



MODULE 2

MK2-EVMOD-0006

SETUP AND OPERATIONS

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Module 2 Setup and Operations

This module describes specifications, installation, configuration, and operation of EVO® machines.

Specifications

Electrical Specifications

Line Voltage	100/240 VAC 50/60 Hz			
Power Supply Output	+5, +12, -12, 115 VAC Isolation Transformer			
Machine State	Idle	Play	Payout	Maximum Theoretical Draw
Current @ 110VAC	1.1 Amp	1.2 Amp	1.7 Amp	2.35 Amp
Current @ 220VAC	.55 Amp	.6 Amp	.85 Amp	1.18 Amp
Power	121W	132W	187W	259W

Environmental Specifications

Ambient Temperature:	Max: 100°F (38°C) Min: 40°F (4°C)
Maximum Relative Humidity:	90%
Average Heat from Machine:	600 BTU/Hr.

Physical Specifications

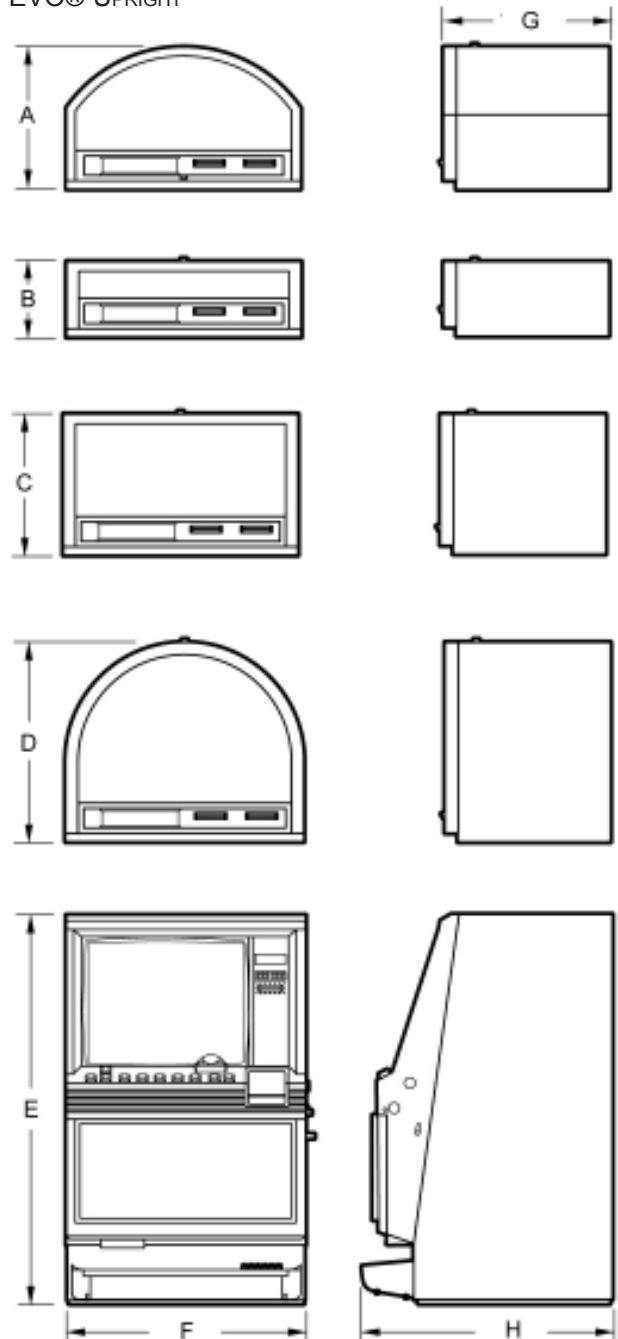
EVO® V8717		
Ref.	Measurement	
	Imperial	Metric
A	13 1/2"	34.29 cm
B	7"	17.78 cm
C	13"	33.02 cm
D	17 15/16"	45.56 cm
E	35 37/64"	90.37 cm
F	21 3/8"	54.29 cm
G	13 1/2"	34.29 cm
H	22 1/2"	57.15 cm
Weight	272 lbs	123.41 kg

EVO® V8719		
Ref.	Measurement	
	Imperial	Metric
A	13 1/2"	34.29 cm
B	7"	17.78 cm
C	13"	33.02 cm
D	17 15/16"	45.56 cm
E	35 43/64"	100.76 cm
F	21 1/2"	54.61 cm
G	13 1/2"	34.29 cm
H	25 29/64"	64.65 cm
Weight	298 lbs	135.21 kg



Note: The EVO® requires at least five minutes after power ON or System Reset before the machine is operational.

EVO® UPRIGHT

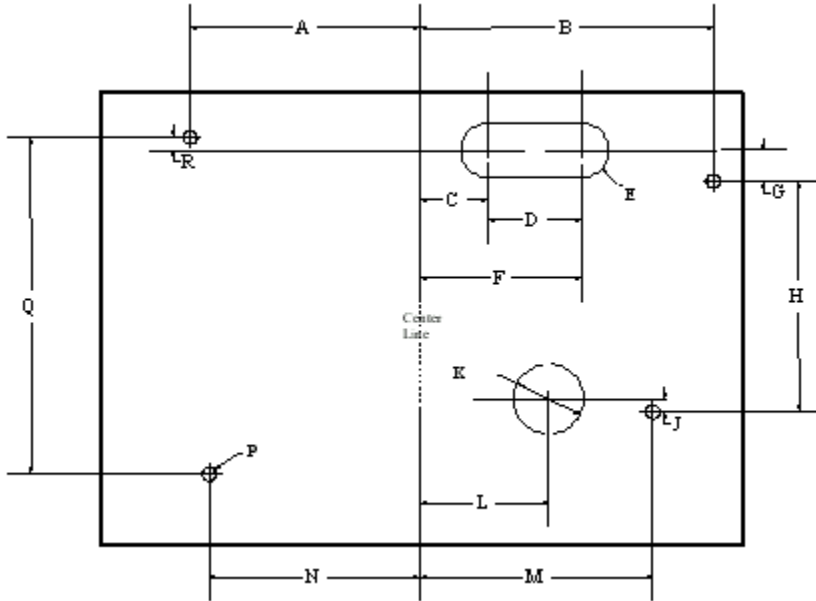


Note: The weight for the upright cabinet varies with the top box.

Specifications (cont.)

Physical Specifications (cont.)

FOOTPRINT - V8717

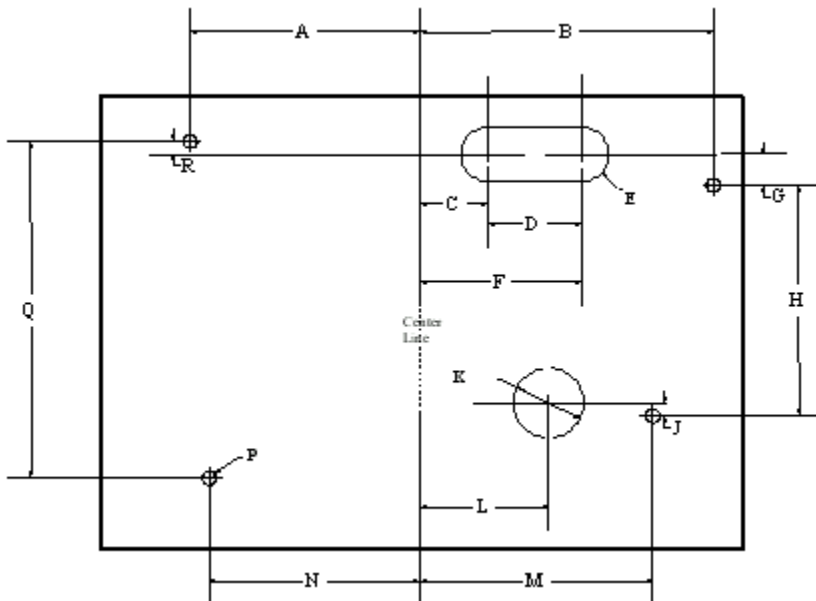


EVO® V8717		
Ref.	Measurement	
	Inches	Centimeters
A	8 ³ / ₁₆	20.80
B	9 ⁵ / ₈	24.45
C	2 ³ / ₄	6.99
D	3	7.62
E	2 x R ⁷ / ₈	2 x R 2.22
F	5 ³ / ₄	14.61
G	1	2.54
H	10 ⁷ / ₁₆	26.51
J	⁷ / ₁₆	1.11
K	3	7.62
L	3 ³ / ₄	9.53
M	8 ⁷ / ₃₂	20.88
N	7 ¹ / ₂	19.05
P	4 x ⁷ / ₁₆	4 x 1.11
Q	12 ⁷ / ₃₂	31.90
R	1	2.54



NOTE: Features and operations depend upon Main EPROM versions, Option Settings, and additional installed peripherals

FOOTPRINT - V8719



EVO® V8719		
Ref.	Measurement	
	Inches	Centimeters
A	8 ³ / ₁₆	20.80
B	9 ⁵ / ₈	24.45
C	2 ³ / ₄	6.99
D	3	7.62
E	2 x R ⁷ / ₈	2 x R 2.22
F	5 ³ / ₄	14.61
G	1	2.54
H	12 ²¹ / ₁₃₂	32.15
J	⁷ / ₁₆	1.11
K	3	7.62
L	3 ³ / ₄	9.53
M	8 ⁷ / ₃₂	20.88
N	7 ¹ / ₂	19.05
P	4 x ⁷ / ₁₆	4 x 1.11
Q	15 ⁹ / ₁₆	39.52
R	1	2.54

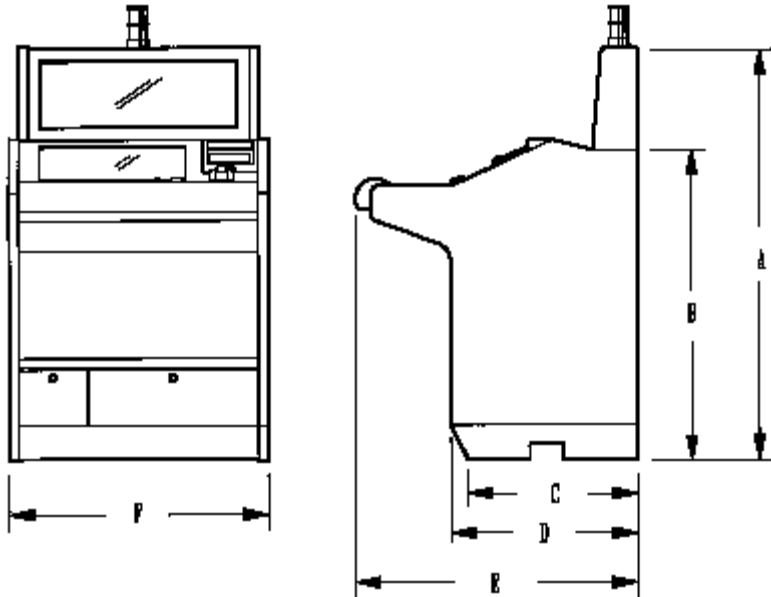
| - Revised, || - New



Specifications (cont.)

Physical Specifications (cont.)

EVO® SLANT



EVO® Slant "S" Style		
Ref.	Measurement	
	Inches	Centimeters
A	50 ⁷ / ₈ "	129.24 cm
B	39 ¹ / ₄ "	99.70 cm
C	20 ⁵ / ₈ "	52.39 cm
D	22 ¹ / ₈ "	56.20 cm
E	31 ³ / ₈ "	64.10 cm
F	28 ¹ / ₁₆ "	75.57 cm
Weight	345 lbs	156.49 kg

EVO® Slant "S Extended" Style		
Ref.	Measurement	
	Inches	Centimeters
A	53 ³ / ₈ "	135.57 cm
B	39 ¹ / ₄ "	99.70 cm
C	20 ⁵ / ₈ "	52.39 cm
D	22 ¹ / ₈ "	56.20 cm
E	31 ³ / ₈ "	64.10 cm
F	28 ¹ / ₁₆ "	75.57 cm
Weight	348 lbs	157.85 kg

Installing the Machine

Installation Check List

- Review environmental and power requirements
- Unpack and inspect machine
- Secure the machine to the stand or bar counter
- Install locks
- Setup
- SafeRAM™ Clear Procedure
- Set EE PROM options
- Set game options

Review Power and Environmental Requirements

Line power must provide an earth ground for safe operation. Do not overload the circuit. Consider no more than six machines at 110VAC for each 20 Amp circuit.

The EVO® radiates radio frequency energy. Although it complies with Subpart J and Part 15 of FCC regulations, use of the machine may interfere with radio communication.

Ensure ventilation is adequate for the number of machines in an area.

SETUP AND OPERATION

Unpack and Inspect Machine

Unpack and inspect the machine. If the machine is damaged, contact your Bally Gaming and Systems distributor or Customer Service representative for Return Merchandise Authorization (RMA) information.

Carefully unpack and remove all loose parts. Verify the power cord is properly routed out of the cabinet. Remove all packing materials and parts from the hopper or printer. Locate the included cloth bag of lock cams and mounting hardware.

Verify Specific Model Information (SMI) documentation before continuing installation. Secure the machine to the stand

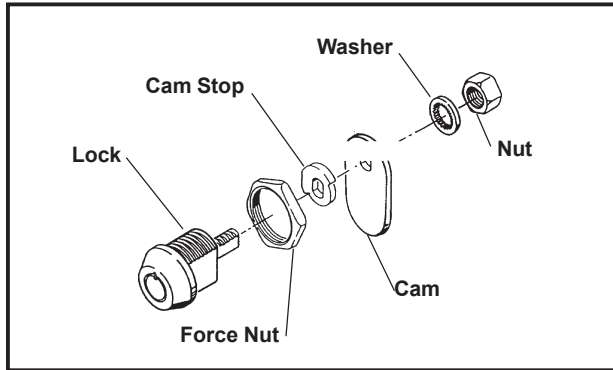
Remove the hopper. Mark the center of the stand. Drill the required mounting, drop chute, and power cord holes.

Use a lifting device to place the machine on the stand. Route the power cord where it will not be pinched, abraded, or otherwise damaged. Bolt the machine to the stand using all four mounting bolts provided. Inspect for loose connectors and verify all circuit boards are firmly seated.

Installing the Machine (cont.)

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 and Hardware for lock specifications.



Lock and Cam Assembly

Remove the large and small nuts from the keyed lock and insert the lock into the cabinet door opening. The notch on the lock face points upward. Secure the lock with the large nut. Place the cam stop on the lock cylinder. Attach the included lock cam to the back of the lock and verify it moves in the correct direction. Secure the lock cam with the washer and nut.

Setup

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

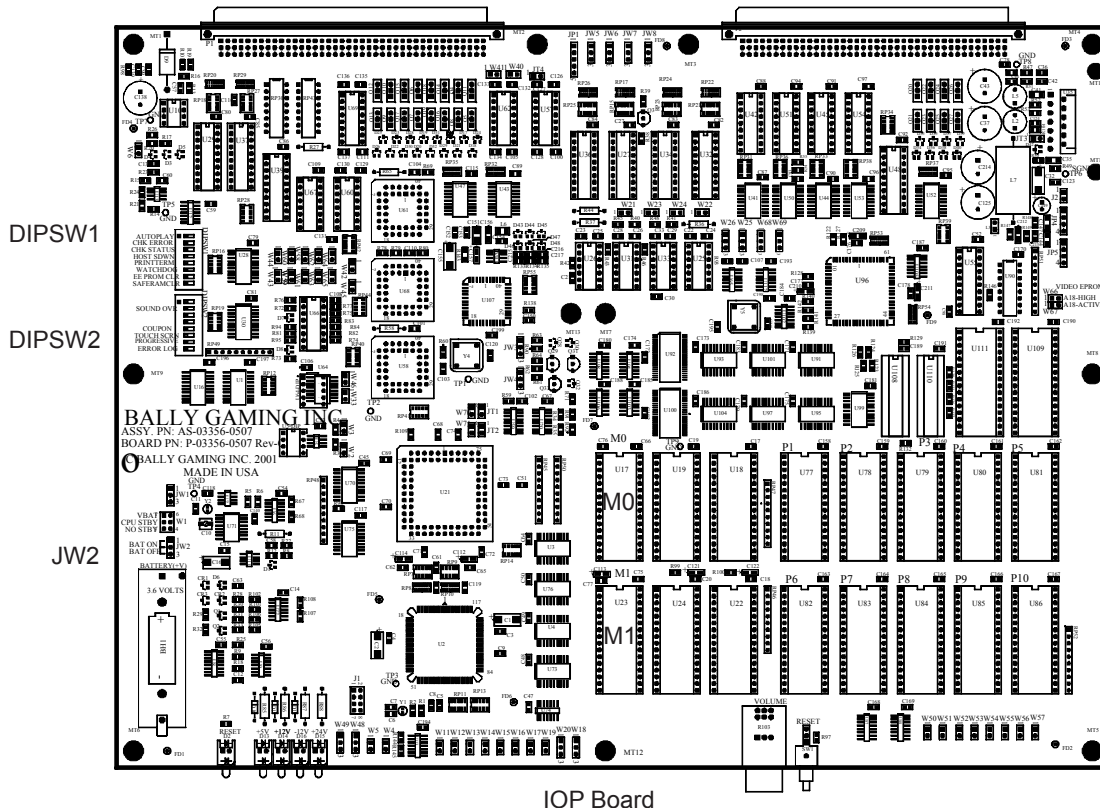
Battery Enable Procedure

The Lithium battery may be disabled for shipping or storage by having a nearby three-pin header labeled JW2 in the OFF position. It must be enabled by moving the two-pin Burg jumper to ON before the machine will operate.

DIP Switch Operation

Dual In-line Package (DIP) switches DIPSW1 and DIPSW2 operate according to the following table. Some selections require specialized firmware installed in EPROM socket U85.

Switch packages DIPSW1 and DIISW2				
Switch	DIPSW1		DIPSW2	
	Level	Description	Level	Description
1	ON	Autoplay	N/A	Reserved
2	ON	Ignore Checksum	ON	Deluxe Sound
3	ON	Show State Status	N/A	Reserved
4	ON	Host Override	ON	Enable 12 Button Deck
5	ON	Printer/Hopper Override	ON	Bill to Tray Option
6	ON	Watchdog Override	ON	Touchscreen Not Installed
7	ON	EE PROM Clear	ON	Enable Progressive Change
8	ON	SafeRAM™ Clear	ON	Show Error Log



IOP Board

| - Revised, || - New

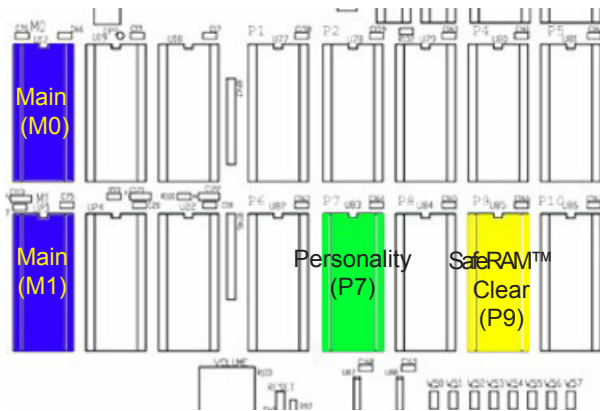


Setup (cont.)

| SafeRAM™ Clear Procedure

SafeRAM™ Clear Procedure refers to erasing information stored within battery-backed random access memory (RAM). A SafeRAM™ Clear Procedure is essential before the first use, when Main program EPROMs are replaced, or if game memory becomes corrupted.

For a SafeRAM™ Clear Procedure, locate DIPSW1 of the IOP board assembly and set switch 8 to ON. Some versions of Main programs require a EPROM labeled “V7S1000CLEAR-02” in socket U85 (P9).



EPROM Locations

Once ensuring that the IOP Assembly is firmly seated into the backplane board, turn the machine power ON. The message “SAFERAM CLEAR ENABLED” appears. Actuate the Audit Keyswitch to see the message “SAFERAM HAS BEEN ERASED. PLEASE KEYSWITCH TO CONTINUE.”

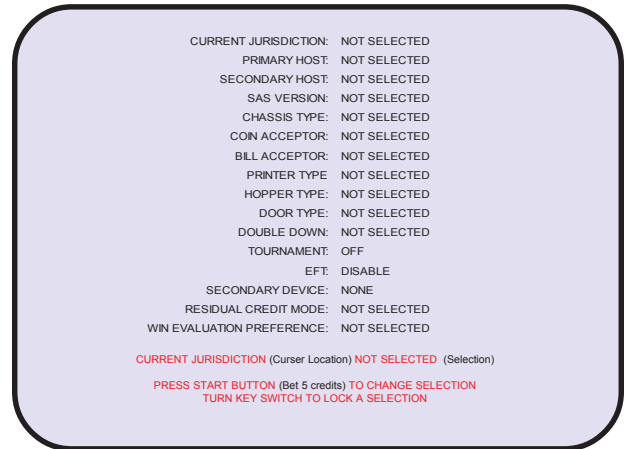
The screen then displays the settings for CURRENT JURISDICTION, PRIMARY AND SECONDARY HOST, SAS® VERSION, CHASSIS TYPE, COIN ACCEPTOR, BILL ACCEPTOR, PRINTER TYPE, HOPPER TYPE, DOOR TYPE, DOUBLE DOWN, TOURNAMENT, EFT, SECONDARY DEVICE, and RESIDUAL CREDIT MODE.

If the information is correct, follow the displayed instructions by turning power OFF, setting DIPSW1, switch 8 OFF, removing the CLEAR-02 EPROM from U85 if installed, and turning power ON.



Note: A single personality EPROM can only be installed in U83 (P7) for the machine to function.

Set EEPROM Options



EE PROM Selection

If the settings require change, actuate the Audit Keyswitch. Scroll through the available choices with DEAL/DRAW/START (OR BET 5 CREDITS). Confirm each choice with the keyswitch.

| Current Jurisdiction

Current Jurisdiction, or Market Code, designates specific operation according to the requirements of a gaming control agency. Some jurisdictions are preset at the factory. The following table lists current markets and jurisdictions:

Table of Market and Jurisdiction Settings			
Jurisdiction Setting	Market	Jurisdiction Setting	Market
Locked	VLC	8	Puerto Rico
1	Separate Drop and Bill Credits	9	Delaware
2 (Locked)	New Jersey	10	New Mexico
3 (Locked)	GLI	11	OLGC
4	International 50 Hz	12	Switzerland B Bet Limit 5.00
5	Combined Drop and Bill Credits	13	Switzerland A
6	Uruguay	14	USAF Win Limit 2000
7	South Africa	15	USAF



NOTE: Menu items vary by Market Code and Main firmware versions.

Setup (cont.)

Set EEPROM Options (cont.)

Primary Host / Secondary Host

A Primary Host and Secondary Host cannot both use the same protocol. A dual Host system must use a combination of SAS® (2.xx - 5.xx) and SDS®. PRIMARY HOST must be set prior to setting SECONDARY HOST.

SAS® Version

SAS® VERSION refers to the communication protocol that is compatible with the version of Slot Accounting System Host computer. The choices for SAS® VERSION are 2.83, 2.84, 3.11, 3.13, 4.00, 4.02 and 5.01.

Chassis Type

The choices for CHASSIS TYPE are UPRIGHT, BARTOP, or SLANT. The selection determines the graphical display of status information when the door is open.

Coin Acceptor

The choices for COIN ACCEPTOR are COIN ACCEPTOR ONLY, COIN ACCEPTOR AND COD BOARD, or NRI. COIN ACCEPTOR ONLY and COIN ACCEPTOR AND COD BOARD refer to the presence or absence of a Coin Optic Decoder Board (Bally part # AS-03356-0303).

NRI refers to the National Rejectors, Inc., brand of programmable coin acceptors.

Other brands of coin acceptors may be compatible if they conform to the size and electrical operation of these acceptors.

Bill Acceptor

The choices for BILL ACCEPTOR are NO BILL ACCEPTOR, JCM WBA, JCM DBV, GPT, ARDAC, and MARS SERIES 1100/1200.

JCM WBA refers to Japan Cash Machine's World Bill Acceptor.

JCM DBV selects a communication protocol compatible with Japan Cash Machine models DBV145, DBV146, CBA135, SRA135, or IBA135.

GPT selects a protocol for models developed by Global Payment Technologies.

ARDAC refers to the bill acceptor manufactured by ARDAC, Inc.

|| MARS refers to the 1100/1200 and series acceptors manufactured by Mars Electronics International. It is also the correct setting for the Cashflow™ SC6600.

| - Revised, || - New

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|| Printer Type

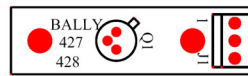
The EVO® will support thermal printers manufactured by Seiko Instruments, Inc., and Transact Technologies, Inc. The choices are SEIKO PRINTER, ITHAKA 800 PRINTER, or NONE. Select one choice to match the hardware installed in the machine.

Hopper Type

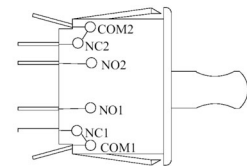
The choices for HOPPER TYPE are COIN or NONE. Select COIN if the machine has a coin-dispensing hopper.

Door Type

The choices for DOOR TYPE are MECHANICAL or PULSED OPTIC. The selections refer to the sensing device used to detect the opening of the Main Door.



Optic Switch



Mechanical Switch

Main Door Switches

Double Down

DOUBLE DOWN is EITHER ON or OFF. If ON, the feature can be configured in the CONFIGURATION sub menu for the game so that a Player has an opportunity to increase the total win from a winning combination.

Tournament

TOURNAMENT is either ON or OFF. If ON, the opportunity to enable and configure this feature is available under the CONFIGURATION sub menu.

EFT (Electronic Funds Transfer)

The choices for EFT are ENABLE or DISABLE. If enabled, credits can be added to the machine from a remote location by the accounting system Host computer.

Secondary Device

The choices for SECONDARY DEVICE are BALLY or ANCHOR. The choices refer to the manufacturer of the peripheral device.

Setup (cont.)

Set EEPROM Options (cont.)

|| Residual Credit Mode

Residual credits occur when the value of a credit is different from the value of a coin accepted or dispensed from the machine. If the value of a remaining credits are less than the value of a coin from the hopper, the remaining credits are resolved by the following choices: NO GAMBLE AND NO ATTENDANT PAY, ATTENDANT PAY ONLY, GAMBLE ONLY, OR GAMBLE OR ATTENDANT PAY.

- The NO GAMBLE AND NO ATTENDANT PAY setting forces a Player to continue playing until either the remaining credits equal zero; or they equal the exact value of a coin from the hopper.
- ATTENDANT PAY ONLY requires an Attendant to remove the remaining credits from the machine by turning the Audit key switch and paying the Player.
- GAMBLE ONLY enables a post game where all residual credits are wagered on a win-lose outcome. A win results in a coin from the hopper. A loss zeros the remaining credits. A Player's chance of winning a coin is proportional to the residual credits wagered:

If a credit is 1/10th of a hopper coin, gambling one credit offers a Player a one-in-ten or 10% chance of receiving a coin.

However, if nine residual credits are left, the Player has a 90% chance of receiving a coin for the residual credits.

- GAMBLE OR ATTENDANT PAY provides the Player with all options for resolving residual credits.

|| Win Evaluation Preference

The choices for WIN EVALUATION PREFERENCE are OHWP/PLS or LEGACY. If multiple progressive jackpots are available for the Player, the machine can be configured to award the largest of multiple eligible amounts. For example, a straight flush progressive win will be awarded for a royal flush if the straight flush progressive amount is larger than the progressive amount for the royal flush.

To enable the feature, set EVALUATION PREFERENCE to OHWP/PLS. To establish progressive levels that remain fixed at the associated win level, set the feature to LEGACY.

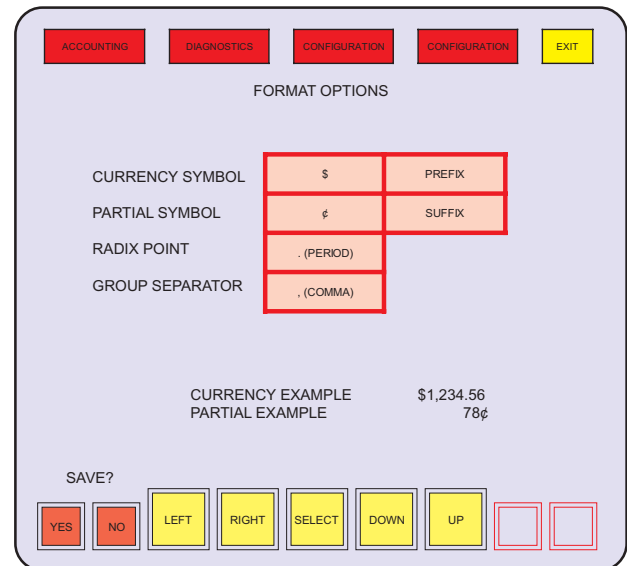
One-time configuration after a SafeRAM™ Clear

Following a SafeRAM™ Clear, on-screen instruction state that the DIP switches must be reset and special EPROMs, if installed, removed.

Touch Screen Calibration

After a successful SafeRAM™ Clear procedure, the EVO® program automatically enters the CAL TOUCH SCREEN sub menu of the DIAGNOSTICS menu. Follow the on-screen instructions for Hardware and Software Calibration.

Currency Format Selection



Currency Format Selection

Following the calibration of the touch screen, the EVO® initialization process requires a setting for how the bookkeeping records show monetary information. The items can be selected only once. A SafeRAM™ Clear Procedure is required to change the selection once it is set and saved.

Selecting TOKEN OR NONE will have bookkeeping records reflect credits (integers) instead of monetary (decimal) values. For example, **.25 NONE** selection will show "4" in a bookkeeping meter to reflect \$1 worth of credits. **.25** and **\$** will show "1.00" for the same value.

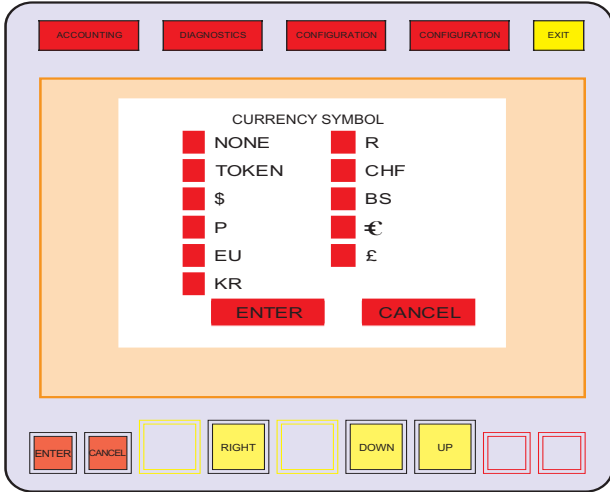
Touch the currency symbol icon in the menu to display the available symbols.

Setup (cont.)

One-time Configuration After a SafeRAM™ Clear (cont.)

Currency Format Selection (cont.)

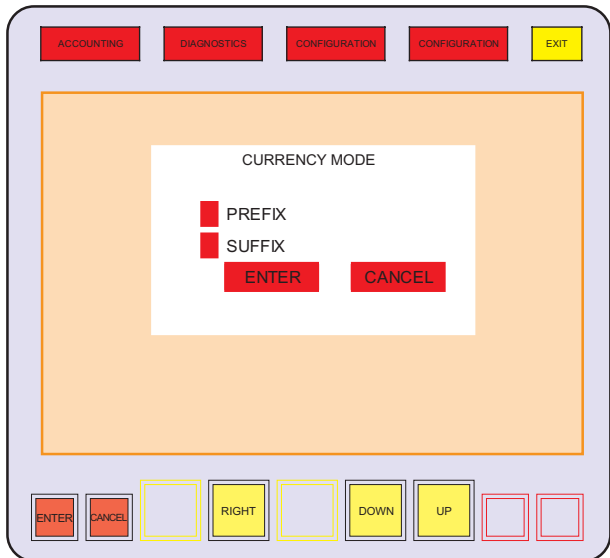
Currency Symbol



Currency Symbol

Select the currency symbol by touching the icon beside it. Then press enter to return to the format options menu.

Currency Mode

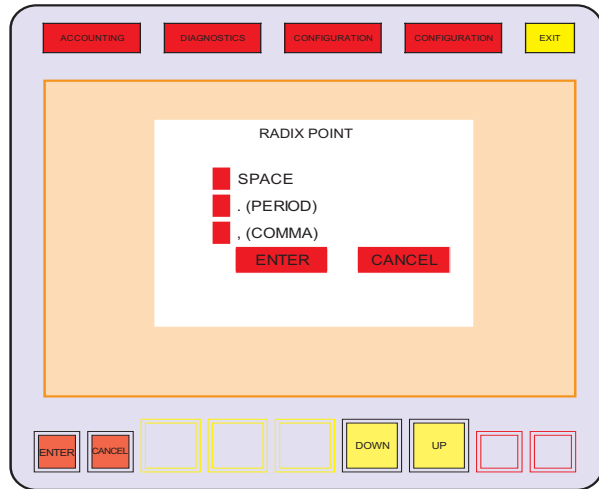


Currency Mode (Suffix/Prefix Selection)

The selected symbol can appear as a prefix or suffix. Touch the suffix text icon to enter the currency mode menu. Touch the suffix or prefix icon, then touch ENTER to return to the format options menu.

| - Revised, || - New

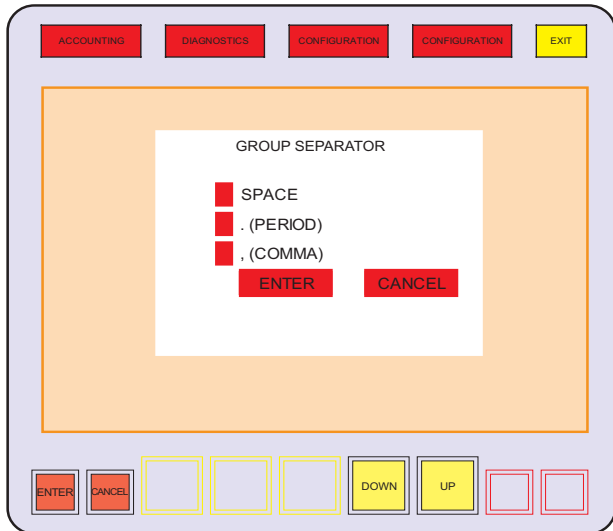
Radix Point



Radix Point

The radix point for values can be configured. Touch the radix point icon to enter the radix point selection menu. Touch the icon beside the text, then touch ENTER to return to the format options menu.

Group Separator



Group Separator

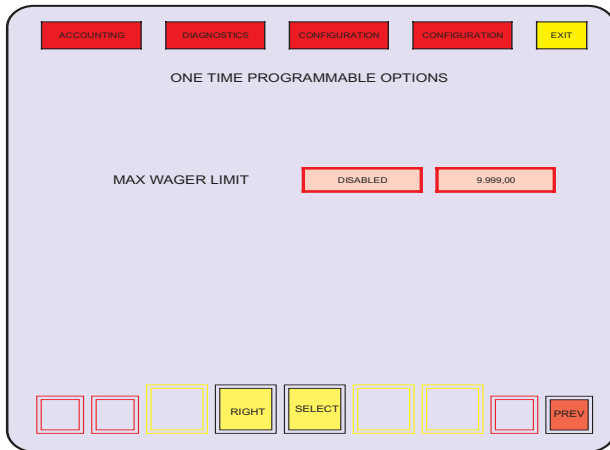
The punctuation separating groups of digits can be configured. Touch the group separator icon showing the current selection to enter the group separator selection menu. Touch the icon beside the text of the separator, then touch ENTER to return to the format options menu.

Setup (cont.)

One-time configuration after a SafeRAM™ Clear (cont.)

Currency Format Selection (cont.)

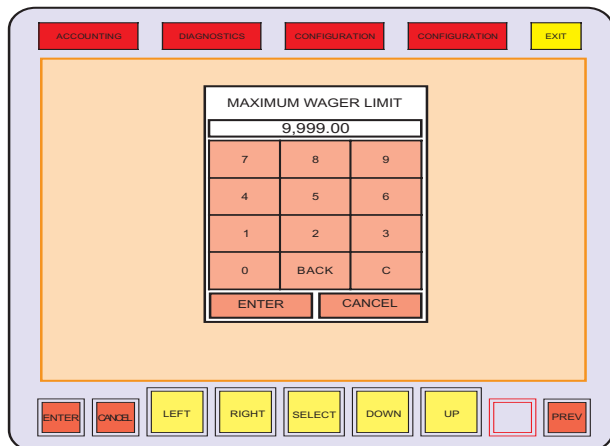
|| Maximum Wager Limit



Maximum Wager Limit

An opportunity is presented to limit the amount of a single wager. The setting will supersede other menus for maximum wager settings. Touch the **DISABLED** text to enable. Touch the current value to invoke a keypad to enter the maximum wager value.

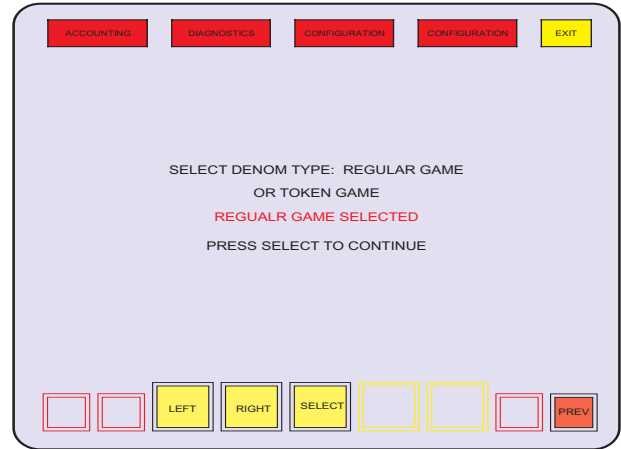
Setting the Maximum Wager Value



Setting the Maximum Wager Limit

Touch **C** to erase the default setting. Touch the numbers and enter to set the maximum wager limit.

Denom Type (Credits per Coin Setup) ||

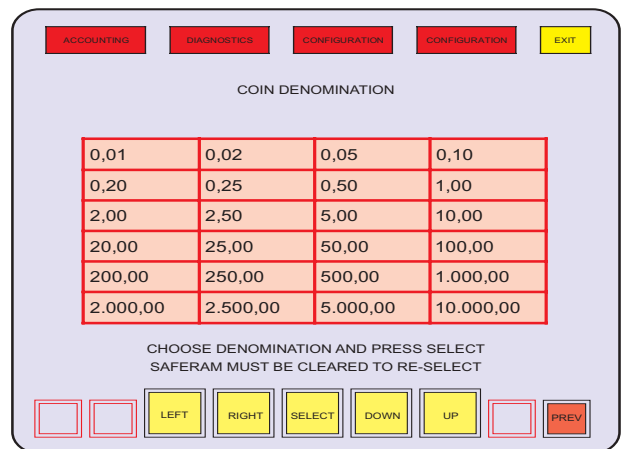


Credits per Coin Setup

The machine can be configured to apply multiple credits for each coin in through the coin acceptor and out through the coin hopper. **REGULAR GAME** associates one credit per coin. **TOKEN GAME** allows one coin to equal multiple credits for accepted coins through the coin acceptor and dispensed coins by the hopper.

Touch **LEFT** or **RIGHT** to toggle choice, then touch **SELECT**. Touch **YES** to confirm and save selection.

Denomination



Coin Denomination

The selection for Coin Denomination is the value of a coin accepted by the coin acceptor and dispensed by the hopper. Touch the value of the coin where it appears in the menu, then touch **SELECT**. Confirm by touching **YES** when asked to save changes.

Setup (cont.)

One-time configuration after a SafeRAM™ Clear (cont.)

|| Multiple Credit Configuration

TOKEN CREDIT SETUP

COIN DENOMINATION (setting)
SELECT A CREDIT DENOMINATION TO USE FOR ALL GAMES

0,01	0,02	0,05	0,10
0,20	0,25	0,50	1,00
2,00	2,50	5,00	10,00
20,00	25,00	50,00	100,00

Token Credit Setup

If **TOKEN GAME** was selected to accumulate multiple credits for each coin through the coin acceptor, an opportunity is presented to select the value of each credit.

Touch the value of a credit where it is presented in the menu, then touch **SAVE**.

Bill Acceptor

PLEASE SELECT THE BILL ACCEPTOR COUNTRY

UNIVERSAL 1	CHANNEL 1	10
UNIVERSAL 2	CHANNEL 2	25
UNIVERSAL 3	CHANNEL 3	50
UNIVERSAL 4	CHANNEL 4	100
UNIVERSAL 5	CHANNEL 5	200
UNIVERSAL 6	CHANNEL 6	500
UNIVERSAL 7	CHANNEL 7	1000
	CHANNEL 8	2000
	CHANNEL 9	NONE

Bill Acceptor Country

|| Bill denominations accepted must match assignments established in the machine's bill acceptor. There is only one correct setting. Individual bill acceptance or rejection may be selected by switches in the bill acceptor.

Touch the text icon of a table to view a list of bill denominations and channels.

Touch **SELECT**. Confirm the selection by touching **yes** to save. Advance to the next menu by touching **PREV**.

| - Revised, || - New

The following table lists the available channel assignments:

Bill Acceptor Channel Assignments Table									
Group	Channel								
	1	2	3	4	5	6	7	8	9
Universal 1	1	2	5	10	20	50	100	200	500
Universal 2		100							
Universal 3	100	200	500	1000	2000	5000	10000	20000	
Universal 4	10	20	50	100	200	500	1000	5000	100000
Universal 5	1000	2000	5000	10000	20000	50000	100000		
Universal 6	1	5	10	20					
Universal 7	10	25	50	100	250	500	1000	2000	

Enabled
Disabled



WARNING: Setting a group that is incompatible with the software in the bill acceptor may cause the machine to accumulate an incorrect number of credits for the bills accepted.

Maximum and Minimum Wager

MAX WAGER:

		MAX BET SETTINGS	MIN BET SETTINGS	MAX WAGER CEILING
1	NO GAME	0	0	0
2	NO GAME	0	0	0
3	NO GAME	0	0	0
4	NO GAME	0	0	0
5	NO GAME	0	0	0
6	NO GAME	0	0	0
7	NO GAME	0	0	0
8	PLAYBOY	45	1	45
9	NO GAME	0	0	0
10	NO GAME	0	0	0

SAFERAM MUST BE CLEARED TO RE-SELECT

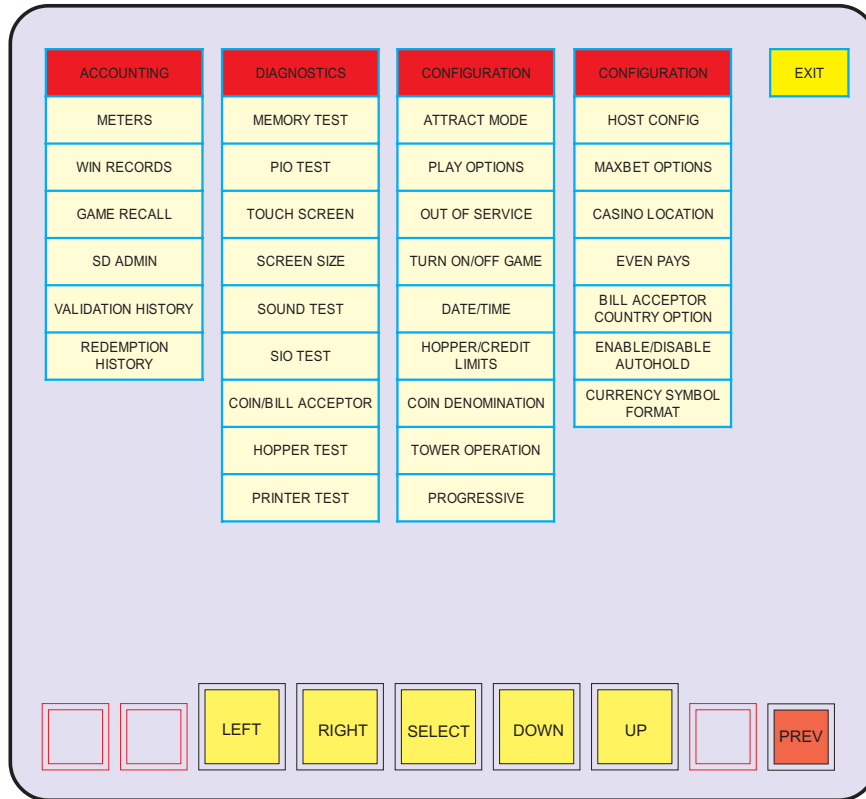
Adjustable Wager

Some games include the ability to adjust wager settings. Changeable settings appear red in the menu. If a maximum wager limit was enabled, the limit appears on screen and constrains the parameters that can be set for the game (see Maximum Wager Limit earlier in this section).

Touch **SELECT** to enter the value. The selection must be confirmed by touching **SAVE**.



Audit Key Menu



Audit Key Menu

The Audit Key Menu displays all electronic accounting, diagnostic, and game configuration selections. It consists of three sub menus: ACCOUNTING, DIAGNOSTICS, and CONFIGURATION.

Only ACCOUNTING is accessible with the Main Door closed. To view the complete Audit Key Menu, open the Main Door or Deck, and actuate the Audit Keyswitch.

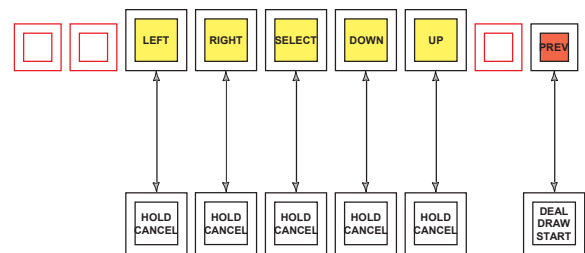
The EVO® responds to selections by touching the icon or menu representing the selection. The choice activates when the finger lifts from the touch screen.

Another way to select is to use the icons at the bottom of the screen. Activating these icons directs a highlighted box cursor to a location or activates the choice.

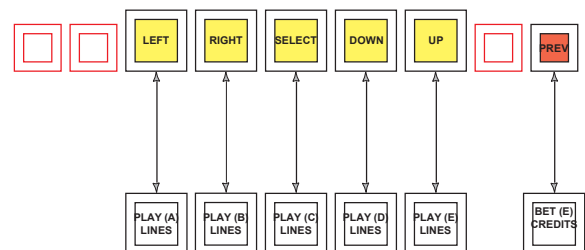
The icons are:

- LEFT moves highlight one column left.
- RIGHT moves highlight one column right.
- SELECT activates the selection at the cursor.
- DOWN moves highlight down within column
- UP moves highlight up within column

A third way to select is to use the deck buttons. For each icon there is an associated illuminated deck button.



10-Button Deck Buttons and Icons

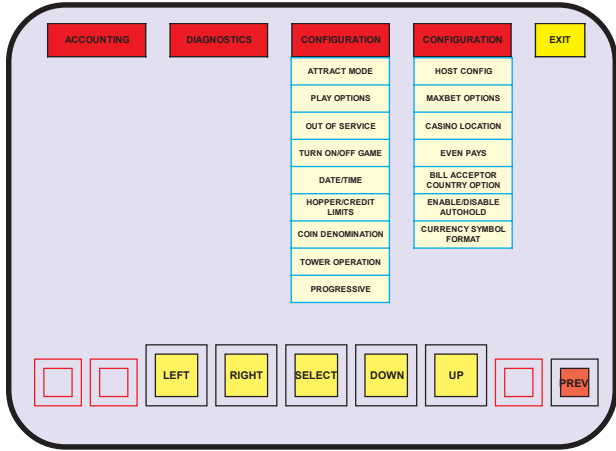


12-Button Deck Buttons and Icons

Configuration

Configuration Sub Menu

CONFIGURATION

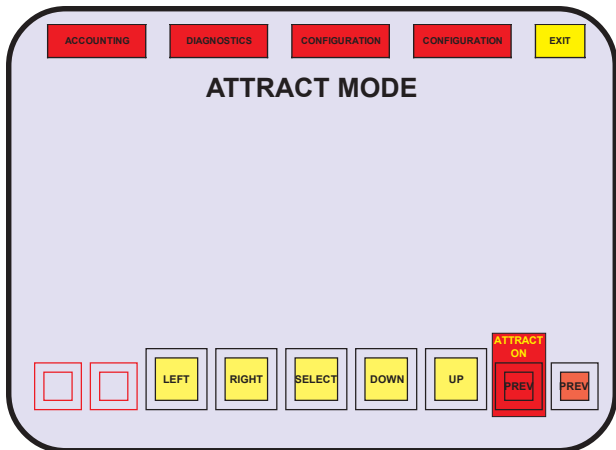


Configuration Sub Menu

The CONFIGURATION sub menu provides access to ATTRACT MODE, PLAY OPTIONS, OUT OF SERVICE, TURN ON/OFF GAME, DATE/TIME, HOPPER/CREDIT LIMITS, COIN DENOMINATION, TOWER OPERATION, PROGRESSIVE, HOST CONFIG, MAXBET OPTIONS, CASINO LOCATION, EVEN PAYS, BILL ACCEPTOR COUNTRY OPTION, ENABLE/DISABLE AUTOHOLD, and CURRENCY SYMBOL FORMAT.

Attract Mode

ATTRACT MODE



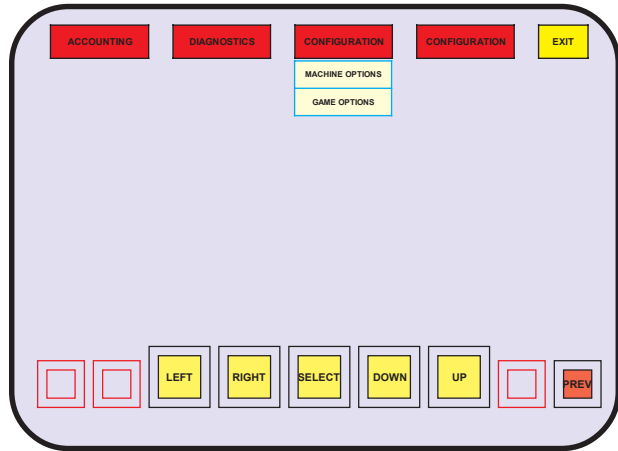
Attract Mode

The attract feature can be turned ON or OFF. If the feature is ON, the EVO® displays an attract feature after two minutes of inactivity with no credits.

Attract feature varies with installed personality.

PLAY OPTIONS

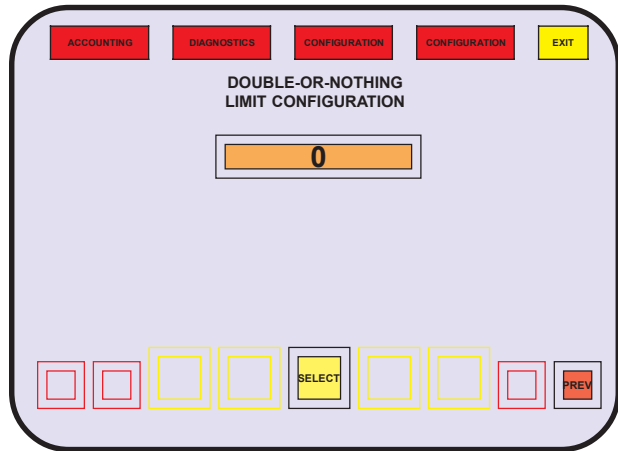
PLAY OPTIONS ||



Play Options

Selecting play options presents additional sub menus. The items presented depend upon the Personalities installed.

Machine Options Double-or-Nothing



Machine Options—Double-or-Nothing

The machine options sub menu presents an opportunity to set the maximum limit where a double-or-nothing opportunity will be presented to a Player. Touch the current setting (0) to enable a keypad to set the double-or-nothing limit.

Configuration (cont.)

Configuration Sub Menu (cont.)

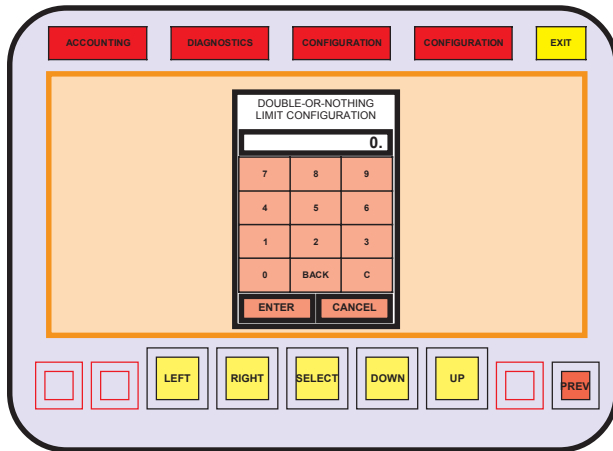
CONFIGURATION

Play Options (cont.)

PLAY OPTIONS

Machine Options

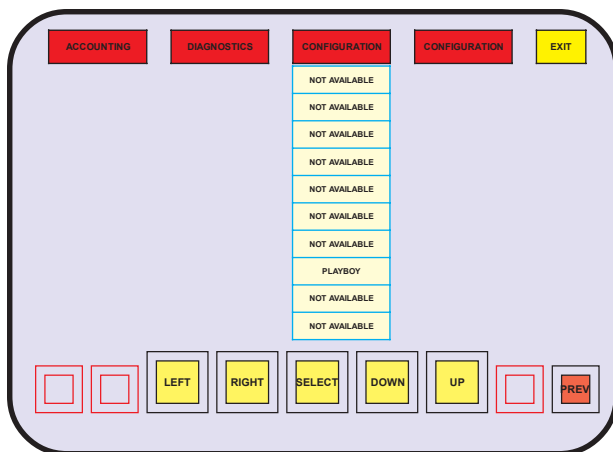
Double-or-Nothing (cont.)



Double-or-Nothing Limit Configuration

Touching the double-or-nothing limit icon presents a keypad to enter the value. If a win would exceed the setting, the opportunity to double will not be offered to the Player.

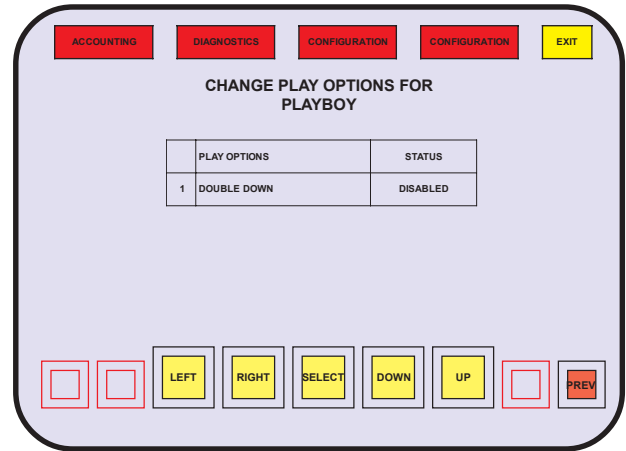
Game Options



Game Options

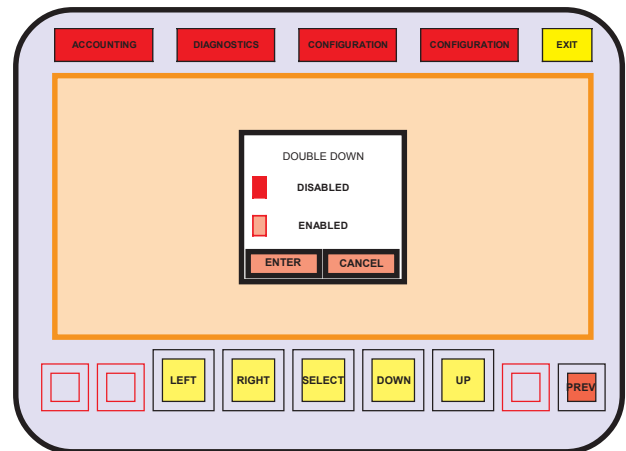
Selecting game options from the play options sub menu presents a list of installed games. Touch the game's text icon to enter the change game options sub menu.

Change Play Options



Change Play Options

The change play options sub menu allows enabling of the double-or-nothing feature for the installed game. Touch the disable/enable icon to present an opportunity to toggle the status.



Double-or-Nothing Enable

Touch the icon beside the enabled text to turn on the double-or-nothing feature for the installed game.

Out of Service

OUT OF SERVICE

A machine can be removed from service without switching power OFF. When removed from service, the machine will display "GAME DISABLED—OUT OF SERVICE" until it is placed back into service.

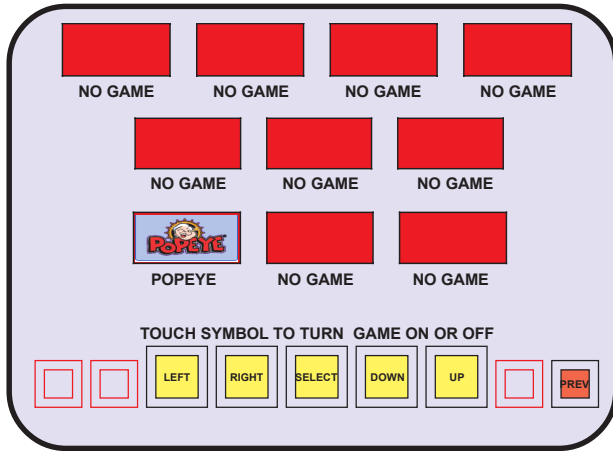
Configuration (cont.)

Configuration Sub Menu (cont.)

CONFIGURATION

TURN ON/OFF GAME

TURN ON/OFF GAME

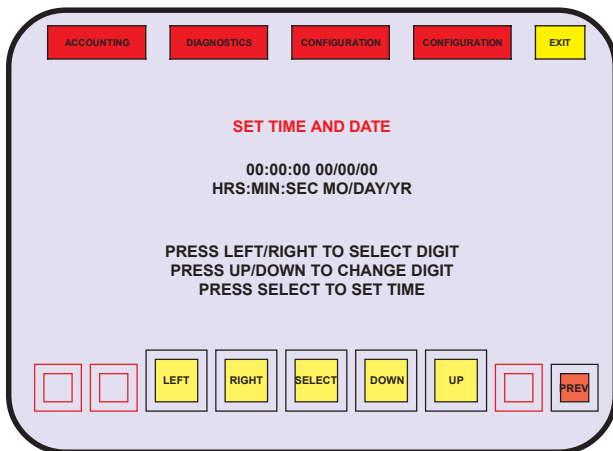


Turn ON/OFF Games

A game can be removed from operation without affecting bookkeeping records or the other installed games. Select the desired game's icon. The icon becomes shaded, indicating the game is disabled and removed from the Game Menu. Select the icon again to enable the game.

DATE/TIME

DATE/TIME



Date and Time

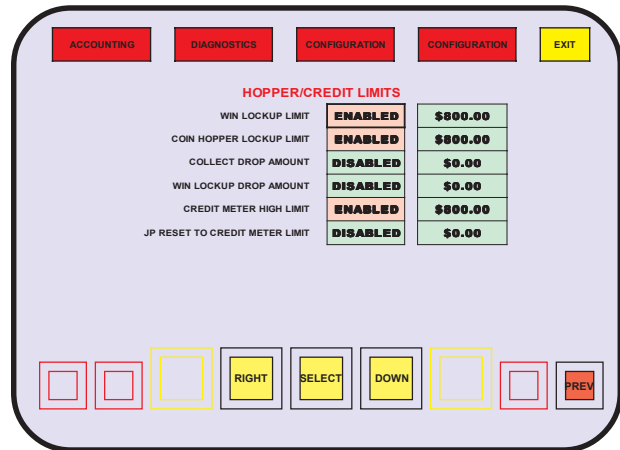
Game Recall and other records include a time and date stamp. The correct settings ensure accurate reconciliation when reviewing the records.

Enter the time in 24-hour format (HH:MM:SS). Enter the date as month, day, and last two digits of the year (MM:DD:YY). Example: January 31, 1999 at 4 P.M. is 16:00:00 01/31/99. After entering the time and date, use the SELECT icon to save the settings.

| - Revised, || - New

HOPPER/CREDIT LIMITS

HOPPER/CREDIT LIMITS



Hopper Payout and Credit Meter Limits

The HOPPER/CREDIT LIMITS sub menu accesses configuration of the automated payout operation of the machine. Values can be entered for the partial payment of a win or collect lockup, the win or collect amount that causes a lockup, and the highest value of credits the machine will accumulate for a Player.

Also configured from the sub menu is the amount of a win lockup that an Attendant or system Host can release and transfer to available credits.

- WIN LOCKUP LIMIT - Value of credits of a single winning combination that, when exceeded, will cause a win lockup (jackpot).
- COIN HOPPER LOCKUP LIMIT - The number of credits, if exceeded, upon cashout that will cause a collect lockup.
- COLLECT DROP AMOUNT - The number of credits as coins paid from a coin hopper upon a collect lockup.
- WIN LOCKUP DROP AMOUNT - The number of credits as coins paid from a coin hopper upon a win lockup.
- CREDIT METER HIGH LIMIT - The maximum number of credits that will accumulate for a Player.
- JP RESET TO CREDIT METER LIMIT - The maximum that can be transferred to available credits by an Attendant or system Host upon a win lockup.



NOTE: The win lockup release feature must be enabled in the Host Configuration sub menu.



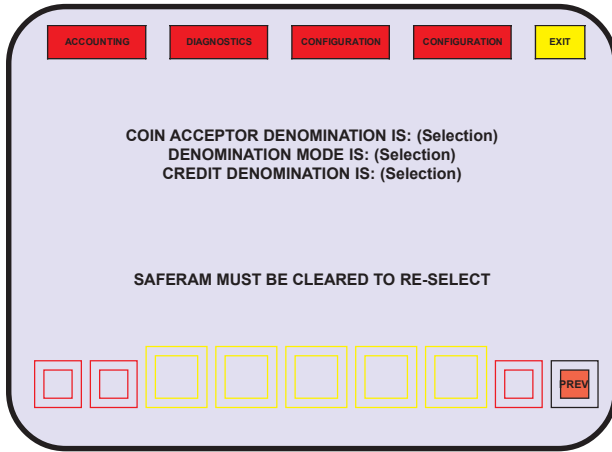
Configuration (cont.)

Configuration Sub Menu (cont.)

CONFIGURATION

COIN DENOMINATION (View Only)

COIN DENOMINATION

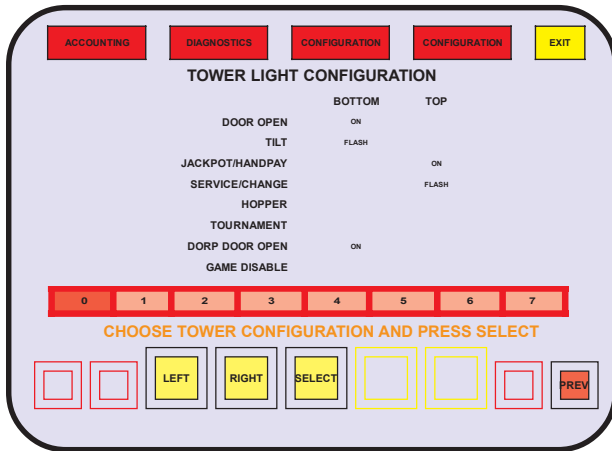


Coin Denomination (Information Only)

Machine denomination is set once after a SaferAM™ Clear. The current selection can be viewed by selecting COIN DENOMINATION.

TOWER OPERATION

TOWER OPERATION



Tower Light Configuration

The EVO® can supports two-, three-, and four-tier towers. Use the numbered icons to display the available tower light operation. Use SELECT to choose the operation. "SAVE?" appears at the lower left of the screen. Touch YES to save the selected tower configuration.



Note: Some Market Code settings will automatically configure and lock the Tower Light settings.

TOWER LIGHT OPERATION			
Tower Lights	Setting	Function	Tower Display
2-Light	0	Door (s)	Bottom On
		Tilt	Bottom Flashing
		Jackpot	Top On
		Service	Top Flashing
		Hopper Pay	Not Applicable
		Drop Door	Bottom On
		Game Disabled	Not Applicable
3-Light	1	Paper Low	Top Slow Flash
		Door (s)	Bottom, Middle and Top Flashing
		Tilt	Bottom Flashing
		Jackpot	Top Flashing
		Service	Middle Flashing
		Hopper Pay	Not Applicable
		Drop Door	Bottom, Middle, and TopFlashing
4-Light	2	Game Disabled	Not Applicable
		Paper Low	Middle Slow Flash
		Door (s)	Bottom On
		Tilt	Top Flashing
		Jackpot	4th Light (light above top light) On
		Service	Middle Flashing
		Hopper Pay	Not Applicable
2-Light	3	Drop Door	Bottom On
		Game Disabled	Not Applicable
		Paper Low	Middle Slow Flash
		Door (s)	Bottom On
		Tilt	Bottom Flashing
		Jackpot	Top On
		Service	Top Flashing
3-Light	4	Hopper Pay	Top On
		Drop Door	Bottom On
		Game Disabled	Not Applicable
		Paper Low	Top Slow Flash
		Door (s)	Bottom On
		Tilt	Middle Flashing
		Jackpot	Top Flashing
3-Light	5	Service	Bottom Flashing
		Hopper Pay	Not Applicable
		Drop Door	Bottom On
		Game Disabled	Not Applicable
		Paper Low	Bottom Slow Flash
		Door (s)	Middle Flashing
		Tilt	Middle On
2-Light	6	Jackpot	Top Flashing
		Service	Top On
		Hopper Pay	Not Applicable
		Drop Door	Bottom Fast-Flash
		Game Disabled	Top and Bottom On
		Paper Low	Bottom Slow Flash
		Door (s)	Bottom Flashing
2-Light	7	Paper Low	Not Applicable
		Door (s)	Bottom Flash
		Tilt	Top Slow-Flash
		Jackpot	Top Bottom Slow-Flash
		Service	Top On
		Hopper Pay	Not Applicable
		Drop Door	Bottom Fast-Flash

Configuration (cont.)

Configuration Sub Menu (cont.)

CONFIGURATION

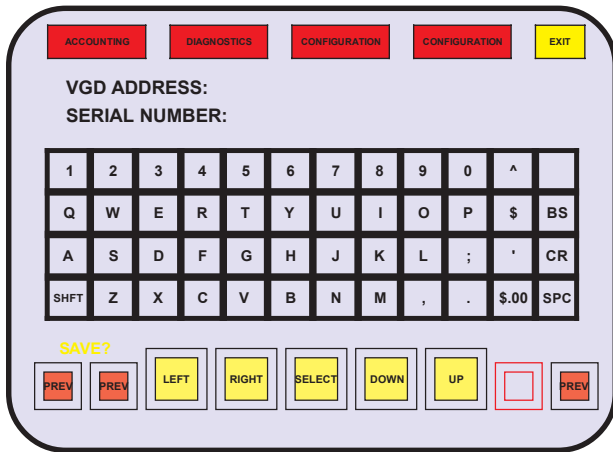
PROGRESSIVE

PROGRESSIVE

The EVO® can interface with external progressive controllers. It also has 25 independent internal single-level controllers that can be distributed among the games. Each controller can be independently configured for a progressive jackpot or merchandise award; with standard or “Mystery” operation. For more information about progressive operation, see Module 7 Progressive Operation.

Host CONFIG

HOST CONFIG



Host Configuration

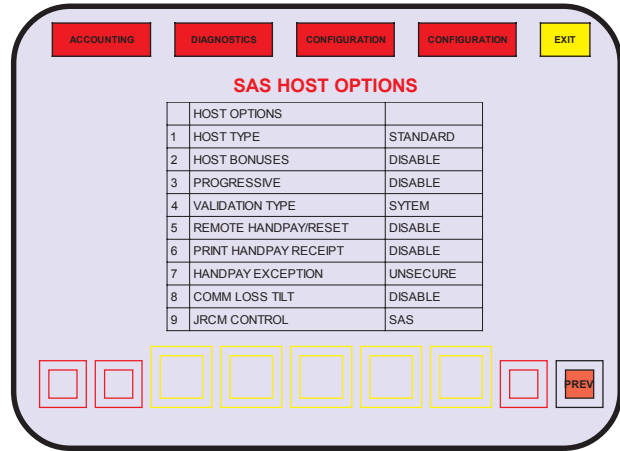
Some versions of Main programs support SAS® protocol for system Host communication. The terminal information must be configured before communications begin. Until the terminal is configured, the machine remains in “Demo Mode.”

VGD ADDRESS will accept any number from 1 to 127. Consult the Host’s documentation for the appropriate setting. Some systems require the address to be 1. CR (carriage return) will enter the selection and advance to the next item: serial number.

The SERIAL NUMBER can be any six digit number. It can be used to identify the machine on the system.

CR (carriage return will enter the selection and automatically advance to SAS HOST OPTIONS sub menu.

SAS Host Options

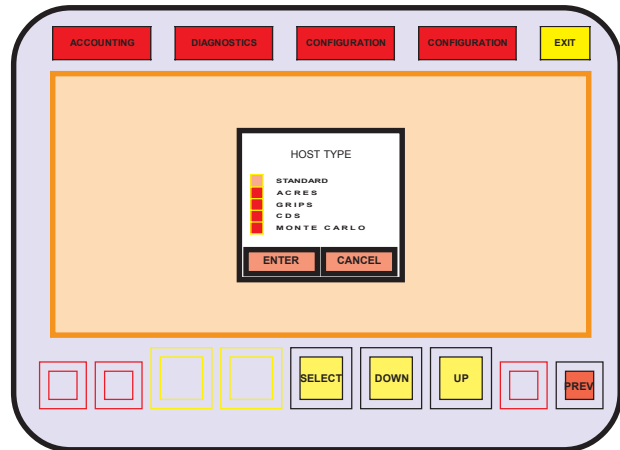


SAS Host Options

HOST OPTIONS		
1	HOST TYPE	STANDARD
2	HOST BONUSES	DISABLE
3	PROGRESSIVE	DISABLE
4	VALIDATION TYPE	SYSTEM
5	REMOTE HANDPAY/RESET	DISABLE
6	PRINT HANDPAY RECEIPT	DISABLE
7	HANDPAY EXCEPTION	UNSECURE
8	COMM LOSS TILT	DISABLE
9	JRCM CONTROL	SAS

Upon entering VGD ADDRESS and SERIAL NUMBER, an opportunity to configure protocol features is presented. Touch the text of the Host option or the status to enter a configuration sub menu for the item.

Host Type



Host Type

Hosts from some gaming equipment manufacturers vary the implementation of the SAS® protocol. The Host Type sub menu allows the selection of the operation by touching the icon beside the manufacturer of the Host.



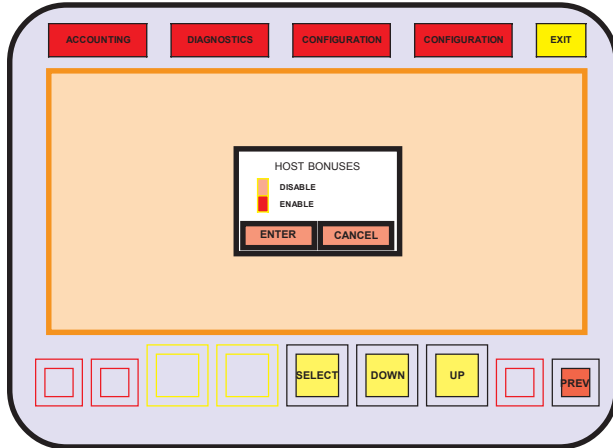
Configuration (cont.)

Configuration Sub Menu (cont.) Host Config (cont.)

CONFIGURATION

HOST CONFIG

Host Bonuses and Progressive



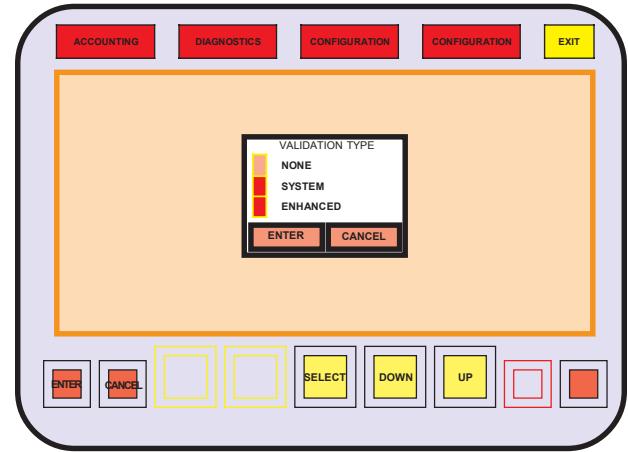
Enable/Disable

The SAS® protocol provides the capability for a Host to control award functions that usually require additional external bonus controllers or progressive jackpot controllers.

If the features are enabled in the Host and the machine, the Host can award additional credits to a Player, independent of the machine's paytable. Also, the Host can maintain a progressive jackpot, and award the jackpot to a winning Player's machine.

Touching the text of the status of the feature activates a sub menu to change the enable or disable state.

Validation Type



Validation Type

The SAS® protocol provides a method to verify vouchers and coupons presented by a Player for wager or payment; and Host validation of payments made by an Attendant.

SYSTEM

System validation allows the host to provide a 16-digit validation number, a system ID and sequence number.

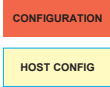
ENHANCED

The machine generates a 16-digit validation number. The machine will disable until an ID and starting sequence number has been configured by the Host. Enhanced validation also allows the machine to validate Attendant payments where no receipt is printed.

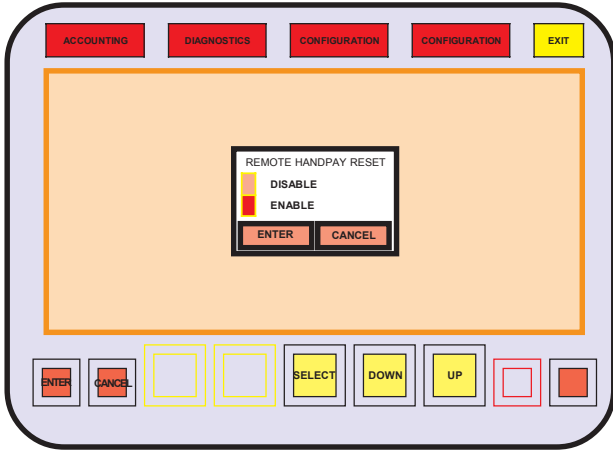
Configuration (cont.)

Handpay Exception

Configuration Sub Menu (cont.) Host Config (cont.)



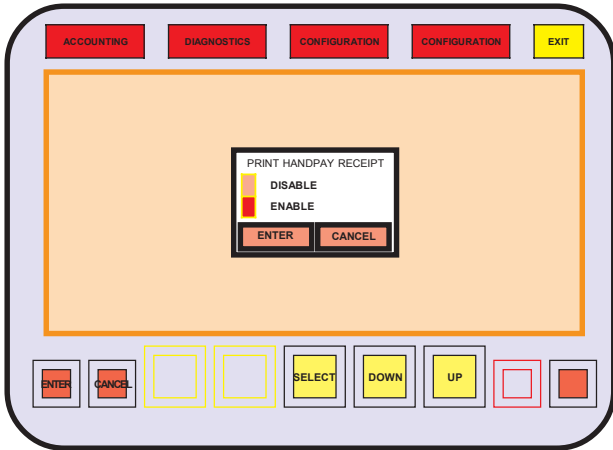
Remote Handpay Reset



Remote Handpay Reset

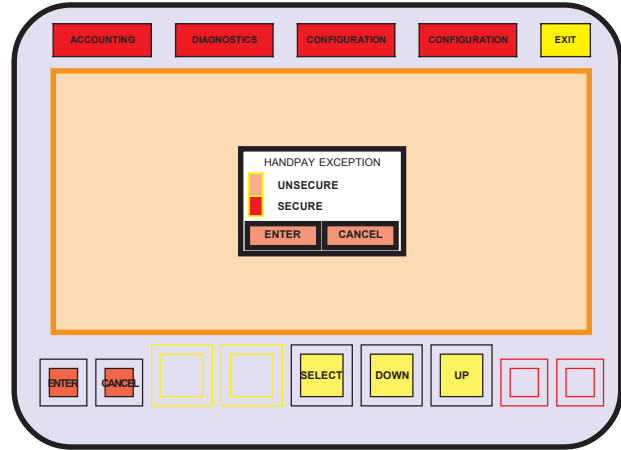
If provided by the Host, a machine can be configured to allow a win lockup or credit collect lockup to be released automatically by the Host rather than by an Attendant turning a key switch.

Print Handpay Receipt



Print Handpay Receipt

If the machine has a printer, it can be configured to print a record of each payment to a Player by an Attendant



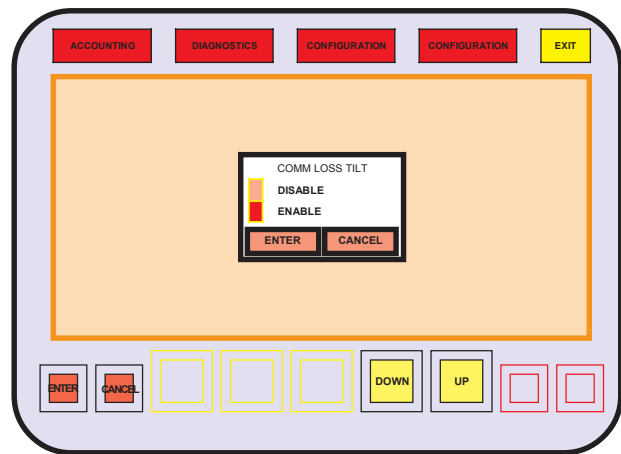
Handpay Exception

The machine can be configured to be compatible with SAS® protocol requirements for a win or credit collect lockup. Upon a lockup, the Host is signaled. It is signaled again when an Attendant releases the lockup.

If the option is set to UNSECURE, the information about the lockup is removed from the buffer after the actuation of the keyswitch. If there is communication failure between the machine and the Host, the information could be lost by the Host.

With the option set to SECURE, the machine will store up to five lockup events and continue to signal the Host and respond with information until the queue is empty.

Communication Loss Tilt



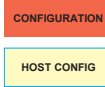
Communication Loss

The machine can be configured to disable itself if communication is lost between the machine and the Host.

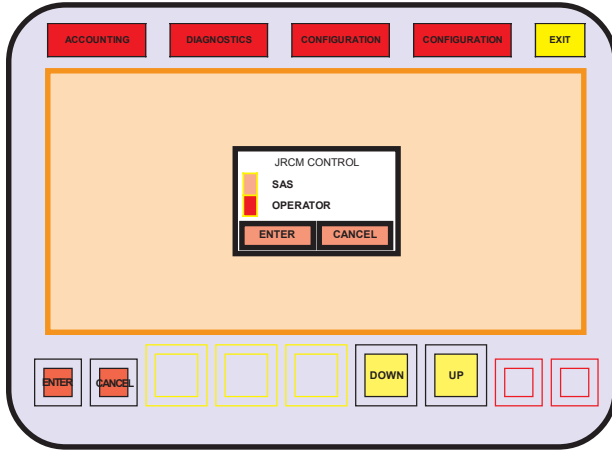


Configuration (cont.)

Configuration Sub Menu (cont.) Host Config (cont.)



JRCM Control



JRCM Control

The machine can be configured to release win lockups and accumulate the credits in the credit display rather than have the credits cancelled and paid by an Attendant.

SAS

A win lockup that falls within parameters set in the HOPPER/CREDIT LIMITS sub menu, will accumulate as credits upon actuation of a second keyswitch by an Attendant. The Audit keyswitch will be disabled and not allow the credits to be cancelled and paid by the Attendant.

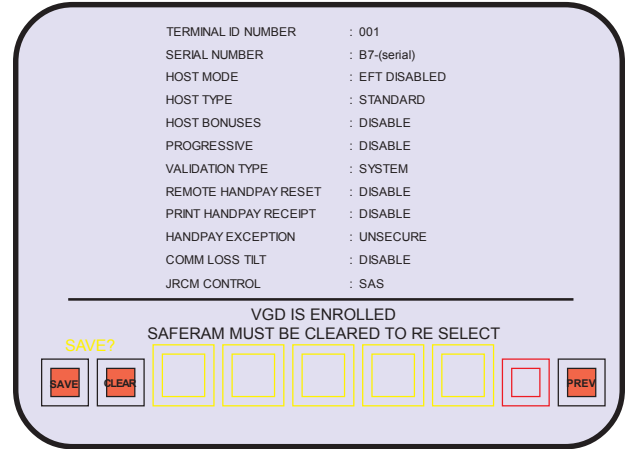
OPERATOR

A win lockup that falls within parameters set in the HOPPER/CREDIT LIMITS sub menu can either be cancelled and paid by an Attendant by actuating the Audit key switch; or released to accumulate as current credits when the Attendant actuates a second key switch.



WARNING: An SDS® Host will not support the win lockup release feature. If an SDS Host is the primary or secondary Host, the feature will not be available.

Machine Enrollment



VGD Enrolled

Upon exiting the Host Configuration sub menu, a summary of settings is presented. The settings must be confirmed by touching the SAVE icon. Touching CANCEL will discard all Host Configuration settings and the machine will remain in Demo Mode.

Table of Host Configuration Selections

HOST CONFIGURATION		
TITLE	SELECTION	DEFINITION
HOST TYPE	STANDARD	Implementation of SAS® protocol for most manufacturers of Host systems.
	ACRES	Interpretations of SAS® protocol unique to Hosts manufactured by Acres Gaming, Inc.
	GRIPS	Interpretations of SAS® protocol unique to Hosts manufactured by GRIPS Electronic GmbH
	CDS	Interpretations of SAS® protocol unique to Hosts manufactured by Aristocrat Technologies, Inc.
	MONTE CARLO	Another variation of SAS® protocol.
HOST BONUSES	ENABLE or DISABLE	If enabled, the Host can award additional credits to a Player, independent of the payable of a game.
PROGRESSIVE	ENABLE or DISABLE	If enabled, a progressive Jackpot can be controlled by the Host rather than from an additional progressive controller.
VALIDATION TYPE	NONE	There are no restrictions upon a redeemable ticket (Not recommended).
	SYSTEM	The System provides a 16-digit validation number at the time of a cashout that the machine adds to a redeemable ticket. The numbers must verify before the ticket will be paid.
	ENHANCED	The machine provides a 16-digit validation number to a redeemable ticket using a Host-provided seed received by the machine at configuration.
REMOTE HANDPAY RESET	ENABLE or DISABLE	If enabled, a Jackpot Lockup may be released by the Host rather than by an Attendant
PRINT HANDPAY RECEIPT	ENABLE or DISABLE	If enabled, the machine can dispense informational receipts as well as redeemable vouchers.
HANDPAY/ EXCEPTION	UNSECURE	A lockup condition is processed by the machine, and communicated normally to the Host.
	SECURE	A minimum of five lockup events are buffered by the machine if the Host experiences communication faults.
COMM LOSS TILT	DISABLE	If enabled, a loss of communication with the Host causes a fatal exception at the machine.
JRCM CONTROL	SAS	The Host has the ability to enable and disable the Audit key and the Second key switches.
	OPERATOR	A jackpot lockup can be released by an Attendant by one of two ways if the win falls within parameters set in the HOPPER/CREDIT LIMITS sub menu. See the CONFIGURATION sub menu earlier in this chapter.

Configuration (cont.)

Configuration Sub Menu (cont.)

CONFIGURATION

MAXBET OPTIONS (View Only)

MAXBET OPTIONS

MAX WAGER DISABLED	MAX BET SETTINGS	MIN BET SETTINGS	MAX WAGER CEILING
1 NO GAME	0	0	0
2 NO GAME	0	0	0
3 NO GAME	0	0	0
4 NO GAME	0	0	0
5 NO GAME	0	0	0
6 NO GAME	0	0	0
7 NO GAME	0	0	0
8 POPEYE	45	1	45
9 NO GAME	0	0	0
10 NO GAME	0	0	0

SAFERAM MUST BE CLEARED TO RE-SELECT

Max Bet Options

Current settings for the maximum credits that can be wagered for individual games can be verified from this sub menu. Not all games have a selectable MAXBET OPTION. The configuration menu only appears after a SafeRAM™ Clear.

EVEN PAYS

EVEN PAYS

Even Ticket Pay and Even Handpay

The even pays setting enables the machine to automatically dispense a portion of a large payout as coins or a voucher so that the remaining amount that an Attendant must pay is an “even” amount.

For example, depending upon the setting of EVEN HANDPAY, a Collect Lockup of 1,111 credits will cause the machine’s hopper to dispense coins in one of the following ways:

CASINO LOCATION

CASINO LOCATION

Casino Location

If the machine HOPPER TYPE is configured for cashless operation, and the Host does not provide casino location information for the printed documents, then NAME, ADDRESS and TICKET EXPIRATION (in days) can be recorded in this sub menu.

Even Pays for 1,111 Credits (1 coin = 1 credit)	
Setting	Result
OFF	No coins from the hopper and lockup for an Attendant to pay 1,111 credits.
10	One coin from the hopper and lockup for an Attendant to pay 1,110 credits.
100	11 coins from the hopper and lockup for an Attendant to pay 1,100 credits.
1000	111 coins from the hopper and lockup for an Attendant to pay 1,000 credits.



NOTE: The system Host may overwrite information entered in CASINO LOCATION.

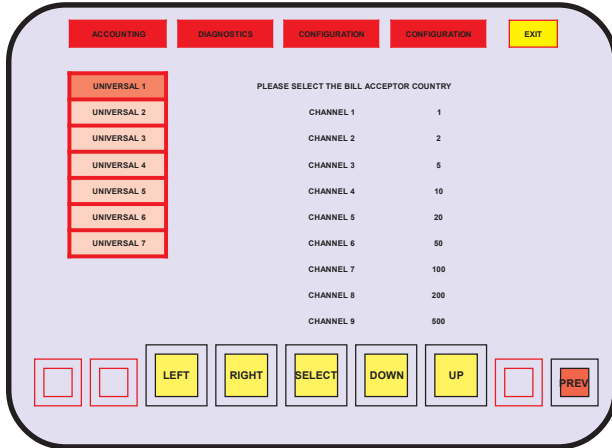
Configuration (cont.)

Configuration Sub Menu (cont.)

CONFIGURATION

BILL ACCEPTOR COUNTRY OPTION (view only)

BILL ACCEPTOR COUNTRY OPTION

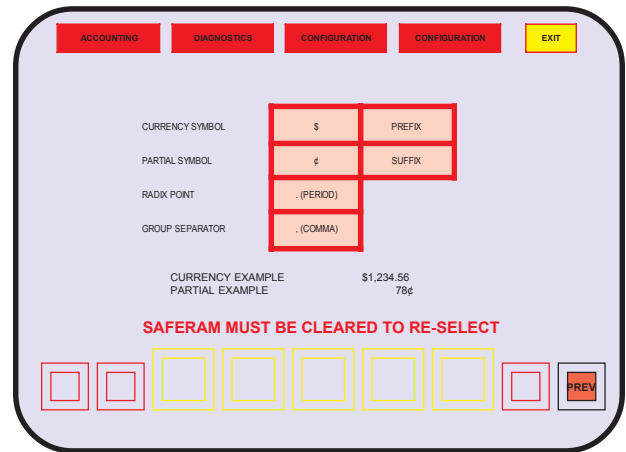


Bill Acceptor Country

The bill acceptor can be configured only once after a SafeRAM Clear. The protocol is set in EEPROM selections. (See the section earlier in this chapter). The bill selection is

CURRENCY SYMBOL FORMAT (view only)

CURRENCY SYMBOL FORMAT

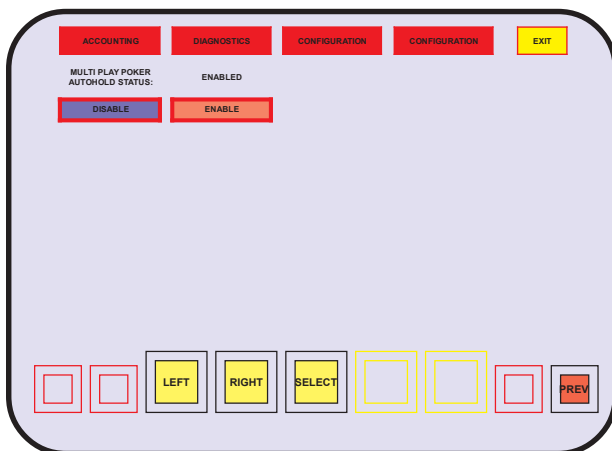


Currency Symbol Format

The currency format is set once after a SafeRAM Clear. The current settings for the currency symbols, and the format can be viewed by selecting the CURRENCY SYMBOL FORMAT icon.

AUTOHOLD

ENABLE/DISABLE AUTOHOLD



Autohold

If the feature is available where the Player's best poker hand is automatically held, the autohold configuration allows the feature to be turned off by the Operator.



NOTE: Menu items vary by Market Code and Main firmware versions.

Accounting

The EVO® records and stores accounting information in electromechanical counters (hard meters) and electronic counters (soft meters).

Electromechanical Meters

Electromechanical meters are located inside machine's cabinet. The meters are numbered one through five. The information recorded is determined by the Market Code (Jurisdiction) setting.

The labels for the meters vary, but are usually TOTAL IN, TOTAL OUT, DROP, ATTENDANT PAID, and GAMES PLAYED.

Additional information that may be recorded with electromechanical meters may be JACKPOTS, and bill credits.

The following tables list three meter group assignments (A, B, and C) according to the EEPROM setting for JURISDICTION.

Table of Meter Groups A, B, and C

Electromechanical Meters			Meter Group		
Meter #	Label	Description	A	B	C
1	Total In	Counts each credit wagered.	X	X	X
2	Total Out	Counts each credit won without a win lockup.	X	X	X
3	Drop	Counts each coin sent to the drop bucket.	X		X
		Counts each coin sent to the drop bucket and each credit from the bill acceptor.		X	
4	Attendant Paid	Counts credits paid to a Player by an attendant upon a win (jackpot) lockup.	X	X	X
5	Bill Credits	Counts credits for bill transactions.	X		
	Games Played	Increments once for each game completion.		X	
	Jackpots	Increments once each time the top award has been won.			X

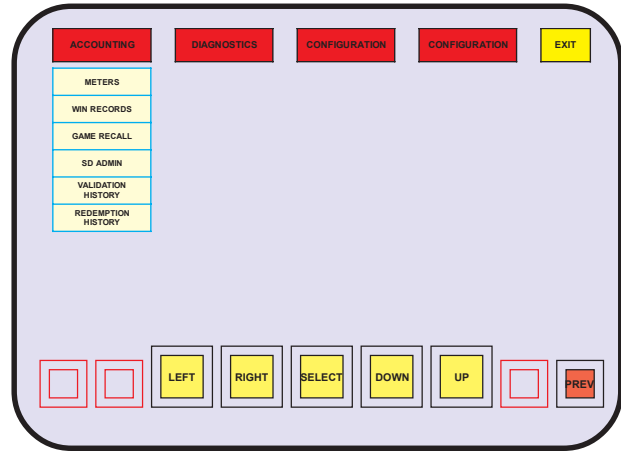
Table of Meter Groups by Jurisdiction Setting

Meter Group Assignments by Market					
Jurisdiction Setting	Market	Meter Group	Jurisdiction Setting	Market	Meter Group
Locked	VLC	None	8	Puerto Rico	C
1	International 60 Hz	B	9	Delaware	A
2	New Jersey	None	10	New Mexico	B
3	GLI	A	11	OLGC	B
4	International 50 Hz	A	12	Switzerland B w/out Bet Limit	B
5	Default	B	13	Switzerland A w/Bet Limit	A
6	Uruguay	A	14	USAF w/2000 Win Limit	B
7	South Africa	A	15	USAF w/out Win Limit	B

| - Revised, || - New

Accounting Sub Menu

ACCOUNTING



Accounting Sub Menu

The ACCOUNTING sub menu provides access to all counters, records, and game recall. Touch the icon to enter the sub menus.

METERS

METERS

Meters	
Bookkeeping and Event Counters	
Bill Acceptor Transactions	
Voucher and Coupon Accounting	
Game Activity	
Double or Nothing Activity	
Host Bonus Meters	
Win Lockup Summary	
Total Weighted Theoretical Percentage	
Internal Progressive Controller Records	
	Controllers 1-13
	Controllers 14-25
External Progressive Controller Records	
	Controllers 1-5
	Controllers 6-10
Slot Accounting System Summary	
	AFT Non Cashable Credit Transactions
	AFT Cashable Credit Transactions
	AFT Promotional Credit Transactions
	AFT System Collect Transactions
	AFT Hopper Collect Transactions

There are multiple screens of bookkeeping information available under the METERS sub menu. The information presented depends upon the Main program version and configuration settings.



Accounting (cont.)

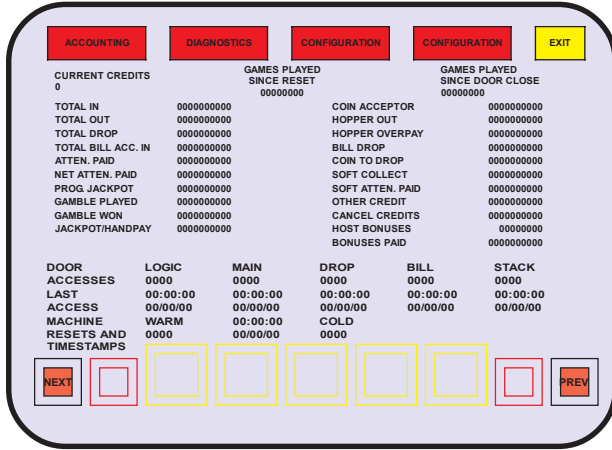
Accounting Sub Menu (cont)

ACCOUNTING

METERS (cont.)

METERS

Bookkeeping and Event Counters



Bookkeeping and Event Counters

Select METERS under the Accounting sub menu to display the first screen, Bookkeeping and Event Counters. The monetary records are presented in decimal or integer format selected during the denomination configuration process.

NEXT and LAST icons navigate through the screens of information. Select PREV to return to the Audit Key Menu, or EXIT to return to the Game Menu.

Table of Bookkeeping and Event Counters (Screen 1)	
METER	DESCRIPTION
CURRENT CREDITS	Value of credits available to the Player when the machine returns to normal operation.
GAMES PLAYED SINCE RESET	Total of games completed since the last System Reset.
GAMES PLAYED SINCE DOOR CLOSED	Total of games completed since the closing of the Main Door.
TOTAL IN	Amount wagered on all games in machine.
TOTAL OUT	Amount of winnings paid by machine.
TOTAL DROP	Combined COIN TO DROP and BILL DROP.
TOTAL BILL ACC. IN	Amount of currency accepted by the bill acceptor.
ATTEN. PAID	Amount of credits paid by an attendant.
NET ATTEN. PAID	Credits from wins paid by an Attendant.
PROG. JACKPOT	Number of times a progressive jackpot has been won.
GAMBLE PLAYED	Amount of residual credits wagered.
GAMBLE WON	Amount won by the Player for wagered residual credits.
JACKPOT/HANDPAY	Amount paid by an Attendant upon a win lockup.
COIN ACCEPTOR	Amount accepted by coin acceptor.
HOPPER OUT	Amount dispensed by the hopper.
HOPPER OVERPAY	Amount of extra coins dispensed by the hopper.
BILL DROP	Amount of currency accepted.
COIN TO DROP	Amount of coins diverted to a drop container.
SOFT COLLECT	Coins or Voucher amount paid by the machine for purchased credits (credits not from wins).
SOFT ATTEN. PAID	Purchased credits paid by an Attendant.
OTHER CREDIT	Electronic Transfers (AFT)
CANCEL CREDITS	Credits paid by an Attendant.
HOST BONUSES	Number of bonuses awarded.
BONUSES PAID	Amount of Host Bonuses awarded.
DOOR ACCESS LOGIC, MAIN, DROP, SERVICE, BILL, STACK	Number of times each door has been opened.
LAST ACCESS LOGIC, MAIN, DROP, SERVICE, BILL, STACK	Time and date stamp for the most recent access for each door.
MACHINE RESETS AND TIMESTAMPS: WARM	Number of System Resets from causes other than power OFF.
MACHINE RESETS AND TIMESTAMPS: COLD	Number of System Resets from power OFF.

Accounting (cont.)

Accounting Sub Menu (cont.)

ACCOUNTING

METERS (cont.)

METERS

Bill Acceptor Transactions

ACCOUNTING		DIAGNOSTICS		CONFIGURATION		CONFIGURATION		EXIT	
LAST 10 BILLS IN STACKER									
0.00 -	00:00:00	0000/00	0.00 -	00:00:00	0000/00				
0.00 -	00:00:00	0000/00	0.00 -	00:00:00	0000/00				
0.00 -	00:00:00	0000/00	0.00 -	00:00:00	0000/00				
0.00 -	00:00:00	0000/00	0.00 -	00:00:00	0000/00				
0.00 -	00:00:00	0000/00	0.00 -	00:00:00	0000/00				
BILLS/VOUCHERS/COUPONS IN STACKER									
1.00 -	0000000000								
2.00 -	0000000000								
5.00 -	0000000000								
10.00 -	0000000000								
20.00 -	0000000000								
50.00 -	0000000000								
100.00 -	0000000000								
200.00 -	0000000000								
500.00 -	0000000000								
VOUCHER/COUPON COUNT		0000000000							
TOTAL		0000000000							
TOTAL BILLS/VOUCHERS/COUPONS									
1.00 -	0000000000								
2.00 -	0000000000								
5.00 -	0000000000								
10.00 -	0000000000								
20.00 -	0000000000								
50.00 -	0000000000								
100.00 -	0000000000								
200.00 -	0000000000								
500.00 -	0000000000								
VOUCHER/COUPON COUNT		0000000000							
TOTAL		0000000000							

Bill Acceptor Transactions

The Bill Acceptor Transaction screen displays three groups of bill acceptor records: Last 10 Bills/Vouchers, Bills/Vouchers in Stacker, and Total Bills/ Vouchers.

The last 10 bill acceptor transactions by denomination, time and date are available for review. The current contents of the stacker sorted by denomination, is available; as well as a total item count—TOTAL IN. These records are zeroed when the stacker is removed.

A life-to-date record of all bill acceptor activity is available. These records will roll over, but can not be altered. A SafeRAM™ Clear sets these values to zero.

Voucher and Coupon Transactions

ACCOUNTING		DIAGNOSTICS		CONFIGURATION		CONFIGURATION		EXIT	
VOUCHER/COUPON ACCOUNTING									
	VALUE IN STACKER	COUNT IN STACKER	TOTAL VALUE	TOTAL COUNT					
IN	0.00	0000	0.00	0000					
COUPON PROMOTION	0.00	0000	0.00	0000					
COUPON CASHABLE	0.00	0000	0.00	0000					
VOUCHER PROMOTION	0.00	0000	0.00	0000					
VOUCHER CASHABLE	0.00	0000	0.00	0000					
TOTAL	0.00	0000	0.00	0000					
OUT	0.00	0000	0.00	0000					
VOUCHER PROMOTION	0.00	0000	0.00	0000					
VOUCHER CASHABLE	0.00	0000	0.00	0000					
VOUCHER RECEIPT	0.00	0000	0.00	0000					
TOTAL	0.00	0000	0.00	0000					

Voucher and Coupon Transactions

The totals for all vouchers and coupons accepted and dispensed by the machine are presented for review. The totals for items in the bill acceptor's stacker are zeroed when the stacker is removed.

| - Revised, || - New

Game Activity

ACCOUNTING		DIAGNOSTICS		CONFIGURATION		CONFIGURATION		EXIT	
	GAMES PLAYED	GAMES WON	MONEY PLAYED	MONEY WON					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
POPEYE	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
NO GAME	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
OTHER GAMES	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					
TOTAL	00000000	00000000	0,000,000,000,000.00	0,000,000,000,000.00					

Game Activity

A review of all money wagered for a game and the number of times the game has been played is available for all installed games. Games removed from a multi-game machine will automatically transfer the information to OTHER GAMES.

Double or Nothing Activity

ACCOUNTING		DIAGNOSTICS		CONFIGURATION		CONFIGURATION		EXIT	
	DOUBLES PLAYED	DOUBLES WON	DOUBLES LOST						
NO GAME	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
POPEYE	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
NO GAME	00000000	00000000	00000000						
TOTAL	00000000	00000000	00000000						
TOTAL MONEY	0,000,000.00	0,000,000.00	0,000,000.00						

Double or Nothing Activity

The number of times Players have accepted the Double or Nothing feature and the outcomes are available for review. Also available is the amount of money wagered and won by the feature.



Accounting (cont.)

Accounting Sub Menu (cont.)

ACCOUNTING

METERS (cont.)

METERS

Host Bonus Meters

	DEDUCTABLE	NON DEDUCTABLE	WAGER MATCH
NO GAME	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
POPEYE	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
NO GAME	00000000.00	00000000.00	00000000.00
OTHER GAMES	00000000.00	00000000.00	00000000.00
TOTAL	00000000.00	00000000.00	00000000.00

Host Bonus Meters

Bonus awards controlled by the Host are available for review. The awards are categorized as DEDUCTIBLE (wins), NON DEDUCTIBLE (promotional) and WAGER MATCH according to the capabilities of the Host.

Win Lockup Summary

	HAND PAID	PROGSV WINS	SAS PRG WINS
NO GAME	0000000000	0000000000	0000000000
NO GAME	0000000000	0000000000	0000000000
NO GAME	0000000000	0000000000	0000000000
NO GAME	0000000000	0000000000	0000000000
NO GAME	0000000000	0000000000	0000000000
NO GAME	0000000000	0000000000	0000000000
NO GAME	0000000000	0000000000	0000000000
NO GAME	0000000000	0000000000	0000000000
NO GAME	0000000000	0000000000	0000000000
POPEYE	0000000000	0000000000	0000000000
NO GAME	0000000000	0000000000	0000000000
NO GAME	0000000000	0000000000	0000000000
OTHER GAMES	0000000000	0000000000	0000000000
TOTAL	0000000000	0000000000	0000000000

Win Lockup Summary

A record of the amount of win lockups is kept for each game installed in the machine. If the win level is associated with a progressive jackpot, the amount is recorded separately. Host controlled progressive wins are also recorded separately.

Total Weighted Theoretical Percentage

SMI NUMBER	OTHER INFO.	GAME DESCRIPTION	GAME PCT.	MONEY PLAYED	WTD. PCT.
		NO GAME	0.00	0,000,000,000,000.00	0.00
		NO GAME	0.00	0,000,000,000,000.00	0.00
		NO GAME	0.00	0,000,000,000,000.00	0.00
		NO GAME	0.00	0,000,000,000,000.00	0.00
		NO GAME	0.00	0,000,000,000,000.00	0.00
		NO GAME	0.00	0,000,000,000,000.00	0.00
		NO GAME	0.00	0,000,000,000,000.00	0.00
Y-4522		POPEYE	88.18	0,000,000,000,000.00	0.00
		NO GAME	0.00	0,000,000,000,000.00	0.00
		NO GAME	0.00	0,000,000,000,000.00	0.00
TOTAL WEIGHTED THEORETICAL PERCENTAGE				0,000,000,000,000.00	0.00

Total Weighted Theoretical Percentage

Each of the games installed in a machine usually have different hold percentages. Also, some games may have more appeal in certain locations. The Total Weighted Theoretical Percentage accounts for these differences and calculates a payback percentage for all of the games according to the combined play.

The following table describes the information included:

Table of Weighted Theoretical Percentage Information

Total Weighted Theoretical Percentage	
Heading	Description
SMI NUMBER	Specific Model Information (SMI) Number identifies the game for reference in the Product Reference Guide and other references. This number should match SMI documentation included with the machine.
OTHER INFO.	Information text labels stored in the EPROM about the game. For example, "T" for a tournament game.
GAME PCT.	Nominal and Basic percentage information is stored in the Personality EPROM. Which of the two percentages displayed depends upon Market Code. Nominal percentage includes bonuses for maximum-wager top awards. Basic percentage is the percentage of a single credit wager.
MONEY PLAYED	Value of wagers for the game.
WTD. PCT	The game's contribution to the total percentage for the machine. It is calculated by GAME PCT. times MONEY PLAYED.
TOTAL WEIGHTED THEORETICAL PERCENTAGE	The sum of WTD. PCT.

Accounting (cont.)

Accounting Sub Menu (cont.)



METERS (cont.)



Internal Progressive Controller Records

	TOTAL IN	TOTAL OUT	DISPLAY MODE	JACKPOT
14	000,000,000,000	000,000,000,000		000
15	000,000,000,000	000,000,000,000		000
16	000,000,000,000	000,000,000,000		000
17	000,000,000,000	000,000,000,000		000
18	000,000,000,000	000,000,000,000		000
19	000,000,000,000	000,000,000,000		000
20	000,000,000,000	000,000,000,000		000
21	000,000,000,000	000,000,000,000		000
22	000,000,000,000	000,000,000,000		000
23	000,000,000,000	000,000,000,000		000
24	000,000,000,000	000,000,000,000		000
25	000,000,000,000	000,000,000,000		000
TOTAL	000,000,000,000	000,000,000,000		000

Internal Progressive Controllers - Second Screen

If any of the 25 internal jackpot controllers are active, the transactions recorded are TOTAL IN, TOTAL OUT, and JACKPOT. The award is noted as DISPLAY MODE.

TOTAL IN and TOTAL OUT record the value of wagers and wins with each controller. DISPLAY MODE indicates an award that is a progressing monetary value, or a merchandise award. See Module 7, Progressives for more information. JACKPOT records each occurrence of a jackpot on each controller. A summation of the controllers is recorded in TOTAL.

External Progressive Controller Records

WIN LEVEL	CTLR 6	CTLR 7	CTLR 8	CTLR 9	CTLR 10
0	0000000	0000000	0000000	0000000	0000000
1	0000000	0000000	0000000	0000000	0000000
2	0000000	0000000	0000000	0000000	0000000
3	0000000	0000000	0000000	0000000	0000000
4	0000000	0000000	0000000	0000000	0000000
5	0000000	0000000	0000000	0000000	0000000
6	0000000	0000000	0000000	0000000	0000000
7	0000000	0000000	0000000	0000000	0000000
TOTAL EXT. PROG. JACKPOT COUNT					0000000

External Progressive Controllers - Second Screen

If any of the ten external controller interfaces are active, the number of occurrences are recorded for each win. See Module 7, Progressives for more information.

| - Revised, || - New

Slot Accounting System Information

SLOT ACCOUNTING SYSTEM INFORMATION

SLAVE ADDRESS 0
SLAVE STATUS OFFLINE

00,00,00,00,00,00,00,00,00
00,00,00,00,00,00,00,00,00
00,00,00,00,00,00,00,00,00
00,00,00,00,00,00,00,00,00
00,00,00,00,00,00,00,00,00

CASHABLE IN 00000000
NON CASHABLE IN 00000000
PROMOTIONAL IN 00000000
CASHABLE OUT 00000000
NON-CASHABLE OUT 00000000
PROMOTIONAL OUT 00000000

Slot Accounting System Information

Slot Accounting System Information consists of a summary of Advance Fund Transfers (AFT). Also shown is the most recent transmission from the Host in hexadecimal notation, the Slave Address, and status.

SLOT ACCOUNTING SYSTEM INFORMATION

EFT NON-CASHABLE CREDIT HISTORY

00,00,00,00,00,00,00,00,00
00,00,00,00,00,00,00,00,00
00,00,00,00,00,00,00,00,00
00,00,00,00,00,00,00,00,00
00,00,00,00,00,00,00,00,00

AFT Non-Cashable Credit History

Additional AFT Transaction Screens

Host AFT records include separate screens that show the last five transactions and the transmission from the Host in hexadecimal notation for the following five categories: (1) Non-Cashable and (2) Cashable Credit Transactions, (3) Promotional Credit Transactions, (4) System Collect Transactions, and (5) Hopper Collect Transactions.

Each of the five screens are similar to the example shown for AFT Non-Cashable Credit History

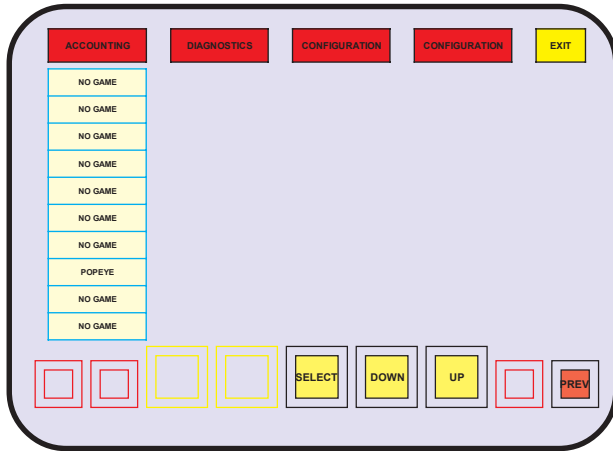
Accounting (cont.)

Accounting Sub Menu (cont.)

ACCOUNTING

WIN RECORDS

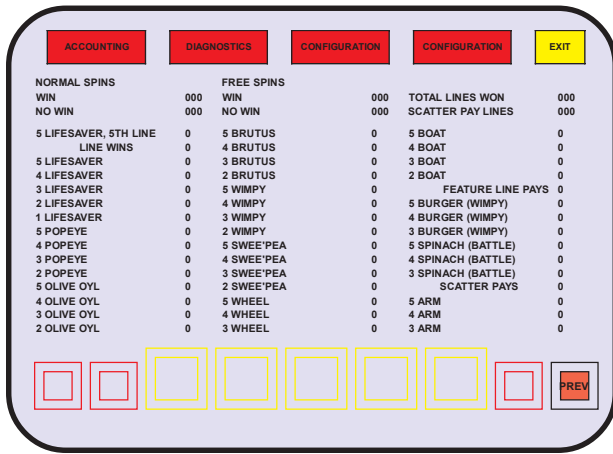
WIN RECORDS



WIN RECORDS Sub Menu

Selecting WIN RECORDS presents a sub menu listing of the installed games.

Popeye (example) Win Records

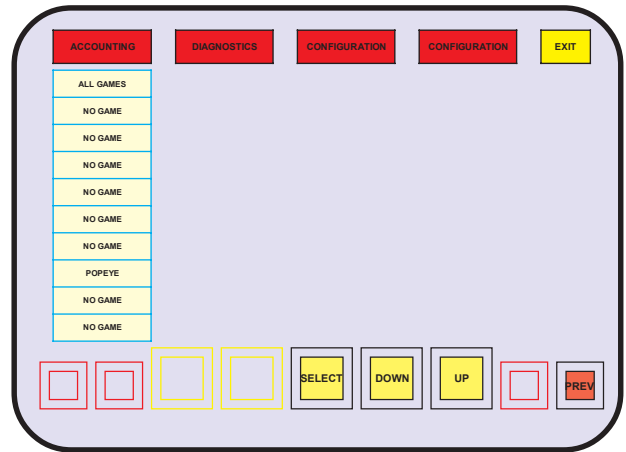


Win Records for Popeye

When a game's text is selected, a listing of possible results, along with the number of occurrences, is presented.

GAME RECALL

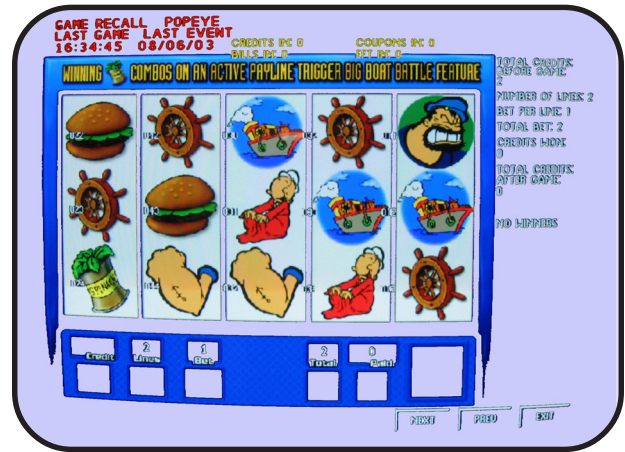
GAME RECALL



GAME RECALL Sub Menu

Selecting GAME RECALL presents a sub menu headed by the category ALL GAMES, and a listing of the games.

All Games



Game Recall (Popeye example)

Fifty events in occurrence order are available for review. The display includes the date and time the event occurred. An "event" is a completed game, or COLLECT. NEXT and PREV scroll through the 50 events.

Individual Game

Selecting an individual game from the multi-game menu will display the previous two completed games for the selected Personality.

Accounting (cont.)

Accounting Sub Menu (cont.)

ACCOUNTING

Secondary Device Administration

SD ADMIN

Selecting SD ADMIN presents a listing of possible results, along with the number of occurrences relating to the secondary device installed on the machine.

VALIDATION HISTORY

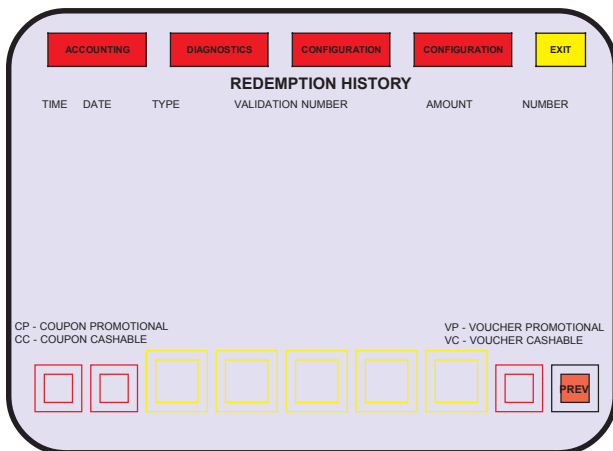
VALIDATION HISTORY

VALIDATION HISTORY will provide a list of the last 35 vouchers issued, or win lockups that have been verified by the Host, if the machine is configured for Host verification.

NEXT and PREV scroll through the 35 occurrences.

REDEMPTION HISTORY

REDEMPTION HISTORY



Redemption History

REDEMPTION HISTORY will show a list of the last 35 voucher redemptions if the machine is configured to accept vouchers or coupons.

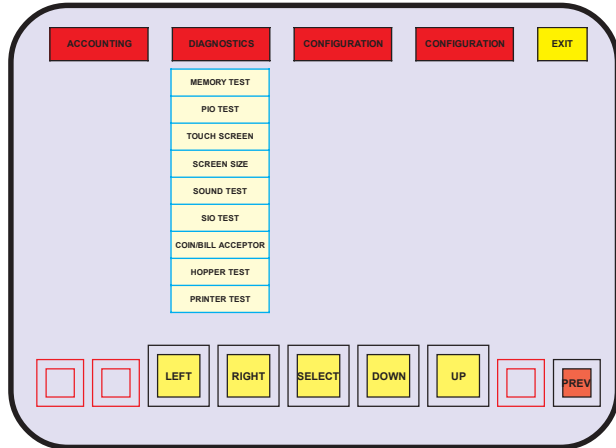
NEXT and PREV scroll through the 35 occurrences.

Diagnostics

The EVO® provides user-controlled diagnostic functions for calibration and troubleshooting.

Diagnostics Sub Menu

DIAGNOSTICS

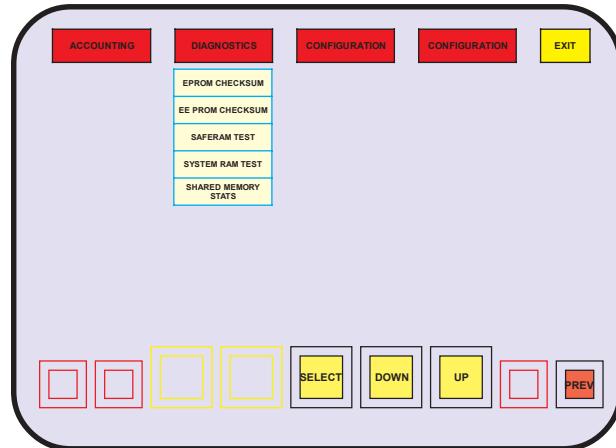


Diagnostics Sub Menu

The DIAGNOSTICS sub menu provides access to MEMORY TEST, PIO TEST, TOUCH SCREEN, SCREEN SIZE, SOUND TEST, SIO TEST, COIN/BILL ACCEPTOR, HOPPER TEST, REEL TEST and PRINTER TEST.

Memory Test

MEMORY TEST



Memory Test

MEMORY TEST examines EPROM, EE PROM, and RAM. It also displays information about the contents of EPROMs and the EE PROM. The status of the EPROMs and EE PROM is evaluated by calculating a checksum and comparing it with a stored value.

RAM and SafeRAM™ are evaluated by write-read tests. SafeRAM™ is also checked by comparing a calculated checksum with the known value.

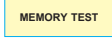


Diagnostics (cont.)

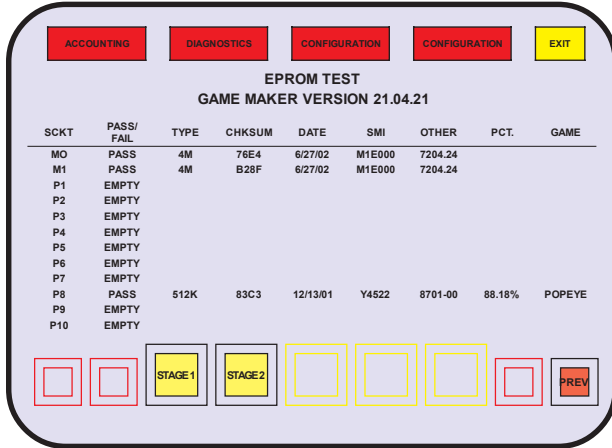
Diagnostics Sub Menu (cont.)



MEMORY TEST (cont.)



EPROM Checksum



EPROM Checksum

The EPROM CHECKSUM sub menu will display a listing of Main EPROMs in sockets M0 and M1 and all the Personalities installed. The information includes socket number, pass or fail test, memory size, checksum, creation date, SMI, other labels, payback percentage, and the name of the game.

SCKT

The socket locations on the VIOP board where the EPROMs are installed are labeled as described in the following table:

Table of EVO® EPROM Locations

VIOP Board AS-03356-0507					
Label	Socket	EPROM	Label	Socket	EPROM
M0	U17	Main	P5	U81	Reserved
M1	U23	Main	P6	U82	Reserved
P1	U77	Reserved	P7	U83	Personality
P2	U78	Reserved	P8	U84	Reserved
P3	U79	Reserved	P9	U85	Specialized Software
P4	U80	Reserved	P10	U86	Personality

PASS/FAIL

The checksum of the EPROM is calculated and compared to a known value stored in memory. Successful completion is noted in PASS/FAIL.

TYPE

The EPROM memory capacity is listed as TYPE.

CHECKSUM

The checksum value of the EPROM is displayed.

DATE

The creation date of the program stored in the EPROM is displayed.

SMI

SMI is the Specific Model Information number for the game. Bally Gaming and Systems Model Development refers to SMI numbers for game reference purposes.

Other

The numbers listed under OTHER are the revision levels of the development. For example, the Main EPROM at M0 may have the EPROM label V7M1E0002104-24. The numbers would be included under OTHER are 2104-24.

Pct.

The documented payback percentage of the game is listed under PCT. Refer to the SMI Documentation Package included with the machine for more information.

Game

A listing for the game as it appears in the Product Reference Guide and in the SMI Documentation Package appears under GAME. The Main EPROMs at M0 and M1 are not named, and show as blank.

Stage 1, Stage 2

The Stage 1 icon will restart the test. Stage 2 will perform the test including a System Reset of the EVO®.



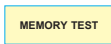
Note: The EVO® needs approximately five minutes to recover after a System Reset.

Diagnostics (cont.)

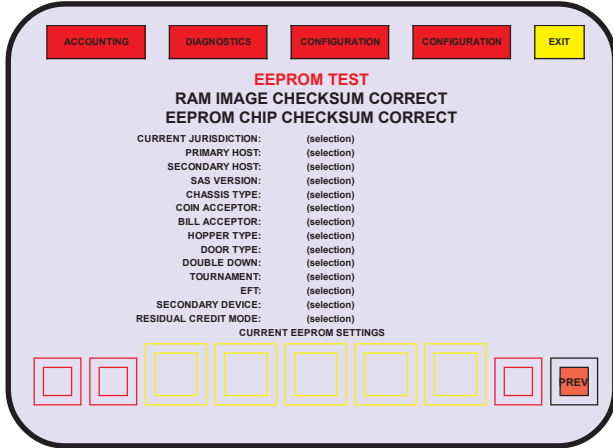
Diagnostics Sub Menu (cont.)



MEMORY TEST (cont.)



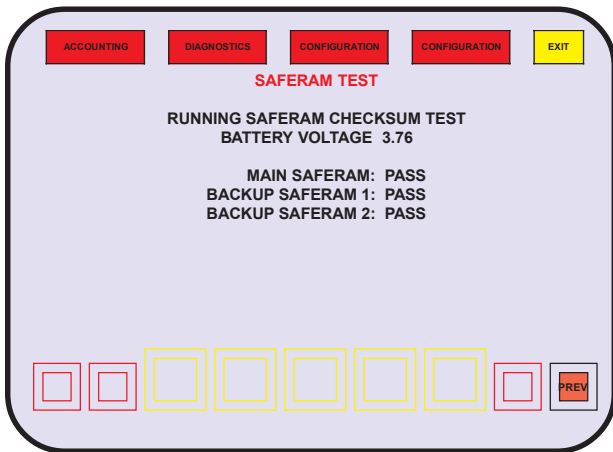
EE PROM Checksum



EE PROM Checksum

Selecting EE PROM CHECKSUM initiates a self-test and displays the results. It also shows the information currently stored.

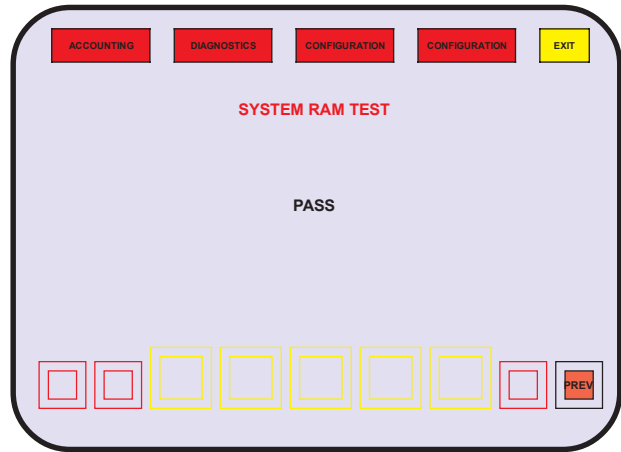
SafeRAM Test



SafeRAM Test

Selecting SAFERAM TEST begins, then displays the results of a self-test of memory where critical machine information is stored in triplicate. A measurement of the SafeRAM™ battery is shown.

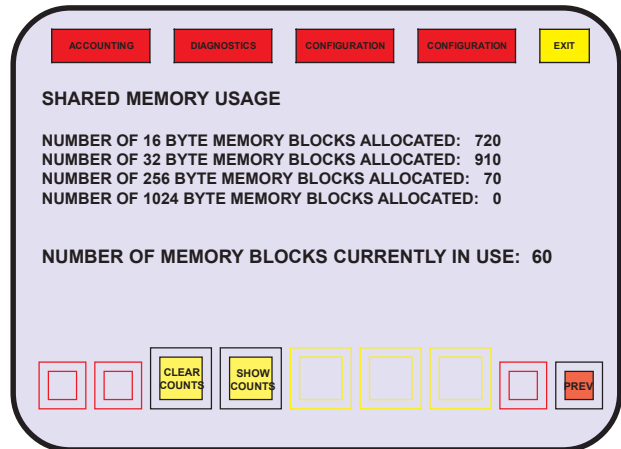
System RAM Test



System RAM Test

Selecting SYSTEM RAM TEST displays the result of a self-test of “scratchpad” memory.

Shared Memory Stats



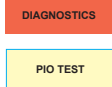
Shared Memory Usage

SHARED MEMORY STATS shows the current number of allocated memory blocks in system memory.

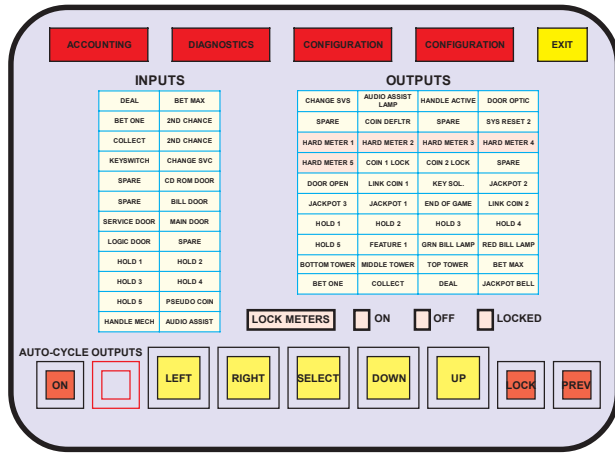
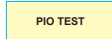


Diagnostics (cont.)

Diagnostics Sub Menu (cont.)



PIO Test



PIO Test (DIP SW2 - 4 = OFF)

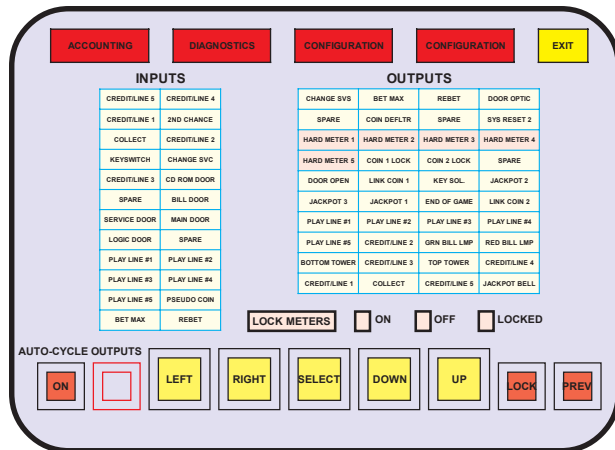
Activating PIO TEST presents a listing of inputs and outputs. Pressing any switch icon will highlight the text in the listing to indicate proper function.

Touching the text in the OUTPUTS portion of the table will operate the listed output. Activating DEAL in the listing, for example, will light the DEAL/DRAW/START button lamp.

All outputs can be momentarily activated by selecting AUTO-CYCLE OUTPUTS.

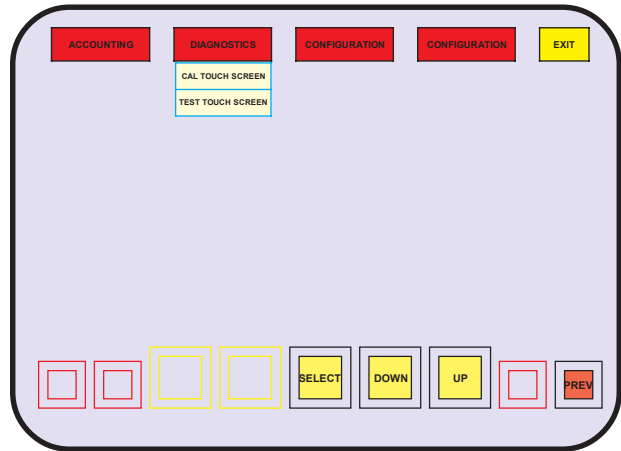
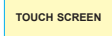
Electromechanical meters one through five are LOCKED to preserve accounting information, as indicated by red highlighting. Selecting OFF in the LOCK METERS area of the display will allow testing of the electromechanical counters.

If DIPSW2—4 is set to ON, the INPUTS and OUTPUTS labels differ accordingly.



PIO Test (DIP SW2 - 4 = ON)

Touch Screen



Touch Screen Sub Menu

The touch screen senses capacitive changes when an area contacts human skin. It reports the X, Y coordinates serially to the MPU. TOUCH SCREEN assures accurate positioning in relation to the icons on the screen. This procedure is forced after a SafeRAM™ Clear.

Cal Touch Screen

Calibration of the touch screen can be verified by activating CAL TOUCH SCREEN. Once activated, the machine will prompt the user to touch parts of the screen to calibrate the machine's hardware. Calibration of the software involves touching orange cross hairs as they appear on the screen.

Test Touch Screen

TEST TOUCH SCREEN is automatically actuated upon completion of the CAL TOUCH SCREEN test. The sub menu is also accessible from the Touch Screen menu. Once the test is activated, the machine will echo contact with the touch screen with an orange cross.

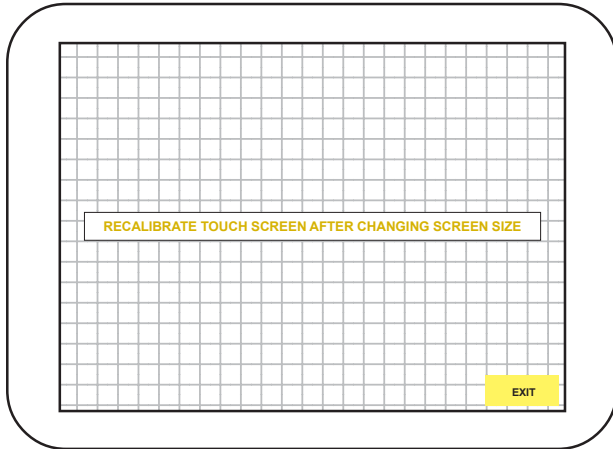
Diagnostics (cont.)

Diagnostics Sub Menu (cont.)

DIAGNOSTICS

Screen Size

SCREEN SIZE

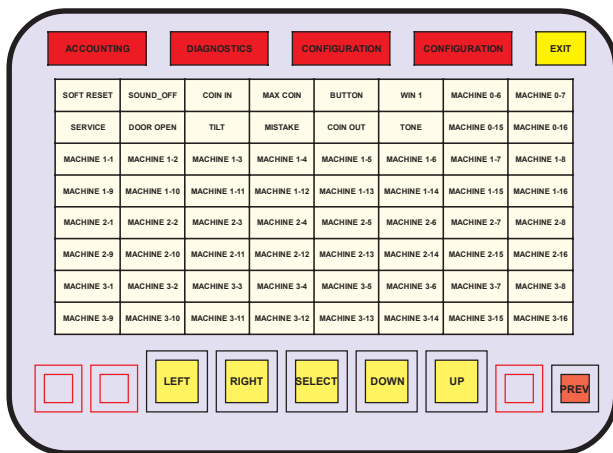


Screen Size

Activating the Screen Size presents a crosshatch test pattern where monitor size, position, and pin cushion control adjustments can be verified. The touch screen must be calibrated if any monitor position adjustments have been made.

Sound Test

SOUND TEST

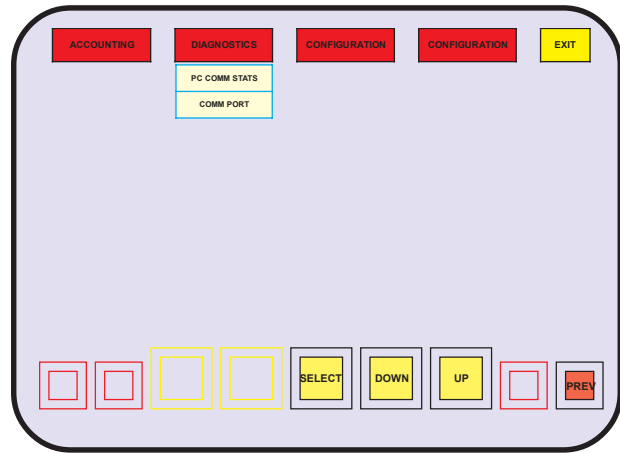


Sound Test

Upon selection of SOUND TEST, a matrix of events is presented. Select the event from the menu to hear the associated sound.

SIO Test

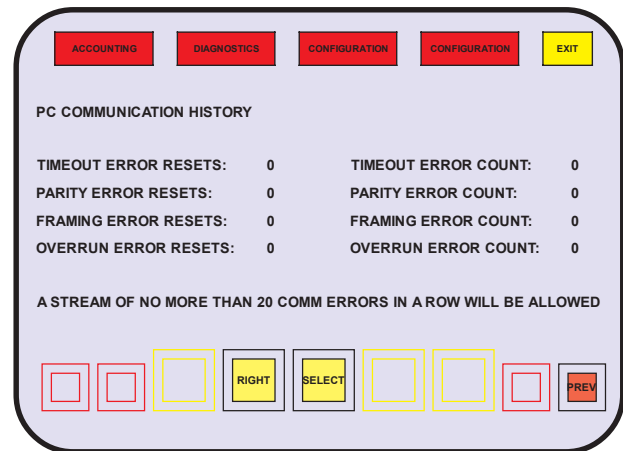
SIO TEST



SIO Test Sub Menu

The SIO TEST checks the serial ports used for the internal communication port between the I/O MPU and the Pentium® Assembly. Upon activation, a sub menu of the available ports is presented, and a selection, PC COMM STATS, where diagnostic information is displayed.

PC Comm Stats



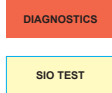
SIO Test - PC Comm Stats

Accessing PC COMM STATS presents a table of communication error counters. If a communication error has occurred, sub menus are available to view the last 10 communication packets with time stamps. A selection will be available to zero the counters to help isolate and track errors.



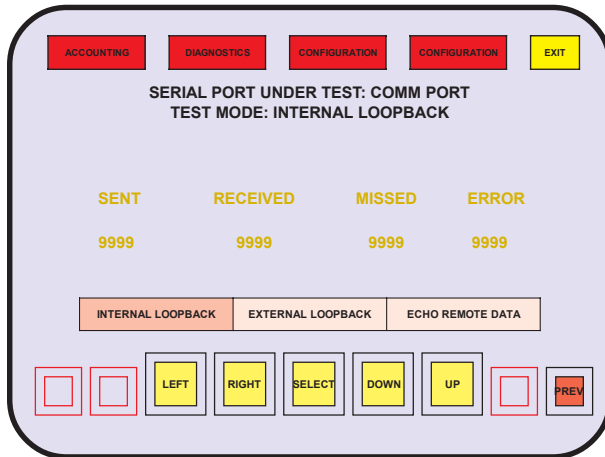
Diagnostics (cont.)

Diagnostics Sub Menu (cont.)



SIO Test (cont.)

Comm Port



SIO Test - Communication Port

The **COMM PORT** test is a diagnostic tool for determining the cause of inexplicable System Resets or “freeze.”

If the PC Assembly does not respond to the I/O MPU within 20 attempts of a communication packet; for security, the I/O MPU will generate a System Reset.

For the **COMM** serial ports, three tests are available: **INTERNAL LOOPBACK**, **EXTERNAL LOOPBACK**, and **ECHO REMOTE DATA**.

Internal Loopback

The port sends a data string to itself and verifies that it received it correctly. Counters record the number of bytes sent, the bytes received, bytes not received, and bytes received that did not match the bytes sent.

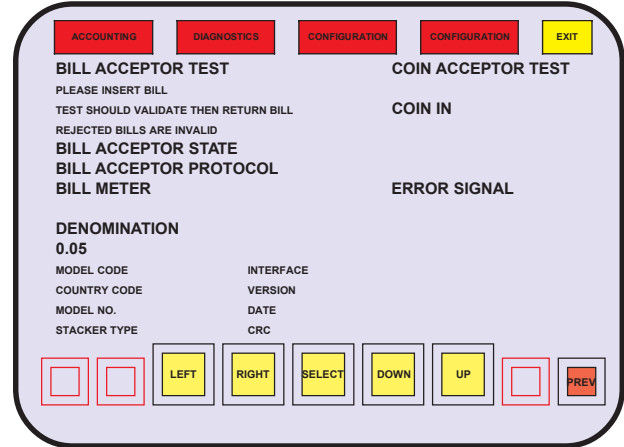
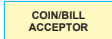
External Loopback

This test requires hardware modifications to connect the transmission wire to the receive wire of the port. See Module 9, Overall Wiring Diagrams, for signal locations. The counters record the same information as in **INTERNAL LOOPBACK**.

Echo Remote Data

Counters are replaced with actual data. The data display is in hexadecimal and ASCII.

Coin/Bill Acceptor



Coin Acceptor and Bill Acceptor Test

The **COIN/BILL ACCEPTOR** sub menu enables the coin acceptor and bill acceptor for diagnostics. When a bill is presented to the bill acceptor, the value of the bill is reported and the credits that would be posted is shown; or the bill is rejected. The bill is returned. The progress is displayed during the process.

Some models of bill acceptors are capable of communicating internal identification and settings. If it is available, the information is shown during diagnostics.

When a coin is inserted into the coin acceptor, the state of each signal of the coin acceptor is displayed. As a coin passes through the acceptor, the status of the signals are reported. The quantity of credited coins is displayed.

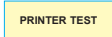
Hopper Test



HOPPER TEST confirms proper function of the hopper drive circuitry and the Coin Level Probe. Upon selection of **HOPPER TEST**, the status of the coin level is stated as “**HOPPER BOWL SWITCH SHOWS: (status: full or not full).**”

When the **START** icon is activated, the hopper attempts to dispense 10 coins. Each coin is counted by an on-screen counter as it passes through the coin switch. A status message appears upon completion as “**HOPPER TEST COMPLETED SUCCESSFULLY**” or “**HOPPER FAILED**”. The test can be repeated by activating **START**.

Printer Test



PRINTER TEST allows the user to view the printer’s status and print a diagnostic document.

