



SOUTH AFRICAN CASINO OPERATORS MANUAL

ASP & SAS PROTOCOLS

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1.1 **INTRODUCTION**

This document provides technical details of the Emax UP00V machine. Descriptions of the major components are followed by information on how to access and service various components in the system.

The Emax UP00V Electronic Gaming Machine has been designed so that major sub-assemblies or modules are readily accessible and removable for service or replacement. The modular approach means that a section of the machine can be easily removed, and replaced if necessary, without the need for major dismantling on site.

This manual is designed to cover Service and Operation of the Emax UP00V electronic gaming machine.

It covers software and hardware, including game installation and set-ups.

For the purposes of using this manual, when dealing with software the following guidelines should be observed.

The line buttons displayed on the bottom of the Audit screens and Diagnostics screens in this manual is based on a 25 line game.

For a 3, 5, 9 or 20 line game, please substitute line buttons as the following table and please refer to the line buttons displayed on the bottom of the actual video screen.

LINE BUTTONS	3 Line Game	5 Line Game	9 Line Game	20 Line Game	25 Line Game
1 ST LINE BUTTON	Line 1	Line 1	Line 1	Line 1	Line 1
2 ND LINE BUTTON	N/A	Line 2	Line 3	Line 3	Line 5
3 RD LINE BUTTON	Line 2	Line 3	Line 5	Line 5	Line 9
4 TH LINE BUTTON	N/A	Line 4	Line 7	Line 9	Line 20
5 TH LINE BUTTON	Line 3	Line 5	Line 9	Line 20	Line 25

1.2 **TECHNICAL SUPPORT**

Pacific Gaming Pty Limited is dedicated to providing quality service, maintenance and technical support for all of their products.

Please feel free to contact our service department for assistance on +612 9699 9133 between the hours of 8 am to 4 pm AEST.

1.3 SPECIFICATIONS

Dimensions:

Height of Cabinet with Midway	1342 mm
Width	540 mm
Depth	695 mm
Recommended clearance between each machine:	140 mm

Weight:

Midway - unpacked	115 Kg
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Power Requirements:

Mains Input Voltage	
Nominal	240V AC
Minimum	210V AC
Maximum	264V AC

Power Consumption:

Idle	290 Watts
Maximum	340 Watts

Frequency:	50 Hz
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Mains Input Current:

Idle	1.5 Amps
Maximum	1.8 Amps

Ambient temperature:

	Minimum	Maximum
Storage	0°C	60°C
Operating	0°C	50°C

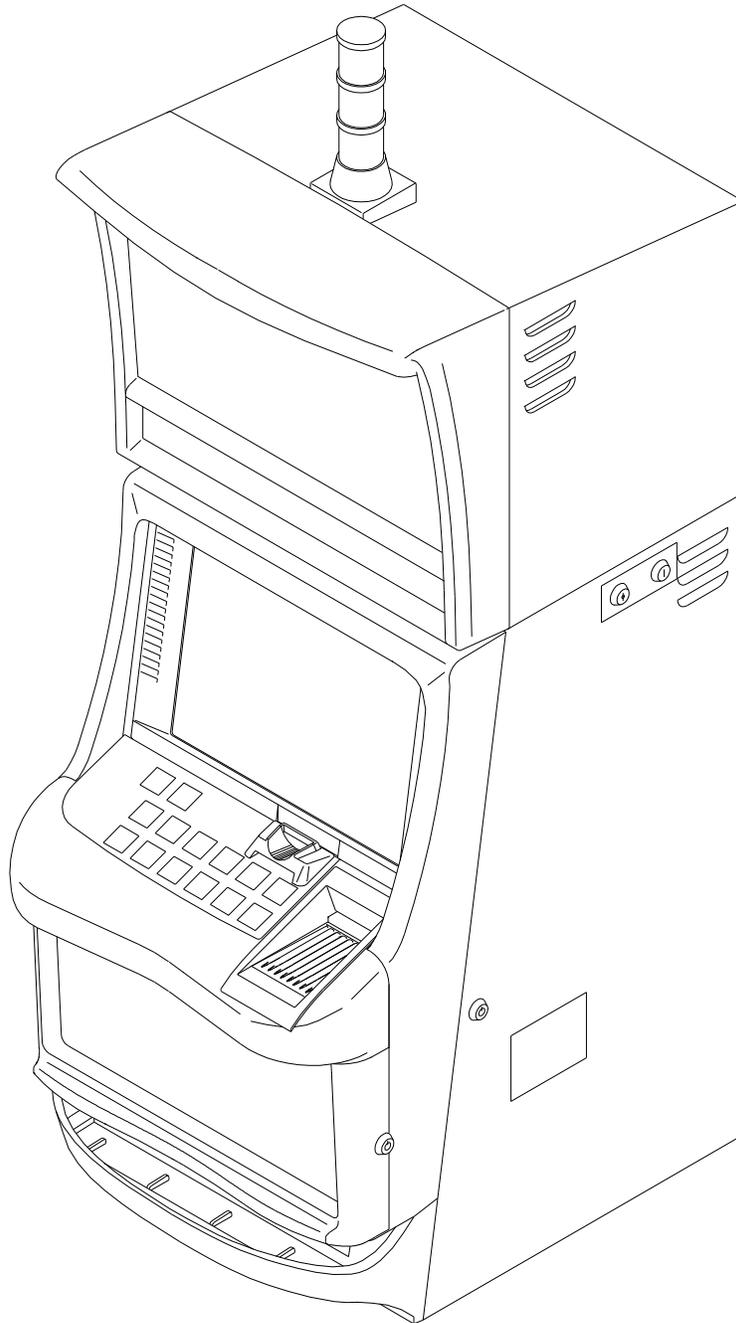
Relative Humidity:

	Minimum	Maximum
Storage	10%	95%
Operating	20%	90%

Service GPO Outlet

Power Consumption	180 Watts
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1.4 EMAX EGM



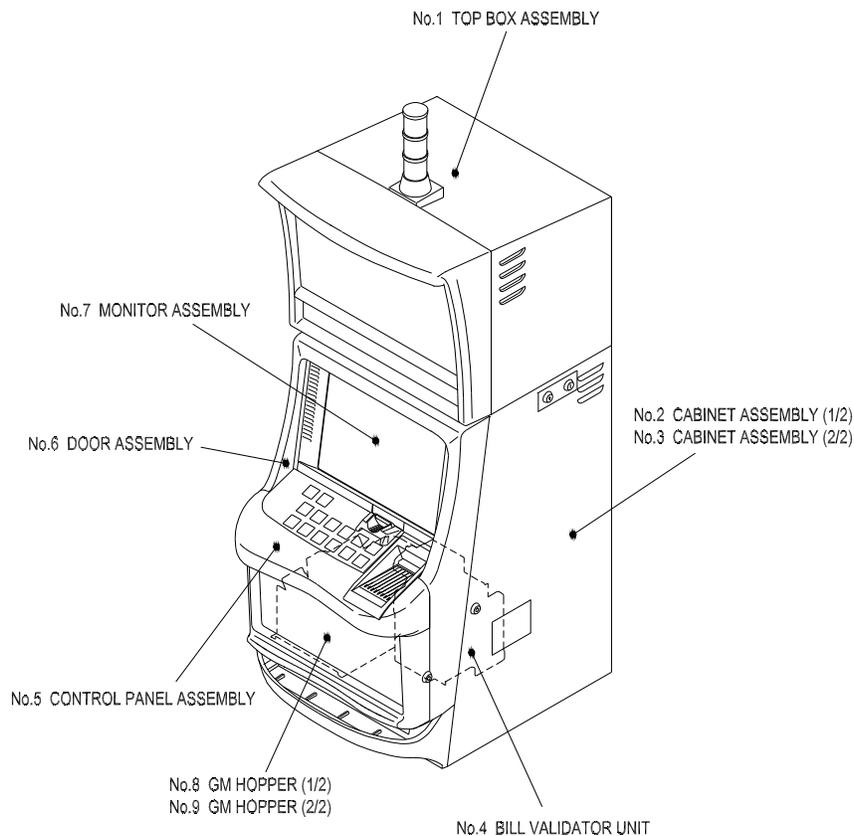
1.5 INSTALLATION



Only qualified/licensed personnel can install, assemble, maintain, inspect and troubleshoot the machine.

1.6 TECHNICAL INFORMATION

1.7 LOCATION OF EXTERNAL COMPONENTS



EMAX consists of several major assemblies or modules, which are easily accessible for servicing.

wMain Cabinet - Enclosing all internal components and speakers.

wMain Door - Contains artwork, coin acceptance mechanism, play buttons and lighting.

wLogic Unit - Contains all major electronics, controls all game functions and communication.

wMain Power Supply - Provides power for all electronics, lamps, switches and optics.

wMonitor - SVGA grade computer flat monitor, all controls are located on the front panel.

wHopper - Handles coin out functions.

1.8 **BUTTONS**

The buttons on the Emax have two types of operations. In the Play Mode the buttons are used for selecting the option stated on the button legend. In Audit and Test Mode the buttons are used to make selections in the various Menus. These selections are not shown on the buttons themselves, but are illustrated on the bottom of the screen.

COLLECT	<p>COLLECT BUTTON When the Collect button is pressed with the Credit Meter value less than or equal to the Hopper Pay Limit, all credits are paid by coins from the Hopper. If an amount over the Hopper Pay Limit is to be paid out, the machine locks up and enters Cancel Credit Mode. An attendant clears these credits.</p>
GAME RULES	<p>GAME RULES When the Game rules button is pressed the player is presented with a series of screens showing a complete set of rules for the game being played.</p>
BET 1 PER LINE	<p>BET BUTTONS Pressing one of the five bet buttons will determine the number of bets per line to be staked (actual bet per line is game dependant).</p>
PLAY 5 LINES	<p>PLAY BUTTONS Pressing one of the five line buttons will determine the number of lines to be played in the next game and start the game (actual number of lines are game dependant).</p>
TAKEWIN START FEATURE	<p>TAKE WIN/ START FEATURE BUTTON Selecting Take Win will add the total of a win to the Credit Meter. The button is active after a winning game and after any successful Double Up attempt. Selecting Start Feature will</p>
RED PLAY1 LINE	<p>RED / PLAY BUTTON This button is used for selecting Red in the Double Up game. Selecting Play 1 Line will play 1 line in the next game and start the game (actual number of lines are game dependant).</p>
BLACK PLAY25 LINE	<p>BLACK / PLAY BUTTON This button is used for selecting Black in the Double Up game. Selecting Play 25 Line will play 25 lines in the next game and start the game (actual number of lines are game dependant).</p>
GAMBLE RESERVE	<p>GAMBLE / RESERVE BUTTON Pressing Reserve will display the message 'MACHINE RESERVED' for 3 minutes if it is not pressed again. It works like a toggle button. By selecting the Gamble button the player can attempt to DOUBLE UP a win by pressing this button. The player then selects RED or BLACK. The object is to match the color of the card displayed face down on the screen. Successful attempts will double the win.</p>

1.9 SWITCHES

MAIN ON/OFF SWITCH (Located at the front left hand side)

Used to switch on the main supply to the machine.

POWER SAVE SWITCH (Located on the right hand external side of the cabinet)

This switch is jurisdiction dependant. When activated, power is available to the logic boards, communications interfaces and all security sensing devices while the monitor and other lighting may have power removed. No coins or notes will be accepted.

FOIC COMMS POWER SWITCH – QLD only (Located on Main Power Supply at the front right hand side)

This switch is only operational in QLD. This switch controls the power to the Fibre Optics Interface card.

AUDIT MODE KEY SWITCH (Located on right hand side of cabinet)

Used to enter Audit Mode. Insert the Audit Key and turn it clockwise.

RESET/TEST KEY SWITCH (Located on right hand side of cabinet)

Used to reset the machine after a cancel credit or an error has occurred. Insert the Reset Key and turn it anticlockwise to clear the error message or Cancel Credit.

When 'door open' and no credits, this key switch is also used to enter the Test Modes

MAIN DOOR OPTIC (Located on right hand side of Main door & inside Cabinet)

The door optic is used to detect if a DOOR OPEN condition exists. The emitter is mounted on the door while the photo transistor is mounted inside the cabinet.

MAIN DOOR SWITCH

The Main Door Switch is located at the top of the locking bar and works in conjunction with the Door Optic to alert the program that the machine is in the Main Door Open / Closed condition.

BELLY DOOR SWITCH (Located on machine door)

This switch alerts the program that the Belly Door has been opened.

LOGIC UNIT SWITCH OR SECURITY CAGE SWITCH (Located on Logic Unit)

This switch is connected to the electronic circuitry with a battery back up. This switch is located on the Logic Unit, and it detects if the Logic Door (Processor Door) has been opened, with or without power.

CASH BOX SWITCH (Located in Cashbox)

This switch detects if the Cashbox door is open / closed.

HOPPER COUNT OPTIC (Located on Hopper)

This switch is located at the coin exit on the hopper, and it counts coins that are being collected.

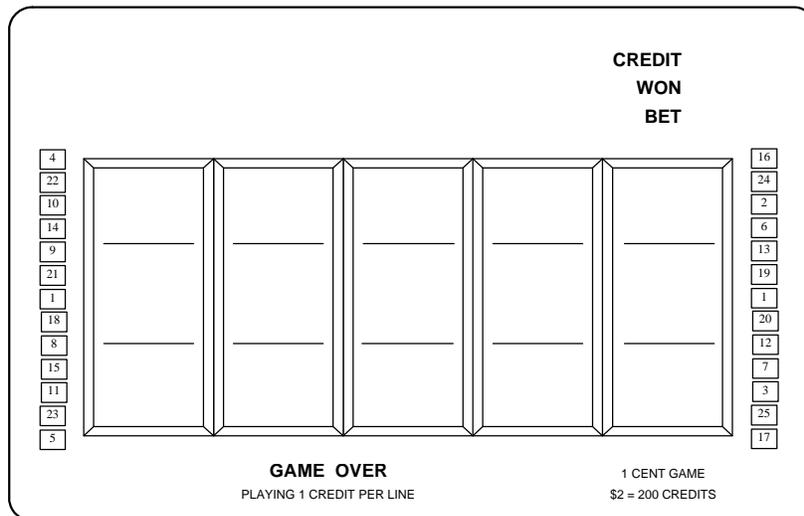
1.10 LOCATION OF INTERNAL COMPONENTS



SUMMATION OF SUB-SYSTEM COMPONENTS

	COMPONENT	LOCATION	MOUNTING
A	MONITOR	Centre Shelf	Slide-in chassis, screw fixings
B	LOGIC UNIT	Back of Cabinet (upper)	Lockable cradle assembly
C	NOTE ACCEPTOR	Front Right hand side	Screwed to cradle
D	HOPPER	Base of Cabinet (front)	Steel slides on Hopper & base
E	COIN VALIDATOR	Main Door	Cradle assembly with spring clips
F	DIVERTER ASSY	Behind Main Door	Attached to coin validator
G	POWER SUPPLY	Rear of Cabinet (under Logic unit)	Screwed to rear floor of machine

1.11 SCREEN LAYOUT



CREDIT METER

Displays the current number of credits available. Credits are added as coins are inserted, after a win, or when the Take Win button is pressed. Credits are deducted at the start of a new game, during a collect, and during a cancel credit procedure.

WON METER

Displays the total credits won on the last game. This meter clears at the start of a new game.

BET METER

Displays the total credits bet on the last game. This display will be updated at the start of a new game.

MESSAGE BANNER

Displays the message GAME OVER, GAMBLE OR CONTINUE, etc.

REEL GRAPHIC DISPLAY

The spinning reels are displayed in this area. Numbers of lines to be played are displayed. Wins are highlighted by each winning line and symbols flashing twice in succession.

CYCLING MESSAGES

Displays the following cycling messages:

CREDITS PER LINE

This displays the number of credits to be bet per line.

HOPPER PAID METER

This displays the number of credits paid out by the hopper after the collect button was selected. This message will be cleared at the start of a new game.

CREDIT PAID METER

This displays the number of credits paid out by a Cancel Credit after being validated. This message will be cleared at the start of a new game.

1.12 OUT OF SERVICE



This screen can be selected to place the machine OUT OF SERVICE. To exit this mode turn the Reset Key anticlockwise.

2 AUDIT MODE MENUS

A comprehensive set of audit and test functions are available on the EMAX. They are accessed by activating the Audit Key switch on the right hand side of the machine. When the key is turned anticlockwise the MAIN MENU will appear on the screen.

The audit functions use a system of Menus and Sub-Menus. Access to the Menus, Sub-Menus and various functions is possible by using the Line and Collect Buttons on the Main Door.

To step to the NEXT Menu, press the Line 1 button.

To step to the PREVIOUS Menu, press the Line 5 button.

To select a particular Menu, press the COLLECT Button.

To QUICK ESCAPE from any Menu, turn the Audit Key clockwise.

This will return you to the MAIN MENU or previous menu.

Another activation of the Audit Key from the MAIN MENU will return to the game.

Instructions for the Menus are displayed on the Prompt Line of the screen.

NOTE: The actual button description will vary from game to game but the description on screen will match the description on the button face.

From the MAIN MENU the following Menus can be accessed:

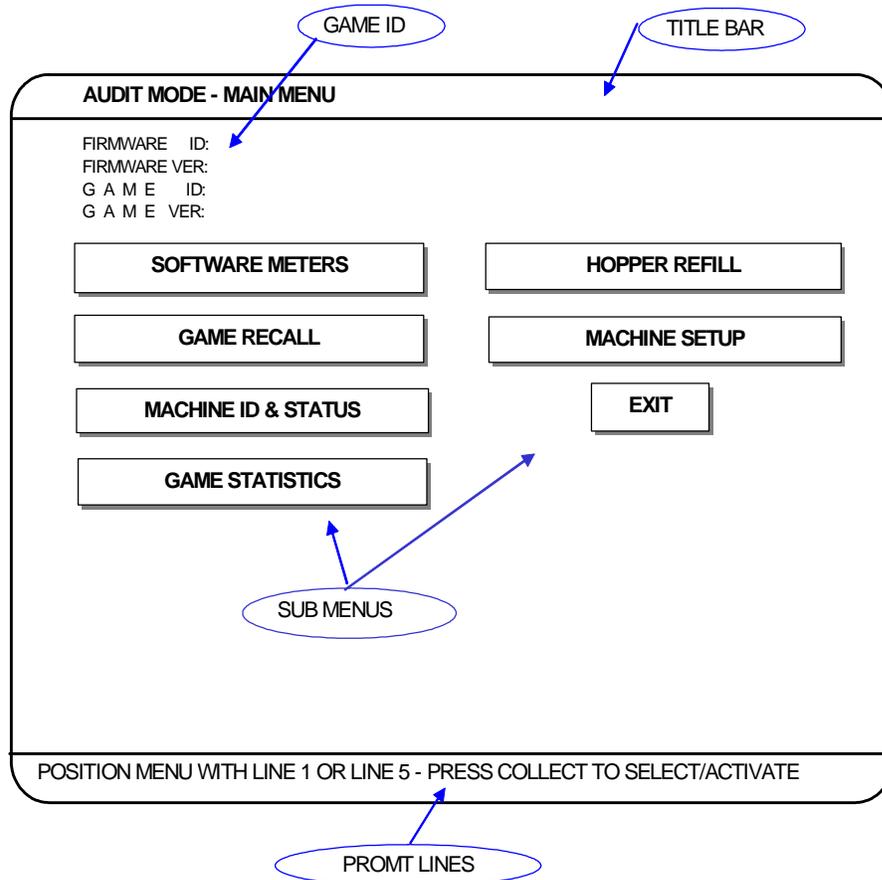
- SOFTWARE METERS
- GAME RECALL
- MACHINE ID & STATUS
- GAME STATISTICS
- HOPPER REFILL
- MACHINE SETUP
- EXIT (RETURN TO GAME)

Once in one of the Menus or Sub-Menus, several commands are available and are displayed on the Command Line of the screen. Typical commands are described below.

NOTE: All the Commands may not be available in a particular Sub Menu.

NEXT	Steps forward to the next item or menu.
PREVIOUS	Steps back to the previous item or menu.
RESET	Initialises values to zero.
EXIT	Exits the particular Sub-Menu and returns to the previous menu.

2.1 MAIN MENU



TITLE BAR

This bar will display the name of the current menu and the page number of the particular menu if there is more than one page.

GAME ID

This area contains the Firmware ID & Version, and Game ID & Version.

SUB MENUS

The Menus represent the various functions available in AUDIT Mode. Several Menus contain Sub-Menus for specific functions.

PROMPT LINE

Instructions for using the menus are displayed in this area. Most functions are selected and activated by using button presses as prompted. To select a Menu or Sub-Menu, follow the instructions on the Prompt Line.

2.2 SOFTWARE METERS

To display the SOFTWARE METERS, insert the Audit Key and turn clockwise. This can be done at all times **except during a game**. Place the cursor onto METERS INFORMATION and press COLLECT.

NOTE: Audit reports may vary between jurisdictions, e.g. Currency type and button layout.

Menu navigation is based on a 25 line button layout within this manual.

SOFTWARE METERS (PAGE 1) – ASP protocol

SOFT METERS	AUDIT MODE	PAGE 1 OF 4
METER UPDATE: YES	AUDIT METER	US METER
CURRENT CREDITS	(R)	
GAMES PLAYED	(PLAYS)	
GAMES WON	(COUNT)	
TURNOVER	(R)	
WINS EX BONUS (INC JP)	(R)	
BONUS HAND PAID	(R)	
BONUS PAID TO CREDIT METER	(R)	
TRUE COINS IN	(R)	
TRUE COINS OUT	(R)	
BANKNOTES IN	(R)	
EXTRA COIN OUT	(R)	
HAND PAID (EX BONUS HAND PAID)	(R)	
HOPPER REFILL	(R)	
CASHBOX DROP	(R)	
CASHLESS IN	(R)	
CASHLESS OUT	(R)	
US COIN IN (TURNOVER)	(R)	
US COIN OUT (WINS EXCEPT JP)	(R)	
US DROP (CASHBOX + BANKNOTES)	(R)	
US JACKPOT (WINS HAND PAID)	(R)	
US CANCEL CREDIT	(R)	
BONUS TAX DEDECTABLE	(R)	
BONUS TAX NON-DEDECTABLE	(R)	
BONUS WAGER MATCHED	(R)	
CURRENT CASHABLE	(R)	
CURRENT NON-CASHABLE	(R)	
CURRENT PROMOTIONAL	(R)	
<input type="button" value="EXIT"/>	<input type="button" value="NEXT"/>	<input type="button" value="PREVIOUS"/>
		YYYY / MM / DD HH : MM : SS
POSITION MENU WITH LINE 1 OR LINE 5 - PRESS COLLECT TO SELECT / ACTIVATE		

This screen displays all audit related data details since last RAM Clear.

METER UPDATE	Audit meter update enable/disable. This can be changed by host and if disabled, then the audit meter will freeze even game play is going on.
CURRENT CREDITS	Current credits shown on the game screen credit meter.
GAMES PLAYED	Total number of games played since machine start up.
GAMES WON	Total number of games won since machine start up.
TURNOVER	Cumulative total amount of all money wagered on the gaming machine.
WINS EX BONUS (INC JP)	Total amount won except external bonus wins. This will include internal free bonus games wins (if any) and jackpot hand paid.
BONUS HAND PAID	Total amount of external bonus wins hand paid
BONUS PAID TO CREDIT	Total amount of external bonus wins transferred to Credit Meter.
TRUE COINS IN	Total amount of tokens/coins inserted.
TRUE COINS OUT	Total amount of tokens/coins paid out by the hopper.
BANKNOTES IN	Total amount of banknotes inserted.
EXTRA COIN OUT	Total number of extra coins paid out by the hopper.
HANDPAID EX BONUS HAND PAID	Total amount hand paid except external bonus wins hand paid.
HOPPER REFILL	Total amount of coins put into the hopper by way of refills.
CASHBOX DROP	Total amount of tokens/coins directed to the coin coin box.
CASHLESS IN	Total amount of cashless in.
CASHLESS OUT	Total amount of cashless out.
US COIN IN	Total turnover.
US COIN OUT	Total amount of wins not hand paid. This will also include external bonus transferred by the host to the credit meter but will not include the external bonus hand paid. This does not include wins hand paid (jackpot).
US DROP	Total money in as coins to cashbox + banknotes.
US JACKPOT	Total amount of wins hand paid.
US CANCEL CREDIT	Total hand paid amount by means of collect. This does not include win hand paid (jackpot).
BONUS TAX DEDUCTABLE	Total amount of bonus tax deductible.
BONUS TAX NON-DEDUCTABLE	Total amount of bonus tax non-deductable.
BONUS WAGER MATCHED	Total amount of bonus wager matched.
CURRENT CASHABLE	Current cashable credits on the gaming machine.
CURRENT NON-CASHABLE	Current non-cashable credits except promotional credits on the gaming machine. This can only be transferred from/to host during cashless mode.
CURRENT PROMOTIONAL	Current promotional credits on the gaming machine. Promotional credits are also non-cashable and can only be transferred from/to host during cashless mode.

SOFTWARE METERS (PAGE 1) – SAS protocol

SOFT METERS	AUDIT MODE	PAGE 1 OF 4
AUDIT REPORT		
CURRENT CREDITS		(R)
GAMES PLAYED		(PLAYS)
GAMES WON		(COUNT)
TURNOVER (COIN IN)		(R)
WINS EXCEPT JP (COIN OUT)		(R)
BONUS TAX DEDECTABLE		(R)
BONUS TAX NON-DEDECTABLE		(R)
BONUS WAGER MATCHED		(R)
TRUE COINS IN		(R)
TRUE COINS OUT		(R)
BANKNOTES IN		(R)
DROP (COINS + BANKNOTES)		(R)
CANCEL CREDIT EXCEPT JP		(R)
JACKPOT HAND PAID		(R)
CASHABLE IN		(R)
NON-CASHABLE IN		(R)
PROMOTIONAL IN		(R)
CASHLESS OUT		(R)
CURRENT CASHABLE		(R)
CURRENT NON-CASHABLE		(R)
CURRENT PROMOTIONAL		(R)
<div style="display: flex; justify-content: space-around; margin-top: 10px;"> EXIT NEXT PREVIOUS </div>		
YYYY / MM / DD HH : MM : SS		
POSITION MENU WITH LINE 1 OR LINE 5 - PRESS COLLECT TO SELECT / ACTIVATE		

CURRENT CREDITS	Current credits shown on the game screen credit meter.
GAMES PLAYED	Total number of games played since RAM Clear.
GAMES WON	Total number of games won since RAM Clear.
TURNOVER (COIN IN)	Cumulative total amount of all money wagered on the gaming machine.
WINS EXCEPT JP (COIN OUT)	Total amount of wins not hand paid. This will include internal free bonus games wins but exclude external bonus transferred from host. This will include wins transferred to credit meter or wins hopper paid or wins cashless transferred out. This does not include wins hand paid (jackpot).
BONUS TAX DEDECTABLE	Total amount of external bonus wins which is tax deductible.
BONUS TAX NON-DEDECTABLE	Total amount of external bonus wins which is tax non-deductable.
BONUS WAGER MATCHED	Total amount of external bonus wager matched.
TRUE COINS IN	Total amount of tokens/coins inserted.
TRUE COINS OUT	Total amount of tokens/coins paid out by the hopper.

BANKNOTES IN	Total amount of banknotes inserted.
DROP (COINS + BANKNOTES)	Total amount of coins into cashbox and banknotes inserted into stacker.
CANCEL CREDIT EXCEPT JP	Total hand paid amount by means of collect. This does not include wins hand paid (jackpot).
JACKPOT HAND PAID	Total amount of wins hand paid.
CASHABLE IN	Total cashable credits transferred from host.
NON-CASHABLE IN	Total non-cashable credits transferred from host.
PROMOTIONAL IN	Total promotional credits transferred from host.
CASHLESS OUT	Total credits transferred out to host.
CURRENT CASHABLE	Current cashable credits on the gaming machine.
CURRENT NON-CASHABLE	Current non-cashable credits except promotional credits on the gaming machine. This can only be transferred from/to host during cashless mode.
CURRENT PROMOTIONAL	Current promotional credits on the gaming machine. Promotional credits are also non-cashable and can only be transferred from/to host during cashless mode.

SOFTWARE METERS (PAGE 2)

AUDIT MODE - SOFT METERS		SCREEN 2 OF 4				
GAME SUMMARY						
GAME NAME						
GAME NO						
GAME VARIATION		VAR99	VAR01	VAR02	VAR04	VAR06
THEORETICAL RETURN	(%)					
GAMES PLAYED	(PLAYS)					
GAMES WON	(COUNT)					
TURNOVER	(R)					
WINS EXCEPT JP	(R)					
JACKPOT HAND PAID	(R)					
GAMBLE GAMES PLAYED	(PLAYS)					
GAMBLE GAMES WON	(COUNT)					
GAMBLE TURNOVER	(R)					
GAMBLE WINS	(R)					
RCR STROKE	(PLAYS)					
RCR TURNOVER	(R)					
RCR WIN	(R)					
< AUDIT METERS FORMULA > UNIT:CR						
		LAST	CURRENT	INTERNAL		
GAMES PLAYED						
TO	(WINS EXCEPT JP)					
-TI	(TURNOVER)					
+CI	(TRUE COINS IN)					
-CI	(TRUE COINS OUT)					
+CLI	(CASHLESS IN)					
-CLO	(CASHLESS OUT)					
+BI	(BANKNOTES IN)					
-HP	(HAND PAID INC JP)					
+JP	(WINS HAND PAID)					
-CR	(CURRENT CREDITS)					
FORMULA RESULT						
<input type="button" value="EXIT"/>		<input type="button" value="NEXT"/>		<input type="button" value="PREVIOUS"/>		
YYYY / MM / DD HH : MM : SS						
POSITION MENU WITH LINE 1 OR LINE 5 - PRESS COLLECT TO SELECT / ACTIVATE						

This screen displays all game related data details since last RAM Clear.

GAME NAME	Name of the game installed on the machine.
GAME NO	The unique game number used by manufacturer/programmer to identify the game.
GAME VARIATION	The current variation in percentage selected for the game.
THEORETICAL RETURN	The percentage returns to players.
GAMES PLAYED	Total number of games played.
GAMES WON	Total amount of games won.
TURNOVER	Total amount wagered on the machine.
WINS EXCEPT JP	Total amount won except jackpot (wins hand paid).
GAMBLE GAMES PLAYED	Total number of gamble has done.
GAMBLE GAMES WON	Total number of gamble won.
GAMBLE TURNOVER	Total amount wagered by gamble.
GAMBLE WINS	Total amount won by gamble.
RCR STROKE	Residual Credits Removal stroke.

RCR TURNOVER	Residual Credits Removal turnover.
RCR WIN	Residual Credits Removal wins.

Audit Meters Formula used to check audit meters data integrity.

The following formula should result in zero otherwise the audit meters data is not correct and considered as corrupted.

$$TO - TI + CI - CO + CLI - CLO + BI - HP + JP - CR = 0.$$

If the formula result is not zero, then game machine will lock up with Self Audit Error message on the screen. To clear Self Audit Error, RAM Clear should be done.

LAST	The last game's audit meters data for host communication.
CURRENT	The current game's audit meters data for host communication.
INTERNAL	The current game's audit meters data for gaming machine internal memory.

GAMES PLAYED	Total number of games played.
TO	Total credits of wins except jackpot (wins hand paid). This also includes external bonus which is paid to credit meter. This does not include external bonus which is hand paid.
TI	Total credits of turn over.
CI	Total credits of tokens/coins inserted.
CO	Total credits of tokens/coins paid out by hopper.
CLI	Total credits of cashless in.
CLO	Total credits of cashless out.
BI	Total credits of banknotes in.
HP	Total credits of hand paid. This will include hand paid by collect button and wins hand paid (jackpot).
JP	Total credits of wins hand paid.
CR	Current credits.

SOFTWARE METERS (PAGE 3)

AUDIT MODE - SOFT METERS		SCREEN 3 OF 4
MONEY SUMMARY		
<TOTAL>		<HOPPER>
CASH IN (R)		COINS TO HOPPER (R)
COINS TO HOPPER (R)		COINS HOPPER PAID (R)
CASHBOX DROP (R)		
BANKNOTES IN (R)		CURRENT LEVEL (COINS)
CASH OUT (R)		CURRENT AMOUNT (R)
COINS HOPPER PAID (R)		EXTRA COIN OUT (COINS)
CANCEL CREDIT EX JP (R)		REFILL COUNT (COUNT)
JACKPOT HAND PAID (R)		HOPPER REFILL (COINS)
		MAX HOPPER PAY LIMIT (COINS)
<COIN ACCEPTOR>		
DIVERTER FAULT (COUNT)		HOPPER RUNAWAY (COUNT)
COIN IN YO-YO (COUNT)		HOPPER EMPTY (COUNT)
COIN IN JAM (COUNT)		HOPPER JAM (COUNT)
		HOPPER FULL (COUNT)
<HAND PAY>		
HAND PAID INC JP (R)		HOPPER LEVEL HI LIMIT (R)
CANCEL CREDIT EX JP (R)		HOPPER LOW HI (COUNT)
JACKPOT HAND PAID (R)		HOPPER LEVEL LO LIMIT (R)
		HOPPER LEVEL LO (COUNT)
<CASH BOX>		<POWER / DOORS>
CASHBOX DROP (R)		POWER UP (COUNT)
CURRENT LEVEL (COINS)		MAIN / BELLY DOOR OPENS (COUNT)
CURRENT AMOUNT (R)		LOGIC SEAL BROKEN (COUNT)
		CASH BOX DOOR OPENS (COUNT)
<CASHLESS IN / OUT>		GAMES SINCE POWER UP (COUNT)
CASHLESS IN (R)		GAMES SINCE MAIN DOOR CLOSE
CASHLESS OUT (R)		
EXIT	NEXT	PREVIOUS
YYYY / MM / DD HH : MM : SS		
POSITION MENU WITH LINE 1 OR LINE 5 - PRESS COLLECT TO SELECT / ACTIVATE		

TOTAL	CASH IN	Total amount of money inserted as coins and notes.
	COINS TO HOPPER	Total amount of coins inserted into the hopper.
	CASHBOX DROP	Total amount of coins dropped into the cash box.
	BANKNOTES IN	Total amount of banknotes inserted into the stacker
	CASH OUT	Total amount of cash out.
	COINS HOPPER PAID	Total amount of coins dispensed by the hopper.
	CANCEL CREDIT EX JP	Total amount of money paid as the cancel credit.
	JACKPOT HAND PAID	Total amount of money paid as the jackpot wins.
COIN ACCEPTOR	DIVERTER FAULT	Total number coin acceptor diverter faults. More than five consecutive coins went to the wrong direction (e.g. went to coin box if coins are expected to go into the hopper or vice versa).
	COIN IN YO-YO	Total number of coin in yo-yo errors (e.g. coin went to coin acceptor via opposite sequence) .
	COIN IN JAM	Total number of coin in jam error.
HAND PAY	HAND PAID INC JP	Total amount hand paid. This includes jackpot.
	CANCEL CREDIT EX JP	Total amount hand paid by means of collect.
	JACKPOT HAND PAID	Total amount of wins hand paid.
CASH BOX	CASHBOX DROP	Total amount of coins directed to the cash box.
	CURRENT LEVEL	The number of coins currently in the cash box.

	CURRENT AMOUNT	The number of coins currently in the cash box.
CASHLESS IN / OUT	CASHLESS IN	Total amount of cashless in.
	CASHLESS OUT	Total amount of cashless out.
HOPPER	COINS TO HOPPER	The amount of coins put into the hopper. This includes refilled amount to the hopper.
	COINS HOPPER PAID	The amount of coins dispensed by the hopper. This includes hopper paid by collect and credit limit. This will not include extra coin out.
	CURRENT LEVEL	The number of coins currently in the hopper.
	CURRENT AMOUNT	The amount of coins currently in the hopper.
	EXTRA COIN OUT	Total number of extra coins dispensed by hopper.
	REFILL COUNT	The number of times hopper refilled.
	HOPPER REFILL	Total amount of coins hopper refilled.
	MAX HOPPER PAY LIMIT	The maximum hopper pay out amount available.
	HOPPER RUNAWAY	The number of hopper ran away.
	HOPPER EMPTY	The number of hopper was empty.
	HOPPER JAM	The number of hopper jammed.
	HOPPER FULL	The number of hopper was full.
	HOPPER LEVEL HI LIMIT	The hopper level high limit amount set for the warning alarm purpose.
	HOPPER LEVEL HI	The number of occurrence hopper level reached or exceeded the hopper level high limit.
HOPPER LEVEL LO LIMIT	The hopper level low limit amount set for the warning alarm purpose.	
HOPPER LEVEL LO	The number of occurrence hopper level reached or became below the hopper level low limit.	
POWER / DOORS	POWER UP	The number of power turned on.
	MAIN / BELLY DOOR OPENS	The number of main door or belly door opened.
	LOGIC SEAL BROKEN	The number of logic seal has broken.
	CASHBOX DOOR OPENS	The number of cash box door opened.
	GAMES SINCE POWER UP	The number of games played since power up.
	GAMES SINCE MAIN DOOR CLOSE	The number of games played since main door closure.

SOFTWARE METERS (PAGE 4)

AUDIT MODE - SOFT METERS			SCREEN 4 OF 4		
NOTE ACCEPTOR					
<TOTAL>			<PERIODIC>		
R10	BANKNOTES	(COUNT)	R10	BANKNOTES	(COUNT)
R20	BANKNOTES	(COUNT)	R20	BANKNOTES	(COUNT)
R50	BANKNOTES	(COUNT)	R50	BANKNOTES	(COUNT)
R100	BANKNOTES	(COUNT)	R100	BANKNOTES	(COUNT)
R200	BANKNOTES	(COUNT)	R200	BANKNOTES	(COUNT)
TOTAL BANKNOTES (COUNT)			TOTAL BANKNOTES (COUNT)		
TOTAL ACCEPTED (R)			TOTAL ACCEPTED (R)		
TOTAL REMOVED (R)					
STACKER DOOR (COUNT)					
<FAULTS>			<HISTORY>		
TOTAL REJECT (COUNT)			THE LAST		
EXCESSIVE REJECT (COUNT)			2ND LAST		
STACKER REMOVED (COUNT)			3RD LAST		
STACKER FULL (COUNT)			4TH LAST		
BANKNOTE JAM (COUNT)			5TH LAST		
DISCONNECTED (COUNT)					
<input type="button" value="EXIT"/> <input type="button" value="NEXT"/> <input type="button" value="PREVIOUS"/>			YYYY / MM / DD HH : MM : SS		
POSITION MENU WITH LINE 1 OR LINE 5 - PRESS COLLECT TO SELECT /ACTIVATE					

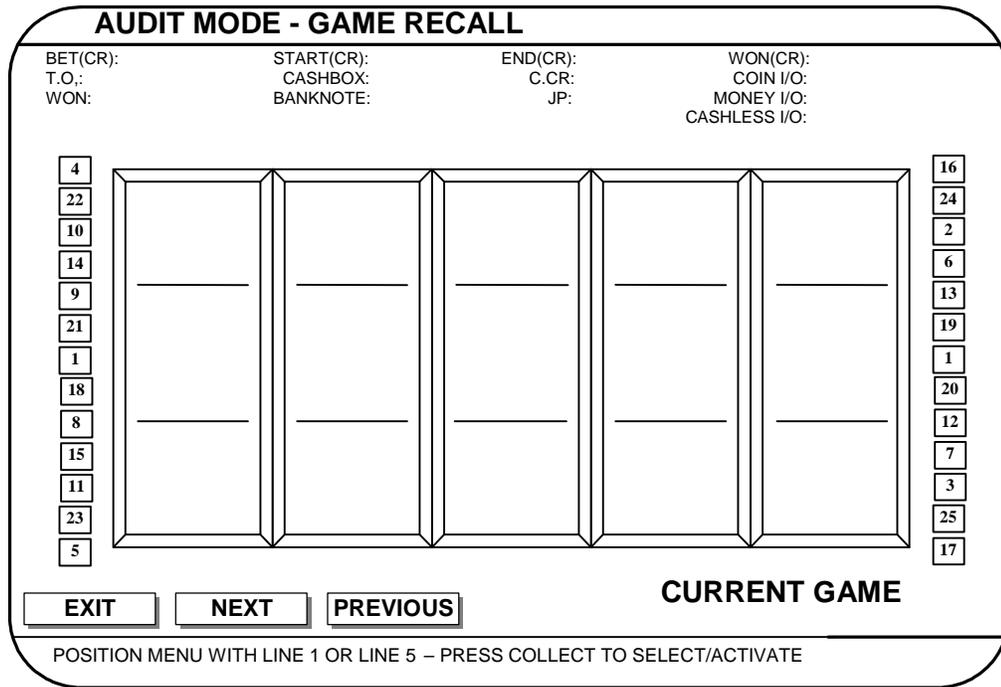
Above Bill Acceptor screen will not appear in the Audit mode when Bill Acceptor Type was set to 'NONE' in the RAM Clear Set-up screen.

Total meters show all bank notes accepted into the machine since last RAM clear.

Periodic meters show all bank notes accepted into the machine since the last periodic meters reset by the host. Periodic meters reset action can be done by the host only. History shows records of the last 5 notes inserted into the machine.

TOTAL	R10 BANKNOTES	Total number of R10 banknotes inserted.
	R20 BANKNOTES	Total number of R20 banknotes inserted.
	R50 BANKNOTES	Total number of R50 banknotes inserted.
	R100 BANKNOTES	Total number of R100 banknotes inserted.
	R200 BANKNOTES	Total number of R200 banknotes inserted.
	TOTAL BANKNOTES	Total number of banknotes inserted.
	TOTAL ACCEPTED	Total amount of banknotes inserted.
	TOTAL REMOVED	Total amount of banknotes removed.
	STACKER DOOR	Total number of times stacker door opened.
FAULTS	TOTAL REJECT	Total number of occurrence banknotes rejected.
	STACKER REMOVED	Total number of times stacker removed.
	STACKER FULL	Total number of times stacker full.
	BANKNOTE JAM	Total number of banknote jam errors.
	DISCONNECTED	Total number of note acceptor disconnected.
PERIODIC	R10 BANKNOTES	Total number of R10 banknotes inserted since the current period.
	R20 BANKNOTES	Total number of R20 banknotes inserted since the current period.
	R50 BANKNOTES	Total number of R50 banknotes inserted since the current period.
	R100 BANKNOTES	Total number of R100 banknotes inserted since the current period.
	R200 BANKNOTES	Total number of R200 banknotes inserted since the current period.
	TOTAL BANKNOTES	Total number of banknotes inserted.
	TOTAL ACCEPTED	Total amount inserted since current periodic.
HISTORY	THE LAST	Time stamp and the amount of the last banknote.
	2ND LAST	Time stamp and the amount of the 2 nd last banknote.
	3RD LAST	Time stamp and the amount of the 3 rd last banknote.
	4TH LAST	Time stamp and the amount of the 4 th last banknote.
	5TH LAST	Time stamp and the amount of the 5 th last banknote.

2.3 GAME RECALL



The result of the last twenty games is available in GAME RECALL mode. All information pertaining to the game is displayed.

NEXT steps to the double up screen and then the Last Game screen. Double Up screen will be displayed after each game screen (see next Page).

BET (CR)	Credit bet (Credit per line x Play line)
START (CR)	Credit after bet
END (CR)	Credit available after play
WON (CR)	Credit won from play
T.O	Total turnover in currency
CASHBOX	Total amount of coins into the coin box
C.CR	Total amount of cancel credit
COIN I/O	Total amount of coin input/output
WON	Total amount of won
BANKNOTE	Total amount of banknotes into the stacker
JP	Total amount of jackpot (wins hand paid)
MONEY I/O	Total amount of money input/output
CASHLESS I/O	Total amount of cashless input/output

2.4 GAME RECALL (DOUBLE UP)

AUDIT MODE - GAME RECALL

BET(CR):	START(CR):	END(CR):	WON(CR):
T.O:	CASHBOX:	C.CR:	COIN I/O:
WON:	BANKNOTE:	JP:	MONEY I/O:
			CASHLESS I/O:

	YOUR CARD	ACTUAL CARD	WON	CREDIT
BEFORE DOUBLE UP			5	20
AFTER 1ST DOUBLE UP	RED	BLACK	0	20
AFTER 2ND DOUBLE UP	_____	_____	_____	_____
AFTER 3RD DOUBLE UP	_____	_____	_____	_____
AFTER 4TH DOUBLE UP	_____	_____	_____	_____
AFTER 5TH DOUBLE UP	_____	_____	_____	_____

EXIT

NEXT

PREVIOUS

CURRENT GAME

POSITION MENU WITH LINE 1 OR LINE 5 - PRESS COLLECT TO SELECT/ACTIVATE

In the above screen, the credit was 20 and credit won was 5 BEFORE DOUBLE UP. The credit won was not added to old credit and if double up win, then the credit won will be added. AFTER 1ST DOUBLE UP, credit 5 is lost and old credit 20 is not changed.

NEXT steps to the LAST GAME stored.

If the Last Game is a Bonus Game, then Bonus Game screen will be displayed (see next Page).

2.5 GAME RECALL (BONUS GAME)

AUDIT MODE - GAME RECALL

BET(CR):	START(CR):	END(CR):	WON(CR):
T.O.:	CASHBOX:	C.CR:	COIN I/O:
WON:	BANKNOTE:	JP:	MONEY I/O:
			CASHLESS I/O:

4						16
22						24
10						2
14						6
9						13
21						19
1						1
18						20
8						12
15						7
11						3
23						25
5						17

CURRENT GAME
FREE GAME

POSITION MENU WITH LINE 1 OR LINE 5 – PRESS COLLECT TO SELECT/ACTIVATE

Bonus game can be identified by additional information displayed on the right bottom of the screen.

2.6 MACHINE ID & STATUS

MACHINE ID – ASP protocol

AUDIT MODE - MACHINE ID & STATUS		SCREEN 1 OF 3
MACHINE ID		
MACHINE SERIAL NUMBER		1
MANUFACTURER ID		6
MANUFACTURER NAME		UNIVERSAL S.A.
FIRMWARE ID	BOOT ROM :	EBRXX020
	GAME ROMS:	ON4YE034
FIRMWARE VERSION		03.4
GAME NAME		OCEAN COMMOTION 2
GAME NUMBER		162
MAXIMUM BET	(CR)	1000
THEORETICAL RETURN	(%)	88.09
MAXIMUM POSSIBLE WIN	(CR)	304320
ASP VERSION		5000H
SECURITY LEVEL	(0..3)	0 (0 = HIGHEST)
<input type="button" value="EXIT"/> <input type="button" value="NEXT"/> <input type="button" value="PREVIOUS"/>		
YYYY / MM / DD HH : MM : SS		
POSITION MENU WITH LINE 1 OR LINE 5 - PRESS COLLECT TO SELECT / ACTIVATE		

MACHINE SERIAL NUMBER	Machine serial number set by RAM Clear Setup screen.
MANUFACTURER ID	Manufacturer identification number assigned by the ASP protocol document.
MANUFACTURER NAME	Manufacturer's name.
FIRMWARE ID	Firmware identification number of both the Boot EPROM and game EPROMs.
FIRMWARE VERSION	Firmware version number.
GAME NAME	Game name.
GAME NUMBER	Unique game number.
MAXIMUM BET	Maximum bet.
THEORETICAL RETURN	Theoretical percentage return to the player for the game.
MAXIMUM POSSIBLE WIN (CR)	Maximum possible win in credits by the max bet.
ASP VERSION	ASP protocol version number.
SECURITY LEVEL	Security Level (0..3).

MACHINE ID – SAS protocol

AUDIT MODE - MACHINE ID & STATUS		PAGE 1 OF 3
MACHINE ID		
MACHINE SERIAL NUMBER		1
MANUFACTURER ID		PA
MANUFACTURER NAME		UNIVERSAL S.A.
FIRMWARE ID	BOOT ROM :	EBRXX020
	GAME ROMS:	ON4YE034
FIRMWARE VERSION		03.4
GAME NAME		OCEAN COMMOTION 2
GAME NUMBER		162
MAXIMUM BET	(CR)	1000
THEORETICAL RETURN	(%)	88.09
MAXIMUM POSSIBLE WIN	(CR)	304320
GAME DENOMINATION CODE		0x01 (R0.01)
SAS VERSION		5.02
<input type="button" value="EXIT"/> <input type="button" value="NEXT"/> <input type="button" value="PREVIOUS"/>		YYYY / MM / DD HH : MM : SS
POSITION MENU WITH LINE 1 OR LINE 5 - PRESS COLLECT TO SELECT / ACTIVATE		

SERIAL NUMBER	The gaming machine serial number set by RAM Clear Set-up screen.
MANUFACTURER ID	The unique code assigned by SAS protocol to identify manufacturer and game.
MANUFACTURER NAME	The manufacturer name.
FIRMWARE ID	Firmware identification number of both the Boot EPROM and the Game EPROMs.
FIRMWARE VERSION	Firmware version number.
GAME NAME	Game Name.
GAME NUMBER	Additional ID to identify game.
MAXIMUM BET	Maximum bet in credits.
THEORETICAL RETURN	Theoretical percentage return to the player for the game.
MAXIMUM POSSIBLE WIN	Maximum possible win in credits by the max bet.
GAME DENOMINATION CODE	Denomination code assigned by SAS protocol document
SAS VERSION	SAS protocol version number.

MACHINE STATUS

AUDIT MODE - MACHINE ID & STATUS		SCREEN 2 OF 3
MACHINE STATUS		
COIN ACCEPTOR		
COIN ACCEPTOR CREDIT LIMIT	(R)	(0=DISABLE)
HOPPER		
MAX HOPPER PAY LIMIT	(R)	(0=HANDPAY)
NOTE ACCEPTOR		
NOTE ACCEPTOR CREDIT LIMIT	(R)	(0=DISABLE)
JACKPOT HAND PAY LIMIT	(R)	(0=DISABLE)
JACKPOT HAND PAID	(COUNT)	
LAST JACKPOT HAND PAID	(R)	
CELEBRATION WIN LIMIT	(R)	(0=DISABLE)
CELEBRATION WIN	(COUNT)	
LAST LARGE WIN	(R)	
CREDIT LIMIT	(R)	(0=DISABLE)
CREDIT LIMIT EXCEEDED	(COUNT)	
LAST CREDIT LIMIT WIN	(R)	
LARGE WIN LIMIT	(R)	(0=DISABLE)
LARGE WIN	(COUNT)	
LAST LARGE WIN	(R)	
<input type="button" value="EXIT"/> <input type="button" value="NEXT"/> <input type="button" value="PREVIOUS"/>		YYYY / MM / DD HH : MM : SS
POSITION MENU WITH LINE 1 OR LINE 5 - PRESS COLLECT TO SELECT/ACTIVATE		

This screen displays EGM status and win limits related information.

COIN ACCEPTOR	Coin acceptor status.
COIN ACCEPTOR CREDIT LIMIT	Coin acceptor credit limit.
HOPPER	Hopper status.
HOPPER PAY LIMIT	Hopper pay limit.
NOTE ACCEPTOR	Note acceptor status.
NOTE ACCEPTOR CREDIT LIMIT	Note acceptor credit limit.
JACKPOT HAND PAY LIMIT	Jackpot hand pay limit.
JACKPOT HAND PAID	Jackpot hand paid counter.
LAST JACKPOT HAND PAID	Last jackpot hand paid amount.
CELEBRATION WIN LIMIT	Celebration win limit.
CELEBRATION WIN	Celebration win counter.
LAST CELEBRATION WIN	Last celebration win amount.
CREDIT LIMIT	Credit limit.
CREDIT LIMIT EXCEEDED	Credit limit counter.
LAST CREDIT LIMIT WIN	Last win amount which has caused a credit limit.
LARGE WIN LIMIT	Large win limit.
LARGE WIN	Large win counter.
LAST LARGE WIN	Last large win amount.

HOST COMMUNICATION STATUS

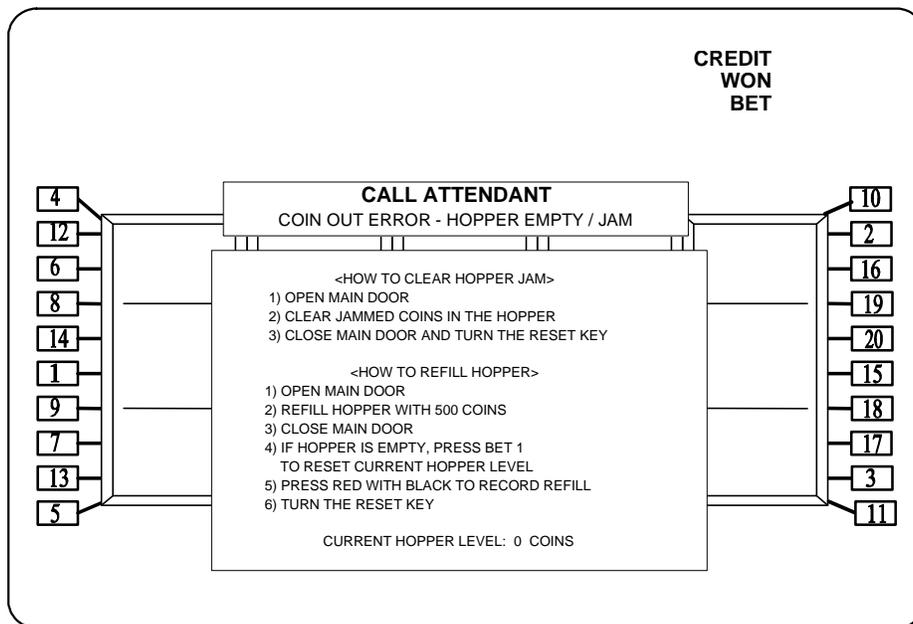
AUDIT MODE - MACHINE ID & STATUS	SCREEN 3 OF 3
<p>HOST COMMUNICATION STATUS</p> <p>TOTAL POLLS</p> <p>LINK DOWN</p> <p>NON ACKNOWLEDGE (NAK) FROM HOST</p> <p>CRC ERRORS</p> <p>OVERRUN ERRORS</p> <p>COLLISION OCCURRED</p> <p>CORRUPTED PACKETS</p> <p>PACKET ERROR RATE (%)</p> <p>BAD SEQUENCE NUMBER</p> <p>AUDIT METER POLL (SECONDS)</p> <p>APPLICATION LAYER</p> <p>DATA LINK LAYER</p>	
<p> <input type="button" value="EXIT"/> <input type="button" value="NEXT"/> <input type="button" value="PREVIOUS"/> <input type="button" value="RESET"/> </p> <p style="text-align: right; font-size: small;">YYYY / MM / DD HH : MM : SS</p> <p style="text-align: center; font-size: x-small;">POSITION MENU WITH LINE 1 OR LINE 5 - PRESS COLLECT TO SELECT / ACTIVATE</p>	

TOTAL POLLS	The number of total polls.
LINK DOWN	The number of link down.
NON ACKNOWLEDGE (NAK) FROM HOST	The number of NAK from host.
CRC ERRORS	The number of CRC errors.
COLLISION OCCURRED	The number of collision occurred.
CORRUPTED PACKETS	The number of corrupted packets.
PACKET ERROR RATE	Packet error rate (%)
BAD SEQUENCE NUMBER	The number of bad sequence number occurred.
AUDIT METER POLL	Audit meter poll (seconds)
APPLICATION LAYER	Application Layer Tx / Rx status
DATA LINK LAYER	Data Link Layer Tx / Rx status

3 ATTENDANT PROCEDURES

3.1 HOPPER REFILL

A Hopper Refill can only be performed after the Hopper is emptied during a collect sequence. In this case the message 'CALL ATTENDANT - COIN OUT ERROR - HOPPER EMPTY / JAM' will be displayed.



The following is a refill procedure:

Step 1. Open the main door and verify the hopper is empty.

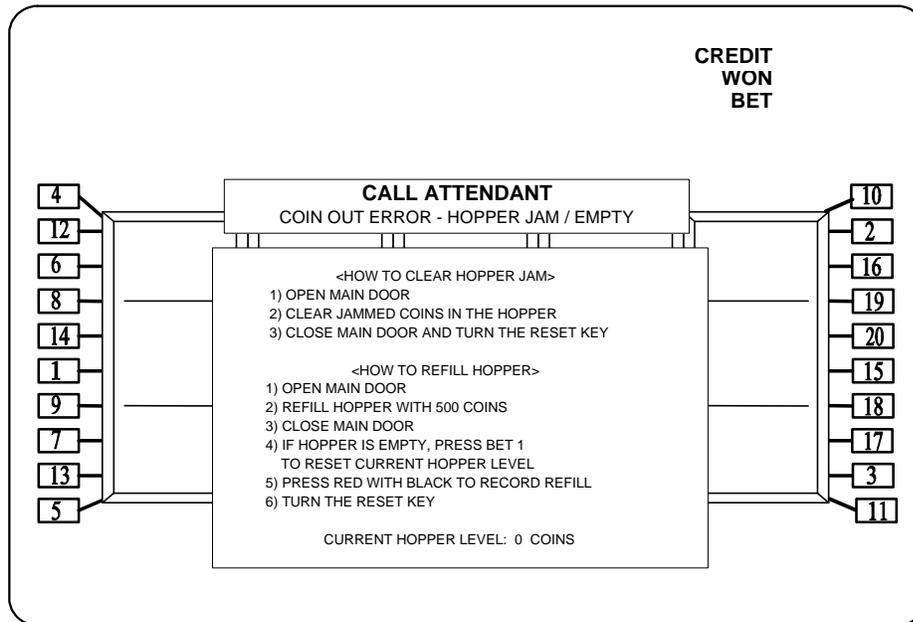
Step 2. Insert number of coins as displayed on the screen hopper (500 coins in this example) into the hopper and then close the main door.

Step 3. Press RED & BLACK simultaneously to record the refill. "XXX COINS ADDED TO HOPPER" will appear on the display and "CURRENT HOPPER LEVEL: XXX COINS" will also increment.

Step 4. Clear the error message with the Reset Key.

A refill can also be recorded in Audit mode.

3.2 HOPPER JAM CLEAR

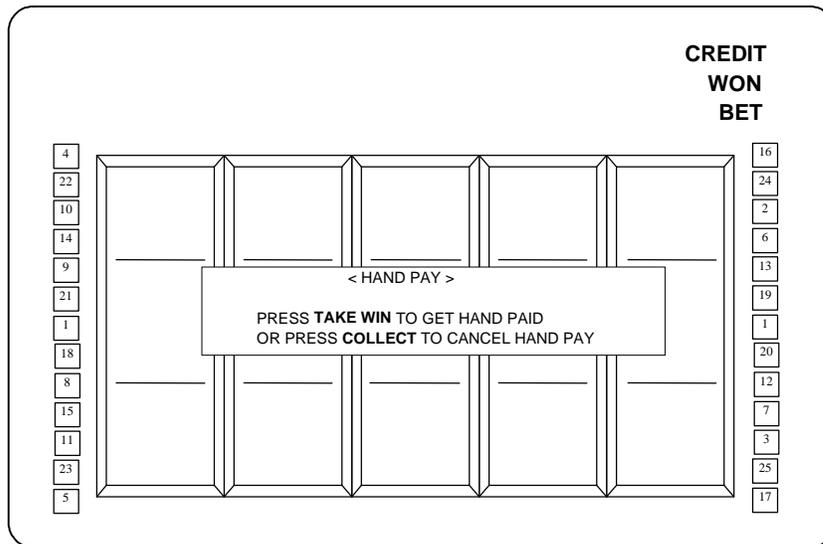


If, during a hopper payout, coins are not detected exiting the hopper, message CALL ATTENDANT - COIN OUT ERROR - HOPPER JAM / EMPTY message is displayed.

- 1) Open the door and check the hopper for a jammed coin.
- 2) Clear the jammed coin, then close the door.
- 3) Clear the error message with the Reset Key.

3.3 CANCEL CREDIT

If a player chooses to collect credits less than the cancel credit level as set in the ram clear setup configuration, the hopper will pay coins out. Any credits less than the token / coin denomination (residual credits) will remain on the credit meter after hopper pay out and requires hand pay. Also any credits greater than or equal to the cancel credit level requires hand pay (cancel credits). If the player press collect button, then the player is given the option to get hand pay by pressing take win button or cancel hand pay by pressing the collect button again.



If the player presses take win button, then the machine will lock up and the lockup status will be cleared by activating the Reset Key Switch clockwise. Residual credit hand pay lockup can always be canceled by the player but the cancel credits which are bigger than or equal to the cancel credit level can only be canceled when the player is allowed to cancel hand pay lock up as set in the ram clear setup configuration. In these cases, the 'OR PRESS COLLECT TO CONTINUE PLAY' message will be displayed and the player still can cancel the hand pay lockup even after take win button has pressed.

Activating the Reset Key Switch clockwise will clear the hand pay lock up, and clear the credit meter. The Credit Meter will become zero and the machine will return to the normal operation.

After reset the hand pay lock up with the reset key, the 'CANCEL R XXX.XX' message will be displayed on the bottom of the screen.