protocol selection for Electronic Funds Transfer.

Note: Jumper and DIP Switches are enabled only once after each Complete SafeRAM™ Clear.

DS3 Switches 1-4, 7-8 Market Code

Market Code designates specific operation according to the requirements of a gaming control agency.

DIP Switch DS3									
sw1—sw8 Market Code									
sw 1	sw 2	sw 3	sw 4	sw 5	sw 6	sw 7	sw 8	VALUE	MARKET
ON	ON	ON	ON	ON	ON	ON	ON	00	Nevada, VLC
OFF	ON	ON	ON	ON	ON	ON	ON	01	New Jersey
ON	OFF	ON	ON	ON	ON	ON	ON	02	Deadwood, SD; Quebec, Canada
OFF	OFF	ON	ON	ON	ON	ON	ON	03	France-nominal %
ON	ON	OFF	ON	ON	ON	ON	ON	04	France-basic %
OFF	ON	OFF	ON	ON	ON	ON	ON	05	Puerto Rico
ON	OFF	OFF	ON	ON	ON	ON	ON	06	South Africa
OFF	OFF	OFF	ON	ON	ON	ON	ON	07	Special Denomination (AZ, International)
ON	ON	ON	OFF	ON	ON	ON	ON	08	Indiana
OFF	ON	ON	OFF	ON	ON	ON	ON	09	Missouri
ON	OFF	ON	OFF	ON	ON	ON	ON	10	Colorado
OFF	OFF	ON	OFF	ON	ON	ON	ON	11	USAF
ON	ON	OFF	OFF	ON	ON	ON	ON	12	Ontario Lottery Commission
OFF	ON	OFF	OFF	ON	ON	ON	ON	13	Mississippi
ON	OFF	OFF	OFF	ON	ON	ON	ON	14	Germany
OFF	OFF	OFF	OFF	ON	ON	ON	ON	15	New Mexico
ON	ON	ON	ON	ON	ON	OFF	ON	16	England
OFF	ON	ON	ON	ON	ON	OFF	ON	17	Portugal
ON	OFF	ON	ON	ON	ON	OFF	ON	18	Italy
OFF	OFF	ON	ON	ON	ON	OFF	ON	19	Greece
ON	ON	OFF	ON	ON	ON	OFF	ON	20	Russia
OFF	ON	OFF	ON	ON	ON	OFF	ON	21	Chile
ON	OFF	OFF	ON	ON	ON	OFF	ON	22	Venezuela
OFF	OFF	OFF	ON	ON	ON	OFF	ON	23	Estonia
ON	ON	ON	OFF	ON	ON	OFF	ON	24	Philippines
OFF	ON	ON	OFF	ON	ON	OFF	ON	25	Finland
ON	OFF	ON	OFF	ON	ON	OFF	ON	26	Ireland
OFF	OFF	ON	OFF	ON	ON	OFF	ON	27	Euro

DS3 Switches 5-6 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.

SafeRAM™ Clear

A SafeRAM™ Clear erases information stored within battery-backed random access memory (RAM). A Complete SafeRAM™ Clear is essential before the first use, when EPROMs are changed, or if game memory becomes corrupted.

There are three levels of SafeRAM™ Clear:

Complete - Erases and reformats SafeRAM™. Game options are restored to factory default. All counters (soft meters) reset to zero.

Full - Resets all counters to zero except the SafeRAM™ Clear counters. Game options are restored to factory default.

Partial - Zeros all counters except SafeRAM™ Clear. All game configurations defined by DIP switches, jumper selections, and game options are preserved.

Note: If Door Open or MPU Logic detection circuits are enabled, an Audit Keyswitch activation is required to remove the 82/85 code after power is switched ON.

SafeRAM™ Clear Procedure

For a Complete, Full, or Partial SafeRAM™ Clear, turn the machine power OFF. Unlock and remove the MPU Assembly. If SafeRAM™ Clear EPROMs are required, remove the Main EPROMs from U28 and U43 and replace them with the corresponding Clear chips. If EPROMS are not required, turn DIP DS1 sw8 ON. Upon ensuring that the MPU Assembly is firmly seated into the Backplane Board, turn the machine power ON while depressing the appropriate buttons.

Complete - Press and hold the PSEUDO COIN and TEST buttons, then switch power ON. When the message **CH C** displays in WIN PAID, release the PSEUDO COIN and TEST buttons. The **CH C** message is followed by **CL C**.

Full - Press and hold the PSEUDO COIN button, then switch power ON. When the message **CH F** appears in WIN PAID, release the PSEUDO COIN button. The **CH F** message is followed by **CL F**.

Partial - Switch power ON. The message **CH P** displays in WIN PAID. The **CH P** message is followed by **CL P**.

If an error was detected 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 EPROMs with the Mains or turn DS1 sw8 OFF. 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.

Note: If Market Code = 12, the MPU TEST button is inactive. A second keyswitch provides TEST functions.

Note: Features and options may vary by Market Code and Main firmware versions.

Demo Mode

With Main versions developed to operate with a host terminal, the ProSlot® 6000 enters a non-revenue state after a complete SafeRAM™ Clear. FrEE appears in WIN PAID to indicate Demo Mode. Entering a value in Option 79, Host Terminal ID, will enable the machine for revenue operation.

Real Time Clock (RTC)

If U53 is populated with a Dallas Timekeeper IC, an opportunity to change the settings occurs after a complete SafeRAM™ Clear. Set the date using the SPIN button to increment the number in the flashing field (mm/dd/yy/day-of-the-week) and the BET MAX button to move to the next field. Set the time (hh/mm/ss) using the same method as the date. Press CHANGE to confirm changes and exit.

Switch Functions

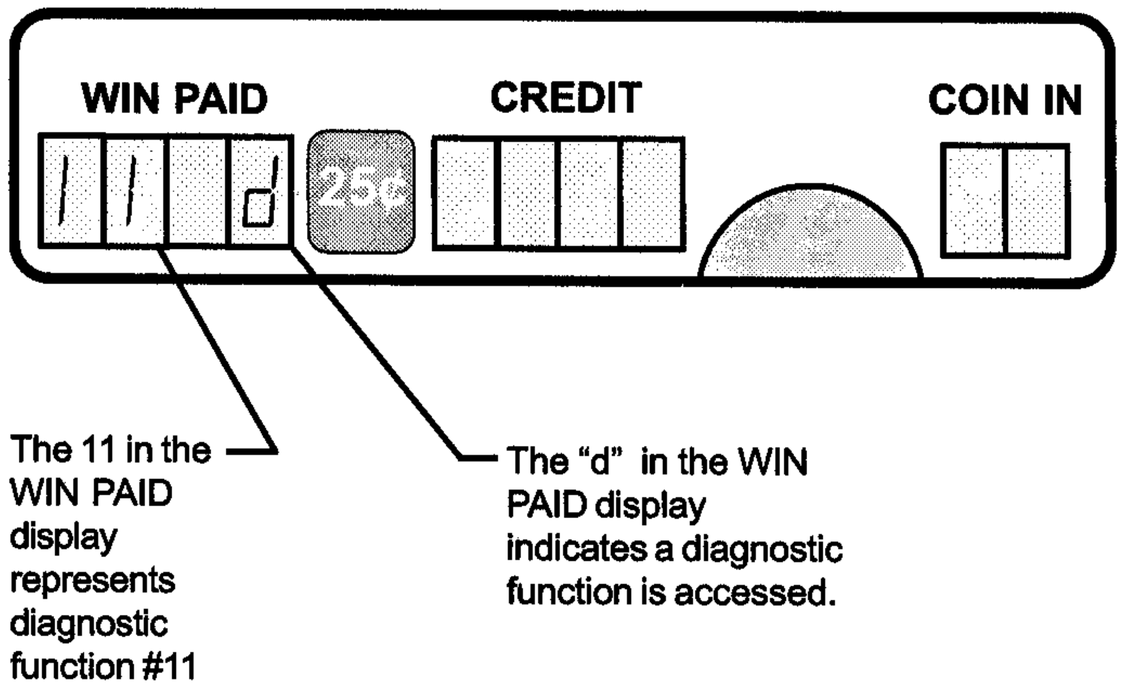
The buttons on the Players Panel and on the MPU Assembly have multiple uses. Note that the slant top model has additional TEST and PSEUDO COIN buttons on a bracket above the reels for easier access.

Switch	Location	Function
CHANGE	Main Door	- Activate Change Lamp - Restart or Activate some tests - Exit time and date setting after SafeRam™ Clear
CASH / CREDIT	Main Door	- Cashout Credits - Select Credit Mode on / off
BET ONE	Main Door	- Wagers 1 credit - Select Previous Option
SPIN	Main Door	- Spin Reels - Pause test display - Pause meter display - Change Options
BET MAX	Main Door	- Wagers maximum credits - Select next option, meter, or game
AUDIT KEYSWITCH (Upright)	Right Side of Machine	- Displays Bookkeeping Meters - Releases jackpot lockup - Triggers some Output Tests
AUDIT KEYSWITCH (Slant)	Front Panel, Above Door	- Same as above
2ND KEYSWITCH (Available Factory Option)	Near Audit Keyswitdh	-Selects between Revenue or Tournament game -Same as TEST (Market 12) -Adds or removes credits (International)
TEST	MPU Assembly	- Selects Tests or Function - Activates next Test or Function - Selects level of SafeRam™ clear
COIN MECH	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 - Selects a level of SafeRam™ Clear
RESET	MPU Assembly	- Releases a machine tilt - Exits Test and Diagnostics
VOLUME	MPU Assembly	- Adjusts the level of sound

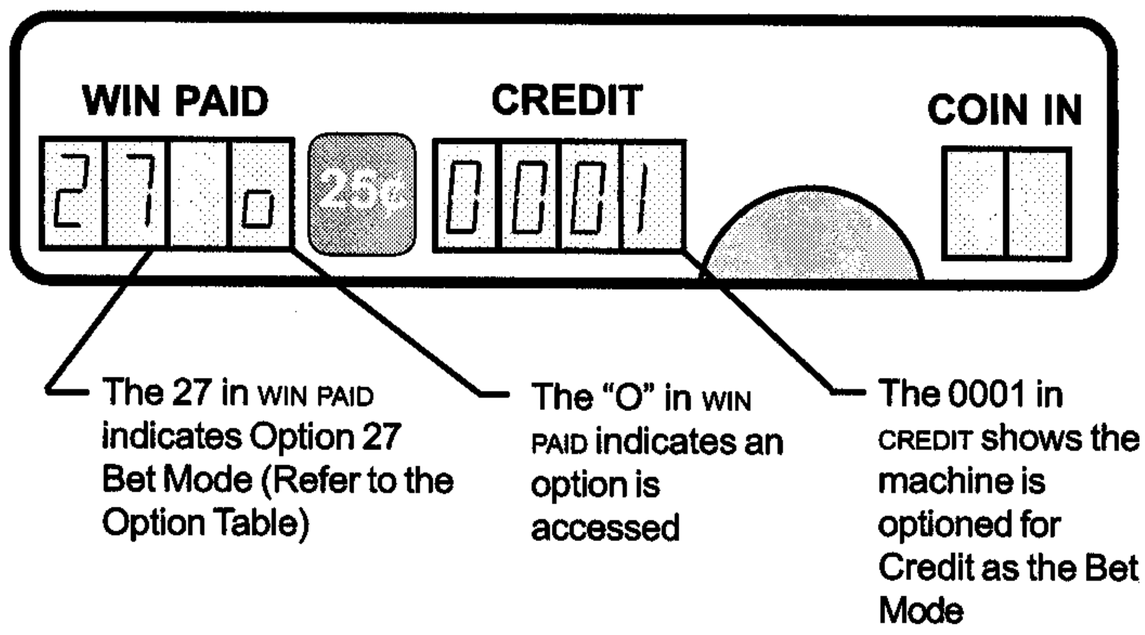
Machine Options

Machine options are set through Diagnostic Function #11. Options cannot be changed during a game or when credits are available. Attempting to change options with credits will display Err in WIN PAID.

With the door open, press the TEST button until the Message Center displays 11 d indicating Diagnostic Function #11 selected. The Message Center responds as follows:



The machine then cycles to the first option (see note), Option 27, and displays the current setting as follows:



Use the SPIN button to increment or the CHANGE button to decrement the numerical settings. Press and hold the buttons to rapidly advance to the setting.

To advance to the next option, use the PSEUDO COIN or BET MAX button. To review the previous option, use the BET ONE button.

Exit and save the options at any time by pressing the RESET button, TEST button, or by closing the door.

Note: If SAS® is enabled by the setting of DS1, Option 78H SAS® ID will be the first Option when entering Function #11after a Complete SafeRAM™ Clear

Machine Options

No	Option	Setting	Description
27	Bet Mode	0000	Cash only
		(0001)	Credit game
		0002	Player selectable
		0003	EuroCredit
26	Rebet-Autospin	0000	No rebet, no autospin
		(0001)	No rebet, autospin at max or credits
		0002	No rebet, autospin at max coins or credits
		0003	Rebet, no autospin
		0004	Rebet, autospin at max. credits
		0005	Rebet, autospin at max. coins or credits
09	Jackpot Bell	0000	No Bell
		0001	Bell rings on all wins
		0002	Rings on wins of 20 or more
		0003	Rings on wins of 50 or more
		0004	Rings on wins of 100 or more
		0005	Rings on wins of 200 or more
		(0006)	Rings on wins causing lockup
10	Coin Denomination	0000	500
		0001	250
		0002	100
		0003	50
		0004	25
		0005	20
		0006	10
		0007	5
		0008	2
		0009	1
		0010	0.5
		0011	0.25
		0012	0.2
		0013	0.1
		0014	0.05
		0015	0.01
		0016	4
		0017	2.5
11	Change Coin/Credit	0000	Coins from hopper
		(0001)	Credits to credit meter
02	Progressive Type	(0000)	OFF. Lockup JPs for awarding prizes
		0001	SPL Serial Progressive Link
		0002	PPL Parallel Progressive Link
		0003	MAPS® Multi Area Progressive System
		0004	S/MPI Serial/Multiplex Progressive Interface
		0005	MPI Multiplex Progressive Interface
		0006	SAS® Progressive V3.xx
		0007	OTT Over the Top
		0008	SAS® Progressive V4.xx

Configured by DIP Switch DS2, Market Code, & Mains

No	Option	Setting	Description
07	Number of External Jackpots	(0000)	None
		0001	One
		0002	Two
		0003	Three
		0004	Four
18	Jackpot 4 Signal	(0000)	Combination of 2 & 3
		0001	Combination of 1 & 2
		0002	Combination of 1 & 3
		0003	Combination of 1, 2, & 3
		0004	Discrete serial (Mikohn®)
80	Test 2 & 10 Enable	(0000)	OFF
		0001	Test 2 output to electro-mechanical meters OR test 10 external jackpot signal
01	Tournament Minutes	(0001)	OFF
		0001–0099	Minutes for tournament
47	Attract Feature	0000	OFF
		(0001)	ON
38	Reel Stop Sound	(0000)	Sound from speaker
		0001	Handle solenoid click
48	Tower Config.	(0000)	This option has specialized settings. Please see *MOD 2 Set Up and Operations.*
		0001–0007	
50H	Machine ID	(0000)	Upper four digits of eight-digit identification number
		0000–9999	
50L	Machine ID	(0000)	Lower four digits of eight-digit identification number
		0000–9999	
54	Coin Hopper Pay Amount	(0000)	Amount paid from hopper upon a lockup under the settings of 56 Credit Lockup & 51 Credit Limit.
		0000–9999	
56	Credit Collect Lockup	(0800)	Number of credits for a Lockup upon any Collect.
		0000–9999	
62	Tournament Kitty	(0000)	Starting amount of credits for tournament operation.
		0000–9999	
63	Reset Prog. Amt.	(0000)	Credits added to counter upon progressive jackpot reset (MC=3 or MC=4)
		0000–9999	
78H	SAS[R] ID	(0000)	None
		0001	SAS® 3.x, 4.x, and 5.x
		9998	Coin Free (MC=6)
		9999	Non-Cash. Credits (MC=6) / GRIPS®
78L	Machine Number	(0000)	S/MPI I.D. (Must match progressive controller)
		0000–0032	
04	Even Hand Pay–Collect Lockup	(0000)	OFF
		0001	Even hand pay by 10s
		0002	Even hand pay by 100s
		0003	Even hand pay by 1000s
		0004	Machine pays to next 1.00.
51	Credit Top Limit	(0080)	Maximum number of credits allowed on credit meter. Follows option 56 by default.
		0000–9999	
03	Tournament Seconds	(0000)	OFF
		0001–0059	Seconds for tournament

Machine Options

No	Option	Setting	Description
22	Tokenization	(0000)	OFF
		0001	ON (MC=27 1.0 Token)
		0002	MC=27 0.50 Token
		0003	MC=27 5.00 Token
70	MAPS® Progressive Cabinet I.D.	0000	The I.D. can be represented as XXXXYYYYZZZZ where option 70=XXXX, option 71=YYYY, and option 72=ZZZZ
71		0000	
72		0000	
58	Win Lockup	(0800)	Amount of Win for a Lockup. Follows option 56 by default. Must be greater than Option 57 SAS® Lockup if SAS® enabled.
		0000–9999	
59	Coin Hopper Refill	(0000)	Number of credits to accumulate in Coin Hopper Refill Bookkeeping Meter for each fill
		0000–9999	
06	Progressive Group ID	(0000)	SAS® Progressive V4.xx Group ID
		0000–0255	
79	Host Terminal ID	(0000)	Identification number in hexadecimal enabling communication with Host.
		0000-FFFF	
57	SAS® Lockup	(0800)	Amount of Win for a SAS® lockup. Must be less than Option 58 Win Lockup and greater than Option 51 Credit Limit.
		0000–9999	
12	Win Lockup Credit Release	(0000)	Credits increment by the Attendant Paid meter up JP release by an Attendant.
		0001	Win lockup credits added to the Credit meter by actuation of a second keyswitch.
90	Host Remote Jackpot Release	(0000)	Lockups require Audit Keyswitch actuation to release
		0001	Lockups may be released by Host
91	Host Queue	(0000)	No queue
		0001	Multiple Lockups queued for processing
94	Unredeemed Ticket Limit	(0031)	Number of outstanding redeemable tickets allowed
		0002–0031	
95	Ticket/ Denomination Mis-Match	(0000)	Redeemable tickets must be evenly divisible by the machine's denomination to be accepted by the machine.
		0001	Machine will accept all tickets and print a change ticket for odd amount.
73	Ticket Validation	(0000)	Standard validation
		0001	Host enhanced validation
		0002	Host secure validation
		0003	Host validation
76	Receipt Enable	(0000)	Printer dispenses only redeemable tickets
		0001	Printer dispenses redeemable tickets and informational receipts

No	Option	Setting	Description
61	Machine Directed Payment Configuration	(0001)	Hopper
		0002	Seiko® PSA™ Printer
		0003	Seiko® PSA™ Printer and Hopper
81	Coin Acceptor	0000	No coin acceptor
		(0001)	Coin acceptor enabled
74	Ticket Expiration Hours	(0024)	Hours before ticket expires
		0001–0255	
64	Minimum Ticket Pay	(0000)	Fewest credits that will be paid by ticket
		0001–9999	
67	Miximum Ticket Pay	(8000)	Most credits that will be paid by ticket
		0000–9999	
14	Even Ticket Pay	(0000)	OFF
		0001	Even ticket pay by 1.00
		0002	Even ticket pay by 2.00
		0003	Even ticket pay by 5.00
		0004	Even ticket pay by 10.00
		0005	Even ticket pay by 20.00
		0006	Even ticket pay by 25.00
		0007	Even ticket pay by 50.00
		0008	Even ticket pay by 100.00
		0009	Even ticket pay by 200.00
		0010	Even ticket pay by 500.00
		0011	Even ticket pay by 1000.00
77 ABC	Name/ Address	(00 Blank)	User Label to be printed on tickets
		ASCII Printable Characters	
08	Credit Snap	(0000)	Wins added incrementally to Credit Meter
		0001	Wins over 20 added as one value to Credit Meter
05	Even Hand Pay--Win Lockup	(0000)	OFF
		0001	Even hand pay by 10s
		0002	Even hand pay by 100s
		0003	Even hand pay by 1000s
		0004	Machine pays to next 1.00.
20	Extra Coin	(0000)	Extra coins returned to the Player
		0001	Extra coins applied to BET for next game.
66	PRD Sound Enable	(0000)	Reel Stop Sound enabled
		0001	Reel Stop Sound disabled
68	Game Sounds	0000	Internal device
		(0001)	External sound board (ProSound I or ProSound II)

Option Descriptions

27 Bet Mode

The ProSlot-6000™ provides four methods of accepting wagers: Cash only, Credit, Player selectable, and EuroCredit.

Cash (0000) registers coins in COIN IN. Coins are accepted to the maximum allowed for the game. Bill acceptor currency and wins are paid from the hopper. BET ONE and BET MAX buttons are inactive.

Credit (0001) registers coins in COIN IN. Currency and wins register in CREDIT.

Player Selectable (0002) offers the choice between Cash or Credit selected by the CASH/CREDIT button. EFT credits will force a switch from Cash to Credit. The bill acceptor will force Cash mode to Credit. The bill's value will then show in CREDIT.

EuroCredit (0003) registers all coins, currency, and

Option Descriptions (cont.)

27 Bet Mode (cont.)

wins in CREDIT according to the parameter set by Option 51, Credit Top Limit. It is the only choice if Option #22 =0001

26 Rebet-Autospin

Rebet allows the Player to repeat the previous wager by pressing SPIN (providing the Bet mode is not Cash).

Autospin completes the game without waiting for the SPIN button to be pressed.

09 Jackpot Bell

This option configures the operation of any available bell hardware.

10 Coin Denomination

Denomination is set once after a SafeRAM™ Clear by the switch positions of DS2 on the MPU board. The current selection is shown through Diagnostic function #1, or by function #11 Option 10.

11 Change Coin/Credit

Bill acceptor operation can be configured independently from the settings of Option 27 Bet Mode. The setting 0000 will dispense coins from the hopper for all accepted bills.

02 Progressive Type

Progressive operation is controlled by the interaction of Option 02 Progressive Type, 07 Number of Jackpots, 78L Machine Number, and 18 Jackpot 4 Operation. Option 02 defines the protocol.

OFF (0000) No progressive jackpot.

Serial Progressive Link (0001) supports a bi-directional RS-232 serial link.

Parallel Progressive Interface Link (0002) supports discrete jackpot and Total In signals through opto-isolators.

Multi-Area Progressive System (0003) supports a bi-directional RS-232 serial link for Bally Thrillions™.

Serial Multiplexed Progressive Interface (0004) supports multiplexed jackpot and Total In signals. The machine receives jackpot values through the RS-485 connection J14.

Multiplexed Progressive Interface (0005) is the same as 0004 without the connection at J14 for RS-485 return.

SAS® 3.x Host Progressive (0006) supports IGT's SAS® 3.x Host Progressive system.

Over the Top (0007) supports OTT Bonusing feature.

SAS® 4.x Host Progressive (0008) supports IGT's SAS® 4.x Host Progressive system.

07 Number of External Jackpots

The available jackpots are determined by the SMI (Specific Model Information). Option 07 specifies the number of jackpots that will be available for a progressive.

18 Jackpot 4 Signal

The ProSlot® 6000 has only three discrete jackpot signals. If four jackpots are supported by the SMI, the settings of Option 18 determine how the fourth jackpot is represented.

0000 causes JP2 and JP3 to activate upon the fourth level jackpot. By the combination of JP2 and JP3 signals active at the same time, JP4 can be inferred.

0001 is the same as above using JP1 and JP2.

0002 uses JP1 and JP3.

0003 uses JP1, JP2, and JP3.

0004 communicates the jackpot serially.

80 Test 2 and Test 10 Enable

Electro-mechanical meters are disabled during diagnostics to preserve accounting information. Also, external jackpot signals are disabled to prevent corruption of external progressive jackpots and false lockups. Option 80 overrides the feature to allow diagnostic testing of meter and jackpot outputs.

Note: Option 80 is not available in Market Code 10

01 Tournament Minutes

With additional hardware and specific software, the ProSlot® 6000 supports a variety of tournament operations. See Module 12 Tournament Operation for more information.

47 Attract Feature

After a period of inactivity with no credits, feature lights will sequence. Option 47 turns the feature ON or OFF.

38 Reel Stop Sound

Each SMI includes digital audio accompaniment to many game functions. Option 38 allows selection of a *mechanical* sound for reel stops. 0001 activates the handle release solenoid for each reel stop instead of a speaker sound.

48 Tower Configuration

The ProSlot® 6000 can support two-, three-, and four-tier towers. Except in Market Codes 3 and 4 where the setting at Option 48 is forced to 0001, the Operator

Option Descriptions (cont.)

48 Tower Configuration (cont.)

can configure tower operation according to the Tower Light Option table.

50H, 50L Game ID

TOWER LIGHT OPTION TABLE		
Tower Lights and Setting	**Function**	**Tower Display**
2-Light (0000)	Service Jackpot Tilts Door (s) Hopper Pay	Top Flashing Top Steady Bottom Flashing Bottom Steady Not Applicable
3-Light 0001	Service Jackpot Tilts Doors Hopper Pay	Top Flashing Middle Flashing Bottom Flashing Top, Middle, and Bottom Flashing Not Applicable
4-Light 0002	Service Jackpot Tilts Doors Hopper Pay	4th Light Steady (light above top light) Top Flashing Middle Flashing Bottom Flashing Not Applicable
2-Light 0003	Service Jackpot Tilts Doors Hopper Pay	Top Flashing Top Steady Top Steady Bottom Flashing Bottom Steady
3-Light 0004	Jackpots Tilts Service Doors Hopper Pay	Top Flashing Middle Flashing Bottom Flashing Bottom Steady Not Applicable
3-Light 0005	Jackpot Doors Tilts Service Hopper Pay	Top Flashing Middle Flashing Middle Steady Bottom Flashing Not Applicable
2-Light 0006	Jackpot Doors Tilts Service Hopper Pay	Top Flashing Bottom Flashing Top Flashing Top Steady Not Applicable
2-Light 0007	Jackpot Doors Tilt Service Hopper Pay	Top and Bottom Slow Flash Bottom Medium Flash or Fast Flash if Drop Top Slow Flash Top Steady Not Applicable

Note: Tower Configuration is not selectable if the factory option Data Vault™ is installed.

Eight -digit Operator-accessible identification field.

54 Coin Hopper Pay Amount

Maximum coins paid from the hopper upon a collect lockup. Remaining credits must be paid by an Attendant.

56 Credit Collect Lockup

Value of credits if exceeded upon cashout that will cause a jackpot lockup. An Attendant must pay the difference of the remaining credits and Coin Hopper Pay Amount Option 54.

62 Tournament Kitty

Note: Options 58 and 51 automatically follow the settings of Option 56.

Starting credits for tournament. See Module 12, Tournament Operation.

63 Reset Progressive Amount

Value in credits to add to a counter each time an external top jackpot award is won. The option is available only in Market Codes 3 and 4.

78H SAS® ID

SAS® 3.x, 4.x, or 5.x requires a setting—usually 0001. GRIPS implementation of SAS® requires a setting of 9999.

If MC=06, SAS® includes an AutoPlay feature where a game will play without intervention. The coin and bill acceptors are disabled. Any activity at the machine or a command from the Host will terminate AutoPlay.

If MC=6 and 78H=9999 the machine will accept coins and bills. If a Players Card is inserted, credits become non-cashable. A cashout transfers the credits to the Players card.

If MC=6 and 78H=9998 the coin and bill acceptors are disabled until a Players Card is inserted. Credits are then transferred from the Host. A cashout transfers the credits to the Players Card.

78L Machine Number

S/MPI Identification Number. The setting must match the physical connection at the controller. See Module 7 Progressives for more information.

04 Even Hand Pay—Collect Lockup

When enabled, Even Hand Pay allows a partial payment upon a Collect Lockup from a coin hopper to an even amount. The partial payment can be configured to even thousands, hundreds, or tens. Alternatively, it can pay to the next 1.00.

For example, a Collect Lockup of 12,924 with Option 54 Coin Hopper Pay Amount set to 500 will result

Option Descriptions (cont.)

04 Even Hand Pay—Collect Lockup (cont.)
in the following:

Collect Lockup of 12,924 Coins			
Setting		Hopper Pay	Attendant Pay
0000	OFF	500	12424
0001	Even 10s	504	12420
0002	Even 100s	524	12400
0003	Even 1000s	924	12000
0004	Next 1.00	Operation depends upon coin denomination setting of DS2	

51 Credit Top Limit

The Credit Top Limit is the most credits the machine will allow. A win less than the Win Lockup Limit Option 58 that causes the limit to be exceeded will instead be paid directly to the Player.

03 Tournament Seconds

The number of seconds for a tournament. Added to minutes set by Option 01. See Module 12 Tournament Operation.

22 Tokenization

With some versions of Mains, setting Options 27 to 0003 and 22 to 0001 will set the coin value at 1.00. The denomination of the machine as set by DS2 represents the value of each credit. For example, if DS2 is 0011 (.25), then each coin adds four credits. If DS2 is 0014 (.05), then each coin would add 20 credits.

Upon cashout, the credits will decrease the number of credits appropriately for each coin paid. If there are fewer credits than the value of the coin, it is possible to have uncollectible credits remaining after a cashout.

Key-On Credits			
Denom.	**Credits per Keyswitch Turn**	**Denom.**	**Credits per Keyswitch Turn**
.01	1000	5	80
.05	750	10	70
.10	500	20	60
.20	400	25	50
.25	300	50	40
.50	200	100	30
1	100	250	20
2	90	500	10

Key-On Credits (Knock-Off)

If the optional hardware K-00694-0601 is installed, actuation of a keyswitch will remove all credits. Actuating the keyswitch while pressing CHANGE/SERVICE will add credits according to the machine's denomination as set by DS2.

70, 71, 72 MAPS Progressive Cabinet ID

Bally Gaming and Systems' Multi Area Progressive System requires a unique ID. 70, 71, and 72 is a 12-digit number set four digits at a time.

58 Win Lockup

The number of credits for a single winning combination when exceeded to cause a jackpot lockup.

59 Hopper Refill

The number of coins added to the hopper is recorded in bookkeeping meter subgroup #28. Each time the machine recovers from a 32 Code (Hopper Empty), and confirmed by an attendant, the number set in Option 59 will be added to the meter.

06 Progressive Group ID

Machine ID to support the SAS® v4.xx Host progressive system.

79 Host Terminal ID

Option 79 ONLY exists in mains labeled for VLC lotteries. Those mains are separate from the usual S6Mxxxxxxxxx-xx format for domestic and S6Mxxxx1xxxx-xx mains for international usage. The Delaware and New Mexico mains have a S6Mxxxxxx1xx-xx format. Only when those mains are in the game does option 79 show up. It will not show up for the New Mexico dip switch setting on the regular domestic or international mains.

57 SAS® Lockup

If MC=6 and Option 78H SAS® ID is 9999 or 9998, Option 57 is available. Any win greater than or equal to Option 57 and Less than Option 58 Win Lockup will cause a lockup. The WIN PAID portion of the Message center will alternate "SP (amount)" and "PD 0." Upon release of the lockup by the Attendant and a successful transfer of credits to the Players Card, the Message Center will show "PD (amount)" in WIN PAID.

12 Win Lockup Credit Release

If supported, an Attendant may release a machine from a jackpot lockup and transfer the jackpot credits to the Credit Meter instead of cancelling the credits and paying the Player in cash.

Option Descriptions (cont.)

90 Host Remote Jackpot Release

If enabled, the Host may release jackpot lockups without a manual keyswitch actuation by an Attendant.

91 Host Queue

A queue can be enabled to ensure uninterrupted machine operation if the Host is slow to respond.

94 Unredeemed Ticket Limit

The quantity of outstanding redeemable tickets for each machine can be set.

95 Ticket/Denomination Mis-Match

A ticket presented to a machine for acceptance may not be evenly divisible by the machine's denomination. The setting determines whether a non-matching ticket is either rejected, or added to the Credit Meter and a redeemable ticket is given to the Player for the indivisible remainder.

73 Ticket Validation Level

0000 Standard—The Ticket sequence number is incremented. An eight-digit validation number is calculated from the date and time. The information is logged in the validation buffer, indexed by the sequence number. The Host is neither contacted for validation, nor is it notified in advance of the Ticket being printed.

0001 Host Enhanced—The Ticket sequence number is incremented. A sixteen-digit validation number is calculated from the machine Validation ID and the ticket sequence. The information is reported to the Host, and logged in the validation buffer indexed by the sequence number. If communication with the Host is lost, the machine will operate until the validation buffer is full. Restoration of communication with the Host and subsequent reduction of records in the validation buffer will restore machine operation.

0002 Host Secure—Similar to Host Enhanced except that communication must be maintained at all times. If communication is lost during a Cashout, the machine will Lockup requiring an Attendant Pay before disabling with a No Communication (91-0) tilt.

0003 Host—The host is contacted for a ticket validation number. Upon receipt of the validation number, the machine prints the ticket, increments the Ticket Sequence number, and stores the information in the validation buffer indexed by the sequence number.

76 Receipt Enable

The printer can print informational receipts such as paid jackpots, as well as redeemable tickets.

61 Machine Directed Payment

The machine can be configured for operation with a printer and coin hopper, or with either individually.

81 Coin Acceptor Enable

The Coin Acceptor can be disabled for coinless operation.

74 Ticket Expiration

The period of time when tickets can be redeemed can be configured.

64 Minimum Ticket Pay

The minimum value of a ticket can be established.

67 Maximum Ticket Pay

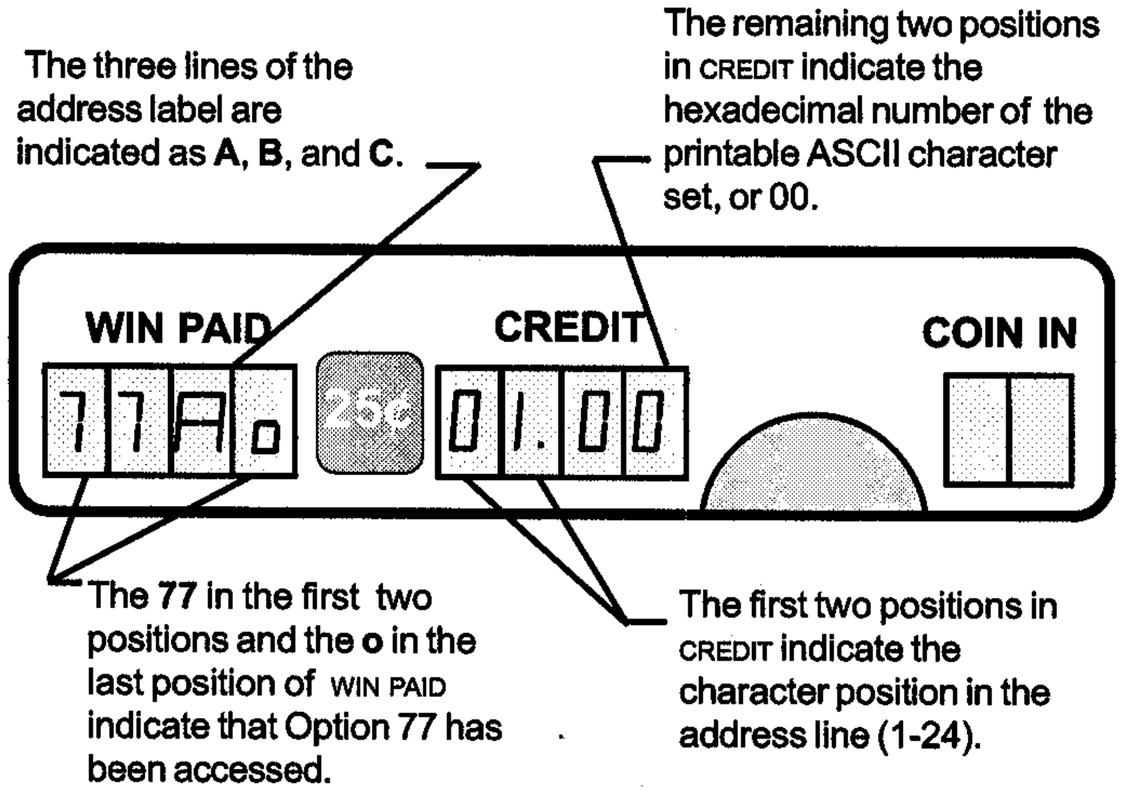
The maximum value of a ticket can be established.

14 Even Ticket Pay

The machine can be configured to print redeemable tickets in even values from 1.00 to 1,000.00.

77 (A,B,C) Name/Address

A three-line address label can appear on each ticket. The information can be downloaded from a Host, or entered manually through Option 77.

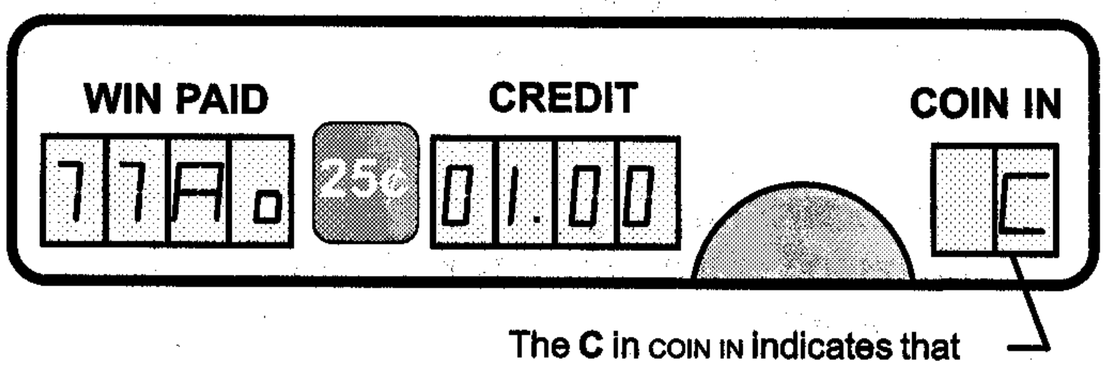


Option 77

Each line can have up to 24 characters. The characters are entered as a hexadecimal number of a printable ASCII character. The Null character (00h) truncates the line at the point of entry, regardless of subsequent characters. This means that the Operator can blank the entire line by entering 00 in the first position without changing any of the remaining 23 characters.

Within the Option, pressing COLLECT confines navigation to within the address line (BET MAX scrolls forward, BET ONE scrolls backward, SPIN increments value, CHANGE/SERVICE decrements value. Press COLLECT again to advance to the next line of address or the next Option.

Option Descriptions (cont.)



The **C** in COIN IN indicates that the address has been opened for change or review.

Changing the value in Line A, Position 01

Note: Navigation within an address line ends at a null entry (00).

Hex	ASCII	Hex	ASCII	Hex	ASCII
20	space	40	@	60	`grave
21	!exclamation	41	A	61	a
22	"quote	42	B	62	b
23	#	43	C	63	c
24	$	44	D	64	d
25	%	45	E	65	e
26	&	46	F	66	f
27	'apostrophe	47	G	67	g
28	(	48	H	68	h
29	)	49	I	69	i
2A	*asterisk	4A	J	6A	j
2B	+	4B	K	6B	k
2C	,comma	4C	L	6C	l
2D	-hyphen	4D	M	6D	m
2E	.period	4E	N	6E	n
2F	/	4F	O	6F	o
30	0	50	P	70	p
31	1	51	Q	71	q
32	2	52	R	72	r
33	3	53	S	73	s
34	4	54	T	74	t
35	5	55	U	75	u
36	6	56	V	76	v
37	7	57	W	77	w
38	8	58	X	78	x
39	9	59	Y	79	y
3A	:colon	5A	Z	7A	z
3B	;semicolon	5B	[	7B	{
3C	<	5C	\	7C	|
3D	=	5D	]	7D	}
3E	>	5E	^circumflex	7E	~tilde
3F	?	5F	_underscore		

Hexadecimal numbers for ASCII printable characters

08 Credit Snap

Wins can accumulate incrementally in the Credit Meter, or wins over 20 can quickly appear in the Credit Meter as one sum.

05 Even Hand Pay—Win Lockup

When enabled, Even Hand Pay allows a partial payment from the coin hopper upon a Win Lockup to an even amount. The partial payment can be configured to even thousands, hundreds, or tens. Alternatively, it can pay to the next 1.00 (see example for Option 04).

20 Extra Coin

If coins accepted by the machine register in BET (see Option 27 Bet Mode), the machine may accept coins beyond the maximum wager for a game. These additional coins may be applied to the next game, or returned to the Player.

66 PRD Sound Enable

The PRD Sound Enable option setting is for top boxes equiped with separate sound capabilities. It should have PRD Sound disabled as this option can cause incompatibility between machine and top box sound.

68 Game Sounds

Machines equipped with external ProSound™ I or ProSound™ II sound boards should disable Game Sounds as this option can cause incompatibility between internal and external device sounds.

Machine Operation

Message Center

The LED Display Center consists of ten seven-segment LEDs plus decimal points. It shows information about the game to a Player. It also displays counters, option settings, status, and test information to the Operator.

During a game the COIN IN shows the number of credits wagered. The WIN PAID shows the awards for winning combinations or the number of coins paid from the hopper. The CREDIT shows the number of credits available for wagering.

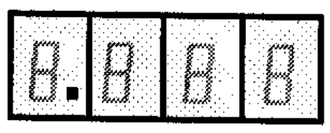
WIN PAID Decimal Points

Decimal points in WIN PAID are used to display information during normal operation with the door closed. They indicate an important event has occurred. The decimal point is in addition to the number displayed. Reading from left to right, the decimal points shown in WIN PAID represent the following:

Position 1 - System Reset (no malfunction)
Position 2 - Door Opened / Closed
Position 3 - Malfunction during reel spin
Position 4 - Bill Transaction

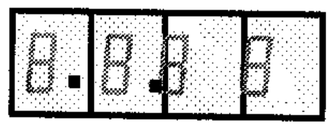
Position 1 - System Reset (no malfunction)

The ProSlot-6000™ has safeguards against tampering or loss of information that usually result in the microprocessor initiating a System Reset. A decimal point appears indicating a System Reset (not due to a malfunction) has occurred. This decimal point will remain until the reels spin for the second game played.



Position 2 - Opened Door

The machine shows an opened door by displaying a decimal point in the second position. Upon the opening and closure of a door switch, the machine initiates a System Reset, therefore there is a decimal point in both the first and second positions. This decimal point remains until the reels spin for the second game.



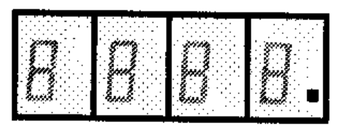
Position 3 - Malfunction During Reel Spin/Replay

If a malfunction occurs while the reels are spinning, the game is suspended. When the malfunction is corrected the reels return to the positions they were in before the game started. A decimal point appears in the third position of WIN PAID. The SPIN button illuminates and the handle mechanism unlocks, allowing the game to be replayed. Once the game is restarted, the decimal point disappears.

Note: If a door was opened to correct a spin malfunction, decimal points will be in positions one and two as well as position three.

Position 4 - Bill Transaction

When a bill is accepted, its credit value appears in WIN PAID. A decimal point in the fourth position indicates the amount shown in WIN PAID is from a bill transaction. This decimal point will remain until the start of the next game event.



Playing a Game

The Player must wager at least one credit to play a game. If Option 27 Bet Mode is not 0000 (cash only), credits are awarded from wins; purchased by inserting coins or bills, or by electronic fund transfers. With special Main EPROMs, credits may be added with additional hardware.

Credits are wagered by selecting BET ONE or BET MAX. BET MAX wagers all available credits or the maximum wager for the game, whichever requires the fewer credits.

Once credits are wagered, the game proceeds according to Option 26 (Automatically at max bet if at default 0001.). Upon completion of the game, winning combinations increment CREDIT and WIN PAID according to Option 27 Bet Mode, Option 58 Win Lockup, Option 51 Credit Meter Limit, and the game's paytable.

To collect the Player presses the CASH/CREDIT button. Credits are transferred to a Players Card, paid from the hopper, recorded on a redeemable ticket, or paid by an Attendant as dictated by the settings of Machine Options.

Machine Meter Groups

The availability of Machine Meter Groups depend upon game configurations such as Market Code, Host protocol, progressives; and accessories such as a bill acceptor, Data Vault™, and Vivo™.

Machine Meter Groups are accessed by turning a key in the Audit Keyswitch. Advance through the groups by pressing CHANGE. Pressing and holding SPIN pauses the automatic cycling.

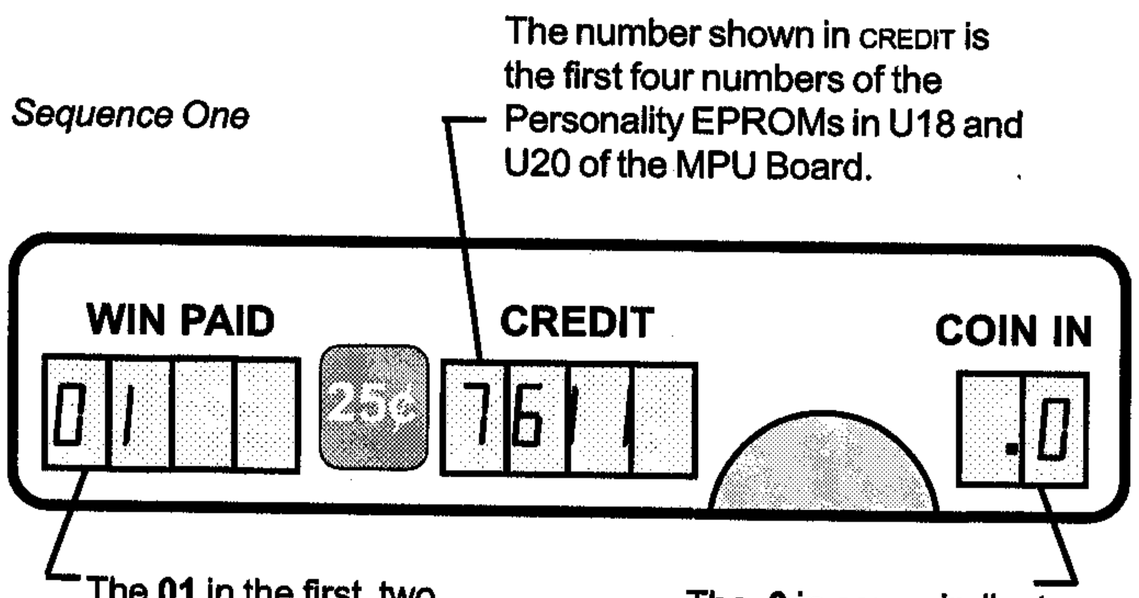
MACHINE METER GROUPS		
No.	**Meter Group**	**Description**
00	Model Information	Display of Personality EPROM ID, Reel Map and Win Table, and Hold Percentage (Available only in Market Codes 3 and 4)
01	Bookkeeping	Record of totals for all wagers, all payments, and other game activity
02	Win Records	Listing of the total number of wins for each possible winning combination
03	Game Recall	Record of the reel positions, number of coins played, win amount, and credits for the last 10 games
04	Games Summary	Tally of games and wagers
05	Bill Transactions	Listing of the number of bill transactions by denomination. This group also includes counters for the total number of bills in the stacker, and the total number of credits awarded from bill transactions.
06	Bill History	A record of credits incremented or coins dispensed for each of the last five bill transactions.
07	Progressive Jackpots	A record or amounts of jackpots paid for up to four jackpots groups.
08	Current Progressive Values	Active display of the current jackpot values as transmitted from the progressive controller. Requires configuration for S/MPI progressive operation (Option 02=0004).
09	Host EFT History	A record of Electronic Fund Transfers, including EFT credits and debits. Requires configuration for SDS® or SAS® protocol.
10	Host Totals	A record of promotional credits, blocked credits, non-blocked credits, and collected credits.
11	Doors	Time and date of the last access through: Main Door, Drop Door, and Bill Acceptor Cashbox Door (Available only in Market Code 8).
12	Secondary Game Bookkeeping	Records of Secondary Game.
13	Data Vault™	Redundant bookkeeping meters stored off-board.
14	Vivo™ History	Record of last 35 redeemable tickets or informational receipts, including Status, Time and Date, Validation Type, System ID, Validation Number, and Amount.
15	Vivo™ Transactions	Totals and values for all redeemable tickets and informational receipts.

0 Model Information

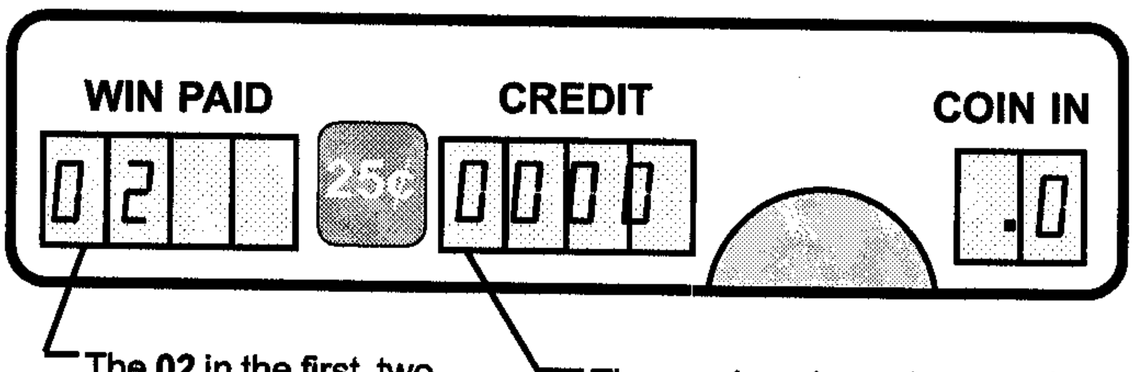
Model Information		
Seq. #	**Sub-Group #**	**Description**
1	01	EPROM Program Number
2	02	Reel Map and Win Table (Usually 0000)
3	03	Payback % of the Game

The following is an example of Model information for SMI 8670, which uses EPROM #E761121X-05.

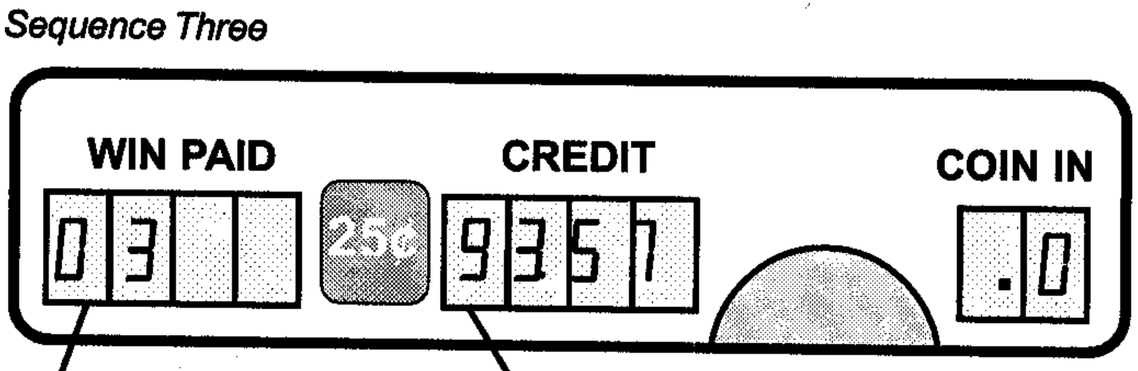
Sequence One



Sequence Two



Sequence Three



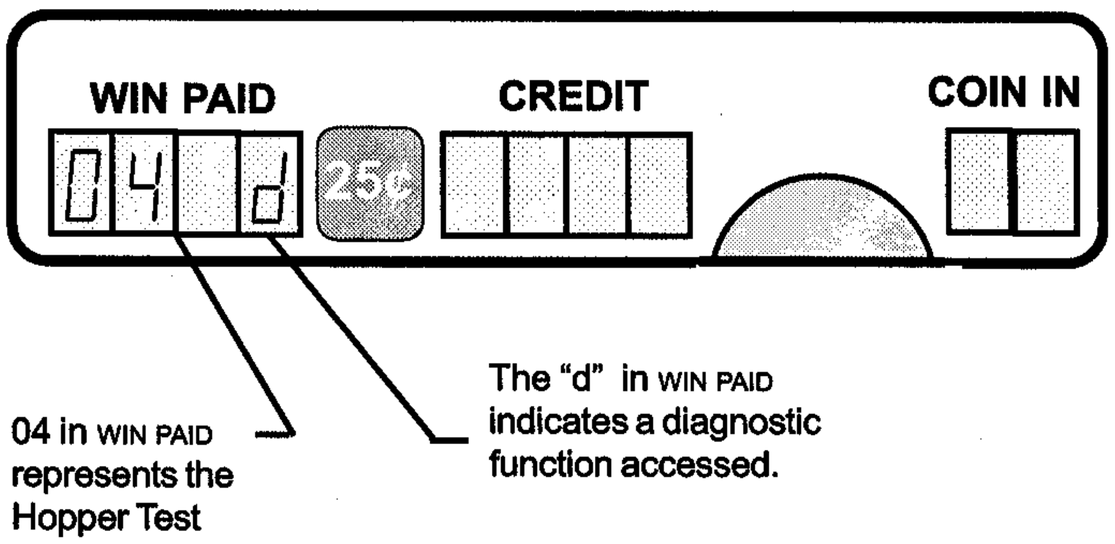
Diagnostic Tests and Functions

The ProSlot® 6000 has diagnostic tests and functions used to evaluate or change machine operation. Each is accessed by opening the main door and pressing the TEST button located on the front of the MPU assembly.

Every press of the button advances to the next test or function. Pressing CHANGE restarts most tests. Closing the door or pressing RESET exits Diagnostics.

WIN PAID shows the number of the test followed by a **d**. COIN IN and CREDIT show information relating to each function.

The following illustration shows a Hopper Test (04).



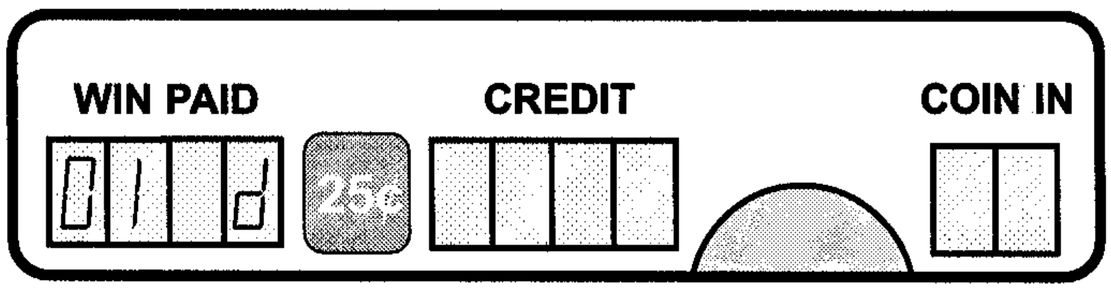
Diagnostic tests consist of:

- 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
- 09 Display Test
- 10 Payout Test
- 11 Game Optioning
- 12 Peripherals Test
- 13 Data Vault™ Meters
- 14 Memory View

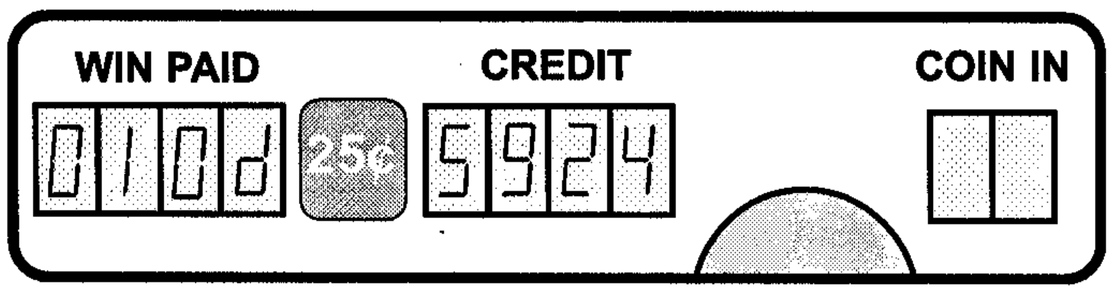
#1 Model Information

This function enables the Operator to view information stored in the Personality EPROM and SafeRAM™ without removing the MPU board. The SMI documentation verifies the following information:

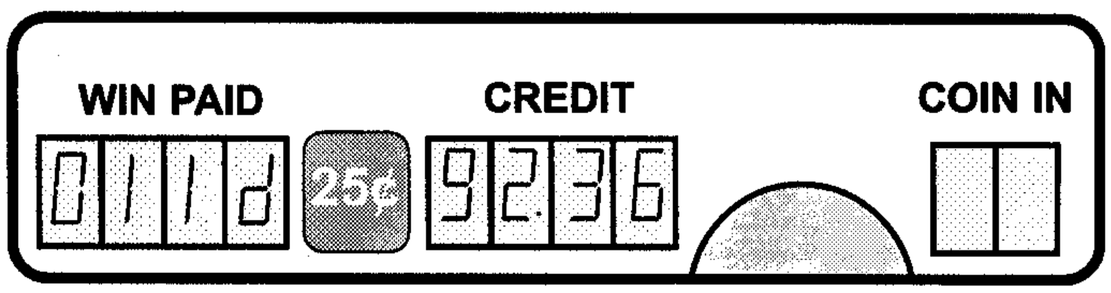
MODEL INFORMATION			
Code	**Description**	**Code**	**Description**
010d	Personality EPROM ID	**015d**	Crazy Reels
011d	Paybck Percentage(s)	**016d**	Bill Acceptor
012d	Reel Map and Win Table	**017d**	Denomination
013d	Market Code	**018d**	WBA CRC checksum
014d	Diverter Optic	**019d**	Real Time Clock



To access Test 1, press and release the TEST button until **01 d** appears in WIN PAID. Each item of information automatically appears in the Message Center. The Operator can manually advance by successively pressing BET MAX, or pause the display by pressing and holding SPIN.



The third digit of WIN PAID shows the number of each item. For the first item, 01**0**d appears in WIN PAID. CREDIT shows the Personality EPROM identification number.



When WIN PAID shows 011d, CREDIT sequentially shows the nominal and/or basic game percentages.

Test #2 - Output Test

The Output Test begins a routine which selects and turns ON or OFF every output under microprocessor control. There are 64 address locations numbered in hexadecimal from 00 to 3F. The first digit of the number represents the port and the second digit represents the bit. For example, the number 28 represents port 2 bit 8.

The test is either *auto-step* or *manual*. Auto-step advances through all ports while manual operation allows the Operator to select the port and bit. Refer to the Output table.

Note: If game Option 80 is set to default 0000 (OFF), the electromechanical meters will not be

To select the Output Test press and release the TEST button until the message **02 d** appears in WIN PAID.

The test starts in auto-step operation as indicated by **020d** in WIN PAID. The CREDIT display shows the two-digit output number and port status (logic level). The status toggles between **1** (logic high) and **0** (logic low). The process repeats for all outputs. Pressing the CHANGE button while auto-cycling will restart the test.

To manually select an output, press the PSEUDO COIN button on the front of the MPU assembly. WIN PAID changes from **020d** to **021d**. Press the CHANGE button to select an output. Once selected, press the TEST button. WIN PAID shows **022d**. The port status in CREDIT toggles between **1** (logic high) and **0** (logic low) reflecting the state of the output. Press the TEST button again to constantly activate the output in either state. The Message Center shows **021d** in WIN PAID. Exit by pressing the PSEUDO COIN switch until **020d** displays in WIN PAID, indicating return to auto-step operation.

Exit the test by pressing TEST to advance to the next diagnostic test; or by pressing RESET or closing the door to cause a System Reset .

Note: Upon entering Output Test, the first output tested is Port 2 Bit 0 Coin Deflector Solenoid. Thereafter, the ports cycle sequentially.

OUTPUTS			
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
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

Output Test Table continued on next page.

Output Ports (Cont.)

OUTPUTS (cont.)			
Port #	**Bit #**	**Output Description**	**Output Voltage**
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	Bill Hopper 2nd Motor	+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
3	B	Door Switch Signal	+5 VDC
3	C	Key Switch Signal	+5 VDC
3	D	Jackpot 2 / Auxillary Hopper Signal	+5 VDC
3	E	Reserved	
3	F	Reserved	

Note: Some of the possible output tests may be disabled by Jurisdiction or Market Code.

Test #3 - Input Test

The Input Test verifies machine inputs including button and door switches. Each input is referenced by a two digit hexadecimal number. The first digit represents the input port and the second digit represents the bit. For example, 08 represents port 0 bit 8 (See Input Ports Table on 2-30).

Press and release the TEST button until **03 d** appears in WIN PAID, indicating the Input Test is selected. Select any button or switch to test that does not exit the function (RESET button or TEST button). Verify the appropriate code appears. The CREDIT display shows the input's Port # and the port status (1=logic high, 0=logic low). Deactivation of the input reverses the logic level.

Bill Acceptor Input Test

Bill acceptor functions can be tested during Input Test #3. They include

- Acceptance or rejection of bills
- Value in coins or credits vended for each bill denomination
- Enabling and disabling of the bill acceptor in response to Cash Door, Cash Box, or COIN MECH switch
- Recognition of coupons (WBA only)

Acceptance and Value of Bills

Insert a bill into the bill acceptor. The bill will be returned. An invalid bill is rejected and returned with nothing displayed.

An accepted valid bill will have the bill denomination displayed as a **d** in COIN IN and the denomination in CREDIT. THE number of coins or credits to be vended for the bill displays as a **c** in COIN IN and the value in CREDIT.

A rejected valid bill will generate one of the following codes:

Test #3 - Input Test (cont)

BILL REJECTION CODES	
Code	**Description**
8A	Rejected by the machine
8b	Rejected by bill acceptor
8c	Failure; Abnormal
8d	Stacker Full

Common reasons for 8A codes

8A means that the bill was rejected by the game. The bill denomination could be incompatible with the machine's coin denomination. For example, a $1 bill cannot be accepted by a $5 machine.

Credits vended for the bill would cause the game to exceed Credit Limit (Option 51). For example, a $5 game with 990 credits and a credit limit of 1000 cannot add 20 credits from a $100 bill transaction.

Bill Acceptor Doors

Open the Cashbox Door or toggle the COIN MECH switch on the MPU Assembly. The bill acceptor should refuse all bills.

WBA Coupon Acceptance

With the JCM® WBA bill acceptor, a coupon is identified by a display of **d** in COIN IN and **coup** in CREDIT.

Coin Acceptor Test

The coin acceptor is active, indicated by the steady amber LED on the COD board or the green LED on Coin Mechanisms CC-16 acceptor.

An accepted coin will cause **09**, Coin Credit, to appear in the first two digits of the CREDIT display. A count of accepted coins display in the right two digits of CREDIT.

A malfunction or improper coin travel will display as **0A**, Coin Error, in CREDIT. (See Input Ports Table).

Input Ports

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

Test #4 - Hopper/Printer Test

For the Hopper/Printer Test press and release the TEST button until **04 d** appears in WIN PAID, indicating the Hopper/Printer Test is selected. The Message Center display alternates between HOPr and PrIN. Press SPIN when the device appears.

HOPr—The hopper attempts to pay out ten coins.

As each coin is dispensed from the hopper, CREDIT increments from 0 to 10. Pressing the CHANGE button will repeat the test. If an error occurs, the error code appears in the first two positions of the CREDIT display. See exception code table for error description. If the machine has a second hopper, press the SPIN button at the start to select the second hopper.

PrIN—The printer will dispense a voided ticket.

Note: Holding CHANGE when entering Test #5 will initiate a reel calibration and store the reel-stop center position in SafeRAM™.

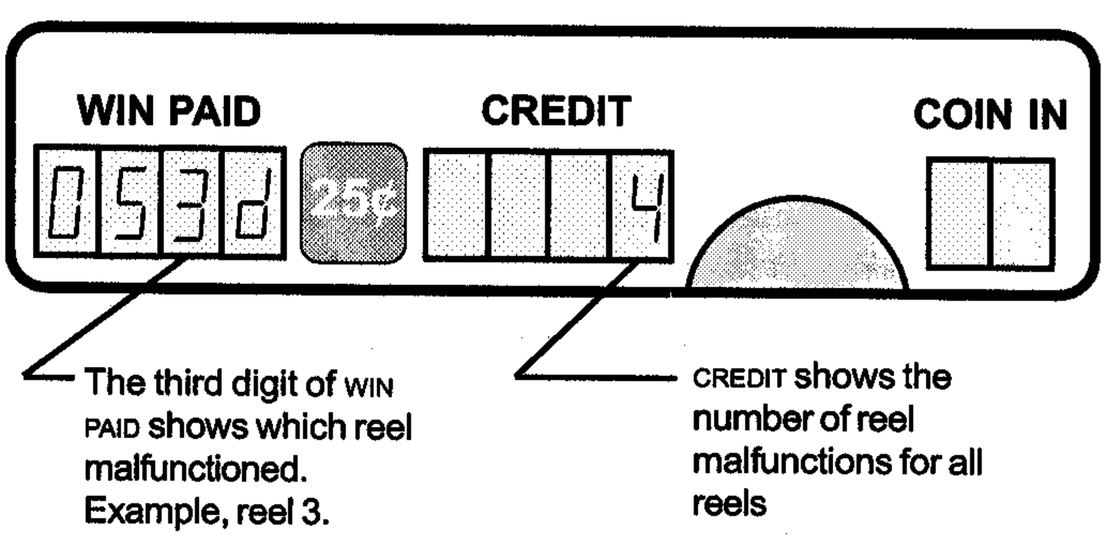
Test #5 - Reel Function Test

The Reel Function Test verifies the reels are operating correctly. When started, the reels spin and stop at consecutive reel positions in reverse order (21-0). The spin-stop sequence continues until the test is exited.

To start the test, press and release the TEST button until **05 d** appears in WIN PAID, indicating the Reel Function Test is selected.

The reels index to the "0" position, then spin and stop at the highest number reel position. The CREDIT display shows the number of times the spin-stop sequence occurred. After a brief pause the reels spin and stop at the next lower position.

If a reel malfunctions during the spin cycle, the reel number appears in the third position of WIN PAID. The total number of reel malfunctions appears in the CREDIT display. When the reels spin again, the CREDIT display returns to show the number of correct reel spins.



Test #6 - Reel Tape Test

This diagnostic test provides a means for the Operator to confirm the reel symbols are in the correct positions and match the information listed in the SMI document.

To begin, press and release the TEST button until **06 d** appears in WIN PAID, indicating the Reel Tape Test is selected. 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.

Test #7 - Reel Tilt and System Reset Records

This test displays the number of reel tilts and

Note: Reel tilts generated with the main door open are not recorded.

System resets that have been recorded.

To enter, press and release the TEST button until the **07 d** appears in WIN PAID, indicating Reel Tilt and System Reset Records selected. WIN PAID shows a **2** in the third position indicating information on reel tilts is being displayed. The CREDIT display shows the total number of reel tilts that occurred.

To view information on tilt types **4** through **7**, turn the Audit Keyswitch once. To view information on resets **8** through **b**, turn the Audit Keyswitch again. The Message Center automatically cycles through the reset types. The reset type number appears in the third position of WIN PAID, and the total number of tilts appears in the CREDIT display.

An MPU Board with CPU Error Resets should be removed from service and returned to the factory for analysis.

REEL TILT AND SYSTEM RESET			
Tilt #	**Description**	**Reset #**	**Description**
2	Reels moving improperly	8	Power Fail Resets
4	Accelerating improperly	9	Door Resets
5	Running improperly	A	Hardware Resets
6	Decelerating improperly	B	CPU Error Resets
7	Reels in wrong position		

Test #8 - Slot Communications

The Slot Communication Test confirms the serial ports are working properly. The test checks for shorts and opens.

Press and release the TEST button until **08 d** appears in WIN PAID, indicating the Communications Test is selected. A dash (**-**) appears in the CREDIT display if a channel is not found.

Next, **081d** appears in WIN PAID. The test checks for shorts on ports 1A, 1b, 2A, 2b. 3A, and 3b. An **S** appears in the CREDIT display if a short exists. When the machine is finished testing for shorts, the message **082d** appears in the WIN PAID. A test pulse is transmitted. Each receiving port is tested for reception of a signal. Physical connection is required. The following table lists the ports and their locations on the game.

COMMUNICATION PORTS					
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-20293-0001
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

Note: Test #8 can not test signal reception without loopback jumpers installed.

Test #9 - Display Test

This function tests the Message Center. Observe to make sure all LED segments in each of the ten display positions are properly functioning.

Press and release the TEST button until **09 d** appears in WIN PAID, indicating the Display Test is selected. A pattern cycles in the Message Center that illuminates each segment and decimal point.

Test #10 - Payout Test

This function confirms reel symbol combinations match the game's pay table as it appears on the feature glass. By positioning the reel symbols on the payline, entering a wager, and pressing SPIN, the win amount appears in WIN PAID. It should match the glass for the same winning combination.

Press and release the TEST button until the message **10 d** appears in WIN PAID, indicating the Payout Test is selected. Press and hold CHANGE. The message **rl 1** appears in CREDIT, indicating reel one is selected. While holding CHANGE, press the SPIN button. Reel one moves to the next stop position. Release and press SPIN (still holding down the CHANGE button) until the desired reel symbol lines up on the pay line, then release the CHANGE button. Repeat to select positions for the remaining reels.

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.

Note: Jackpot signals through connector J13 are disabled to prevent false progressive jackpot lockups. See Option #80 on page 2-

#11 - Game Optioning

Game optioning is set from diagnostic function #11. See the Game Optioning section earlier in this module for detailed instructions on accessing and setting options.

Test #12 - Peripherals Test

Function 12 allows the operator to evaluate peripheral devices on the ProSlot® 6000.

The results of the test are indicated on the Message Center. Each value shows for two seconds before automatically advancing to the next item. The Operator may also manually advance by successively pressing BET MAX, or may pause the display by pressing and holding SPIN.

PERPHERALS TEST		
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 hexadecimal
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

To access, press and release the TEST button until **12 d** appears in WIN PAID, indicating the Peripherals Test is selected.

The third digit in WIN PAID shows the identification number for each item in this test. For the first item, **121d** appears in the display. The last two digits of the CREDIT display show the settings of DIP Switch DS1 in hexadecimal representing the value of the eight switches. Refer to the following table to determine the switch settings.

HEXADECIMAL SWITCH TABLE				
SW. 1 / 5	SW. 2 / 6	SW. 3 / 7	SW. 4 / 8	Hex Digits 1st / 2nd
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

The first digit represents switches 5-8. The second digit is switches 1-4. For example, a value of **11** for DS1 can be interpreted as 1 = switches 5 through 8 = OFF, ON, ON, ON; 1 = switches 1 through 4 = OFF, ON, ON, ON. The value **11** indicates that the machine is configured for SAS EFT protocol v4.x or v5.x with no Bonus (Refer to DS1 Switch Table).

Troubleshooting

Troubleshooting Overview

This section includes resolutions for common malfunctions. Charts defining the numerical codes for malfunctions and normal game operations are included.

Power ON Malfunctions

If the Reel and Feature Fluorescent lamps do not illuminate, check the following:

1. Turn power switch OFF and confirm the machine is plugged into a powered, grounded outlet.
2. Using the Overall Wiring Diagram as a reference, confirm the power supply is properly connected.
3. Check circuit breakers.
4. Confirm the power switch is connected and functioning.
5. Check for any loose or frayed wires.
6. Observe the System Reset LED on the MPU board. It should illuminate briefly on power on.

Tilt Messages

If a tilt occurs, the machine exhibits the following:

1. The numerical tilt code displays in WIN PAID.
2. The machine will not accept or dispense coins or bills.
3. All game play is suspended until the condition is resolved by authorized service personnel.

Coin Acceptor Malfunctions, 2x Series Exception Codes

The ProSlot® 6000 has a coin acceptor with built - in security features to prevent cheating. The most common problems are coins jamming in the acceptor because of a bent coin, or shingling from coins inserted at a high rate of speed. For a coin jam or a 2x code check the following:

1. If jammed, open the door and remove the acceptor module. Once removed, coins can be gently extracted with a small screwdriver or similar tool.
2. Confirm the Coin Optic Decoder board optic sensors and prism are clean. Dirt can block the light path and prevent proper operation.

The acceptor module can be quickly replaced. See Module 8, Peripherals, for further information.

Hopper Malfunctions, 3x Series Malfunction Codes

If a hopper malfunction occurs, a **3x** tilt code displays. The Hopper Control circuit board also includes status LEDs. Common hopper malfunctions include hopper jams, empty hoppers and jammed mixers. If these problems occur, check the following:

1. Hopper jams usually occur because of a bent coin stuck under the hopper knife, or foreign objects freezing the mixer or pinwheel.
2. An empty hopper condition exists when no coins exit the hopper for approximately fifteen seconds. This can be a hopper out of coins, or a hopper that has jammed.
3. Ensure the hopper plug is firmly seated in the connector. Confirm the hopper cable is connected and no wires are frayed or broken. On rare occasions, the hopper motor or control board may need replacement.

If a **30** code for hopper overpays displays, the machine should be taken out of service until hopper operation has been checked through the machine's Diagnostics functions (Test #4). The machine should also be checked for possible tampering. A one-coin overpay may indicate a faulty Hopper Control Board. If the problem persists, contact a Bally Field Service Technician.

A **31** code Coin Out Jam may indicate tampering or defective hopper components. Always check the Hopper Control Board LEDs for activity indicated in the following chart:

HOPPER CONTROL BOARD LEDS	
Hopper LED	**Error Description**
Green (FWD) LED Flashing	A reverse entry condition occurred. The dual optic swiches detected an incorrect direction of coin travel and notified the microcontroller. It may be caused by a failed optic.
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.

Reel Malfunctions, 4x and 7x Series Malfunction Codes

Reels unable to find the proper stop position result in 4x tilts. 7x tilts are from movement after stopping. Check the following:

1. The optic sensors are clean. Dirt may block the light path through the code ring of the reel.
2. Check alignment of the code ring to the opto-interrupter on the Reel Control Board.
3. Check for a loose connection of the reel cable.
4. Ensure proper calibration by entering Test #5 and holding the CHANGE button (See #5-Reel Function Test on page 2-19.).

Memory Malfunctions, 8x Series Malfunction Codes

The ProSlot® 6000 enters a self-test upon each System Reset (power or RESET button). A malfunction in system memory will generate an 8x code and flash the tower and button lamps at a coded rate. Refer to the following table for flash codes:

Malfunction Flash Codes	
Flash Rate (Per Second)	**Error**
1	Main EPROM checksum error (U28 & U43)
2	Personality EPROM checksum error (U18 & U20)
3	Volatile RAM write/read failure (U30 & U45)
4	Non-volatile RAM (SafeRAM™) write/read failure (U30 & U45)
Continuous	Battery Low (BAT1)

Communication Errors, 9x Series Malfunction Codes

If the machine is configured S/MPI or VLC Host protocol (See Game Optioning on page 2-13 for Progressive Type or Terminal ID), faulty operation will generate one of the following tilt codes:

Communication Error Codes	
Code	**Description**
91-0	**No serial traffic found within the last 500 milliseconds.** The machine is not receiving 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.
91-1	**Serial checksum error.** The data received by the machine 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.
91-2	**Option error.** This error results when Option 02 Progressive Type is set to 0004 and Option 78L Machine Number is set to 0000.
91-4	**Mystery Machine Pay timing error.** Jackpot award data from the progressive controller is present in th serial stream at an inappropriate time. Actuate the Audit Keyswitch and observe the jackpot level in the rightmost digit of the WIN PAID display (preceded by EHP), and the jackpot amount in the CREDIT display. A keyswitch activation is required for each jackpot award present. If the condition persists, a loss of communication between the machine and the progressive controller may have occurred.
91-5	**Jackpot Information missing.** No jackpot data from MAPS Atomic Progressive Controller.
91-7	**Game Error Lockout.** Host Status Poll Timeout was detected by the Game.
91-8	**Host Defined Lockout In Configuration.** Game disabled by holiday/non holiday enable/disable configuration.
91-9	**Game In Host Configuration.** Host in the process of configuring the game.
91-A	**Game Not Configured By Host.** The Host has not configured the game.
91-B	**Game In Host Disable.** The game has been disabled by the Host.
91-C	**Game Disable By Daily Timeout.** The game has been disabled by the Daily Poll Timeout Shutdown.
91-D	**Game Disable for Status.** The Game has been disabled by the Host Disable flag in the Status Poll.
91-E	**Event Log Full.** The Event Log has more than 1200 events.
EP EP HP	**Awards available but not acknowledged by progressive controller.** The alternation of EP, EP, EP in the WIN PAID display indicates the pulse link is not operating correctly. It can be caused by a machine tilt between coining and payout, or a System Reset (including doors) between coining and payout. Activate the Audit Keyswitch and observe EP pd on the WIN PAID display. A 91-4 display may result if the progressive controller does not recognize acknowledgment of the award by the machine.

Malfunction and Game Codes

ProSlot 6000® Malfunction and Game Codes		
Code #	**Code Description**	**Definition**
20	Coin In Jam	The optics on the Coin Optic Decoder board have been blocked for too long.
21	Inappropriate Coin In	A coin has been accepted by the machine after maximum number of extra coins bet has been registered. Extra coins up to the maximum (currently 15) are paid from the hopper upon completion of the game.
22	Invalid Coin	A coin has passed the coin optics during a reel spin.
23	Coin not Sensed	Coin was not sensed by the drop optic (DS2-8 = OFF Diverter Optic Installed)
24	Coin Reverse	A coin was sensed traveling from bottom to top of the optic block.
50-26$_1$	Bill Paused	A bill was detained from entering the bill acceptor stacker within the normal time.
50-27$_1$	Bill Jam	A bill was prevented from entering the stacker.
50-29$_1$	Bill Acceptor Communication Error	Communication between the bill acceptor and the machine has failed
30	Hopper Overpay	More coins than expected have been sensed by the hopper's coin-out optic during a payout.
31	Hopper Coin-Out Jam	Hopper's coin-out optic has been blocked too long. See Troubleshooting on Page 2-30 of Hopper LED error codes.
32	Hopper Empty	The hopper circuitry has run in forward direction for longer than 15 seconds with no coins sensed by the coin-out optic.
33	Reset During Payout	A System Reset has occurred while the hopper is running
5$_x$-36$_1$	Printer Failure	General Printer Error.
5$_x$-37$_1$	Printer Jammed	The printer is jammed at the platen.
5$_x$-38$_1$	Printer Empty	The printer is out of paper.
5$_x$-39$_1$	Printer Low$_3$	The paper sensor has detected a low paper condition.
40	Reel Initialization Error	Reels were unable to complete initialization after a System Reset
41	Reel #1 improper spin	The reel did not spin to the expected position.
42	Reel #2 improper spin	Same as above.
43	Reel #3 improper spin	Same as above.
44	Reel #4 improper spin	Same as above.
45	Reel #5 improper spin	Same as above.
50	Slot Door Open	The main door switch senses the door is open.
51	Belly Door Open	The Belly Door switch senses the door is open.
52	Bill Acceptor Stacker Access	The Stacker Access switch senses the door is open.
53	Lower Door Open (Slant)	The Lower Door switch senses the door is open.
54	Drop Door Open	The Drop Door switch senses the door is open
55	Bill Acceptor Stacker Removed	Signal received from the bill acceptor that there is no stacker.
60	Reset During Bill Change	A system reset has occurred during a bill transaction.
65	Mechanical Meter disconnect	The electro-mechanical meters are disconnected from the machine (Market Codes 03, 04, 12).
70	Door Open During Reel Spin	Any of the door switches have sensed a door open during reel spin.
71	Reel #1 Movement	The reel moved at an inappropriate time.
72	Reel #2 Movement	Same as above.
73	Reel #3 Movement	Same as above.
74	Reel #4 Movement	Same as above.
75	Reel #5 Movement	Same as above.
80$_2$	ROM Checksum Error	The checksum of the Main program (U12, U15, U3, U4) or the Personality (U20, U18) does not match the expected checksum.
81$_2$	Battery Low	SafeRAM™ battery is below 2.5 VDC.
82	Door Open With Power off	The machine door was opened while the main power was off (Requires JW11 IN).
83$_2$	SafeRAM™ Error	SafeRAM™ Failed to retain information during self-test.
83F	SafeRAM™ Format Error	SafeRAM™ formatting has been lost due to bad RAM IC, a dead battery, or if ROM has changed. (A complete SafeRAM™ Clear is required.)
83F-0	Invalid SafeRAM™ EPROM	Wrong EPROMs used for SafeRAM™ Clear.
83F-1	Invalid Main EPROM	Wrong Main EPROMs detected after SafeRAM™ Clear.
83F-2	Invalid Personality EPROM	Incompatible Personality EPROMs detected after SafeRAM™ Clear.
83F-3	Invalid Coin Denomination	Coin denomination is not supported in Market Code
84$_2$	RAM Error	Volatile RAM failed to retain information during a self-test.
85	MPU Removed With Power off	The MPU Board Assembly was disconnected from the backplane while power was off (Requires JW15 and JW21 IN)
88	Catastrophic Failure	The MPU Board has failed for an unknown reason. The board should be returned to the factory.
90	Display Error	The controller for LED Message Center or vacuum fluorescent display has failed.
91	Communication Error	The machine is expecting and not receiving serial communication from the progressive controller. See Troubleshooting on Page 2-34).
91-0	No Communication	No serial traffic found within the last 500 ms.
91-1	Serial Check-sum Error	Data received by the machine is not the same as sent by the controller.
91-2	Optioning Error	Conflicting Machine Options. For example, 02=04 and 78L=0.
91-4	Mystery Mach. Pay Timing Error	Award data is in the serial stream at an inappropriate time or is missing.
91-5	Jackpot Missing	MAPS jackpot information missing form APC communication.
91-7	Game Error Lockout	Host status poll timeout detected by game.
91-8	Host Defined Lockout In Configuration	Game disabled by holiday/non holiday enable/disable configuration.
91-9	Game in Host Configuration	Host in the process of configuring the game.
91-A	Game Not Configured	Host has not configured game.
91-B	Game In Host Disabled	Game disabled by Host.
91-C	Host Disabled for Timeout	Game disabled by Host Daily Poll Timeout shutdown.
91-D	Host Disabled for Status	Game disabled by Host Disable flag in Status Poll.
91-E	Event Log Full	More than 1200 events are in the event log.
EP EP HP	Awards Available But Not Acknowledged By Controller	Awards available but not acknowledged by progressive controller.
HdIS	Communication Loss	No Communication with the SAS® Host for five seconds.

[x]The door codes are 50 = Main Door, 51 = Belly Door, 52 = Bill Acceptor Cash Box Door, 53 = Slant Lower Door, 54 = Drop Door, and 55 = Bill Acceptor Cash Box.

[1]Malfunctions codes with prefix "5x" appear only while the door is open.

[2]Malfunction codes 80, 81, 83, and 84 are part of the machine self-test during power ON or a System Reset. Upon an error, all of the machine's lamps flash. The lamps flash one or more times per second, depending on the problem.

[3]The Tower Service Light will flash for ½ second every 2½ seconds.