



Ainsworth
Game Technology

Ambassador BenchTop
EGM

Installation and Service Manual

INTERNATIONAL SAS

Revision 1

Copyright © 2004

Ainsworth Game Technology Limited

All Rights Reserved

ACN 068 516 665

Copyright Information

Ainsworth Game Technology Limited claims copyright on each page of this document. The right to reproduce, distribute, display and make derivative works from this document, or any portion thereof requires approval from Ainsworth Game Technology Limited.

For more information contact:

Ainsworth Game Technology Limited, ACN 068 516 665

10 Holker Street, Newington

Sydney, NSW 2127 Australia

Phone 02 9739 8000—International +61 2 9739 8000

Fax 02 9737 9483—International +61 2 9737 9483

Email: servicedepartment@ainsworth.com.au

Table of Contents

1	1
Introduction.....		1
Installation and Service Manual Contents		1
2	2
Installation.....		2
Bench Construction and Installation		2
Installation Procedure		3
Machine Size and Required Clearances		4
Inspection.....		5
Exterior		5
Interior		5
Machine Installation.....		7
3	8
Description.....		8
Introduction.....		8
Physical Description.....		8
External Components.....		10
Cabinet Body Assembly		10
Main Door Assembly and Controls		11
Button Panel		12
Monitor Assembly		13
Coin Validator		14
Internal Components.....		15
Banknote Validator Assembly		15
Player Tracking Module		17
Logic Cage Assembly.....		17
Basic Operation		19
Game Display		19
Specifications		21
Configuration.....		21
Physical.....		21
Electrical.....		21
Environmental		21
Standards of Compliance		21
4	22
Technician Maintenance and Troubleshooting.....		22
Audit Mode		24
Game History.....		25
Machine Identification.....		29
Metering Information.....		30
Configuration Information.....		31
Configuration Mode.....		32
Machine Configuration Setup		32
Validation Configuration Sub Menu.....		34
Tower Light Configuration Sub Menu		34
Sound System Setup		35
Real Time Clock Setup.....		36
Banknote Meters—History		37
Ticket In History.....		38
Ticket Out History		38
Game Statistics Page.....		39
Hopper Refill Mode.....		40

Table of Contents

Power Save Mode	41
Pending Faults / Disabling Conditions	41
Image Validation Menu	42
Bonus History	42
Multiplied Jackpot History	43
Test Mode	44
Device Tests	45
Hopper Test	45
Coin In Validation Test	47
Banknote Validator Test	48
Video Test.....	49
Sound Test	50
Button / Key Test.....	52
Lamp Test	52
Door Status Test	53
Diverter Test	54
Miscellaneous Input Test	55
NVRAM Test	56
Game Combination Test	57
Monitor.....	58
Monitor Mask Replacement.....	58
Monitor Adjustment.....	59
Factory Setting Mode	60
Image Adjustment.....	60
Monitor Replacement	62
Main Door Sub-Assemblies	64
Main Door Opening.....	64
Button Panel Replacement.....	65
Coin Validator Replacement.....	66
Coin Validator Cleaning	67
Coin Diverter Replacement	68
Coin Hopper Replacement	70
Hard Meter Assembly Replacement	71
Player Tracking Module Replacement	72
Banknote Stacker Assembly.....	73
Removing and Replacing the Banknote Stacker.....	73
Removing, Dismantling and Replacing the Banknote Validator	73
Banknote Validator Jam Clearing	76
Banknote Validator Cleaning.....	76
Banknote Validator Test	77
Printer Replacement	78
Button LED Replacement.....	80
Logic Cage Assembly Replacement	80
Logic Cage Boards	82
Main Board	82
Interface Board	83
Backplane/Connector Board	84
Speakers.....	85
Fuse Replacement	86
Power Supply Replacement.....	87
Main Memory Operations	90
System Error	92
Clear NVRAM.....	93
Copy from EEPROM.....	93
Full Machine Configuration.....	94
Finishing	94
Error Messages	95
Troubleshooting.....	99
Banknote Validator Error Display	100
Spare Parts List	102

INTRODUCTION

This Installation and Service Manual is for use by service personnel servicing the approved EGM, which is identified on the cover page. Service personnel without appropriate qualifications and training should not attempt to carry out additional servicing. To do so may result in injury to personnel, damage to equipment, and voiding of the warranty. Such actions may also contravene jurisdictional regulations.

There are two manuals associated with the EGM. The manuals that form the suite for the approved EGM are:

- **Operator's Manual** — Intended for use by operators in the routine servicing and operation of the approved EGM.
- **Installation and Service Manual** — Intended for use by qualified service personnel for the installation, testing and troubleshooting of the approved EGM.

Installation and Service Manual Contents

Installation

This chapter provides a suitably qualified technician with all instructions necessary to install the machine in accordance with the machine requirements.

Description

The Description chapter covers the components and basic operation of the EGM to enable you to familiarise yourself with the machine. This chapter also includes specifications of the approved EGM relating to weight, physical size, environmental operating envelope, basic operation and functional description.

Technician Maintenance and Troubleshooting

This chapter provides qualified service personnel with information required to perform various diagnostic tests on the machine and troubleshooting information.

INSTALLATION

The following chapter outlines the requirements and procedures for effectively installing the Ambassador BenchTop EGM on suitable bases, to comply with electrical, OH&S and other relevant jurisdictional requirements.

Bench Construction and Installation

It is important to provide a stable and level support for all gaming machines.

Bench design must take into consideration the weight and topple characteristics of the machine, as well as the weight of additional signage. AGT recommend that a person suitably qualified to calculate machine and signage loadings carry out Bench design and construction.

Pack up the bench to allow for uneven floor levels—ensure the base is stable.

Securely fasten the machine to the bench; and the benches to each other, to ensure stability. AGT recommend the use of M8 coach bolts, nuts and washers. The locations of the fastening boltholes are the square holes in the base. Further, where floor surfaces may be uneven or have soft coverings such as carpets, AGT advise that benches must be made stable before the EGM is mounted.

The appropriate bench is to be of very sturdy construction.

Installation Procedure

The following information provides the service technician with all instructions necessary to correctly install the machine. Only a licensed technician employed/contracted by a Licensed Service agent, who is trained in the installation of the Ambassador BenchTop machine, is to install it.

Prior to installation of the machine the service technician must ensure that the following requirements are met:

- Approval from the relevant jurisdictional authority.
- A suitable bench on which to mount the machine.
- The mains power outlet shall be installed as per jurisdictional requirements and national electrical standards.
- The mains power outlet has earth leakage detection/protection.
- Suitable proximity of connection for communication and ancillary equipment with external devices (as applicable).
- Proposed location environment is suitable to prevent machine damage.
- Sufficient clearance exists at the sides of the machine for ventilation, and there is sufficient access for locks, switches, electrical wiring or interconnecting harnesses
- The machine is intact and contains the necessary machine keys.
- It is recommended that the mounting bench be affixed securely to the floor.

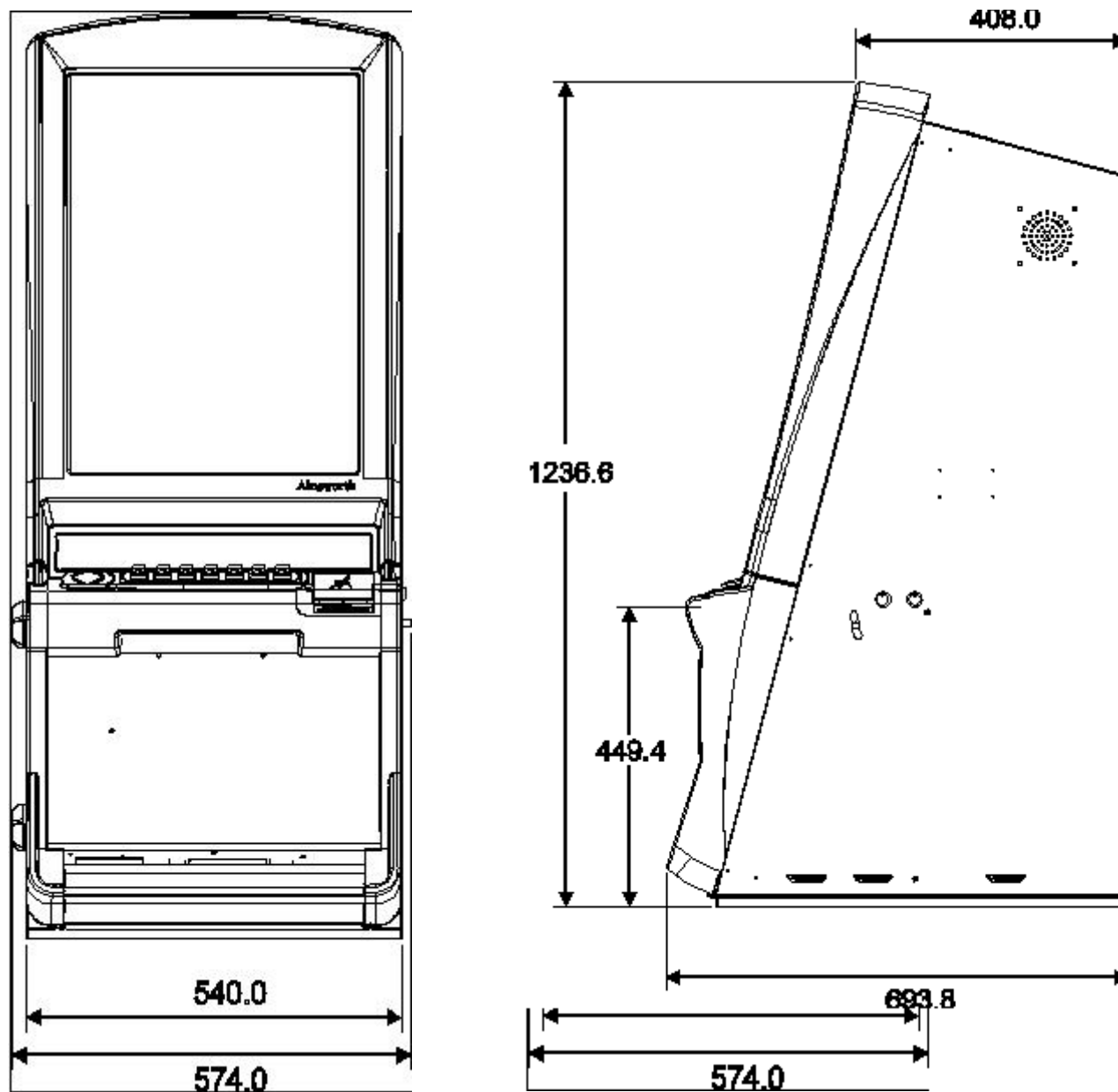


WARNING:

The gaming machine is a heavy piece of equipment. Follow your national standard and code of practice for manual handling.

Only suitably trained service personnel are to carry out installation.

Machine Size and Required Clearances



Inspection

Before installing the machine, it is important to perform a detailed inspection to ensure that the machine has not sustained any damage during transit.

Exterior

Carry out a detailed visual inspection of the exterior of the machine to verify the following:

- Exterior panels, mouldings, and fittings are free from dents or scratches. Verify that the side panels on the Main Door are undamaged.
- The ventilation grilles on the machine are undamaged and unobstructed.
- All machine external locks (if fitted) are undamaged and secure.
- The monitor and monitor mask are undamaged and secure.
- The Player Tracking Module (if installed) has all buttons undamaged and secure. Verify that any card entry is free of obstruction.
- The Coin Entry (if fitted) is undamaged and free of obstruction.
- All buttons on the Button Panel are undamaged and labelled correctly. Verify that the surface finish surrounding the buttons is undamaged.
- The Banknote Acceptor is aligned with the Banknote Acceptor bezel, undamaged and free of obstruction. Verify that the surface finish of the banknote entry bezel is undamaged.

Interior



Warning

Before you carry out the internal inspection of the machine, ensure that electrical power is not applied. Failure to observe this precaution may result in injury to personnel or damage to equipment or both.

Carry out a detailed visual inspection of the interior of the machine to verify the following:

- No components, hardware or debris are evident on the base of the cabinet. Items that were insufficiently secured or foreign objects may have become detached and fallen to the base of the cabinet.
- Ensure that all assemblies are securely installed and that they have not become loose or detached.
- Ensure that all housing wiring harnesses are secured and that all connectors are securely in place.

- Open the Logic Cage (break the Security Seal if it has been fitted) and inspect to ensure no foreign objects have fallen on to the printed circuit board assemblies or at the base of the assembly.
- Ensure that all connectors on the Backplane/Connector Board are secure.
- Ensure that the spring-loaded plunger (front left hand side of the Connector Board) is correctly seated in the locating hole of the Logic Cage — this ensures that the Interface Board and Connector Board are correctly mounted.
- Where fitted, ensure that communications equipment required in the local environment is securely seated and that the associated interconnecting cable is also securely seated.
- Ensure all add-on boards are securely seated on the Main Board.
- When reconnecting, ensure that all connectors on the Main Board are securely seated and that the interconnecting harness from the Main Board to the Interface Board is securely seated.

Machine Installation



WARNING

The machine weighs more than 140 kilograms and, due to the large picture tube size, is relatively top-heavy compared to other Bench mounted gaming machines. AGT's handling and installation directions should be rigorously followed to ensure the safety of personnel.

Exercise extreme care when transporting, removing or installing the machine or personal injury may result. Work practices should comply with your national code of practice for manual handling.

The venue is responsible for providing a bench of sufficient strength and stability to safely mount and anchor the machine. Ensure that a person qualified to calculate machine and signage loadings designs the benches. Materials used must be adequate to support machine and signage weight under extreme circumstances such as a crowded area, with heavy jostling, or an unruly crowd.

Ensure that the bench provided can support the weight and will not allow the machine to topple if people fall against it.

During installation, ensure that the machine is securely mounted on its base so that it cannot topple while you are routing the wiring in the machine.

1. Unlock and open the main door to reach the supply wiring access cover in the lower rear wall of the cabinet, or route the cable through the access hole in the base of the cabinet.
2. Remove the fastener and partially remove the access cover to route the supply and communications wiring, or route the wiring through the base as above.
3. Connect the wiring to the machine.
4. If required, re-install the access cover in the rear of the machine cabinet with the fastener previously removed.
5. Power up the machine and ensure that it boots.
6. Complete a Full Configuration procedure as described in Main Memory Operation in Chapter 4.
7. Conduct a Banknote Validator Test as described on page 48.
8. Commission the machine.

DESCRIPTION

Introduction

This chapter provides a physical description of the machine and its components, describes the basic operation of the machine, and lists its operating specifications.

Physical Description

The following is a list of the major components (in **bold**) and their related sub assemblies. Each part is described in detail in the following pages.

Cabinet Body Assembly

- Left Side Panel
 - Loudspeaker
- Right Side Panel
 - Loudspeaker
 - EGM Serial Number and Compliance Plate
 - Main Door Lock
 - Main Door Release
 - Credit Reset / Audit Key Switch
- Back Panel
- Monitor Shelf
- Main Door Assembly and Controls
- Player Tracking Module (If Installed)

Monitor Assembly

- Monitor Mask
- Monitor Control Panel
- Monitor Frame and Monitor

Main Door Assembly

- Coin Validator (if fitted)
- Coin Diverter (if fitted)
- Coin Chute Mechanism (if fitted)
- Button Panel
- Chip Tray Assembly
- Illuminated Belly Panel (if fitted)

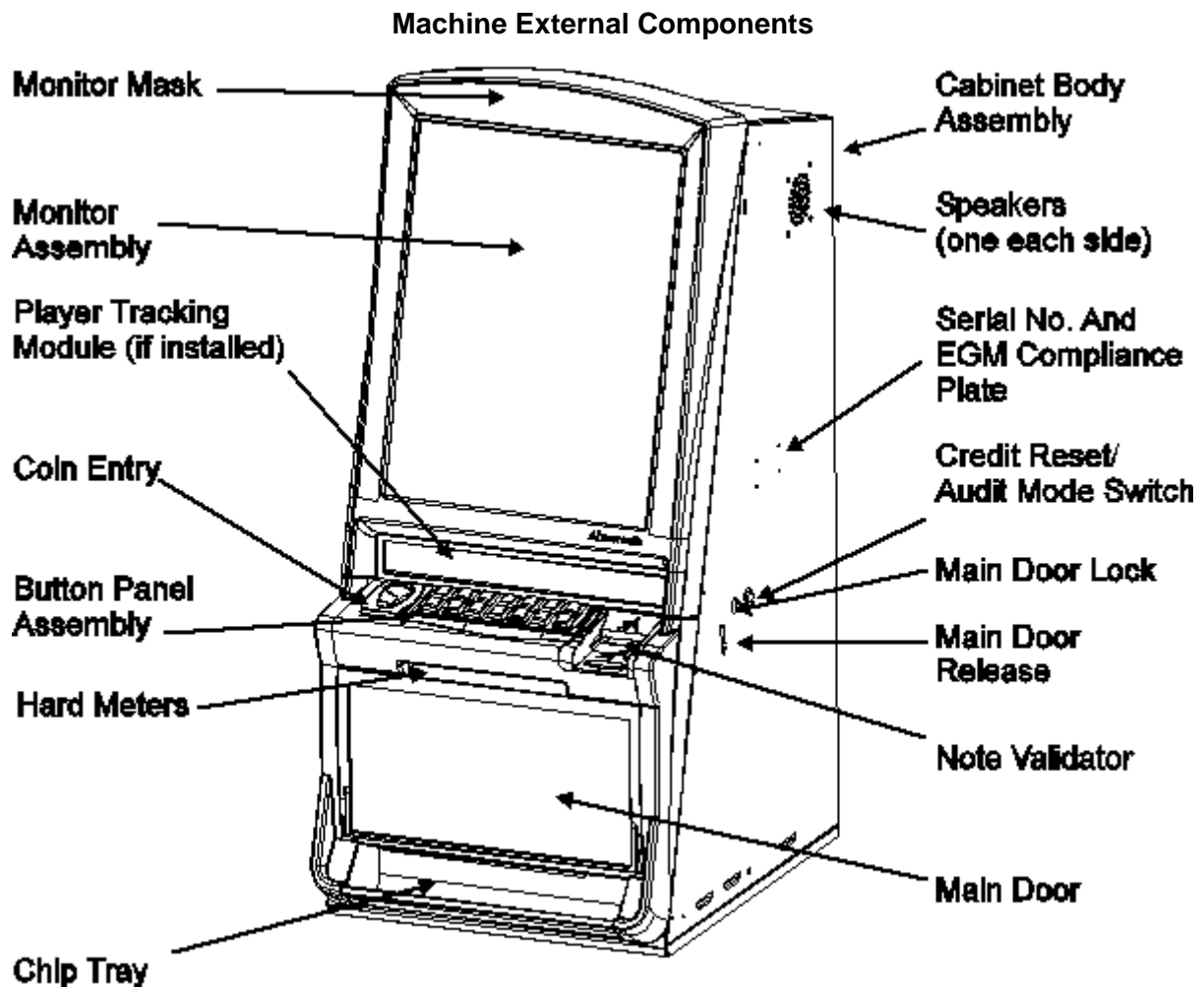
Internal Components

- Banknote Validator Assembly
- Banknote Stacker
- Banknote Validator
- Coin Hopper (if fitted)
- Universal Power Supply
- Logic Cage Assembly
- Main Board
- Interface Board
- Backplane/Connector Board

Game Display

- Game Title
- Win Table
- Credit Window
- Bet Window
- Status Display
- Win Window
- Lines Played
- Message Panel
- Game Reels

External Components



Cabinet Body Assembly

The Cabinet Body Assembly consists of five major assemblies: the Left and Right Side Panels, the back Panel, the Monitor Shelf, and the Main Door.

There are three lock assemblies mounted on the right side of the cabinet.

The front lock secures the Main Door locking bar. A knurled lever protruding from the right side of the machine below this lock opens the main door.

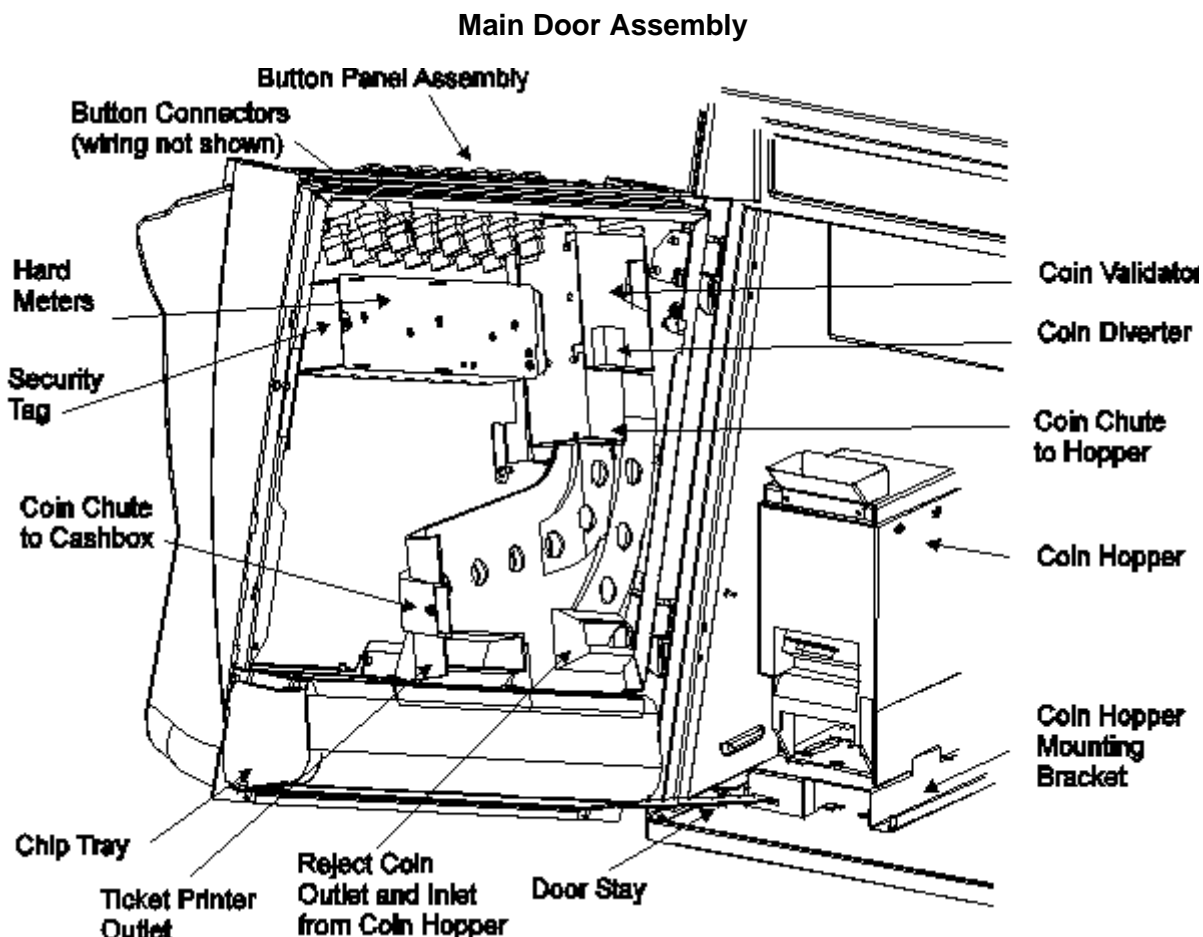
The centre lock is a switch that enables the operator to add credits to the player.

The rear lock is a two-way switch that enables the operator to perform Credit Reset and Audit Mode functions.

Main Door Assembly and Controls

The Main Door is situated at the front of the Cabinet Body and includes the Coin Validator and chute mechanism (if fitted), and the Button Panel and the Chip Tray.

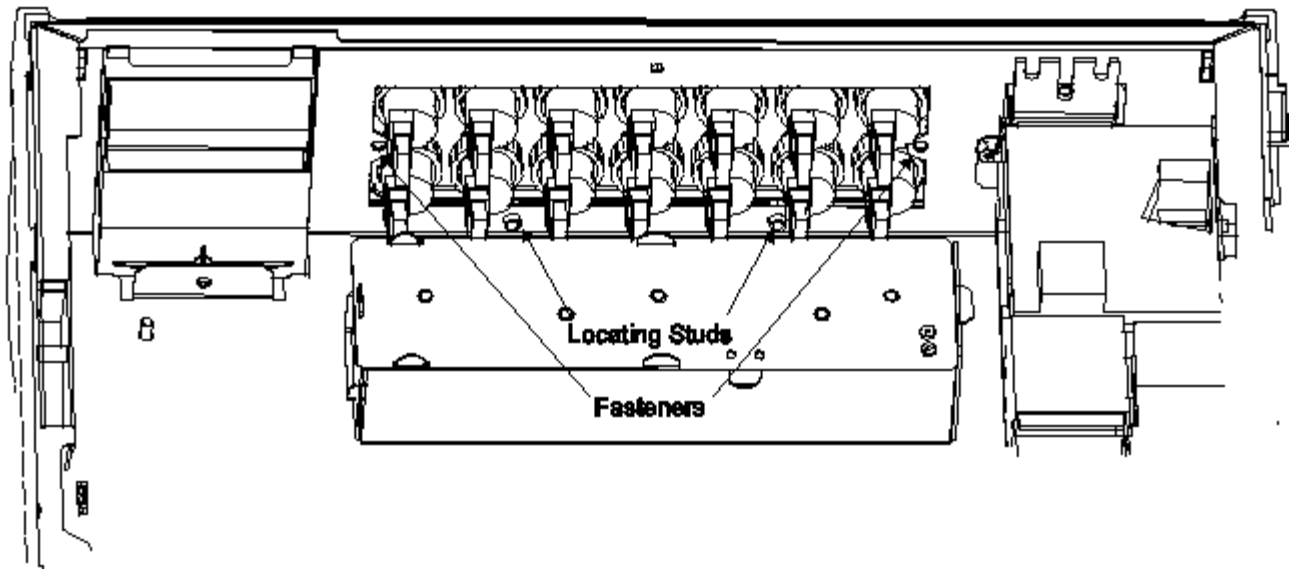
To open the Main Door, rotate the door lock on the right side of the Cabinet Body clockwise, raise the knurled lever below the lock and open the Main Door (from the right side). Note: The main door lock will not release if there is load on it. If the door does not pop open, firmly press it closed, then raise the release bar.



Button Panel

The Button Panel consists of illuminated push buttons that the player uses to interact with the EGM. The buttons also allow the operator and service technician to carry out testing and audit functions on the machine. The buttons can be replaced individually, or the buttons may have LEDs or microswitches replaced without the need to replace the entire button.

Button Panel



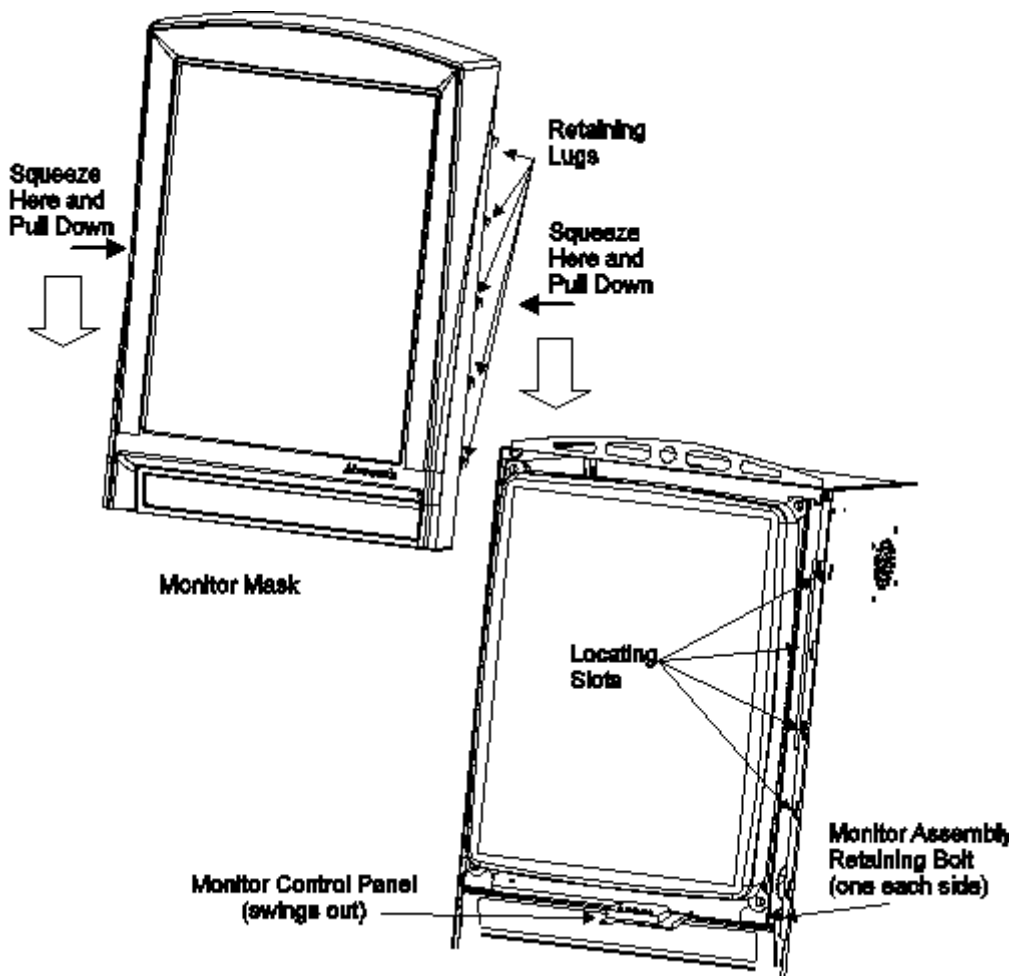
Monitor Assembly

The Monitor Assembly consists of a Monitor Mask, a Monitor Control Panel and a metal support frame that mounts the monitor itself. The Frame enables the Monitor to be removed and installed with ease by the use of automatically interlocking connectors and receptacles fitted at the rear of the Frame and Cabinet Body.

Access to the Monitor is gained by rotating the lock on the right side of the Cabinet Body clockwise, raising the knurled lever below the lock and opening the Main Door (from the right side). This also provides access to the Monitor Main Door for monitor adjustment.

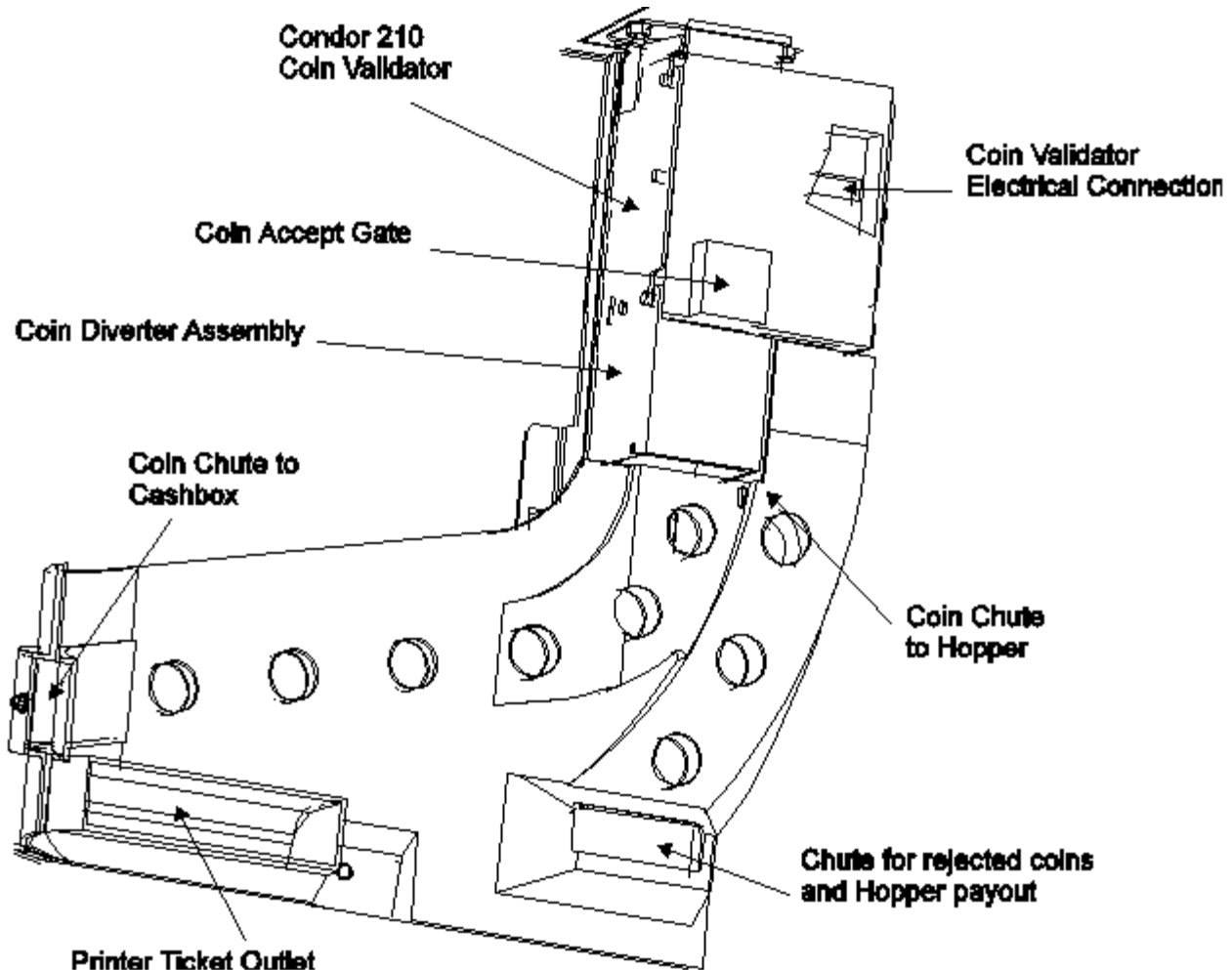
A microswitch adjacent to the Monitor Mask senses when the mask is not correctly fitted.

Monitor Assembly



Coin Validator

The Coin Validator receives coins from the Coin entry bezel and depending on the validity of the coin or the quantity of the coins in the Hopper, will guide the coins to the Coin Reject Chute, the Coin Hopper or the Cashbox.



Coin Validator Mechanism

The Coin Validator examines coins inserted through the Coin Entry Bezel and accepts or rejects the coin(s). Rejected coins are returned through the Coin Return Chute.

Coin Diverter

The Coin Diverter guides accepted coins to either the Hopper or the Cashbox. The EGM software controls the Coin Diverter.

Coin Chute Assembly

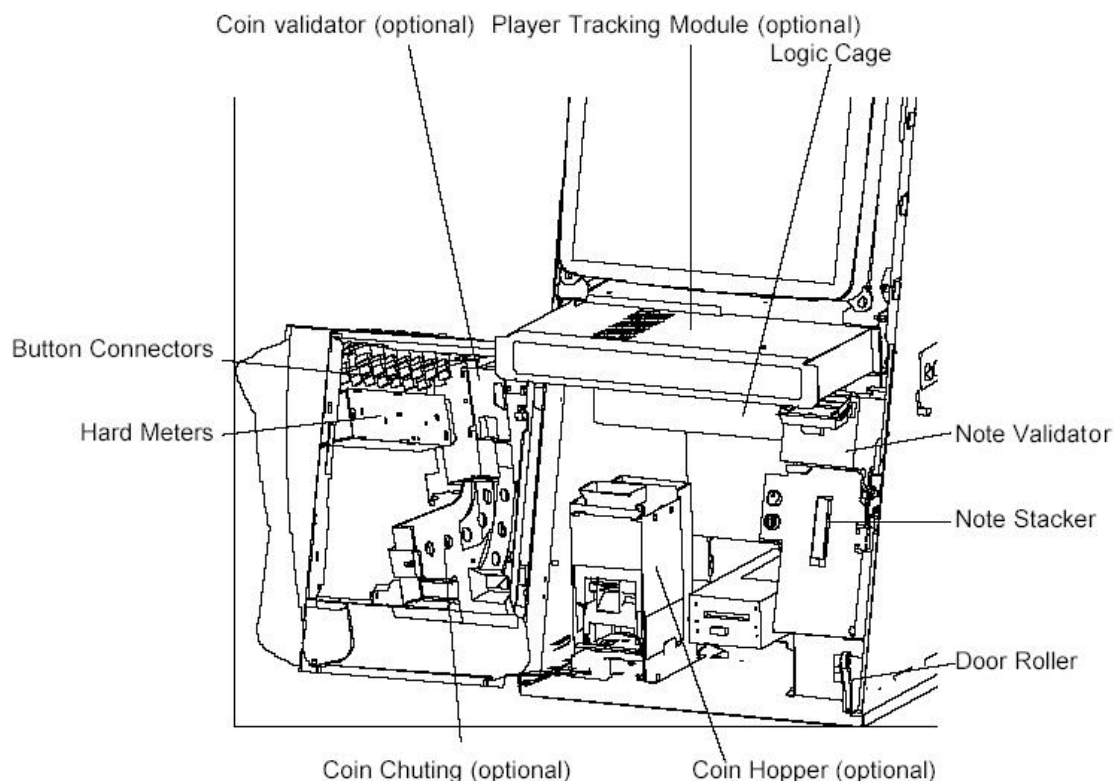
The Coin Chute Assembly is a plastic assembly that guides coins from the Coin Validator to the Coin Hopper, Chip Tray or Cash Box.

Chip Tray Assembly

If coins are in use, the Chip Tray receives reject and paid-out coins.

Internal Components

Machine Internal Components

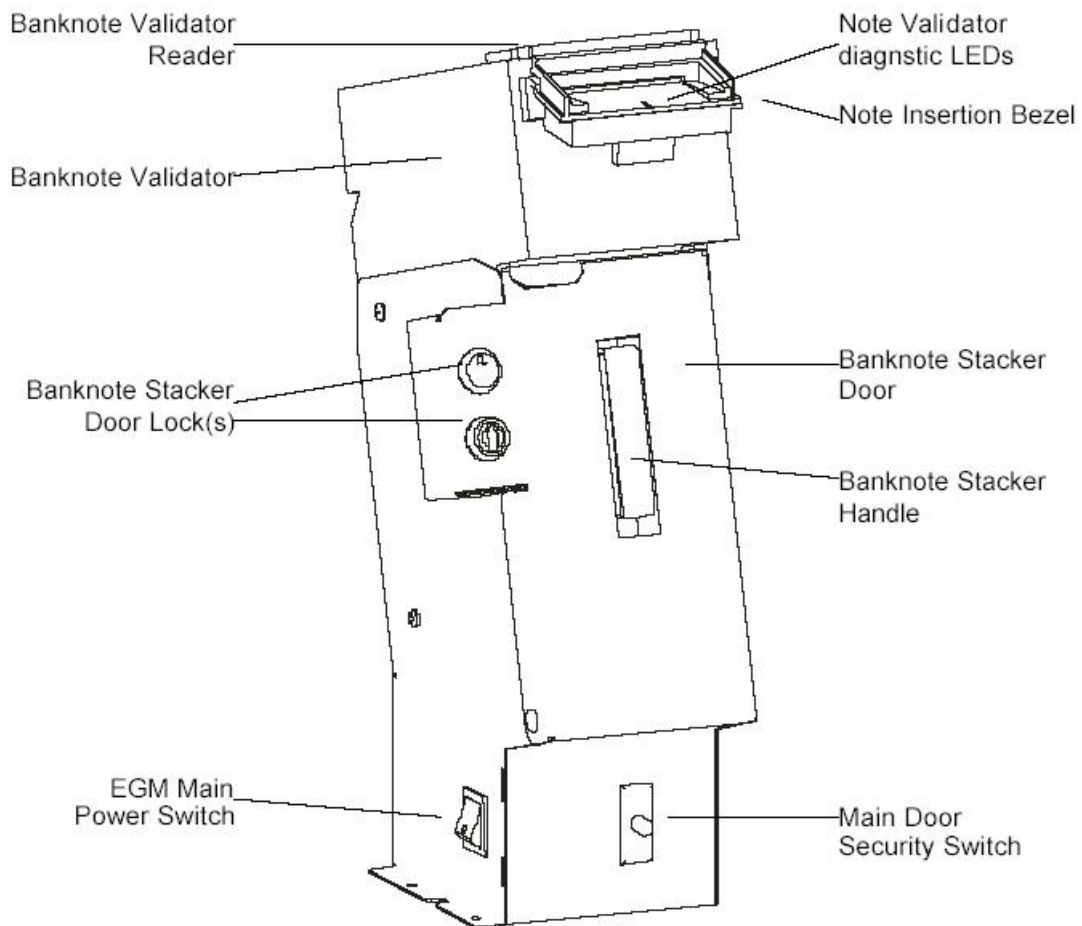


Banknote Validator Assembly

The Banknote Validator is mounted on the right hand side of the cabinet, in a structure which also contains the mains power switch.

The Banknote Validator Assembly incorporates the Banknote Validator and Banknote Stacker. The Banknote Stacker is accessed through the Banknote Stacker Door which is locked with a key. The Banknote Validator is held in place by a latch which you release to remove the Banknote Validator for servicing.

Banknote Validator Assembly



Banknote Validator

The Banknote Validator receives notes that are entered through the Banknote Validator Bezel and accepts or rejects notes by testing them. If the Banknote Validator rejects a note, the note returns to the player through the Banknote Validator Bezel. If the Banknote Validator accepts the note, it adds the value of the note in credits to the Credit Meter, and the note is guided into the Banknote Stacker for storage.

The Banknote Validator incorporates an illuminated bezel that indicates to the player whether the Banknote Validator can accept notes and a label showing which denominations. The illuminated bezel incorporates four rows of LEDs that normally illuminate sequentially, indicating that notes may be entered into the machine. Constant illumination of a single row of LEDs indicates a validator fault.

The Banknote Validator can be removed to provide access to clear minor note jams.

Banknote Stacker

The Banknote Stacker provides a secure facility for storing notes accepted by the Banknote Validator. After removing the Banknote Stacker from the machine, unlock the Banknote Stacker lock to remove the notes. The interior of the stacker accommodates a mechanism that retains the notes under spring tension once they have been inserted. The Banknote Stacker connects to the Banknote Validator by the use of a self-aligning connector.

Player Tracking Module

Space is provided above the player pushbuttons for an optional Player Tracking Module: refer to the module manufacturer's documentation for more information.

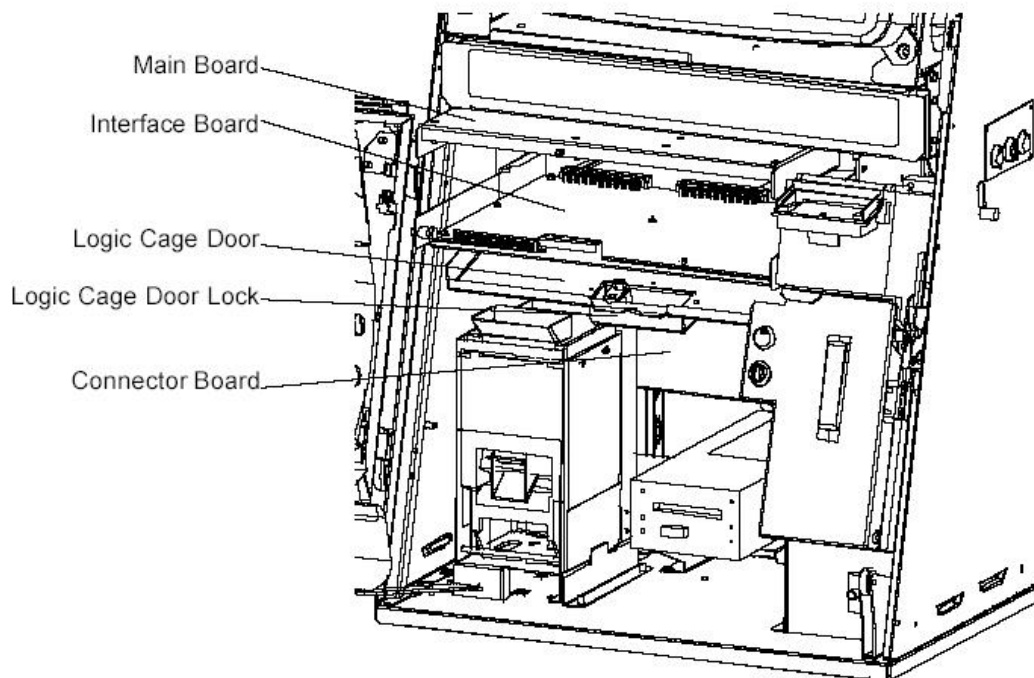
Logic Cage Assembly

The Logic Cage is mounted below the monitor shelf. It contains the printed circuit boards that comprise the EGM hardware and software.

To access the circuit boards, unlock the Logic Cage door. The boards may then be removed by sliding them forward.

Microswitches on the Logic Cage door lock enable the machine to monitor when the Logic Cage door opens. An alarm is then activated and the incident recorded.

Logic Cage



The major circuit boards within the Logic Cage are:

- Main Board
- Interface Board
- Connector Board

The Connector Board, situated at the rear of the Logic Cage, provides connection to the Interface Board, Main Board and numerous wiring harnesses.

The Interface Board is mounted on rails and connects to other devices via wiring harnesses and connectors on the connector board.

The Main Board is also mounted on rails and connects to other devices within the machine by the use of wiring harnesses and connectors.

Main Board

The Main Board provides the controlling and operating function of the machine. The board contains the CPU, Custom Board (Video Card), Auxiliary PCB (Audio and Security functions), game software, EPROMS, RAM and Flash memory, among others.

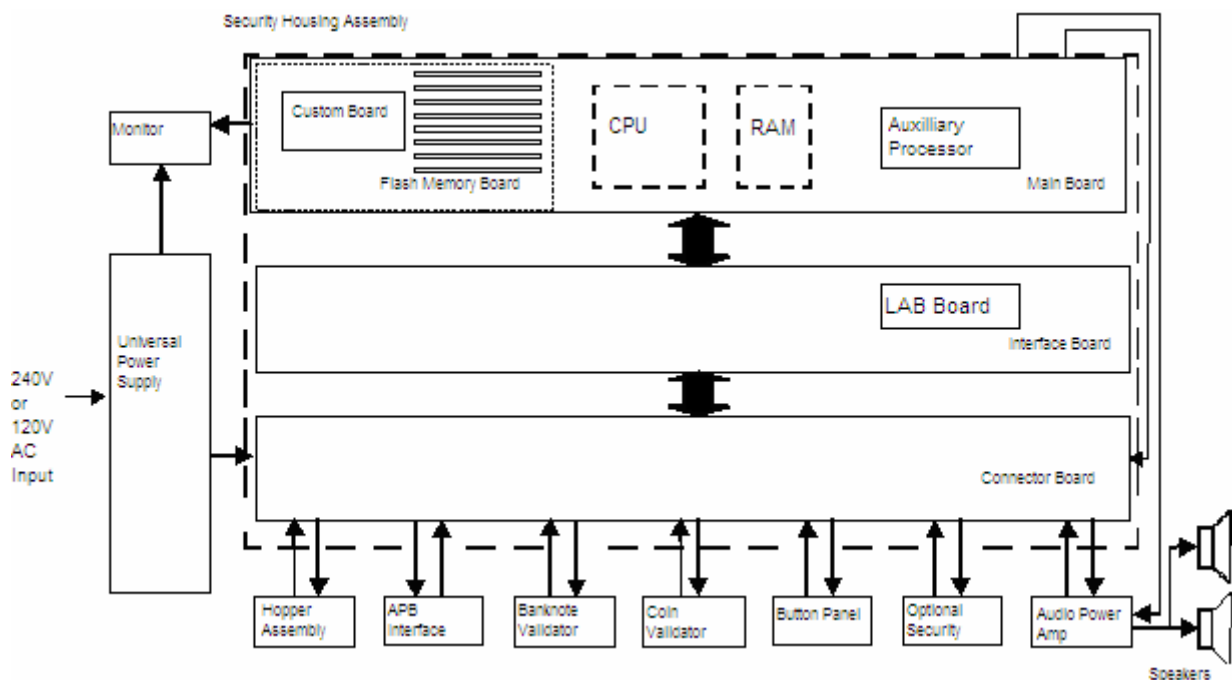
Interface Board

The Interface Board is the main IO board of the machine. The board provides the control signals and detects the input signals of the machine. The board is responsible for the filtering, buffering and level converting of the interface signals of the machine and can be described in the following blocks: Push button system, Lamps driving system, Serial communications system, Coin Validator interface system (if fitted), Hopper interface system (if fitted), General purpose I/O system, Door optic security system, Power control system, Banknote Validator indication interface, CPLDs (Complex Programmable Logic Devices), Main board interface and a Local Power Supply.

Connector Board

The Connector Board provides a function for the assemblies within the machine to connect to the Main Board. The back plate cover protects the wiring harnesses that are connected to the Connector Board so that they cannot be disconnected or tampered with without the Logic Cage door being removed.

Machine Functional Block Diagram



Basic Operation

When the machine has been set up, turn it on using the Mains on/off control switch on the base of the Banknote Acceptor housing. When the machine is switched on it undergoes an initialisation sequence where many testing functions are carried out automatically. If the machine passes the self-test during initialisation, the Game Display screen will be automatically displayed after approximately 20 seconds.

Game Display

There are several game options available for the Ambassador BenchTop series EGM, however the operation of the machine and the game functions are not changed between the different game features.

Game Display (Typical)



Game Title

The Game Title provides the operator and player with the type of game that the machine is configured for. Different game titles have different features.

Win Table

The Win Table provides the facility to determine the amount that may be won based on the amount bet and the combination of the reels of the last game played. The pay tables on the Ambassador BenchTop machines are dynamic and change with the line/bet selection.

Credit Window

The Credit Display provides the player with the facility to view the number of credits and the monetary value available for game play and/or redemption.

Bet Window

The Bet Window provides a facility for the player to view the number of credits selected to bet on the individual game.

Status Display

The Status Display provides the facility to view the machine status, prompts to the player for available options for game play, and to display messages that have been generated following machine power up and when error messages have been cleared with the use of the Credit Reset switch. The Status Display also indicates when the machine is in the Combination Test mode.

Win Window

The Win Window provides the facility for the player to view the number of credits won for the individual game.

Lines Played

The number of lines played is indicated by the depiction of the line number on a coloured background and appears at the left and right side of the game reels.

Message Panel

The Message Panel (when displayed) provides a prompt to the player to “Call Attendant” in the event of an error with the machine, or when the player wishes to redeem credits. When the Message Panel is displayed the Game Reels are hidden from view.

Note: Text of messages displayed in the Message Panel can be found in Error Messages in Chapter 4.

Game Reels

The Game reels “virtually” spin to provide reel combinations when a game takes place. Wins are calculated on the combination of the reels and the amount bet.

Specifications

The following information is provided for the Installation Technician on machine configuration, the physical, electrical, and environmental specifications of the machine, and the standards to which the machine complies.

Configuration

The machines are configured on site during installation. However some settings cannot be altered once the jurisdictional authority (if applicable) has approved the machine.

Physical

The machine is 1236 mm high by 540 mm wide by 695 mm deep. It weighs 140 kg.

The weight is for the basic configuration only. Where options have been fitted their individual weights must be added.

Electrical

The following specifications are for the various electrical configurations (including options) of the machine.

Mains Input Voltage	
220–240 VAC	100–120 VAC
Current Consumption	
1.5 A	2.5 A
Note: Electrical load varies with the options fitted to the machine.	

It is strongly recommended that all AGT machines be provided with a mains supply that includes earth leakage protection. This will protect the user, installation technician and the machine(s) from faulty mains supply.

Environmental

The Ambassador BenchTop series EGM complies with the mandated environmental requirements for wherever it is approved for operation.

Standards of Compliance

The Ambassador BenchTop series EGM complies with the mandated standards for the jurisdictions in which it is approved for operation.

TECHNICIAN MAINTENANCE AND TROUBLESHOOTING

This chapter describes maintenance and troubleshooting of the Ambassador BenchTop series EGM. In addition, this chapter lists the failure and status messages that may appear.

Warning: Information in this chapter is intended for qualified servicing personnel. Injury to people or damage to the equipment may result if untrained personnel attempt these procedures.

Audit Mode - Information Page

Audit Mode

Audit Mode - Information Page

Game Information

Fortune Fever \$0.01 20L var 99 88.19% MaxBet 1000(cr)

Machine Information

Game Name:	Fortune Fever		
Variation:	99		
Theoretical Base Pay %	88.19		
Machine Serial Number:	AG000000	Firmware No:	
Credit Denomination (\$)	0.01	Boot Eprom:	BINS001E
Coin Token Amount (\$)	0.25	Main Eprom:	MINS001C
Hopper Collect Limit (\$)	30.00	Game Eprom:	GINS001C
Hopper Refill Amount (\$)	200.00	Flash Card:	FFFP01D
Printer Collect Limit(\$)	0.00		

Meters

Banknotes	Total	Period	EGM Meters	Total	Periodic
\$1	0	0	Games Played (Stroke)	0	
(\$)	0	0	Total Coins In (\$)	0.00	0.00
			Total Coins Out (\$)	0.00	0.00
\$5	0	0	Total Cancelled Credits (\$)	0.00	0.00
(\$)	0	0	Coins To Drop (\$)	0.00	0.00
			Coins Acceptor Credit (\$)	0.00	0.00
\$10	0	0	Hopper Paid (\$)	0.00	0.00
(\$)	0	0	Extra Coin Paid	0	
			Total Progressive Win (\$)	0.00	0.00
\$20	0	0	Bill Acceptor Credit (\$)	0.00	0.00
(\$)	0	0	Total E. Transfer In (\$)	0.00	0.00
			Total E. Transfer Out (\$)	0.00	0.00
\$50	0	0	Total Drop (\$)	0.00	0.00
(\$)	0	0	Money Out (\$)	0.00	0.00
			Hopper Refill (\$)	0.00	0.00
\$100	0	0	Refill Count	0	
(\$)	0	0	Games Since Powerup	0	
			Games Since Main Door Open	0	
Total	0	0			
(\$)	0	0			

[COLLECT] - Go to Audit Mode Main Menu Screen.
 [RULES] - Exit Audit Mode.
 [TAKEWIN] and [GAMBLE] - Reset the Periodic Meters.

Audit Mode

The Audit Mode - Information Page displays a wide range of Machine Information relating to the particular configuration of the machine, as well as some of the preset limits. The information is included at this screen for operator convenience and is repeated elsewhere in the various other modes.

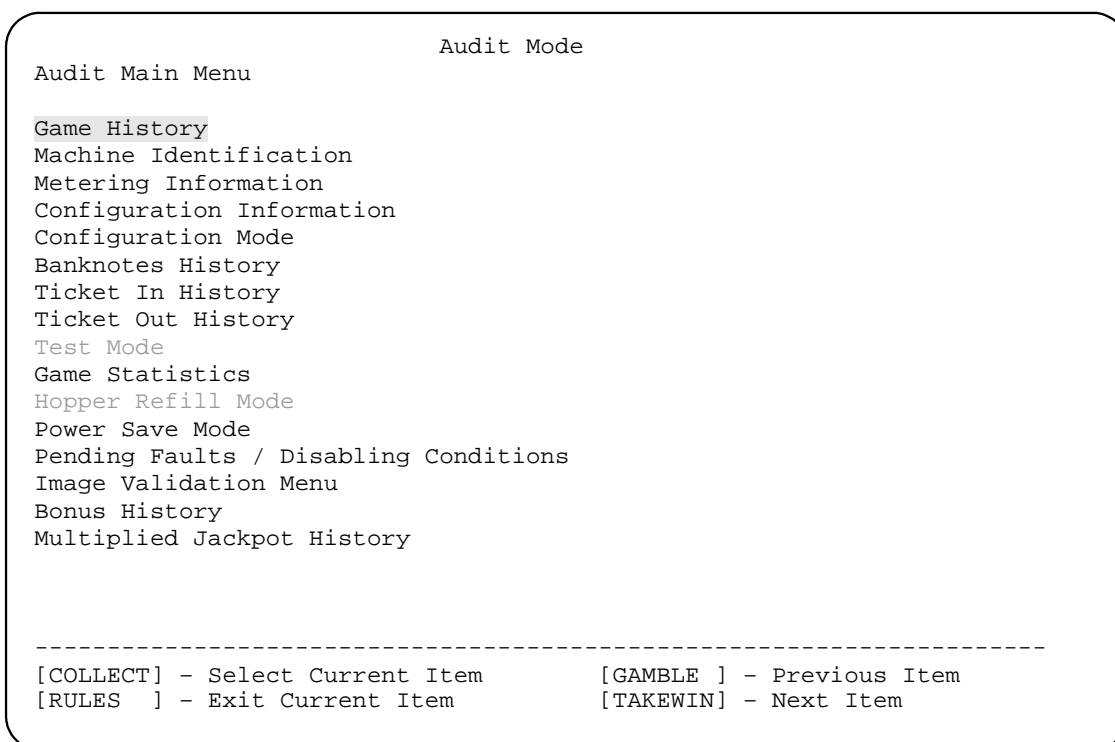
Access the Audit Mode Information screen by rotating the Audit Mode/Credit Reset switch clockwise to the Audit Mode position when the machine is in an "idle" state (i.e. no game in play). Momentarily operating the key switch to the "Reset" position may also be used to reset some error messages that may be displayed.

The Main Menu screen is accessed from the Audit Mode - Information Page and is displayed by carrying out the following procedure:

1. With the Audit Mode - Information Page displayed press the COLLECT button to display the Main Menu screen.
2. You can scroll through the options listed in the Main Menu by using the GAMBLE button (scroll up) and the TAKEWIN button (scroll down). The current option appears with a blue highlight.
3. To display an option, press the COLLECT button when the desired option appears in the blue highlight.
4. The RULES button is used to exit the current menu.

The selections that are available on the Main Menu are:

Audit Mode - Main Menu screen



Game History

The Game History (Replay) screen allows the operator to display a range of parameters relating to the last 15 games that have been played on the machine. The operator may individually select which game to view.

Within each game the metering information before and after the bet is displayed. This is useful to the operator to assist them in resolving player disputes. Another feature within this menu is the physical replay of the game (as it appeared to the player).

The individual **Game History** parameters can be displayed by carrying out the following procedure:

1. Highlight the **Game History** option in the Audit Mode Main Menu by scrolling through the options with the GAMBLE (scroll up) and TAKEWIN (scroll down) buttons. The selected option appears with a blue highlight.
2. Press the COLLECT button to enter the Game History screen.
3. With the Game History Replay screen displayed the most recent game parameters are displayed (numbered 1) and the oldest game is numbered 15. To view parameters of other games played press the TAKEWIN (select next game) or GAMBLE (selects the previous game) buttons.
4. Press the COLLECT button to display a replay of the game as it appeared to the player.
5. Where a "Free-Spin" has occurred within the game being replayed the additional free-spins can be viewed individually by pressing COLLECT. Subsequent presses of the COLLECT button will advance through the individual "Free-Spin" games. All Free-Spins must be replayed before you can exit this screen.
6. During game replay, press the RULES button to display the Rules screen.
7. Once the game has been replayed (including Free-Spins) press GAMBLE to return to the Game History Replay screen.
8. Press the RULES button to return to the Audit Mode Main Menu screen.
9. Press the RULES button twice and you will exit firstly to the initial Audit Modes – Information Page and then right out of Audit mode to the normal game screen (ready to be played).

Game History Screen

```

                                Audit Mode

      Game History Replay
Fortune Fever $0.01 20L var 99 88.19% MaxBet 1000(cr)
Available Number of Games      15      Game <15> is the oldest game available
Selected Game:                  1      Game < 1> is the last game played

      Meters for this Game
The Game started on 01,Oct,2004 15:05:17
Credit Before Bet:              97  Coin Acc. Credit ($):              0.00
Number of Lines:                 3  Bill Acc. Credit ($):              0.00
Credit(s) Bet:                   15  E. Transfer In ($):              0.00
Credit After Bet:                82  Total Drop ($):                  0.00
Game Win:                        0   Hopper Paid ($):                0.00
Multiplied Jackpot:              0   E.Transfer Out ($):            0.00
*Bonus Awarded:                  0   Cancelled Credit ($):        0.00
Jackpot Handpay:                  0   Money Out ($):              0.00
Current Credit(s):               82  Progressive Win ($):          0.00
Ticket In ($):                   0.00 Ticket Out ($):              0.00

      *NOTE: Bonus Awarded after previous game has ended

-----
      Cumulative Meters at the end of this Game
Total Coins In ($):              0.18  E. Transfer In ($):              0.00
Bonus Awards ($):                0.00  E. Transfer Out ($):            0.00
Multiplied Jackpot ($):          0.00  Total Drop ($):                  0.00
Total Coins Out ($):             0.00  Money Out ($):                  0.00
Cancelled Credit ($):            0.00  Jackpot Handpay ($):            0.00
Coins To Drop ($):               0.00  Coins Acc. Credit($):           0.00
Bill Acc. Credit ($):            0.00  Hopper Paid ($):                0.00
Total Ticket In ($):             0.00  Total Ticket Out ($):           0.00
Progressive Win ($):             0.00

-----

[COLLECT] - Replay Selected Game  [GAMBLE ] - Select Previous Game
[RULES  ] - Exit Current Menu     [SPIN   ] - Select Next Game

      *During Replay
[COLLECT] - Play the next stage of the game
[RULES  ] - Display the Rule Page
[GAMBLE ] - Exit from replay (exit not permitted during feature games)
      *NOTE: Replay not allowed, if a game is in progress.

```

Explanation of the Game History Replay Screen values:

Meters for This Game The top section of the screen describes properties applicable to the current game, or the change between games.

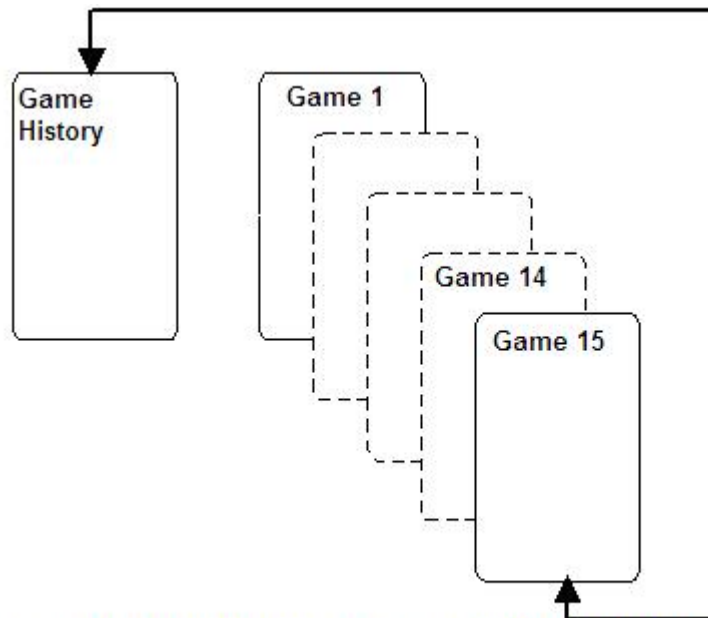
Meter Name	Description
The Game started on	The date and time the game was initiated
Credit Before bet	The credit reading before the bet was initiated
Number of Lines	The number of lines selected for this game
Credit(s) Bet	The amount of credit that is being wagered for this game
Credit After Bet	The amount of credit after the bet was initiated, but before the game was played. That is <i>Credit Before bet – Credit(s) Bet</i> .
Game Win	The credit won at the end of the game (this includes the feature wins)
Multiplied Jackpot, Bonus Awarded, Jackpot Handpay	The total amount won via multiplied jackpots, bonuses and hand paid jackpots respectively for this game
Current Credit(s)	The total credit at the end of the game. That is <i>Credit After Bet + Game Win + Multiplied Jackpot + Bonus Awarded</i> .
Coin Acc. Credit (\$)	The sum of coins inserted before the game was initiated (but not Hopper refills)
Bill Acc. Credit (\$)	The sum of notes inserted before the game was initiated.
E. Transfer In (\$)	The total of all credits electronically transferred to the EGM or paid to the credit meter and not added to Total Wins.
Total Drop (\$)	The total of all coins deposited to the cash (drop) box + banknotes accepted + electronically transferred credits.
Hopper Paid (\$)	The value of all coins output for the EGM hopper.
E. Transfer Out (\$)	The total of all credits electronically transferred from the EGM.
Cancelled Credits (\$)	The sum of credits paid by manual cancellation at the EGM.
Money Out (\$)	The total amount paid out by the EGM via coins, hand pays or cashless transfer.
Progressive Win (\$)	The total amount won via progressive jackpot for this game
Ticket In (\$)	Total sum of tickets inserted into the EGM
Ticket Out (\$)	Total sum of tickets paid by the EGM

Cumulative Meters at the End of This Game The bottom section displays the cumulative totals for all games as they were at the end of the current game.

Meter Name	Description
Total Coins In (\$)	The total value in dollars of wagered from the player's credit meter. Also known as Turnover meter.
Bonus Awards, Multiplied Jackpots (\$)	The total amount in dollars won via bonuses and multiplied jackpots.
Total Coins Out (\$)	The total value in dollars that is won and transferred to the credit meter. Also know as Total Won meter.
Cancelled Credit (\$)	The total amount in dollars paid out to the player via hand pay.
Coins To Drop	The total amount in dollars of coins inserted into the cash (drop)

	box.
Bill Acc. Credit (\$)	The total amount in dollars of bills accepted by the EGM.
E. Transfer In (\$)	The total amount in dollars transferred to EGM electronically.
E. Transfer Out (\$)	The total amount in dollars transferred from EGM electronically.
Total Drop (\$)	The total amount in dollars accepted by the EGM via coins, bills, tickets and cashless transfers.
Money Out (\$)	The total amount in dollars paid by the EGM via coins and cashless transfers.
Jackpot Handpay (\$)	The total amount in dollars paid by the EGM via Jackpot Handpay.
Coins Acc. Credit (\$)	The total amount in dollars of coins accepted by the EGM. (sum of coins into the hopper and drop box)
Hopper Paid (\$)	The total amount in dollars of coins paid out from EGM via hopper.
Progressive Win (\$)	The total amount won via progressive jackpot.
Total Ticket In (\$)	The total amount in dollars of tickets accepted by the EGM.
Total Ticket Out (\$)	The total amount in dollars of tickets paid by the EGM.

Game History Screen Sequence



Note: The Individual Game History screens may be scrolled through forwards or backwards. When the first game has been reached (scrolling backwards) or last game is reached (scrolling forwards) the game history display cycles.

Machine Identification

Use the Machine Identification screen to view the EGM software version and Hardware information.

Select the Machine Identification screen from the Audit Mode Main Menu.

Note: No parameters can be altered on this display. Some parameters displayed can be modified in the Configuration Mode selected from the Audit Mode Main Menu. The parameters shown are set during machine manufacture/configuration

Machine Identification Screen

Audit Mode

Machine Identification Page

Fortune Fever \$0.01 20L var 99 88.19% MaxBet 1000(cr)

Firmware Information

Boot Eprom Firmware No	BINS001E
Game Eprom Firmware No	GINs001M
Main Eprom Firmware No	MINS001M
Flash Firmware No	FFFPu01D

Game Information

Game Name:	Fortune Fever
Line Configuration:	20 Lines
Credit Denomination (\$)	0.01
Coin Token Amount (\$)	0.25
Variation	99
Theoretical Base Pay (%)	88.19

Hardware Information

Hopper Fitted:	Cyclone
Coin Validator Fitted:	Condor
Bill Validator Fitted:	JCM
Printer Fitted:	NO

Limits Information

Handpay win Limit (\$)	Unlimited
Maximum Wager (\$)	Unlimited
Maximum Win Amount (\$)	Unlimited
Maximum Gamble Win (\$)	Unlimited
Maximum Gamble Attempts	5
Hopper Collect Limit (\$)	30.00
Printer Collect Limit (\$)	0.00
Credit In Limit (\$)	Unlimited

[RULES] - Exit Current Menu.

Metering Information

Use the Metering Information screen to view all collected metered values. Some of the meters listed below however are initially displayed on the **Audit Mode - Information Page** for convenience.

Select the Metering Information screen from the Audit Mode Main Menu.

The Metering Information screen also displays Periodic Meters and enables you to reset them. To reset the Periodic Meters go to the Audit Mode - Information Page by pressing the rules button twice. Then press the GAMBLE and TAKEWIN buttons at the same time and the Periodic meters will be cleared and set to zero.

Metering Information Screen

Metering Information			Audit Mode	
Meter Name	Total	Periodic		
Games Played	0			
Total Coins In (\$)	0.00	0.00		
Total Coins Out (\$)	0.00	0.00		
Total Cancelled Credit (\$)	0.00	0.00		
Jackpot Handpay (\$)	0.00			
Coins To Drop (\$)	0.00	0.00		
Coin Acceptor Credit (\$)	0.00	0.00		
Hopper Paid (\$)	0.00	0.00		
Extra Coins Paid	0			
Total Progressive Win (\$)	0.00	0.00		
Bill Acceptor Credit (\$)	0.00	0.00		
Number of Bills Accepted	0	0		
Total E. Transfer In (\$)	0.00	0.00		
Total E. Transfer Out (\$)	0.00	0.00		
Total Drop (\$)	0.00	0.00		
Money Out (\$)	0.00	0.00		
Total Bill & Ticket In (\$)	0.00			
Number of Bills & Tickets In	0			
Hopper Refill (\$)	0.00			
Refill Count	0			
EFT Meters				
Total Cashable In (\$)	0.00			
Total Non-Cashable In (\$)	0.00			
Total Promotional In (\$)	0.00			
Current Cashable Cr. (\$)	0.00			
Current Non-Cashable Cr. (\$)	0.00			
Current Promotional Cr. (\$)	0.00			
Bonusing Meters				
Deductible (\$)	0.00			
Non-Deductible (\$)	0.00			
Wager Match (\$)	0.00			
Total Bonus Awarded (\$)	0.00			
Ticket Meters				
Total Ticket In (\$)	0.00			
Total Number of Tickets In	0			
Door	Count	Last Open Time		
Main Door Open	2	01,Oct,2004	9:52:13	
Drop Box Door Open	0	-		
Bill Acc. Door Open	0	-		
Monitor Door Open	0	-		
Processor Door Open	0	-		

[RULES] - Exit current menu.				

Configuration Information

The Configuration Information screen displays all the details relating to the parameters, both variable and fixed, under which the machine operates.

The displayed parameters cannot be altered here: to change settings go to the Configuration Mode screen.

Configuration Information Screen

Configuration Information		Audit Mode
Fortune Fever \$0.01 20L var 99 88.19% MaxBet 1000(cr)		
Bet Profile	Bet[1,2,3,10,40] Line[1,3,5,10,20]	
Venue Name	Location	
Machine Identification		
Machine Poll Address	001	
Machine Serial Number	AG000000	
Token Value (\$)	0.25	
Hopper Collect Limit (\$)	30.00	
Hopper Refill Amount (\$)	200.00	
Printer Collect Limit(\$)	0.00	
Credit In Limit (\$)	Unlimited	
Handpay Win Limit (\$)	Unlimited	
Device Settings		
Coin Validator Fitted	Condor	
Hopper Fitted	Cyclone	
Bill Validator Fitted	GPT	
Bill Validator Version	XX5M2R08	
Printer Fitted	NO	
SAS Configuration Informations		
Electronic Fund Transfer	YES	
Legacy Bonusing	YES	
SAS Validation Configuration Informations		
Ticket Redemption	YES	
Validation Style	Standard	
Location	Location	
Address1	Address1	
Address2	Address2	
Banknotes Settings		
Accept \$1 Notes	YES	
Accept \$5 Notes	YES	
Accept \$10 Notes	YES	
Accept \$20 Notes	YES	
Accept \$50 Notes	YES	
Accept \$100 Notes	YES	
Miscellaneous		
RESERVE Enabled	YES	
Host Fitted	YES	

[RULES] - Exit Current Menu.		

Configuration Mode

Configuration Mode enables you to set the machine's variable operating parameters, and to set the sound output level.

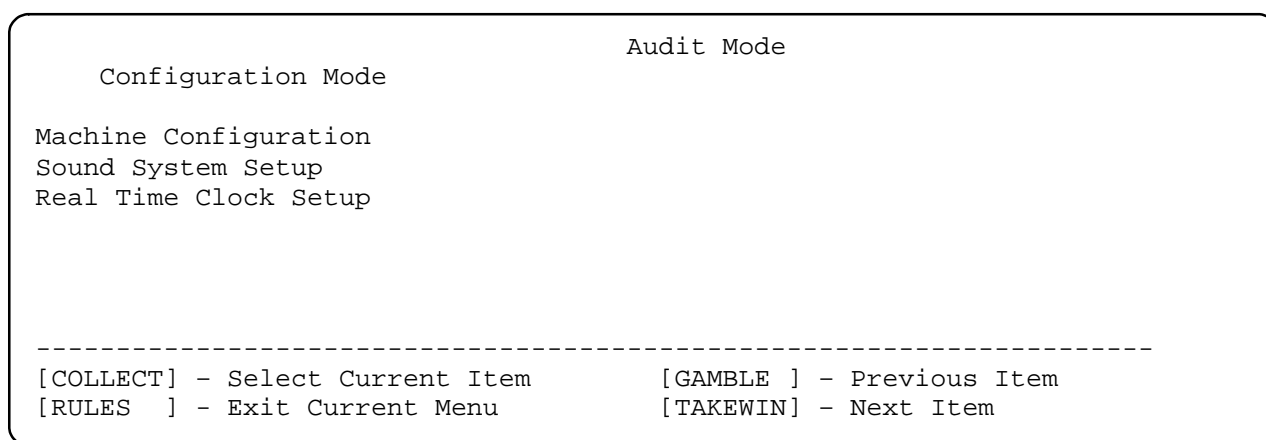
The Configuration Mode Menu has submenus for:

- Machine Configuration Setup

This submenu has one submenu of its own: the Tower Light Setup submenu.

- Sound System Setup
- Real Time Clock Setup

Configuration Mode Menu Screen



Machine Configuration Setup

This screen enables you to modify the EGM configuration settings.

At Full Machine Configuration, all items are available. Once a machine has been initially configured, several items are greyed out and no longer selectable. To perform a full reconfiguration, you must clear the NVRAM, as described in the Installation and Service Manual.

1. To select an item for editing use the GAMBLE or TAKEWIN buttons to scroll the highlight to the one you want.
2. Press the COLLECT button. One digit of the field changes its highlight colour from blue to green.
3. Press GAMBLE to increment the selected digit. Press TAKEWIN to decrement it. Press COLLECT to select a different digit.
4. When you are satisfied with the field's value, press the RULES button. The blue highlighted digit will revert to green. You may now select other fields with GAMBLE and TAKEWIN.
5. When you are satisfied with all the fields, use GAMBLE and TAKEWIN to scroll to Save. Press the COLLECT button to save your changes.

The message 'Data Saved Correctly to EEPROM' should appear. This confirms that the change has been stored.

6. To exit the Machine Configuration page select Exit using the GAMBLE or TAKEWIN buttons, then press COLLECT.

If you make changes and wish to exit without saving them, perform Exit without Save.

Machine Configuration Screen

Audit Mode

Machine Configuration

Fortune Fever \$0.01 20L var 99 88.19% MaxBet 1000(cr)

Machine Identification

Machine Poll Address	001
Machine Serial Number	AG000000
Hopper Collect Limit	(\$) 0030
Hopper Refill Amount	(\$) 0200
Printer Collect Limit	(\$) 00000
Token Value (\$)	0.25

Device Selection

Coin Validator Fitted	YES
Hopper Fitted	YES
Banknote Validator Fitted	GPT
Printer Fitted	NO

Bills Selection

Accept \$1 Notes	YES
Accept \$5 Notes	YES
Accept \$10 Notes	YES
Accept \$20 Notes	YES
Accept \$50 Notes	YES
Accept \$100 Notes	YES

SAS Configurations

Electronic Fund Transfer	YES
Legacy Bonusing	YES

Validation Configuration Sub Menu

Miscellaneous

RESERVE Enabled	YES
Host Fitted	YES

Tower Light Configuration Sub Menu

Save Exit

[COLLECT] - Select Current Item	[GAMBLE] - Previous Item
Save - Save Current Setup	[TAKEWIN] - Next Item
Exit - Exit Current Menu	

Validation Configuration Sub Menu

The Validation configuration is set up at Full Machine Configuration. This submenu allows you to view the settings but not to change them. The configurations are only applicable when a ticket printer is fitted.

Validation Configuration Sub Menu

```

                                     Audit Mode

Configuration Mode

Gaming Machine Asset Number    000000000
Ticket Redemption              NO
Validation Mode                Standard
Venue Name                    Location
Venue Address 1                Address1
Venue Address 2                Address2

-----
[ RULES ] - Exit Current Menu

```

Tower Light Configuration Sub Menu

The light tower configuration is set up at Full Machine Configuration. This submenu allows you to view the settings but not to change them. **Note:** The screen is a standard screen showing four lights on the tower although the machine has only three.

Tower Light Configuration Sub Menu

```

                                     Audit Mode

Tower Light Setup

Tower Light Profile:    Americas

Tower Light 1          Tower Light 2          Tower Light 3          Tower Light 4          Priority
( Bottom )

Fault                  FLASH MED            N/A                  N/A                  N/A                  HIGH
Door Open              ON                  N/A                  N/A                  N/A                  MEDIUM
Door Closure           N/A                  N/A                  N/A                  N/A                  VERY LOW
Handpay                N/A                  FLASH MED            N/A                  N/A                  VERY HIGH
Service                N/A                  N/A                  ON                  N/A                  LOW
Progressive            N/A                  N/A                  N/A                  N/A                  VERY LOW
Audit Mode             N/A                  N/A                  N/A                  N/A                  VERY LOW

-----
[ RULES ] - Exit Current Menu

```

Sound System Setup

Use the Sound System Setup screen to adjust the sound volume of the machine. The volume level is shown as a percentage of maximum. You cannot set a volume less than 10%.

Note: Certain mandatory sounds (i.e. Alarms) are set at predetermined volume levels and cannot be changed.

1. Access the Sound System Setup screen from the Configuration Mode Setup Menu.
2. Change the volume with the GAMBLE (increase) and TAKEWIN (decrease) buttons.
3. Press COLLECT to save.
4. Press RULES button to exit Sound System Setup.

Sound System Setup Screen

Audit Mode

Sound System Setup

You can adjust the machine volume here.
Current Volume - 18

Minimum Level = 10
Maximum Level = 100

[COLLECT] - Save Selected Value	[GAMBLE] - Volume Up
[RULES] - Exit Current Menu	[TAKEWIN] - Volume Down

Real Time Clock Setup

Use the Real Time Clock Setup screen to change the date and time. It is important to set the clock: it is used to provide the date and time for the ticket printer (if fitted), verification of note transactions, and tracking of fraudulent activities.

Note: When a time or date field has been selected the GAMBLE and TAKEWIN buttons operate differently to other configuration modes.

1. Scroll to the field you wish to set with the GAMBLE (scroll up) and TAKEWIN (scroll down) buttons.
2. Press the COLLECT button. One digit of the field changes its highlight colour from blue to green.
3. Press GAMBLE to increment the selected digit. Press TAKEWIN to decrement it. Press COLLECT to select a different digit.
4. When you are satisfied with the field's value, press the RULES button. The blue highlighted digit will revert to green. You may now select other fields with GAMBLE and TAKEWIN.
5. When you are satisfied with all the fields, use GAMBLE and TAKEWIN to scroll to Save. Press the COLLECT button to save your changes. This does not exit the screen but it positions the highlight on the Exit option.
6. When you are ready to exit this screen, make sure the highlight is on Exit and press the COLLECT button.

If you make changes and wish to exit without saving them, perform Exit without Save.

Real Time Clock Configuration Screen

Audit Mode

Configure Real Time Clock

20/10/03 (dd/mm/yy) 16:01:14 (hh:mm:ss)

Save Exit

[COLLECT] - Select Current Item	[GAMBLE] - Previous Item
Save - Save Current Setup	[TAKEWIN] - Next Item
Exit - Exit Current Menu	

Banknote Meters—History

The Banknote Meters information page gives a history of all banknotes inserted. For each denomination there are two columns, **Total**, and **Periodic**.

- *Total* is the total number of notes validated at each denomination inserted; below this the total amount is displayed in dollars. This amount increments with every deposit until the NVRAM is cleared.
- *Periodic* is a running count of banknotes and values. You can reset these counters at any time. This function is intended to keep a daily or weekly account of what goes into the machine.
- *In Stacker* is a count of all banknotes currently in the stacker. This is reset to zero when a banknote clearance is performed. To perform a banknote clearance, open the stacker door and then press GAMBLE and TAKEWIN buttons simultaneously.
- To reset the Periodic meters go to the Audit Mode – Information Page screen and press the GAMBLE and TAKEWIN buttons together.

The Banknote Meters page also displays the most recent ten notes deposited, to resolve player disputes. It shows the value of each note and the date and time it was inserted.

Banknote Meters Screen

Banknote Meters				Audit Mode	
Banknotes	Total	Periodic	In Stacker		
\$1	0	0	0		
(\$)	0	0	0		
\$5	1	1	1		
(\$)	5	5	5		
\$10	0	0	0		
(\$)	0	0	0		
\$20	0	0	0		
(\$)	0	0	0		
\$50	0	0	0		
(\$)	0	0	0		
\$100	0	0	0		
(\$)	0	0	0		
Total	0	0	0		
(\$)	0	0	0		
Banknotes Rejected (Total)				0	Reject Rate (Total) 0.00%
Banknotes Rejected (*)				0	Reject Rate (*) 0.00%
Note: * - Since Last Stacker Clearance.					
Last Stacker Clearance Time: N/A					
Banknote History (Up to Last 10)				Time	
\$ 5				01,Oct,2004 15:20:03	

[TAKEWIN] and [GAMBLE] - Perform Stacker Clearance					
[RULES] - Exit Current Menu					

Ticket In History

The Ticket In History provides a history of all Tickets accepted by the EGM. It includes information such as Ticket Type, Date, Time, Validation Type and Amount of all tickets accepted by the EGM.

Ticket In History Screen

Ticket In History					Audit Mode
Ticket In History (Up To Last 0)					
Ticket Type	Date	Time	Validation	Amount	

[RULES] - Exit Current Menu					

Ticket Out History

The Ticket Out History provides a history of all Tickets paid out by the EGM. It includes information such as Ticket Type, Date, Time, Validation Type and Amount of all tickets accepted by the EGM.

Ticket Out History Screen

Ticket Out History					Audit Mode
Ticket Out History (Up To Last 0)					
Ticket Type	Date	Time	Validation	Amount	

[RULES] - Exit Current Menu					

Game Statistics Page

The game statistics page displays statistics useful to the venue regarding the gambling preferences of their patrons. You can use this information to manage your machine inventory.

The screen has four columns:

- Bet Per Line
- Lines
- Games Played
- % Games Played

For each Bet / Line variation played, you can see the number of games played and the percentage of all games played on the machine that combination represents.

The Game Statistics Screen also displays several lines of statistics on the use of the Gamble function, as shown on the sample screen.

Game Statistics Screen

Game Statistics				
Fortune Fever \$0.01 20L var 99 88.19% MaxBet 1000(cr)				
Bet Per Line	Lines	Games Played	% Games Played	
1	1	0	0.00	
1	3	0	0.00	
1	5	0	0.00	
1	10	0	0.00	
1	20	0	0.00	
2	1	0	0.00	
2	3	0	0.00	
2	5	0	0.00	
2	10	0	0.00	
2	20	0	0.00	
5	1	0	0.00	
5	3	0	0.00	
5	5	0	0.00	
5	10	0	0.00	
5	20	0	0.00	
15	1	0	0.00	
15	3	0	0.00	
15	5	0	0.00	
15	10	0	0.00	
15	20	0	0.00	
50	1	0	0.00	
50	3	0	0.00	
50	5	0	0.00	
50	10	0	0.00	
50	20	0	0.00	
Games Played			0	
Games Won			0	
Games Lost			0	
Games Gambled			0	
Games Player Decided Not to Gamble			0	
% of Played Games Gambled			0.00	

[RULES] - Exit Current Menu				

Hopper Refill Mode

This screen provides utility to perform a Hopper Refill. *Note: This screen is only accessible when the main door is opened.* The refill amount can be configured in the Hopper Level/Refill Amount Adjustment screen.

Hopper Refill Screen

Audit Mode	
Hopper Refill	
Hopper Level: (\$)	0.00
Default Hopper Refill Amount:	200.00
Current Hopper Refill Amount:	200.00
<div style="display: flex; justify-content: space-between;"> Hopper Refill: \$ 0.00 </div> <div style="display: flex; justify-content: space-between;"> Refill Count: 0 </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> EGM Main Door: OPEN </div>	
<div style="display: flex; justify-content: space-between;"> [TAKEWIN] and [GAMBLE] - Record refill with 'Current Hopper Refill Amount' </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> [COLLECT] - Adjust Hopper Level/Current Refill Amount </div> <div style="display: flex; justify-content: space-between;"> [RULES] - Exit Current Menu </div>	

Hopper Level/Refill Amount Adjustment Screen

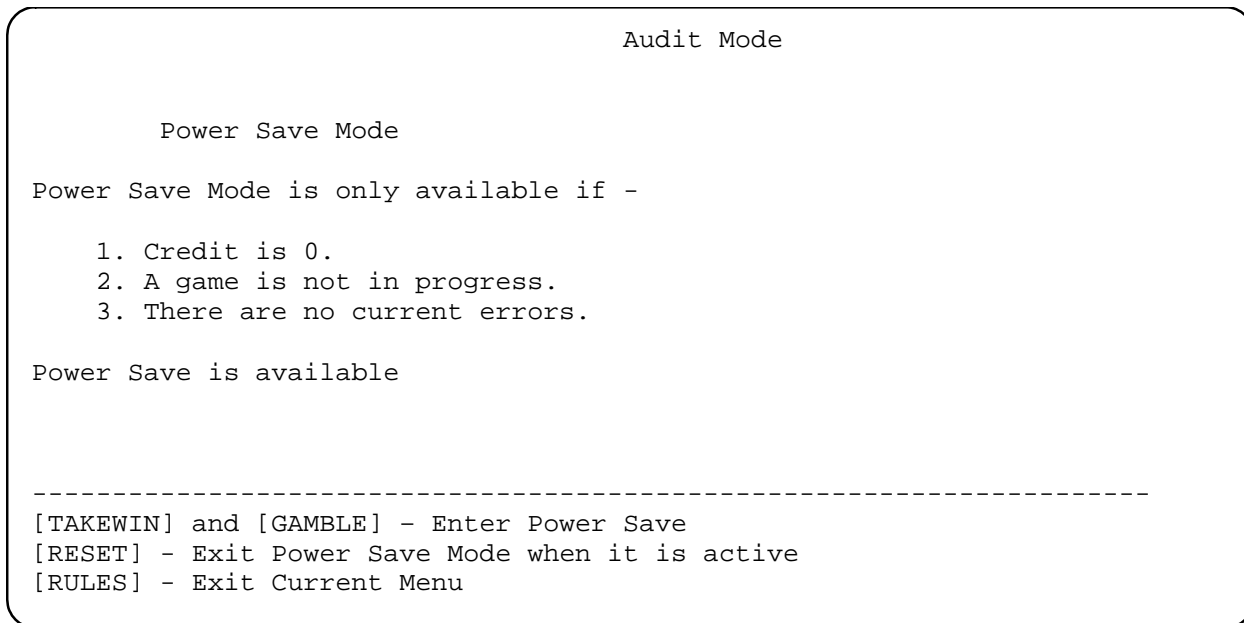
Audit Mode	
Hopper Level/Refill Amount Adjustment	
Hopper Level (\$)	000
Current Hopper Refill Amount (\$)	200
Default Hopper Refill Amount (\$)	200
Save	Exit
<div style="display: flex; justify-content: space-between;"> [COLLECT] - Select Current Item [GAMBLE] - Previous Item </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> Save - Save Current Setup [TAKEWIN] - Next Item </div> <div style="display: flex; justify-content: space-between;"> Exit - Exit Current Menu </div>	

Power Save Mode

Enter power save mode from the Power Save Mode screen by pressing TAKEWIN and GAMBLE simultaneously.

To exit power save mode turn the RESET switch to neutral position.

Power Save Mode Screen



Pending Faults / Disabling Conditions

This screen reports any pending faults or other disabling conditions.

Pending Faults / Disabling Conditions Screen

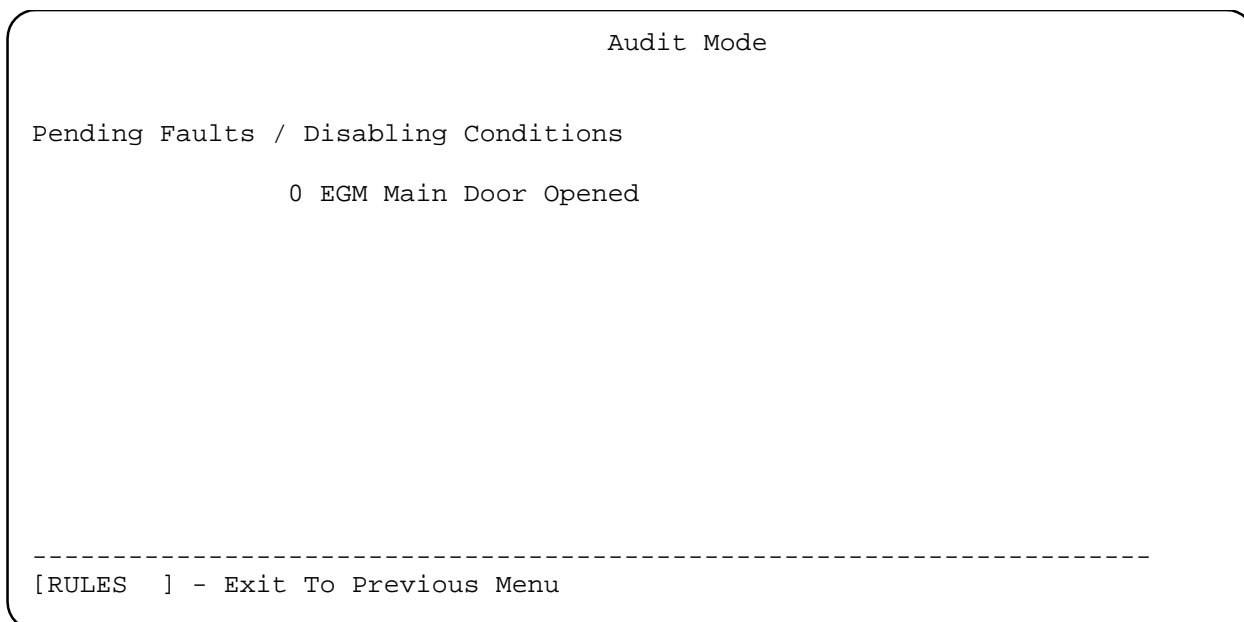


Image Validation Menu

This screen provides a utility which calculates the SHA-1 values of the two flash cards. This information can be used to verify the correct images are installed.

Image Validation Menu

Audit Mode

Image Validation Menu

Game Name: Galaxy Gold

Boot Eprom Firmware No: BINS001E

Main Eprom Firmware No: MINS001M

Game Eprom Firmware No: GINS001M

Flash Card Firmware No: FGGIN01C

SHA-1 Values

Flash Card 1 (J8) :
Yet to be calculated

Flash Card 2 (J12) :
Yet to be calculated

Calculation Progress Status - Percentage completed

[COLLECT] - Calculate the SHA-1 values. - May take up to 5 minutes.

[RULES] - Exit Current Menu.

Bonus History

This screen provides Bonus Awards History. It details the date and time, the amount and tax status of each bonus award.

Bonus History Screen

Audit Mode

Bonus Awards History

Date	Time	Bonus Awarded (\$)	Tax Status
15/11/03	12:58:58	500.00	Deductible

[RULES] - Exit Current Menu

Multiplied Jackpot History

This screen provides Multiplied Jackpot History. It details the date and time, the amount and tax status of each multiplied jackpot award.

Multiplied Jackpot History Screen

Audit Mode			
Multiplied Jackpot History			
Date	Time	Multiplied Win (\$)	Tax Status
15/11/03	01:04:33	12.00	Deductible

[RULES] - Exit Current Menu			

Test Mode

The Test Mode screen enables you to run various functional tests on the machine.

To access Test Mode:

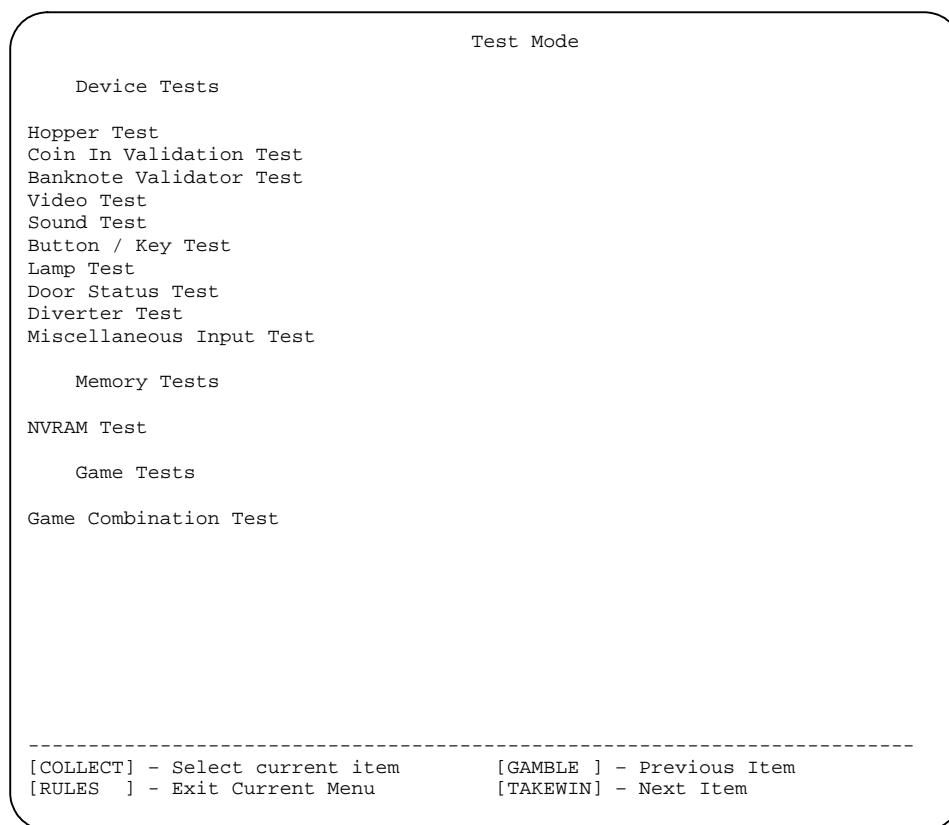
1. Display the Audit Mode Main Menu.
2. Unlock and open the Main Door.
Test Mode will change from its greyed out state, implying that it is now selectable.
3. Press GAMBLE (scroll up) or TAKEWIN (scroll down) until Test Modes is highlighted.
4. Press COLLECT and the Test Mode Main Menu will be displayed.
5. You may close the main door at this point.

At the completion of testing exit Test Mode Main Menu as follows:

1. Return to the Test Mode Main Menu.
2. Press the RULES button to exit to the Audit Mode Main Menu.
3. Press the RULES button twice to exit to the normal game screen.
4. If the Main door is open and the Error message is displayed, close the main door and the message will self clear.

The following figure shows the Test Modes menu:

Test Mode Main Menu



Device Tests

The Device Tests menu enables testing of selected connected devices.

Access the Device Tests from the Test Mode menu. Select the required test and press COLLECT.

The tests are described in the following sections.

Hopper Test

Use the Hopper Test to verify correct operation of the Hopper if fitted.

Notes:

- This only applies if a hopper is fitted.
- You must open the main door to initiate the Hopper Test, and then close it when prompted.
- Before you begin, ensure the hopper has an adequate supply of coins (minimum 10 coins). Once you have initiated the Hopper Test and dispensed some coins, there is no way to exit the test until you have reinserted the dispensed coins.

To start the Hopper Test:

1. Enter Test Mode, as described on page 44.
2. Make sure that there are at least ten coins in the hopper.
3. Select the Hopper Test from the Test Mode menu by using the GAMBLE and TAKEWIN buttons to scroll up and down.
4. Press the COLLECT button.

A red message will prompt you to close the Main Door. The coin-dispensing chute is attached to the Main Door, so the main door must be closed at this point to enable coins to be dispensed.
5. Close the Main Door.
6. Press COLLECT to initiate the hopper test. The EGM will dispense ten coins to the coin tray and confirm the count on the screen.

A red highlight message prompts you to re-insert the 10 coins. The Hopper Test screen shows the number of "Coins to Re-insert" and "Coins Re-inserted" progressively.
7. Re-insert the coins. When you have reinserted all ten coins an orange message appears noting 'HOPPER TEST COMPLETE, PRESS RULES TO EXIT.'
8. Press the RULES button to exit the Hopper Test screen.

The following figure depicts a Hopper Test screen before the test is performed.

Before Hopper Test

Test Mode

Hopper Test

Hopper Fault(s)
(none)

Coin Validator Fault(s)
(none)

[COLLECT] - Begin Hopper Test
[RULES] - Exit Hopper Test

The following figure depicts a Hopper Test screen after the test was run with an empty hopper.

After Hopper Test

Test Mode

Hopper Test

Coins to Dispense:	10	Coin Validator	DISABLED
Coins Dispensed :	0		

Coin Validator Test

Coins to Re-insert :	0
Coins Inserted :	0

HOPPER TEST COMPLETE. Press [RULES] to Exit Hopper Test.

Coin Validator Pulse Counts

VACS Pulse Count :	0	Credit Pulse Count :	0
--------------------	---	----------------------	---

Hopper Fault(s)
Hopper Empty/Jammed.

Coin Validator Fault(s)
(none)

FAULT CLEARING REQUIRED

[RULES] - Exit Hopper Test

Coin In Validation Test

(Only in use if a coin validator is fitted.)

This has two subtests:

- Coin Validator Test.
- Coin Validator Disable Test.

Coin Validator Test

To test the Coin Validator, you will need **ten** coins.

Insert the coins, observing the Coin Validator Pulse Counts line. Each counter should increment by one for each coin you insert.

- The VACS (Valid Advanced Coin Signal) Pulse Count reads the number of coins that have been accepted as electrically valid by the Coin Validator.
- The Credit Pulse Count reads the number of coins that have passed the gate and entered the machine.

The two counters should match exactly and should increment from 1 to 10 as you insert the coins.

Coin Validator Disable

The purpose of this function is to enable you to disable the validator in order to diagnose faults.

You will need ten coins.

1. Insert a coin.
2. Press GAMBLE to enable or disable the coin validator.
3. Re-insert another coin.
4. Press GAMBLE and observe the Coin Validator status line at the top right of the screen.

When the Coin Validator is ENABLED, the coin should be accepted into the machine. When it is DISABLED, the coin should be rejected.

If coins are not accepting and rejecting correctly, the Coin Validator pulse counts will give you an indication of where the fault lies.

- If the Coins Validator is ENABLED and
 - The VACS Pulse Count increments but the coin rejects, the validator is faulty or the gate is stuck in a closed position.
 - The VACS Pulse Count does not increment but the coin is allowed to pass into the machine (you see the Credit Pulse Count increment), the validator is faulty or the validator gate is stuck in the open position.
- If the Coins Validator is DISABLED and
 - The coin is accepted and the Credit Pulse Count increments. The validator gate is stuck in the open position.

Coin In Validator Test Screen

Test Mode

Coin In Validation Test

Coins Validator	:	Disabled
Software Sets Diverter to	:	Hopper
Actual Diverter position	:	Hopper

Coin Validator Pulse Counts	:	
VACS Pulse Count	:	0
Credit Pulse Count	:	0

Coin In Count	:	0
Coin(s) in Hopper Direction	:	0
Coin(s) in Cashbox Direction	:	0

Coin Validator Fault(s)
(none)

MAIN DOOR CLOSED
Please open MAIN DOOR to perform Coin In Validation Test

[COLLECT]	-	Reset Counters
[GAMBLE]	-	Enable Coin In Validator
[TAKEWIN]	-	Set Diverter to Cash Box
[RULES]	-	Exit Coin In Validation Test

Banknote Validator Test

Use the Banknote Validator Test to prove the operation of the Banknote Validator.

1. Select the Banknote Validator Test from the Test Mode menu and press COLLECT.
2. Feed banknotes into the Banknote Validator.
3. The value of each note is displayed if it is correctly recognised.
4. Each inserted note is returned immediately.

Only enabled denominations can be recognised.

Banknote Validator Test

Test Mode

Banknote Validator Test

Please insert banknotes into the Banknote Validator to test.
The value of the inserted banknotes will be displayed below.
All banknotes inserted will be ejected.
Note: Only enabled bills will be accepted.

Banknote Inserted - \$50

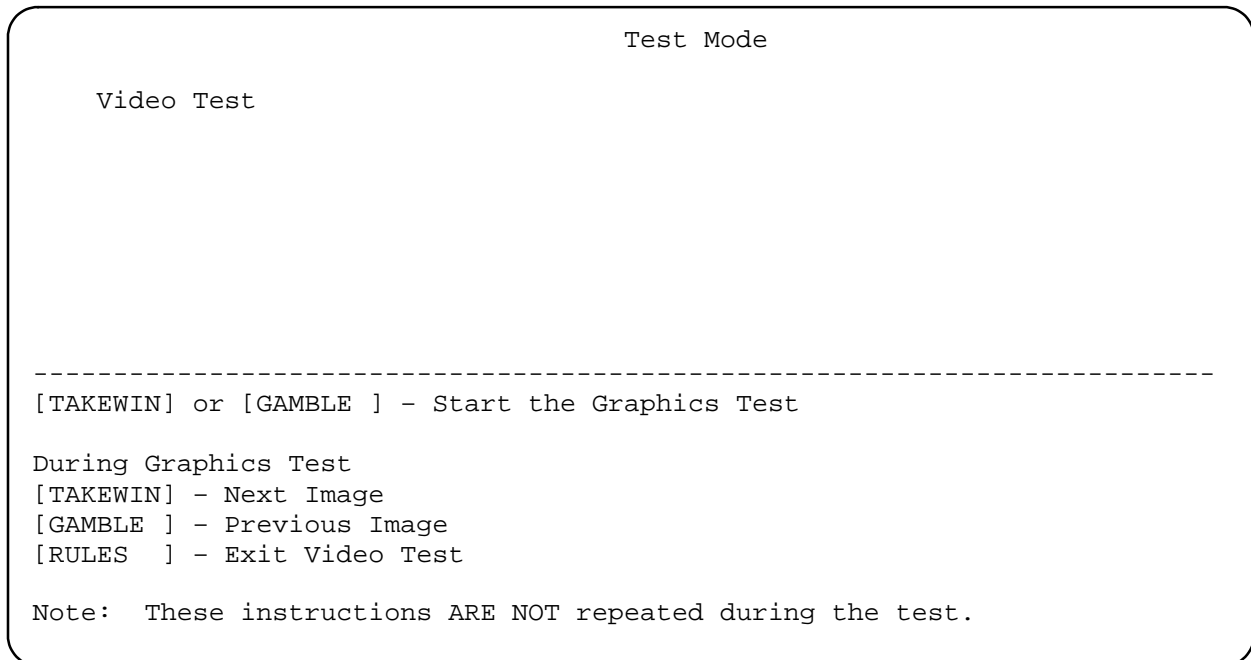
[RULES]	-	Exit Bill Validator Test
----------	---	--------------------------

Video Test

Use the Video Test to test or adjust the display.

Select the Video Test from the Test Mode menu and press COLLECT.

Video Test Page



To start the Video Test: press the TAKEWIN or GAMBLE buttons.

To display the other test screens, press the TAKEWIN (next) or GAMBLE (previous) buttons.

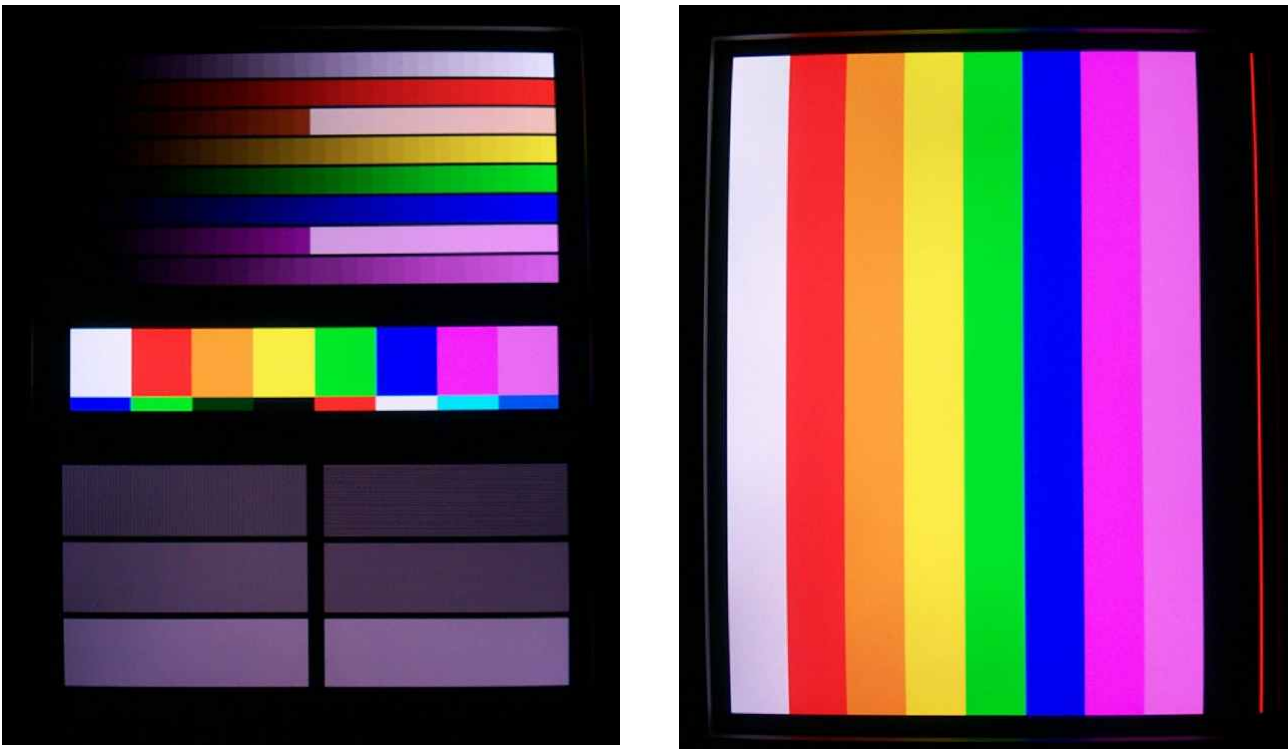
The test screens, in sequence, are:

1. 100% Red
2. 100% Green
3. 100% Blue
4. Black/white checker pattern.
5. Black/white crosshatch pattern.
6. Tones test pattern (see the illustration below).
7. Bands test pattern (see the illustration below).
8. Bands test pattern at half intensity.

To exit the Video test press RULES.

The illustration below shows the 'tones' and the 'bands' video test patterns.

Sample test patterns: ‘tones’ (left) and ‘bands’ (right)



For information on aligning the monitor, refer to *Monitor Adjustment* on 59.

Sound Test

Use the Sound Test to determine that the correct sound is being used with each machine function.

Note: The Sound Test will test all available sounds.

Select the Sound Test from the Test Mode menu and press COLLECT.

Sound Test Screen

Test Mode

Sound System Test

Total Sounds Available: 25

Current Sound Selected: 1 (Alarm).

[COLLECT] - Play Sound

[GAMBLE] - Select Previous Sound

[RULES] - Exit Current Menu

[TAKEWIN] - Select Next Sound

- Press the TAKEWIN (next sound) or GAMBLE (previous sound) buttons to select the number of the desired sound.
- Press COLLECT to play the sound.
- To exit the Sound Test, press the RULES button.

The table below shows all sounds available in the Ambassador BenchTop series of EGMs for a particular game.

Sounds

Sound No.	Sound Name	Duration (seconds)
1	Alarm	2.0
2	Feature Bell	1.4
3	Coin in	0.2
4	Melody 1	0.3
5	Melody 2	0.7
6	Melody 3	1.45
7	Melody 4	2.00
8	Melody 5	3.20
9	Melody 6	3.75
10	Melody 7	4.25
11	Melody 8	5.25
12	Melody 9	7.75
13	Melody 10	12.00
14	Melody 11	14.00
15	Melody 12	21.0
16	Melody 13	26.0
17	Reel Latch	0.25
18	Reel Stop	0.30
19	Meter Rack	1.65
20	Gamble Win	0.25
21	Gamble Lose	0.20
22	Card Flip	0.30
23	Attention	0.45
24	Bonus Win	1.0
25	Door Close	2.0
26	Feature	8.25

Note: This is an example of sounds and how they appear. The sounds are accessed within the game files and will vary slightly between games

Button / Key Test

The Button Test verifies the correct operation and sequences of the buttons.

Select the Button Test from the Test Mode menu and press COLLECT.

- Press a button to test.

The screen should show the name of the button you pressed.

- The reset key can also be tested. If you turn the key clockwise or anti-clockwise the screen will show AUDIT SWITCH and RESET SWITCH respectively.
- To exit the test press RULES twice.

Button / Key Test Screen

Test Mode

Button / Key Test

Last Key Pressed: RULES

Press [RULES] 2 Times to EXIT

Lamp Test

The Lamp Test is carried out to verify correct operation and sequencing of the lamps within the buttons on the Button Panel. To initiate the Lamp Test:

1. Select the Lamp Test from the Test Mode menu and press COLLECT
2. The Lamp Test commences automatically upon entering the screen. The individual lamps within the buttons illuminate individually in sequence (left to right) until all lamps are illuminated. Included within the test sequence is the illuminating/extinguishing of the tower lights. The lamps then extinguish individually in sequence (left to right) until all lamps are off. As the individual lamps illuminate and extinguish the Lamp Test screen displays the designation of the lamp being illuminated/extinguished.
3. Exit the Lamp Test and return to the Test Mode Main Menu by pressing the RULES button.

Lamp Test Screen

Test Mode

Lamp Test

Test cycles through all lamps until exit.

Lamp: PLAY BUTTON No 2 ON

[RULES] - Exit Lamp Test

Door Status Test

The door status test is a test that reports the status of the security doors on the EGM. It is used to confirm that the door sensors are functioning correctly. The door condition must match the status displayed on screen. In the case of the Main Door it also includes the testing of both the **optical** and **switch** sensors that monitor that particular door, so for example if on the Main Door the optical sensor is disconnected or malfunctioning while the switch sensor is functioning correctly a Door Mismatch will be reported.

To enter the Door Status Test:

1. Select Door Status Test from the Test Mode menu and then press COLLECT to enter.

Once you are in the Door Status Test page the screen will appear as shown below.

Door Status Test

Test Mode

Door Status Test

EGM Main Door	:	CLOSED
EGM Main Door Mismatch	:	NO
Cash Box Door	:	CLOSED
Processor Door	:	CLOSED
Note Acceptor Door	:	CLOSED
Note Acceptor Stacker Door	:	CLOSED
Monitor Door	:	CLOSED
Meter Cage Door	:	CLOSED

[RULES] - Exit Door Status Test

- You will see displayed the various security doors and their status.
- By opening / closing any of these doors whilst on this page you can confirm that the correct state of the door is being reported on the screen.
- When you have completed your testing, press RULES to exit from this page.

If the test indicates an EGM Main Door Mismatch, check:

- The printed circuit board in the door.
- The transmitter near the Banknote Stacker.
- The door mechanical switch; in series with:
- The door lock manual switch.

One of them is faulty or misaligned.

The "Monitor Door" interlock on Ambassador BenchTop machines refers to the interlock on the Monitor mask.

Diverter Test

(Only applicable if a hopper is fitted.)

Use the Diverter test to reveal Diverter action or sensor problems.

The Diverter test is used to confirm that the switching of the diverter between the Hopper and Cashbox is functioning correctly.

To enter the Diverter Test,

1. Highlight the Diverter Test option from the Device Tests menu. This is done by scrolling through the options with the GAMBLE (scroll up) and the TAKEWIN (scroll down) buttons. The current option appears with a blue highlight.
2. Press COLLECT to enter.

On screen will be displayed where the **Software** is setting the diverter to (i.e. Cashbox or Hopper) and secondly, where the diverter is **physically** being set. Both **must** be the same.

If the diverter is set by the software to be positioned to dispense coins to the hopper then the diverter should physically be set to hopper, if not then there is a malfunction in the unit.

The test allows you to switch the diverter between Hopper and Cashbox.

- Press GAMBLE to switch the diverter to the Hopper.
- Press TAKEWIN to switch the diverter to the Cashbox.

To Exit the test press the Rules button.

Diverter Test

Test Mode

Diverter Test

Software Sets Diverter to : Cash Box
Actual Diverter position points to : Cash Box

[GAMBLE] - Set Diverter to Hopper
[TAKEWIN] - Set Diverter to Cash Box
[RULES] - Exit Diverter Test

Miscellaneous Input Test

The Miscellaneous Input test can be used to determine the operational functionality of the Hopper (only applies if a hopper is fitted), and the hard meters.

- Hopper Level. It tests to determine whether a hopper full level is acknowledged.
- Hopper Connection status. It tests to determine whether the hopper connect / disconnect is acknowledged correctly by the EGM.
- Coin Out Sensor. It determines whether the Coin Out sensor is functioning and coins are being registered correctly.

Note: The correct functioning of the coin out sensor is imperative to the EGM. It is this sensor that the software uses to determine how much coin has been dispensed by the hopper.

- Hard Meters. It tests to determine whether the hard meters are connected.

To enter the Miscellaneous Input Test

1. Highlight the Miscellaneous Input Test option from the Device Tests menu by scrolling through the options with the GAMBLE (scroll up) and the TAKEWIN (scroll down) buttons. The current option appears with a blue highlight.
2. When Miscellaneous Input Test is selected, press COLLECT to enter.

You will be presented with a screen like the one displayed below.

Miscellaneous Input Test

Test Mode

Miscellaneous Input Test

Hopper Level	:	NOT FULL
Hopper Connection Status	:	NOT CONNECTED
Coin Out Sensor	:	NOT BLOCKED
Hard Meters Connection Status:		CONNECTED

[RULES] - Exit Miscellaneous Input Test

NVRAM Test

The NVRAM (Non-Volatile Random Access Memory) Test checks the memory chips are working correctly in each of the NVRAM banks.

Normally you would not manually run the NVRAM Test. The EGM software runs it continuously in the background. If the test fails, the EGM Software issues an appropriate message and locks up the machine.

The following is the NVRAM Test Screen. It gives a PASS/FAIL indication.

NVRAM Test Screen

```
Test Mode

NVRAM Test

PASS:   NVRAM Test.

-----
[COLLECT] - Start NVRAM Test
[RULES  ] - Exit NVRAM Test
```

If the NVRAM Test fails, contact your Field Service representative for instructions.

The Field service Technician will first attempt to clear and reload the NVRAM (see *Clear NVRAM* on page 93). If it fails again, the board must be replaced.

Game Combination Test

The Combination Test enables you to test that the correct win amounts are being paid for the amount gambled and the number of lines played.

To start the Combination Test:

1. Press the COLLECT button to initiate the test. A modified game screen is displayed. Red and green squares (one red, four green) appear in the upper right corner of each reel. The red square indicates the active reel.

Combination Test Screen

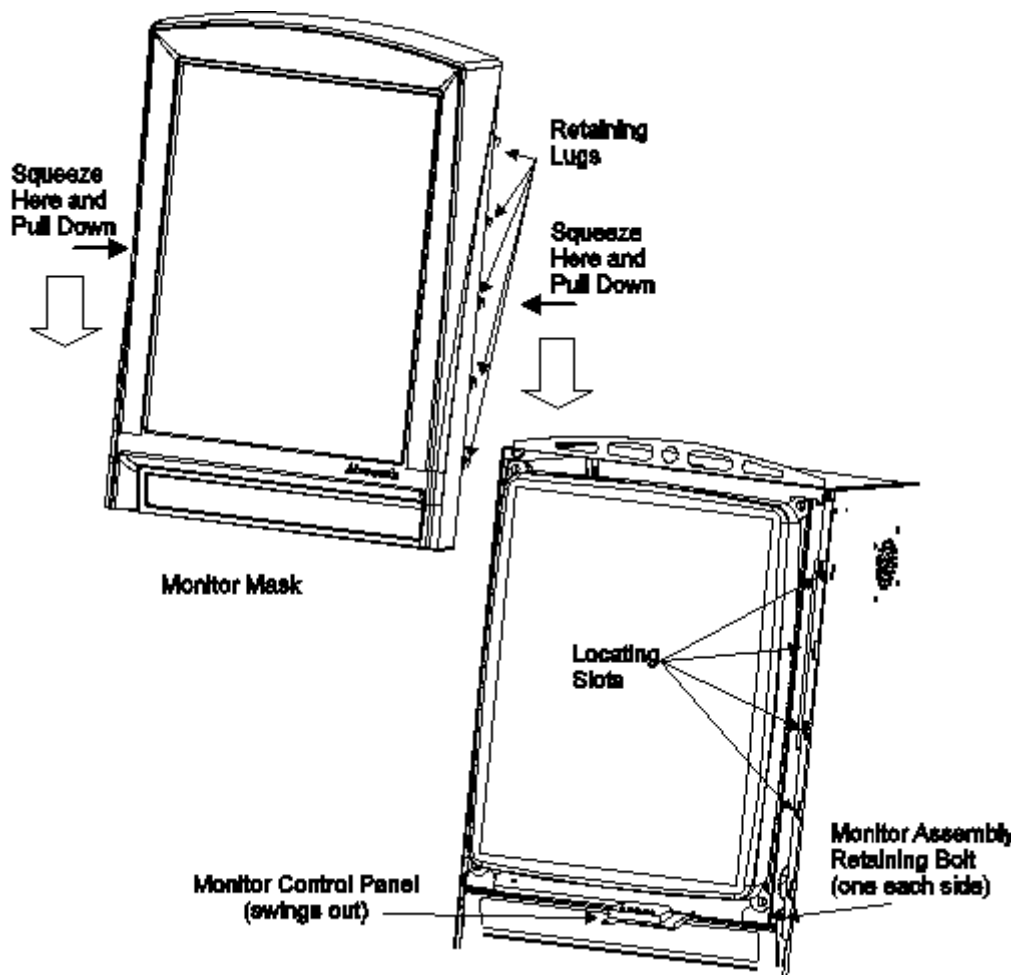


2. Press the COLLECT button to select the reel to spin.
3. Press the GAMBLE (rotate down) or TAKEWIN (rotate up) buttons to rotate the selected reel. Rotate each reel to desired position.
4. Use the BET buttons to choose the amount to gamble. The selected amount will appear in the BET window and the Pay Table win amounts change to reflect the amount gambled.
5. Use the PLAY buttons to select the number of lines to play.
The WIN window displays the credits that the game would pay. Any winning lines are highlighted on the reels, allowing the amount won to be verified according to the Pay Table.
6. Repeat the above steps to test other combinations as required.
7. Exit the Combination Test by rotating the Audit Mode/Credit Reset Switch clockwise to the AUDIT MODE position.

Monitor

The monitor controls are mounted on a swing-out control panel behind the Monitor Mask. Remove the Monitor Mask to adjust the monitor.

Monitor Assembly



Monitor Mask Replacement

Remove the Monitor Mask to access the monitor adjustments and the Player Tracking Module.

To remove the Monitor Mask:

1. Ensure that the main door is fully open.
2. Place your hands on the rim of the Monitor Mask, either side of the screen mid way down each side.
3. Squeeze inwards at the rear edges of the mask and at the same time pull down to disengage the retaining lugs at the rim of the mask.
4. The mask will unclip and come away in your hands.

To replace the Monitor Mask:

1. Align the retaining lugs along the rim of the Monitor mask with the locating slots in the Cabinet Body.
2. Push the Monitor Mask on to the front of the Cabinet.
3. When the mask is against the cabinet, lift it to enable the side clips to engage.
4. If all the lugs are correctly aligned, the mask will click into place. Do not attempt to thump the mask into place: the retaining lugs will break off.
5. Close the main door.

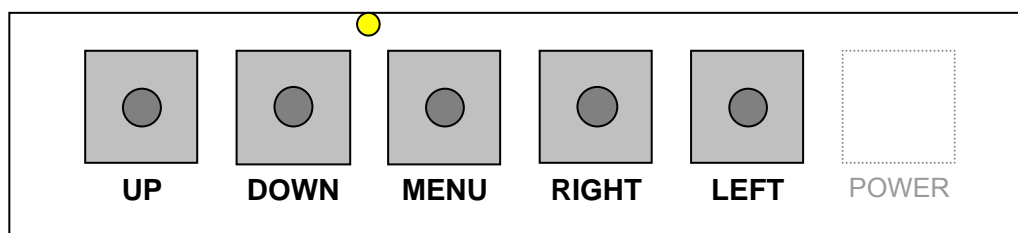
Monitor Adjustment

The monitor controls are mounted on a control panel below the Monitor Mask.

Note that the monitor is mounted sideways, with its nominal right-hand side to the top. This means that the horizontal adjustments actually affect the vertical direction and the vertical adjustments affect the horizontal. All the diagrams below are shown as if the monitor were mounted in its nominal orientation.

Key Control & OSD









Key Control



Right / Left: Move cursor to the right / left window on the OSD window.
 MENU: Launch OSD (On-Screen Display) MENU window.
 Up / Down: Increase / Decrease the value of selected Menu.

User and Factory Setting OSD Function

Icon	Control	Function
	Contrast	Adjust the contrast level of the Display.
	Brightness	Adjust the brightness level of the Display.
	H. Size	Adjust the width (horizontal size) of the display.
	V. Size	Adjust the height (vertical size) of the display.
	H Position	Adjust the position of the display horizontally.
	V Position	Adjust the position of the display vertically.
	Pincushion	Adjust the left and right margins for convex or concave distortion.
	Trapezoid	Adjust for trapezoidal distortion.
	Parallelogram	Adjust for parallelogram distortion.

Icon	Control	Function
	Pin Balance	Adjust when the sides of the screen are bowed left or right.
	Rotation	Adjust for left or right tilt.
	H-Linearity	Adjust horizontal linearity.
	V-Linearity	Adjust vertical linearity). Factory setting Mode only
	Colour Temp	Choose different preset colour temperatures or set your own customized colour parameters.
	Degauss (Right Key)	Degaussing keeps the monitor free from unwanted magnetism that can result in colour impurity.
	Recall	Reset the screen to the factory Preset Display Settings
	CLTC	Display the Life Time of CDT
	Language	Select the OSD Language: choose from 5 languages

Factory Setting Mode

- 1) Factory Setting Mode: In case all the OSD adjustment is done in Factory Setting Mode, User can recall factory setting value anytime.
- 2) Press "MENU" button first, and then press "UP" and "RIGHT" button 3 times simultaneously and see the OSD Menu background colour is changed to RED.
- 3) Perform the Image adjustment procedure
- 4) Press "MENU" button till OSD Menu screen is no longer displayed.
- 5) Press "MENU" button and check whether OSD background colour is BLUE.
- 6) Saved data will be restored only by AC power OFF and ON.

Image Adjustment

The Effinet Monitor is designed with external computer controlled system.

During the factory production process, all the adjustment is done with Computer controlled Camera system.

No.	Adjustment Items	Specification	Reference	Remark
1	H-Centring	$A - B \leq \pm 4\text{mm}$	Fig. 1	
2	V-Centring	$C - D \leq \pm 4\text{mm}$	Fig. 1	
3	H-Size (29 inch)	$H = 535 \pm 3\text{mm}$	Fig. 1	
4	V-Size (29 inch)	$V = 395 \pm 3\text{mm}$	Fig. 1	
5	Pincushion	$P \leq \pm 1\text{mm}$	Fig. 2	
6	Trapezoidal	$HA - HB \leq \pm 2\text{mm}$	Fig. 3	
7	Pin-Balance	$D1, D2 \leq \pm 2\text{mm}$	Fig. 4	
8	Parallelogram	$P1 \leq 2\text{mm}$	Fig. 5	
9	Tilt	$T1 \leq 2.5\text{mm}$	Fig. 6	
10	H-Linearity	$A - B \leq \pm 3\text{mm}$	Fig. 7	
11	V-Linearity	$C - D \leq \pm 3\text{mm}$	Fig. 7	

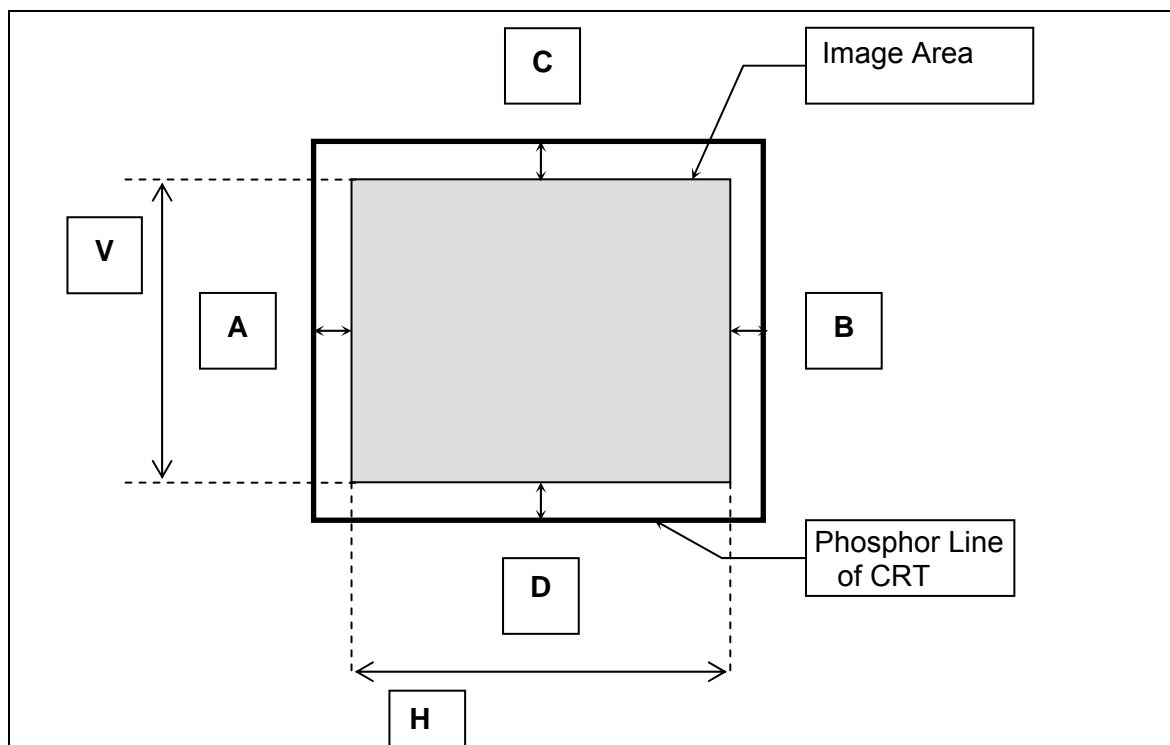


Fig.1 H / V Size and Centring

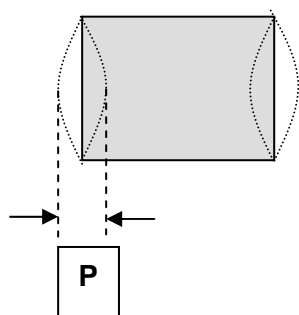


Fig.2 Pincushion

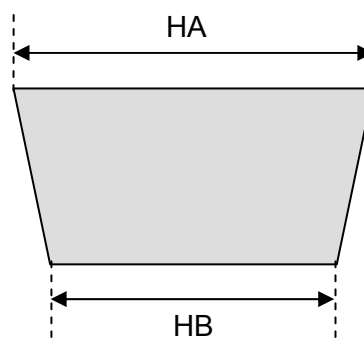
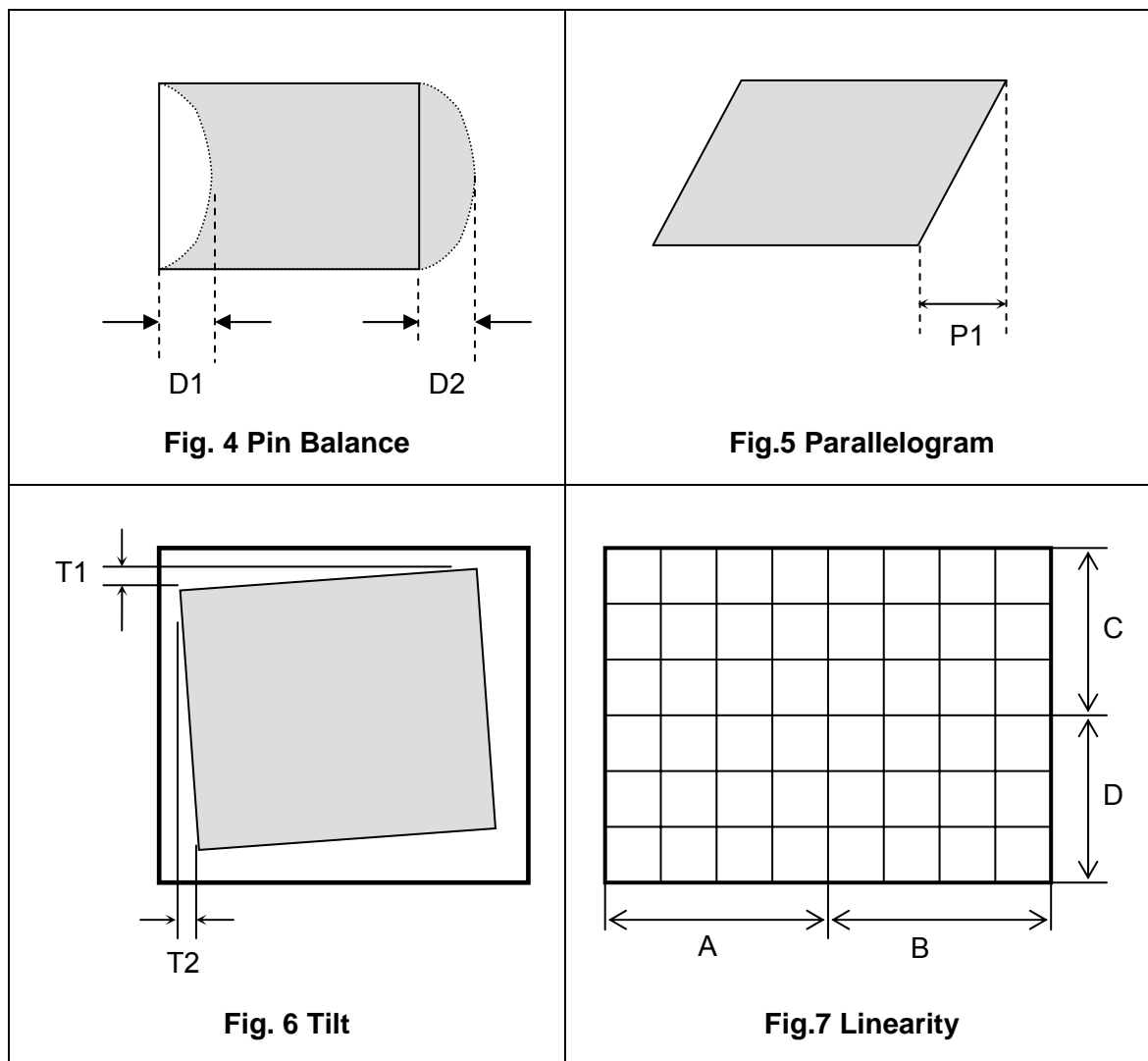


Fig. 3 Trapezoidal



Monitor Replacement

The Monitor can be removed and installed by carrying out the following procedures.



WARNING

Check that you have disconnected electrical power from the machine prior to carrying out removal/installation procedures. The monitor operates at very high voltages. Exercise extreme caution when handling the monitor or personal injury may result.

High voltages exist for MANY DAYS after power has been removed.

The monitor weighs about 45 kilograms. Exercise extreme care when removing or installing the monitor or personal injury may result. Occupational health and safety regulations must be adhered to, as specified in your National Code of Practice for Manual Handling

Removal



Warning

The monitor is heavy: use two people and practise correct lifting technique.

1. Unlock and open the Main Door.
2. Remove the Monitor Mask (see Monitor Mask in Chapter 4) to gain access to the Monitor fasteners.
3. Remove the fasteners (two screws) from the forward left and right corners of the Monitor Tray and retain.
4. Remove the Monitor by pulling forward to disengage the connectors.

Installation



Warning

The monitor is heavy: use two people and practise correct lifting technique.

1. Open the Main Door (and remove the Monitor Mask if present) to gain access to the Monitor shelf.
2. Place the Monitor on the Monitor Shelf and push to the rear. The Monitor connectors will mate with the sockets on the Monitor Shelf when the assembly contacts the rear panel.
3. Install the Monitor retaining fasteners (two screws) to the bottom left and right corners of the Monitor Tray. **Warning: If you do not replace the screws, someone may be injured the next time they move the machine.**
4. Power up the machine and ensure that the Monitor operates.
5. Carry out a Display Test and adjust the Monitor as required.
6. Fit the Monitor Mask.
7. Close and lock the Main Door.

Main Door Sub-Assemblies

The following instructions describe removal and installation of Main Door sub-assemblies.

Main Door Opening

The following procedure details how to open the Main Door.

Note: If the Main Door is unlocked or opened while the machine is on, alarms will sound and messages will be generated.

1. Insert the appropriate key into the lock in the right hand side of the cabinet, and rotate clockwise.
2. Raise and release the Main Door release lever below the Main Door lock.
3. Open the Main Door until it stops against its stay.
4. Close the Main Door firmly to automatically lock it.
5. Remove the key.

After closing the door, you must reset the EGM by rotating the Credit Reset/Audit Mode switch momentarily to the Credit Reset position.

Unlocking and Opening the Main Door

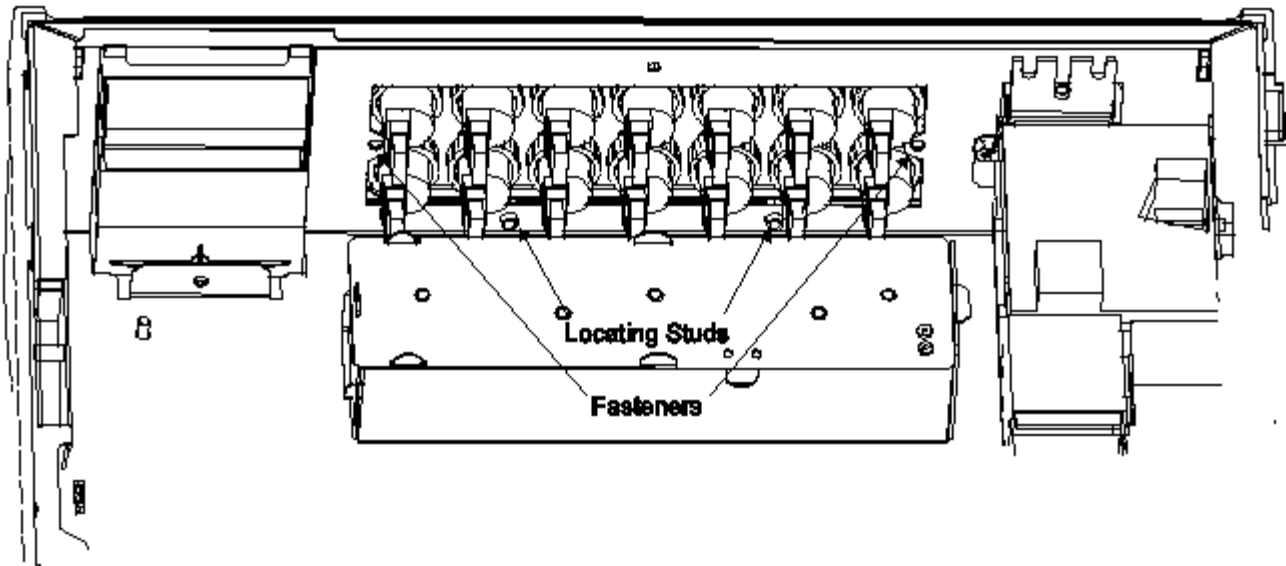


Button Panel Replacement

Removal

1. Unlock and open the Main Door to gain access to the Button Panel.
2. Power down the machine.
3. Disconnect the button panel connectors (two) from the Connector Mounting Bracket on the floor of the cabinet behind the Hopper.
4. Free the Button Panel Cable Loom cable ties all the way to the Button Panel.
5. Remove the fasteners from ends of the underside of the Button Panel and retain for re-installation.
6. Raise the forward edge of the Button Panel to disengage the locating studs, and then lift the panel out.

Button Panel



Installation

1. Open the Main Door to gain access to the underside of the Button Panel.
2. Drop the Button Panel Harness through the Button Panel opening in the Main Door.
3. Lower the Button Panel into the Main Door, ensuring the locating studs on the forward edge locate in the holes in the Main Door.
4. Install the fasteners to the underside ends of the Button Panel.
5. Re-connect the Button Panel connectors (two) to the Connector Board behind the Hopper.
6. Re-route the Button Panel Harness and secure with cable ties.
7. Close and lock the Main Door.
8. Power up the EGM.
9. Verify that each Button Lamp operates by either carrying out a Lamp Test or by operating the machine.

Coin Validator Replacement

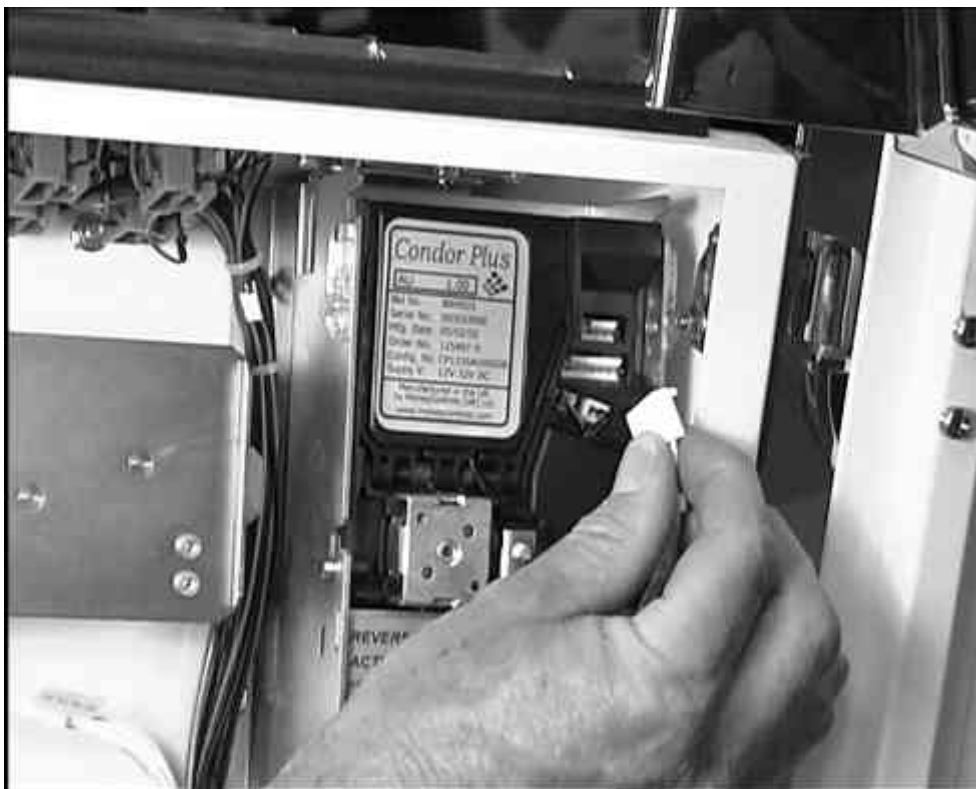
(If coin handling is fitted.)

Remove or replace the Coin Validator as follows:

Removal

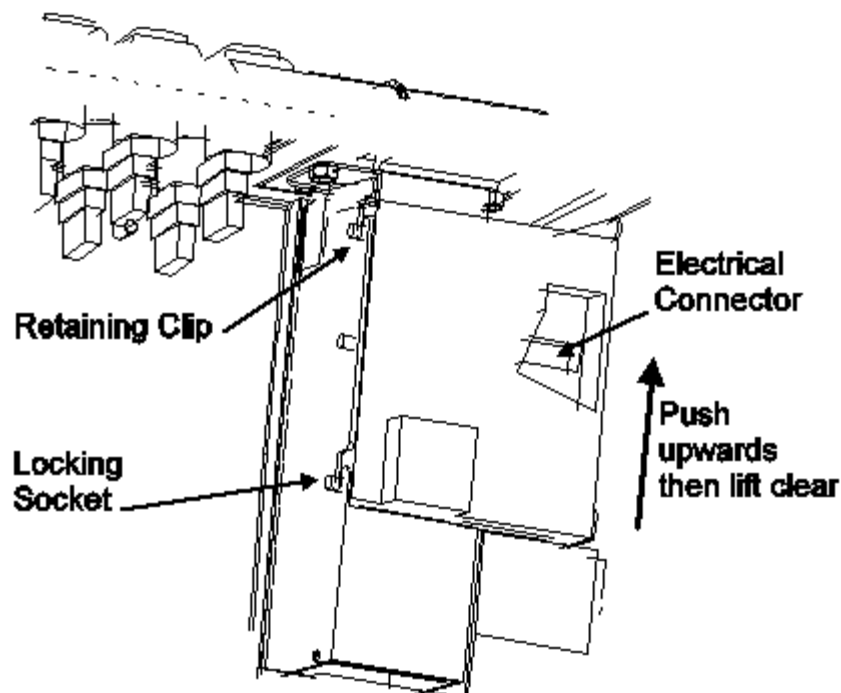
1. Unlock and open the Main Door to gain access.
2. Power down the EGM.
3. Disconnect the Coin Validator harness.

Disconnect the Coin Validator



4. Press the Coin Validator firmly upwards until the retaining clips disengage.
5. Lift the Coin Validator toward you to remove.

Coin Validator Removal



Installation

1. Locate the Coin Validator on the retention clips.
2. Apply light downward pressure to engage all four lugs in the retaining clips.
3. Re-connect the Coin Validator cable.
4. Close and lock the Main Door.
5. Power up the EGM.
6. Perform a Coin Validator test (see *Coin Validator Test* on page 47).

Note: The Coin Validator automatically carries out a diagnostic test on power up or reconnection. This diagnostic test also resets the inductive coils to compensate for the local environment and the support structure. Allow 20 seconds for the Validator to self-compensate before testing it with coins.

Coin Validator Cleaning

(If coin handling is fitted.)

The Coin Validator may reject coins with increasing frequency as deposits accumulate on the validator sensors. If the Coin Validator requires cleaning the following procedure is to be used.



Caution: Do not use any solvents to clean the Coin Validator. Use only a mild detergent solution. The use of solvents may damage the optical sensors within the Coin Validator.

1. Unlock and Open the Main Door.
2. Power down the EGM.

3. Remove the Coin Validator (see the previous *Coin Validator Replacement* procedure).
4. Open the Coin Validator coin path.

Open the Coin Validator



5. Using an isopropyl wipe, remove any residue accumulated in the coin path. Take care not to use the wipe on the optical sensors. Remove any excess cleaning solution using a clean lint-free cloth.
6. Using a cotton bud moistened with the detergent solution remove any residue accumulated on all of the optical sensors. Remove any excess cleaning solution using a clean lint-free cloth.
7. Re-install the Coin Validator (see the previous Coin Validator Replacement procedure).
8. Power up the EGM and conduct a Coin Validator test (see *Coin Validator Test* on page 47).

Coin Diverter Replacement

(If coin handling is fitted.)

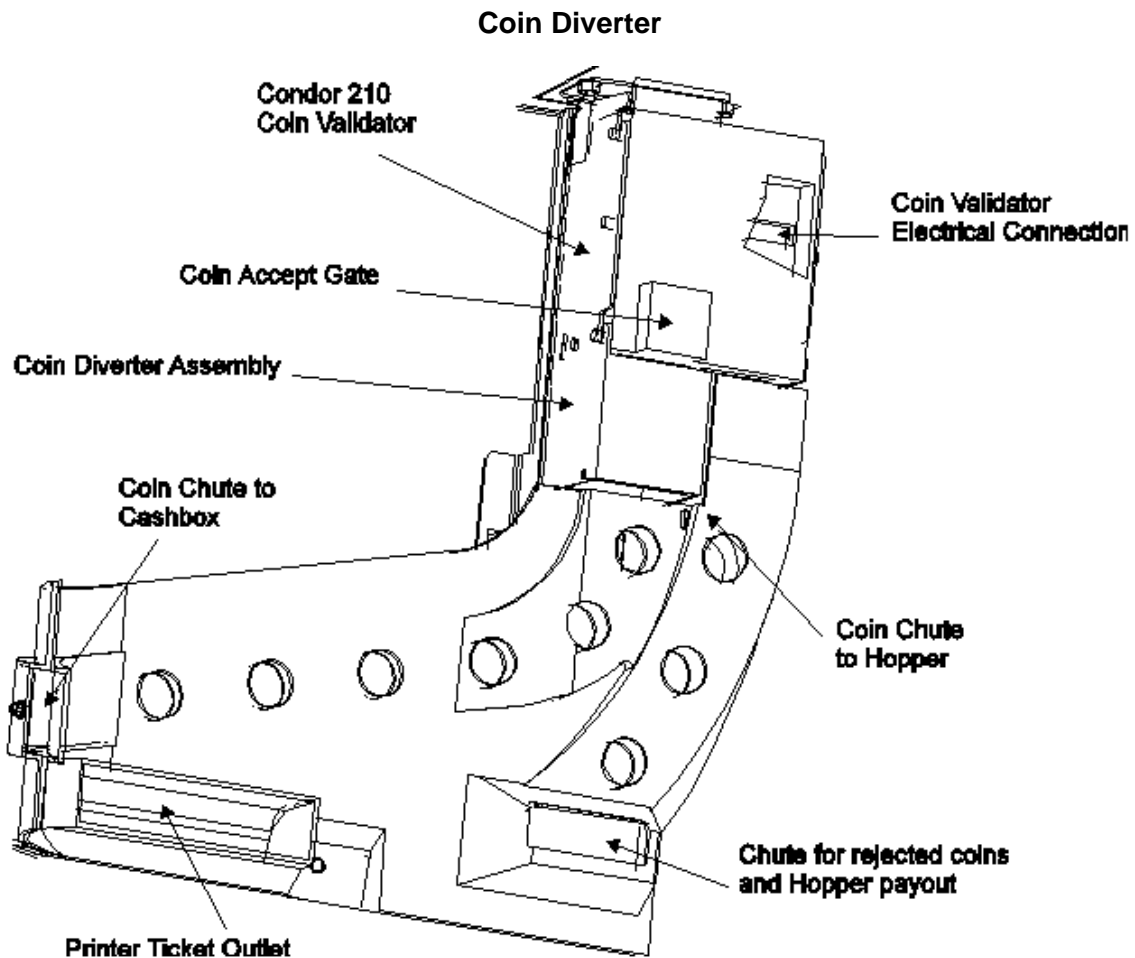
The Coin Diverter can be removed and installed by carrying out the following procedure.

Before replacing the unit, make sure the coin path is clean.

Removal

1. Unlock and open the Main Door to gain access to the Coin Diverter.

2. Power down the EGM.
3. Remove the Coin Validator from the Coin Diverter support assembly (see the *Coin Validator Replacement* procedure on page 66).
4. Disconnect the Coin Diverter (do not pull on the harness).
5. Remove the Coin Chute beneath the Coin Diverter to gain access to the Coin Diverter fasteners. Retain the fasteners for re-installation.
6. Remove two screws attaching the Coin Diverter to the Main Door and retain for re-installation. The Coin Diverter can now be removed.



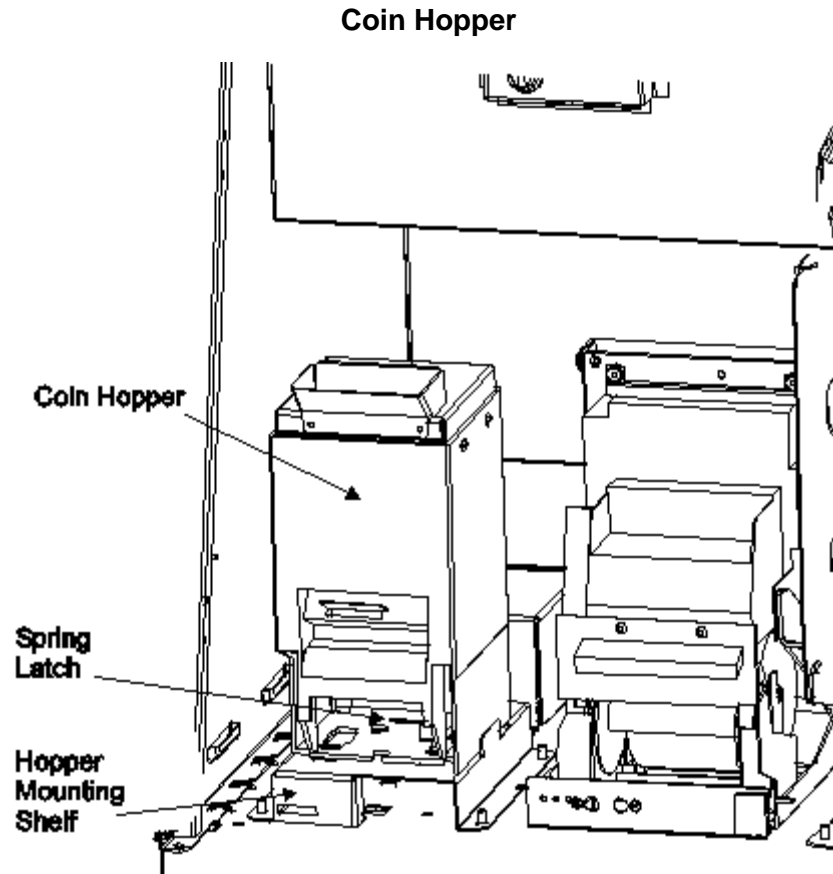
Installation

1. Locate the Coin Diverter on the Main Door and install the two screws previously removed.
2. Locate the Coin Chute beneath the Coin Diverter on the Main Door and install the fasteners previously removed.
3. Re-connect the Coin Diverter.
4. Re-Install the Coin Validator to the Coin Diverter support assembly (see the Coin Diverter Removal/Installation procedures).
5. Close and lock the Main Door.
6. Power up the EGM and conduct a Coin Diverter Test (see *Diverter Test* on page 54).

Coin Hopper Replacement

(If coin handling is fitted.)

The Coin Hopper is easily removed for loading or servicing.



Removal

1. Unlock and open the Main Door.
2. Power down the EGM.
3. Depress the spring latch at the base of the Coin Hopper.
4. Pull the base of the hopper towards you.

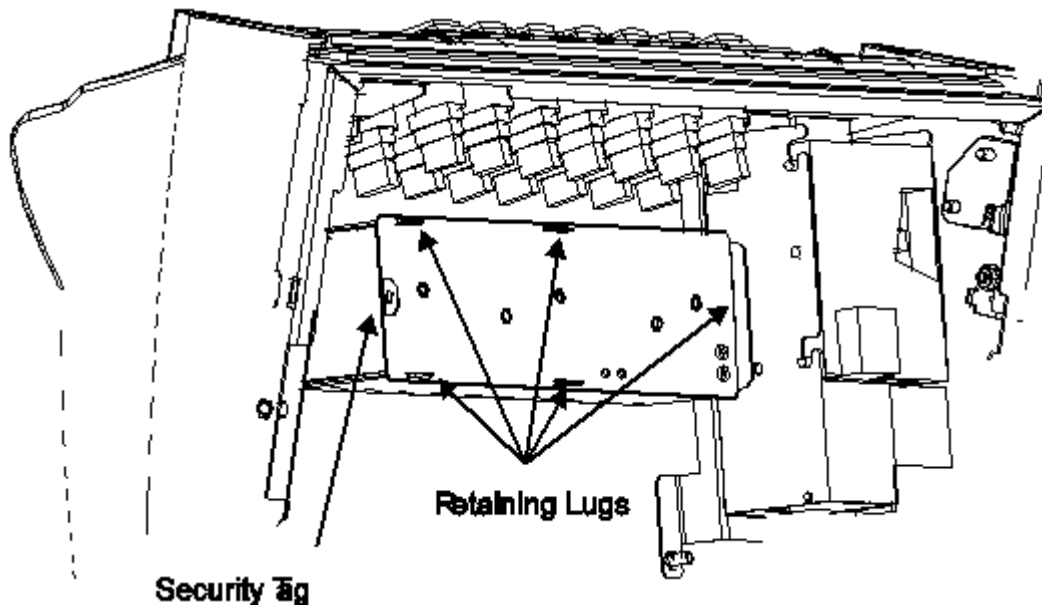
Before replacing the unit, clean the optical sensor and coin path area.

Installation

1. Place the Coin Hopper on the tray and push it rearwards. The Coin Hopper connector mates with the socket at the rear when the spring latch engages on the base of the hopper.
2. Power up the EGM.
3. Close and lock the Main Door.
4. Conduct a Coin Hopper test.

Hard Meter Assembly Replacement

The Hard Meters can be removed and installed by carrying out the following procedure:



Removal

1. Unlock and open the Main Door to gain access.
2. Power down the EGM.
3. The hard meter assembly is retained in the meter cage by twisted lugs. Use heavy pliers to straighten the retaining lugs.
4. Break the security seal from the security tag.
5. Lift the hard meters from the cage.
6. Unplug the electrical connection from J1 and release the wiring harness.

Installation

7. Plug the electrical connection into J1 on the Hard Meter board.
8. Refit the wiring harness into the retainer.
9. Place the Hard Meters board in the Hard Meters cage and twist the retaining lugs.
10. Re-apply a new security seal to the security tag.
11. Close and lock the Main Door.
12. Power up the EGM.

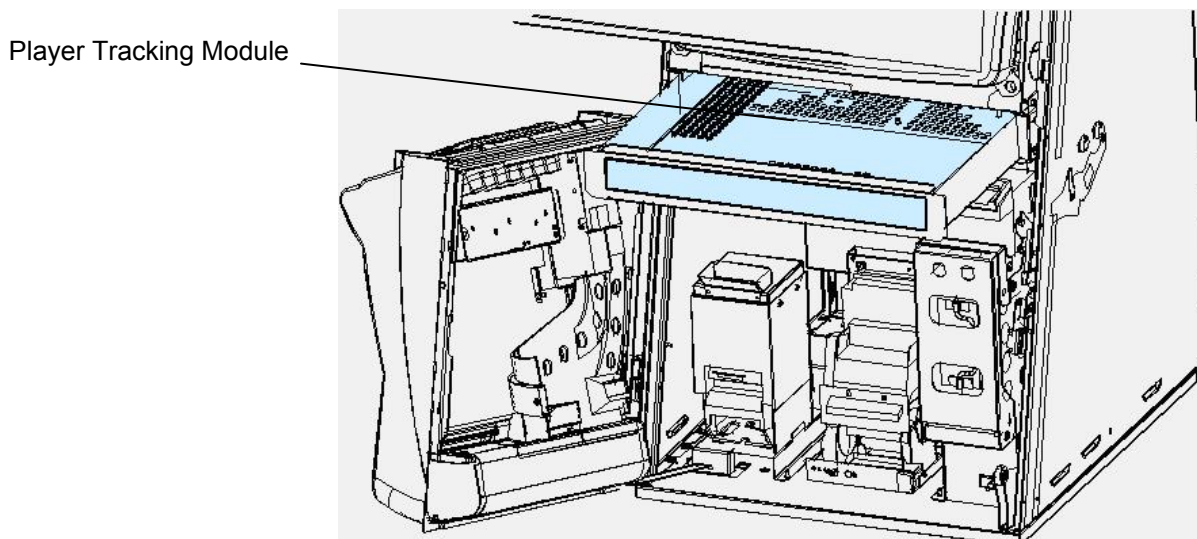
Player Tracking Module Replacement

(If player tracking is in use.)

Removal

1. Unlock and open the Main Door.
2. Power down the EGM.
3. Remove the Monitor Mask.
4. Reach beneath the Player Tracking Module in the centre for the Retaining Screw and unscrew it until it drops down.
5. Slide the Player Tracking Module drawer towards you.
6. Disconnect the Player Tracking Module earth connection.

Player Tracking Module



Installation

1. Unlock and open the Main Door.
2. Power down the EGM.
3. Mount the Player Tracking Module in position in its drawer.
4. Connect the Player Tracking Module earth connection.
5. Slide the drawer fully home.
6. Reach beneath the Player Tracking Module in the centre for the Retaining Screw.
7. Engage the retaining screw in the captive nut on the bottom of the Player Tracking Module, and screw it finger-tight.
8. Replace the Monitor Mask.
9. Close and lock the Main Door.
10. Power up the EGM.

Banknote Stacker Assembly

Removing and Replacing the Banknote Stacker

The following procedure details how to remove the Banknote Stacker (**Note:** *The Banknote Stacker is from one specific manufacturer and hence depending on Banknote Stacker manufacturer, the method of removing and replacing Banknote Stacker may differ*).

Note: If the Banknote Stacker Door is unlocked and opened while the machine is on, alarms will sound and messages will be generated.

1. Open the Main Door.
2. Unlock the Banknote Stacker Door with the appropriate key. Open the door forward.
3. You will see a locking lever on the right. Depress it.
4. Grasp the Banknote Stacker handle and slide the stacker out part-way. Then release the locking lever and slide the Banknote Stacker all the way out.

The following procedure details how to install the Banknote Stacker.

5. Unlock the Banknote Stacker Door with the appropriate key. Open the door forward.
6. Position the Banknote Stacker in the opening and slide it in until it clicks into place.
7. Close and lock the Banknote Stacker Door.
8. Close the Main Door.

When you have finished, you must reset the machine by rotating the Credit Reset/Audit Mode switch momentarily to the Credit Reset position.

Removing, Dismantling and Replacing the Banknote Validator

Use this procedure to remove the Banknote Validator. The only reasons for removing the Banknote Validator are to clear minor jams and to clean it. (**Note:** *The Banknote Validator shown is from one specific manufacturer and hence depending on Banknote Validator manufacturer, the method of removing, dismantling and replacing Banknote Validator may differ*).

Note: If you open the Banknote Validator while the machine is on, alarms will sound and messages will be generated.

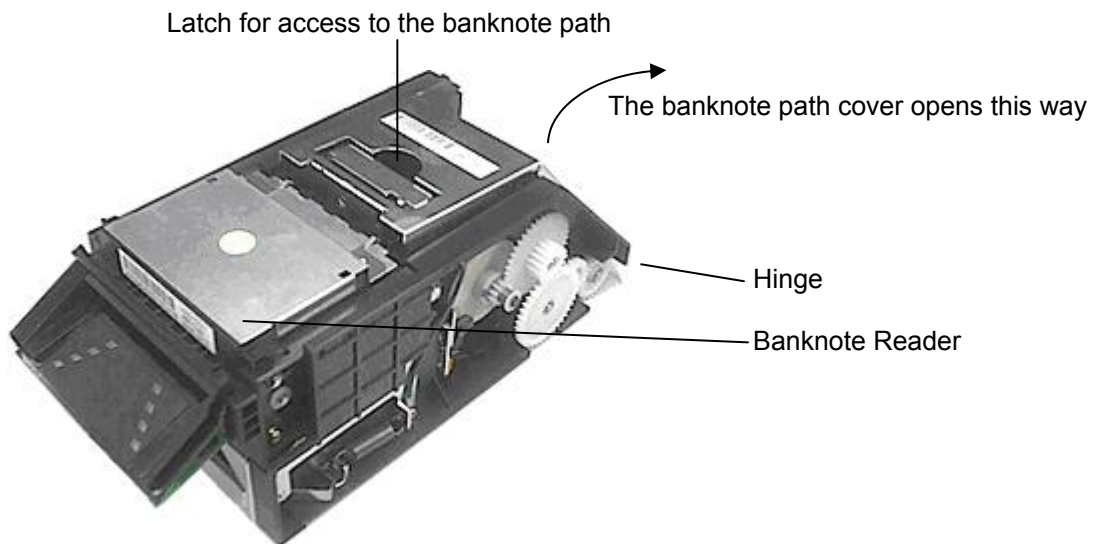
1. Open the Main Door.
2. Locate the Banknote Validator latch release, shown on page 16. Pull the latch release out to disengage the latch and then continue to pull to slide the Banknote Validator out.
3. To replace the Banknote Validator, slide it into place until the latch clicks into position.
4. Once the Banknote Validator has been removed it can be dismantled to an extent, as described in the following two sections.

Opening the Banknote Validator

You can expose the banknote path as follows:

1. Remove the Banknote Validator from the EGM.
2. You will see a latch on the top of the unit. Pull this latch to disengage it and open the cover.

Opening the banknote path in the Banknote Validator

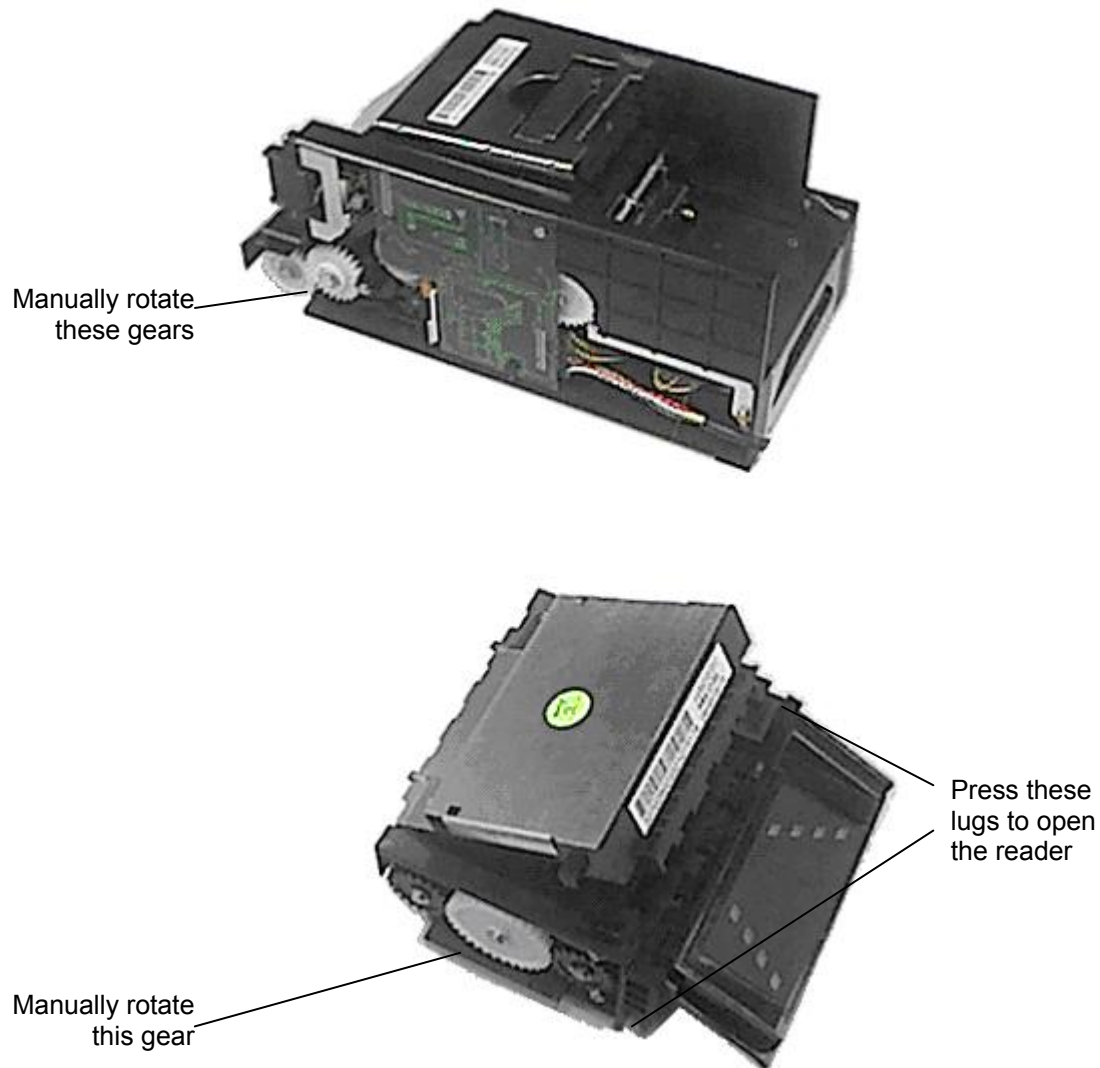


Gaining Access to the Banknote Reader

The Banknote Reader, located at the front of the Banknote Validator, is the component that houses the optical and magnetic sensors. You can remove and open it as follows.

1. Detach the cable supplying the LED board under the bezel.
2. Locate the Banknote Reader latch release, shown on page 16. It is a horizontal bar behind the aperture on the front of the Validator assembly. Press it downwards to disengage the latch.
3. Pull the Reader forwards to remove it. The separated Reader is shown in the following illustration.

The Banknote Validator with the Reader Removed



4. The Reader is shown half open in the illustration above. Note that it is hinged at the back. To open it, locate the lugs shown in the illustration. You must pull them forwards simultaneously while you lift the front of the reader. This is a slightly awkward operation and you will find it useful to examine the lugs and the latch mechanism carefully.

Note that it is possible to open the reader without removing it from the Banknote Validator, but you will not be able to move the belts and rollers.

To close and replace the Reader, reverse the procedure.

Banknote Validator Jam Clearing

To clear jams in the Banknote Validator you may try this procedure. Do not attempt any other maintenance of the Banknote Validator; call Service if this procedure does not solve the problem.

The procedure is to open the banknote path and the banknote reader and try carefully to clear the jam if possible.

You can move the belts in the banknote path by manually rotating the gears on the left hand sides of the validator and reader. The gears are noted in the illustration on page 75.

Test the Banknote Validator as described on the next page.

When you have finished, you must reset the machine by rotating the Credit Reset/Audit Mode switch momentarily to the Credit Reset position.

If this procedure does not solve the problem, call a Service Technician.

Banknote Validator Cleaning

The Banknote Validator may reject notes with increased frequency as deposits on the validator sensors accumulate. If the Banknote Validator requires cleaning the following procedure is to be used:

Caution: Use a 90% solution of isopropyl alcohol to clean the Banknote Validator. The use of other solvents may damage the optical sensors. Ensure that excess cleaning solution does not enter the Banknote Validator.

1. As with the jam clearing procedure, open the banknote path and the banknote reader.
2. Using a soft lint-free cloth dampened with isopropyl alcohol, wipe the note channel surfaces in the banknote path to remove any accumulated residue. You can move the belts in the banknote path by manually rotating the gears on the left hand side of the unit. The gears are noted in the illustration on page 75.
3. Using a soft lint-free cloth or cotton bud dampened with isopropyl alcohol remove any residue accumulated on the optical sensors and magnetic heads in the banknote reader. Remove any excess cleaning solution.
4. Using a soft lint-free cloth dampened with isopropyl alcohol clean the surface of the pressure rollers and belts in the banknote reader. You can move the rollers and belts in the reader (while holding the cloth against them) by manually rotating the gear on the left hand side of the unit. This gear is noted in the illustration on page 75.
5. Power up the EGM and conduct a Banknote Validator test (see *Banknote Validator Test*, next).

Banknote Validator Test

Use the Banknote Validator Test to prove the operation of the Banknote Validator. You need to enter Test Mode to conduct this test:

To access Test Mode

1. Display the Audit Mode Main Menu.
2. Unlock and open the Main Door.
3. Press GAMBLE (scroll up) or TAKEWIN (scroll down) until Test Modes is highlighted.
4. Press COLLECT to display the Test Mode Main Menu.
5. You may close the main door at this point.

Choose Banknote Validator Test from the Test Modes menu screen.

Testing the Validator

1. Select the Banknote Validator Test from the Test Mode menu and press COLLECT.
2. Feed banknotes into the Banknote Validator.
3. The value of each notes is displayed if it is correctly recognised.
4. Each inserted note is returned immediately
5. At the completion of testing exit Test Mode Main Menu as follows:
 - a. Return to the Test Mode Main Menu. (By pressing the Rules button).
 - b. Press the RULES button again to exit until the machine is displaying the normal game screen.
 - c. Close and lock the Main Door. The error message 'Main Door open' will clear itself.

Only enabled denominations can be recognised.

Banknote Validator Test

Test Mode

Banknote Validator Test

Please insert banknotes into the Banknote Validator to test.
The value of the inserted banknotes will be displayed below.
All banknotes inserted will be ejected.
Note: Only enabled banknotes will be accepted.

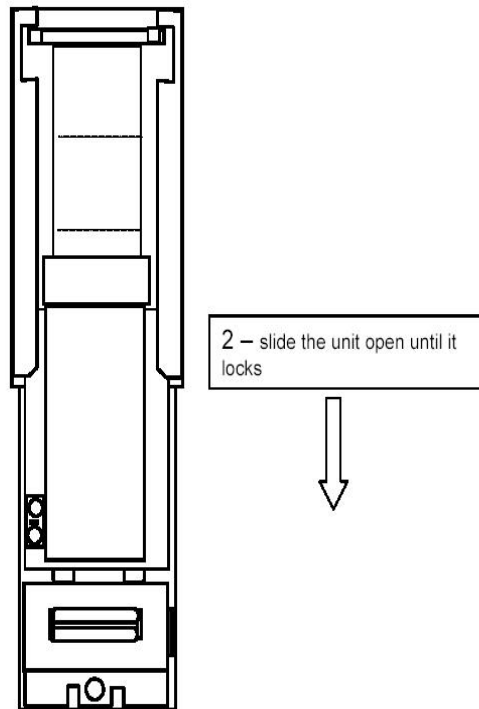
Banknote Inserted - \$50

[RULES] - Exit Banknote Validator Test

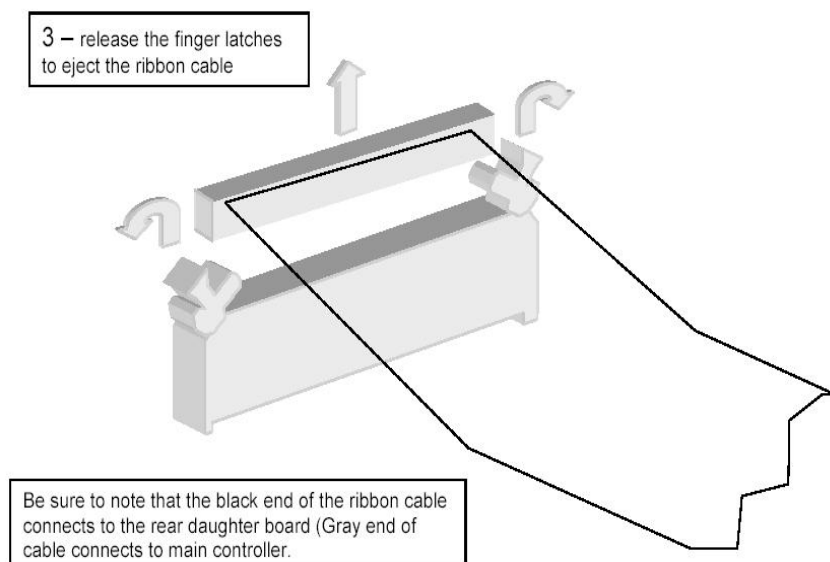
Printer Replacement

Removing the Inner Module

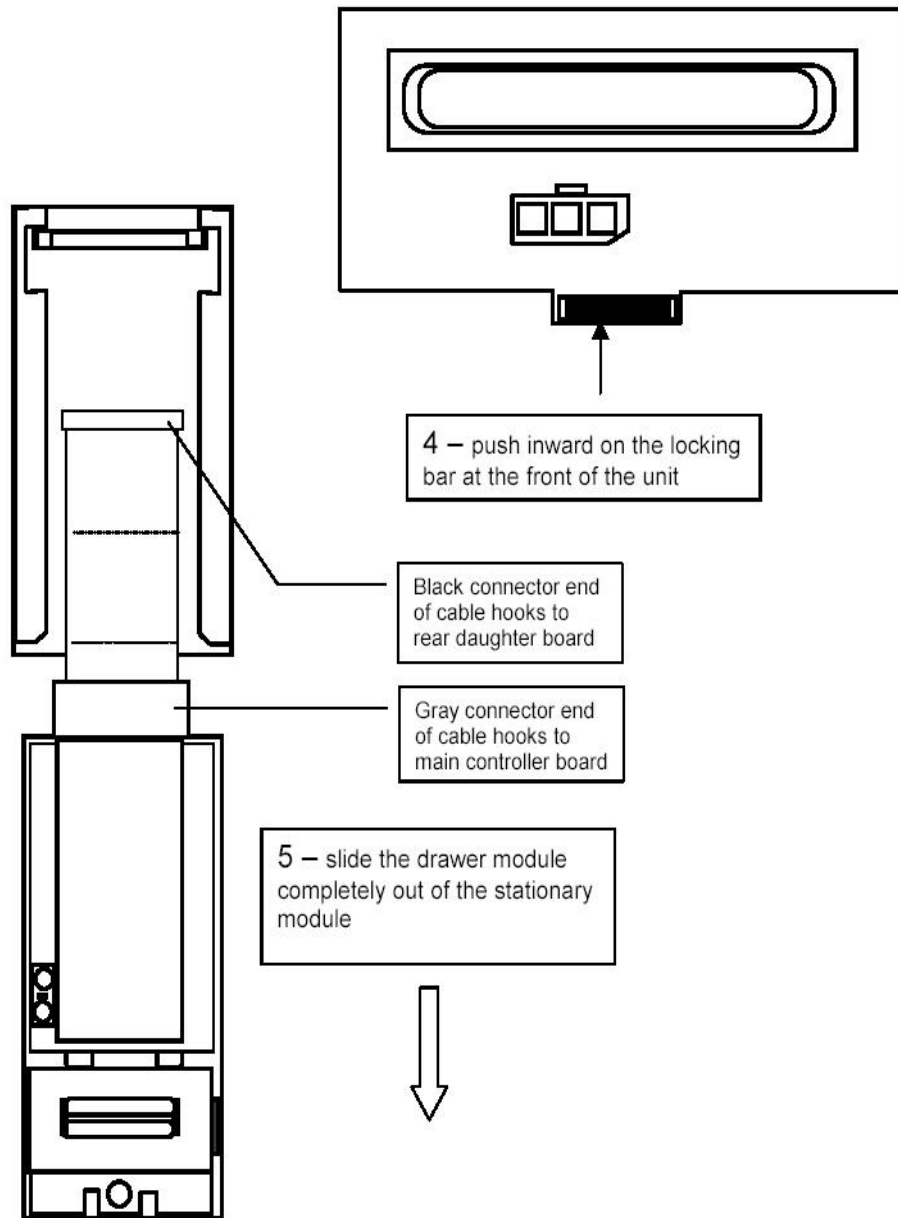
1. Turn off power
2. Slide the unit open until it locks in the open position



3. Release the ribbon cable by spreading the finger latches at the rear of the unit:



4. Press the release lever under the front of the unit in to release the sliding printer module. The will release the locking mechanism and the unit may be slid completely out of the stationary module.



Button LED Replacement

The player push buttons are fitted with LEDs that usually last longer than the life of the machine. If one fails to illuminate, the fault is not usually the LED.

To replace a Button LED:

1. Unlock and open the Main Door .
2. Power down the EGM using the mains on/off control switch.
3. Grasp the base of the button and rotate counter clockwise (approx. 45°C) to disengage from the body. The LED base can now be removed from the body.
4. Remove the faulty LED and insert a serviceable LED.
5. Re-seat the base in the body and rotate the base clockwise (approx. 45°C).
6. Power up the EGM and close and lock the Main Door.
7. Verify that the Button Lamps operate by carrying out a Lamp Test (see *Button / Key Test* on page 52).

Logic Cage Assembly Replacement

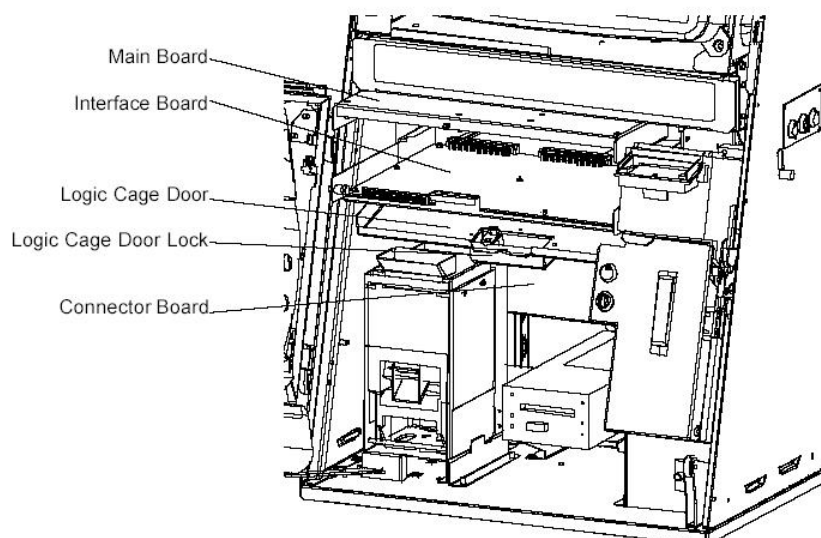
The Logic Cage can be removed and installed by carrying out the following procedure:



Caution: The Logic Cage contains devices that are sensitive to static electricity. Ensure that all appropriate precautions are taken when carrying out maintenance on the Logic Cage or damage to equipment may result.

Note: The following procedure assumes that the Logic Cage is unlocked and open (see the *Logic Cage Board* procedures following) and that the Main Board, Interface Board and Backplane Board have already been removed. For ease of access the Hopper and Printer (if fitted) should also have been removed.

Logic Cage Boards



Removal

1. Disconnect the cooling fan on the upper right hand side of the Logic Cage.
2. Remove the fasteners from the Main Board rear connector. Retain the attaching hardware for re-installation.
3. Unscrew the fastener from the upper front edge of the Logic Cage adjacent to the leading edge.
4. Unscrew the fastener from the bottom rear edge of the Connector Board Housing that attaches to the Logic Cage Mounting Shelf.
5. Slide the Logic Cage forward half way, ensuring that the Main Board connector is clear of the housing. The Logic Cage disengages from the mounting rail and can now be removed.

Note: Ensure that the Main Board rear connector is guided through the hole in the rear of the Logic Cage or harness damage may result.

Installation

1. Locate the Logic Cage on the support bracket in the Cabinet Body and guide the Main Board rear connector harness through the hole in the rear of the Logic Cage.
2. Re-attach the Main Board rear connector harness clamp to the rear of the Logic Cage with the attaching hardware previously removed.
3. Locate the Logic Cage ensuring that the lugs on the rear of the housing locate on the rear of the support bracket, and then fasten the captive screw on the Logic Cage base into the support bracket.
4. Reconnect the cooling fan on the top of the Logic Cage.

Logic Cage Boards

The printed circuit boards contained in the Logic Cage can be removed and installed by carrying out the following procedure:



WARNING

Ensure that electrical power has been disconnected from the machine prior to carrying out any maintenance on the assembly. Personnel risk electric shock by attempting any maintenance with electrical power applied to the machine.

CAUTION: The Logic Cage contains devices sensitive to static electricity. Ensure that all appropriate precautions are taken when carrying out maintenance on the Logic Cage or damage to equipment may result. Store removed/replacement boards in/on an appropriate conductive medium.

Main Board

Removal

1. Unlock and open the Main Door to provide access to the Logic Cage.
2. Power down the EGM.
3. Break and remove the security tag seal from the Logic Cage and unlock the door.
4. Disconnect the top (minifit) and Interface Board (ribbon) connectors.
5. Remove the screw from the stopper that protrudes from the bottom of the Player Tracking Module Tray. This screw is located halfway in front of the Main Board and must be removed in order to access the metal flap behind it. Lift up the metal flap completely. This will allow the main board to be pulled forward.
6. Pull the Main Board forward half way.
7. Reach in and disconnect the APB Connector.
8. The Main Board can now be removed by pulling it forward along the guide rails.

Installation

1. Locate the Main Board on the guide rails in the Logic Cage and push it rearwards half way in.
2. Connect the APB connector.
3. Complete pushing the Main Board in until it contacts the rear of the housing.
4. Connect the ribbon connector from the Main Board to the Interface Board. Ensure the lead is clear of all components.
5. Connect the Minifit connector to the bottom front of the Main Board.
6. Push down the metal flap and reinsert the screw back into the stopper that protrudes from the bottom of the Play Tracking Module Tray

7. Close and lock the Logic Cage Door.
8. Re-seal the Logic Cage Door.
9. Power up the machine and ensure that machine initiates and displays the game display.
10. Close and lock the Main Door.

Interface Board

Removal

1. Unlock and open the Main Door to provide access to the Logic Cage.
2. Power down the EGM.
3. Break and remove the security tag seal from the Logic Cage and unlock the door.
4. Remove the door by pulling it forward.
5. Remove the screw from the stopper that protrudes from the bottom of the Player Tracking Module Tray. This screw is located halfway in front of the Main Board and must be removed in order to access the metal flap behind it. Lift up the metal flap completely. This will allow the main board to be pulled forward.
6. Disconnect the connectors from the Interface Board (Communications Board where applicable) and Main Board.
7. Disengage the Interface Board from the Connector Board by extracting the spring-loaded plunger and pulling the board forward along the guide rails.

Installation

1. Locate the Interface Board on the guide rails in the Logic Cage, extract and retain the spring-loaded plunger and push the Interface Board rearwards. The Interface Board is mated with the Connector Board when the spring-loaded plunger seats in the locating hole in the Logic Cage base. (Check that the uppermost part of the assembly is seated correctly in the Connector Board).
2. Connect the connectors to the Interface Board (Communications Board where applicable), and Main Board.
3. Push down the metal flap and reinsert the screw back into the stopper that protrudes from the bottom of the Play Tracking Module Tray
4. Re-install and lock the Logic Cage Door.
5. Re-seal the Logic Cage Door.
6. Power up the machine and ensure that machine initiates and displays the game display.
7. Close and lock the Main Door.

Backplane/Connector Board

Removal

1. Unlock and open the Main Door and power down the EGM.
2. Unlock and open the Main Door to provide access to the Logic Cage.
3. (If a coin hopper is fitted.) Remove the Hopper (see instructions for Coin Hopper replacement in Chapter 4).
4. Break and remove the security tag seal then unlock the Logic Cage, and open the door.
5. Unlock and remove the Backplane/connector board cover by pulling on the metal tab at the base of the Logic Cage. This will release the board cover and it can now be removed.
6. Disconnect all connectors, (clearly marking the location on each one as you do this). Be sure to remove the connectors near the main board.
7. Undo the holding fasteners on the Backplane.
8. Disengage the Backplane Board from the rear metalwork by sliding and lifting the board out.

Installation

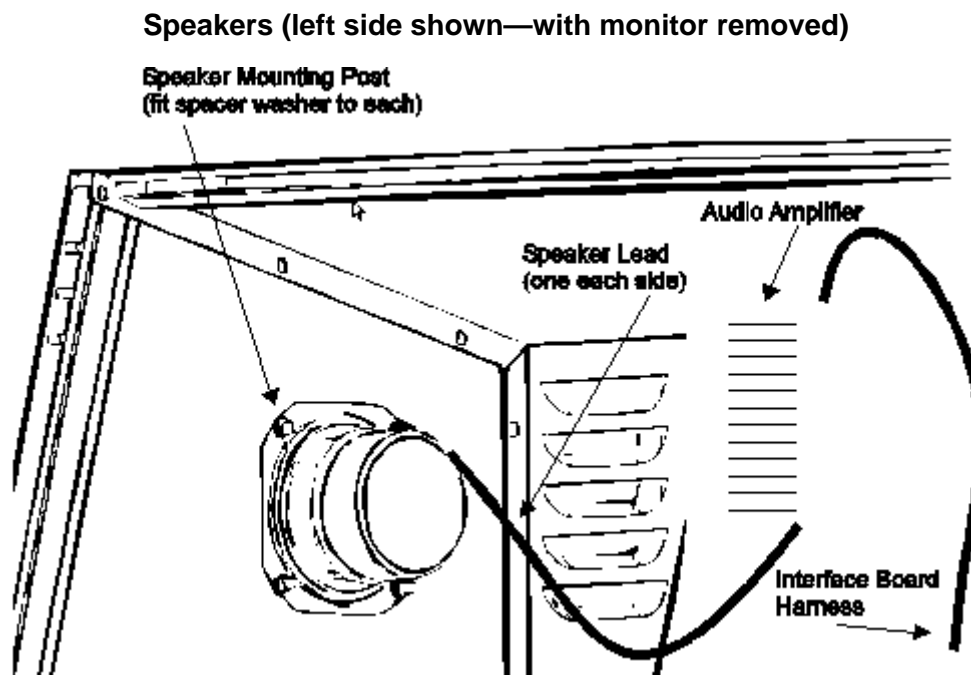
1. Using the locating tabs provided, slide the Backplane board into the metal housing and refit the board using the screws removed previously.
2. Connect the connectors to the Interface Board (Communications Board and Main Board).
3. Replace the cover by pushing the board back up into the slots and pushing on the metal tab at the base of the Logic Cage to lock the board back into place.
4. Lock the door of the Logic Cage.
5. Re-seal the Logic Cage.
6. (If a coin hopper is fitted.) Re-install the Hopper.
7. Power up the machine and ensure that machine initiates and displays the game display.
8. Close and lock the Main Door.

Speakers

The individual speakers can be removed and installed by carrying out the following procedure.

Removal

1. Unlock and open the Main Door and power down the EGM.
2. Remove the Monitor Mask.
3. Remove the Monitor (see the Monitor Replacement procedure in Chapter 4).
4. Disconnect the speaker to be removed.
5. Remove the hardware attaching the speaker to the Cabinet Body and retain for re-installation. Remove the speaker.



Installation

1. Fit a spacer washer on each of the four speaker mounting posts.
2. Locate the speaker on the studs in the Cabinet Body and install the attaching hardware previously removed.
3. Re-connect the speaker.
4. Re-install the Monitor (see the Monitor Replacement procedure in Chapter 4).
5. Refit the Monitor Mask.
6. Close and lock the Monitor Door

Fuse Replacement



WARNING:

Disconnect the machine from the electrical supply prior to carrying out any maintenance on the fuse or power supply, and ensure no other person can re-connect the supply while you are working. You risk electric shock by attempting any maintenance with electrical power applied.

1. Disconnect the EGM from the electrical supply.
2. Unlock and open the Main Door.
3. Check that the EGM Power Switch is OFF (light is OFF within the switch).
4. (If a coin hopper is fitted.) Remove the Hopper.
The fuse holder is a bayonet cartridge type mounted on the lower left of the front panel of the power supply just above the supply input lead (see the Power Supply illustration on page 87).
5. Remove the fuse by turning the carrier counter-clockwise. Remove the carrier.
6. Replace the fuse in the carrier with a metric M205T 4 A Slow-blow fuse.
7. Insert the carrier into the fuse holder and turn it clockwise to lock.
8. Replace the Hopper.
9. Connect electrical power to the machine and then switch on the EGM Power Switch.
10. Verify that the power switch internal light (red) illuminates (confirms power to the power supply).
11. Verify that the Power Supply "Power Good" light (yellow) comes on and remains steady (confirms the Power Supply successfully started).
12. Close and lock the Main Door.

Power Supply Replacement

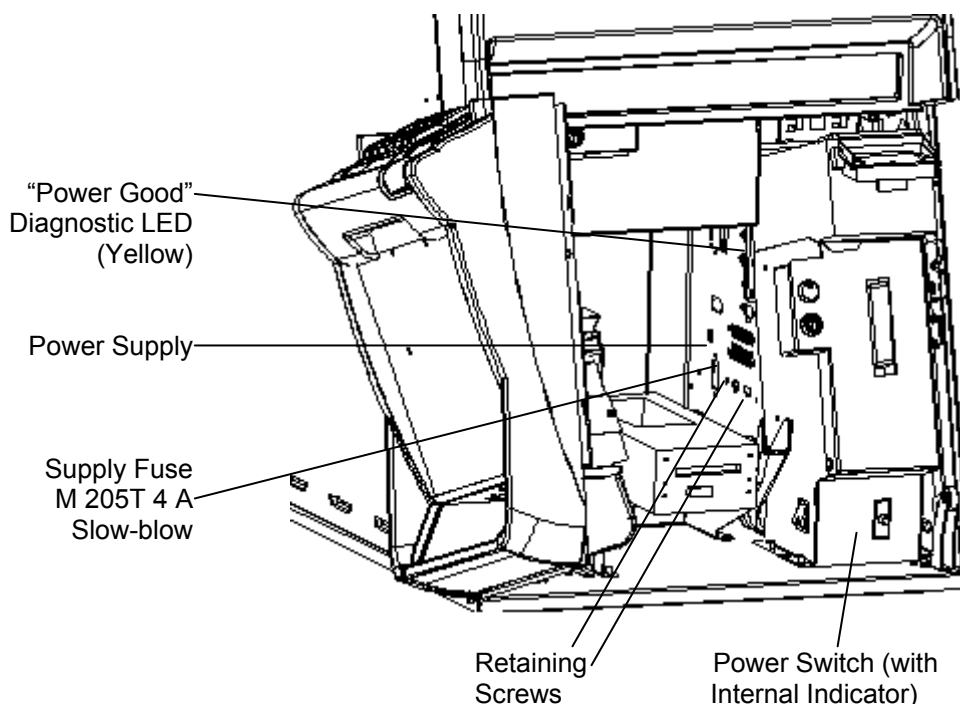
Ambassador BenchTop models use an integrated Universal Power Supply. The power supply is mounted below the logic cage and behind the Banknote Stacker.



WARNING:

Disconnect the machine from the electrical supply prior to carrying out any maintenance on the fuse or power supply, and ensure no other person can re-connect the supply while you are working. You risk electric shock by attempting any maintenance with electrical power applied.

Power Supply



Diagnostics

The Power Supply is an intelligent unit that reports its state of health by flashing a LED Status Light. The LED is mounted at the top on the Power Supply front panel. Open the Main Door fully and look behind the Banknote Stacker to see it.

If the power supply suffers a fault, it shuts down for about nine seconds before attempting to re-start. It then makes as many as five attempts to start. If the fifth attempt fails, it shuts down and stays in shutdown mode.

If the Power Supply is in shutdown mode, the Power Switch (red) indicator light will be lit and the "Power Good" LED (yellow) continuously flashes an error sequence.

Note: If the Power Switch is lit, this proves that the 24 V output is live (the Power Switch light is supplied from the 24 V rail) so take care when working.

The Power Supply has two failure modes:

- Most conditions produce shutdown mode, during which the 24 V output remains supplied for diagnostic purposes. All other DC outputs are off.
- Other failures (apart from a blown fuse) result in a complete shutdown, indicated by the Power Switch light not illuminating when switched ON.

Fault Finding

- If the Power Switch light does not appear, check the mains supply, and check the mains fuse (see on page 86).
- If the Power Switch is lit and the Power Good light is flashing, count the number of flashes in a set. The light will flash a set number of times, then pause, and then flash again.

The following table lists the meanings of each series of flashes.

Number of Flashes	Meaning
No light	No power / Blown fuse
Steady	Normal operation
2	Logic board overload
3	+9 V Out of range
4	IO Board overload
5	Coins supply overload
6	+13 V Out of range
7	IO Board +12 V Out of range
8	IO Board +5 V Out of range
9	IO Board –12 V Out of range
10	Meters supply overload
11	LAB Board +12 V Out of range
12	LAB Board supply overload
13	+24.8 V Out of range
14	Over temperature

Note: After you clear a fault, the Power Supply does not restart automatically. You must reset the Power Supply, either by switching it off and then back on again, or by cycling the mains supply with the Power Switch ON. The Power Supply will then make a further five attempts to restart. If it can't, it will again display an error sequence.

Removal

Replacing the power supply is a relatively lengthy process: be sure replacement is required before beginning. Use the following procedure to replace the power supply.

1. Power down the machine.
2. Disconnect the machine from the mains supply.
3. (If a coin hopper is fitted.) Remove the Coin Hopper (see *Coin Hopper Replacement* in Chapter 4).
4. Ensure the Backplane/connector Board cover is fitted. If it is not, it is very difficult to avoid damaging the Connector Board security microswitch actuators when manhandling the power supply.

5. Remove all plugs from the Power Supply. Each plug has a locking catch you must squeeze in order to release the plug.
6. Remove the green and yellow earth lead from its binding post at both ends.
7. Remove two M5 retaining screws from the front panel of the Power Supply at the base.
8. Raise the Power Supply slightly using its carrying handle, and then bring the base forward through the aperture in the Power Supply Housing.
9. Lower the Power Supply to the floor of the Cabinet and ease it carefully out of the Cabinet.

Installation

1. Disconnect the EGM from the Mains Supply.
2. Ensure that the EGM Main Power Switch is OFF.
3. Ensure the Connector Board cover is fitted. If it is not, it is very difficult to avoid damaging the Connector Board security microswitch actuators when manhandling the power supply.
4. Ease the Power Supply carefully into the Cabinet.
5. Slope the top of the Power Supply to the right and use its carrying handle to lift it into position through the aperture in the Power Supply Housing.
6. Ease the top into position, then raise the power supply and push the base back into place and lower.
7. Insert the two M5 retaining screws in the front panel of the Power Supply at the base.
8. Attach the green and yellow earth lead to its binding posts at both ends.
9. Reconnect all plugs to the Power Supply. Each plug is uniquely keyed to fit only the correct socket.
10. (If a coin hopper is fitted.) Replace the Coin Hopper (see *Coin Hopper Replacement* in Chapter 4).
11. Reconnect the machine to the mains supply.
12. Switch the main switch ON and ensure that the Power Switch lights (if it doesn't, check the fuse and supply connection).
13. Ensure that the Power Supply starts and shows a steady Status Light (if it doesn't, check the connectors are properly seated and locked in place).

Main Memory Operations

Each machine must be configured prior to use. This is normally performed on installation. The machine generally does not require further configuration unless there is a major failure in the memory of the machine.

The following procedure enables corrective action for a variety of situations where a machine system error or memory fault occurs.

1. If desired, first record meter information as described in the procedure *System Error*, next.
2. Clear the NVRAM.
3. Then either:
 - reload the existing configuration from EEPROM, or
 - perform a Full Configuration to implement a new set up.
4. If you perform a Full Configuration, you must copy from NVRAM to EEPROM to ensure the new configuration is backed up.

Note: These procedures reset all soft meters.

Currency/Paytable Style Selection Screen

Audit Mode

Currency Selection

Currency Symbol
Dollar

Paytable Style Selection

Paytable Style
Static_Paytable

Save

[COLLECT] - Select Current Item
 Save - Save Current Setup

[GAMBLE] - Previous Item
 [TAKEWIN] - Next Item

Note: *Paytable Style Selection* is only available when it is define in the game.

Full Machine Configuration Screen

Audit Mode

Machine Configuration Setup

Currency	Paytable Style
Dollar	Static_Paytable

Machine Identification

Machine Poll Address	000
Machine Serial Number	AG000000
Hopper Collect Limit	(\$) 0030
Hopper Refill Amount	(\$) 0200
Printer Collect Limit	(\$) 0000
Token Value	(\$) 0.25
Large Win Handpay Limit	Unlimited (\$)0000000
Credit In Limit	Unlimited (\$)0000000

Game Initiation

Bet Initiated game play with Gamble

Game Configuration

Game Selection	Fortune Fever
Bet Profile	\$0.01 20L var 99 88.04%
	Bet[1,2,5,10,50] Line[1,3,5,10,20]

Hardware Setup

Coin Validator Fitted	Condor
Bill Validator Fitted	JCM
Hopper Fitted	Cyclone
Printer Fitted	NO

SAS Configuration Items.

Electronic Fund Transfer	YES
Legacy Bonusing	YES

Validation Configuration Sub Menu

Miscellaneous Configuration Items.

RESERVE Enabled	YES
Host Fitted	YES

Tower Light Configuration Sub Menu

Save Exit

-

[COLLECT] - Select Current Item	[GAMBLE] - Previous Item
Save - Save Current Setup	[TAKEWIN] - Next Item

System Error

When a System Error occurs, the machine attempts to display its stored data so that you can write it down.

Note: The following procedure assumes that the screen is displaying a “System Error” message. The screen shown below should automatically appear.

If the system is able to read the metering information from its memory, it displays the screen below. Green digits are those the machine is sure are correct; digits that are blue are very likely wrong.

5. Hold SECURE and COLLECT for 5 seconds. Skip to Step 19 in the section *Clear NVRAM* below.

The SECURE switch is the furthest to the right of the three pushbuttons on the Main Board.

Metering Information Screen

Audit Mode

Metering Information

Meter Name	Total Value	Periodic Value
TOTAL COINS IN(\$)	3913.80	3913.80
TOTAL COINS OUT (\$)	3590.76	3590.76
HAND PAID C/C (\$)	0.00	0.00
COINS TO DROP (\$)	0.00	0.00
COIN ACC. CREDIT (\$)	0.00	0.00
HOPPER PAID (\$)	0.00	0.00
PROGRESSIVE (\$)	0.00	0.00
BILLS ACC. CREDIT (\$)	0.00	0.00
E. TRANSFER IN (\$)	0.00	0.00
E. TRANSFER OUT (\$)	0.00	0.00
TOTAL DROP (\$)	0.00	0.00
MONEY OUT (\$)	0.00	0.00
GAMES SINCE LAST POWERUP	0	
GAMES SINCE LAST DOOR OPEN	0	
GAMES PLAYED (STROKE)	1196	

All Meters are good.

Good Meter Digit Colour: This Text Colour (*Green*)

Corrupted Meter Digit Colour: This Text Colour (*Dark Blue*)

Press [SECURE] and [COLLECT] for 5 seconds to clear NVRAM.

OR: Restart Machine To Cancel NVRAM Clear Action.

Clear NVRAM

You need to clear the NVRAM only for a major fault (e.g. System Error) or to change the game type.

6. Unlock and open the Main Door to gain access to the Logic Cage.
7. Power down the EGM.
8. Break and remove the security tag seal and unlock the Logic Cage. Open the door by pulling it forward.
9. Remove the Main Board.
10. Turn on DIP switch 1.
11. Replace the Main Board.
12. Power up the EGM (middle LED on Main Board will flash).
13. Wait 10 seconds.
14. Power down the EGM.
15. Remove the Main Board.
16. Turn DIP Switch 1 off.
17. Replace the Main Board.
18. Power up EGM.
19. If a message 'EEPROM Data is available' appears, you have two options: To restore the previous configuration, continue at the next step. To perform a Full Configuration, skip to step 23.

If the message 'EEPROM Data is available' **does not** appear, perform a Full Configuration (that is, skip to step 23).

Copy from EEPROM

The EEPROM is the backup memory of the machine. A data transfer from the EEPROM to the NVRAM is required after an NVRAM reset if you are **not** going to perform a full configuration.

With the Configuration Mode screen displayed following a NVRAM Reset:

20. To copy from EEPROM to NVRAM, you have to turn the audit key to the reset position and press the COLLECT button at the same time for three seconds.
21. Follow the on-screen prompts.
22. Skip to step 34.

Full Machine Configuration

Note: This procedure clears the backup configuration data from the EEPROM, and all soft meters. Use this procedure to perform a Full Configuration:

23. To select Full Configuration press and hold the SECURE switch (furthest to the right of the three pushbuttons on the Main Board) and the COLLECT button on the Button Panel for five seconds.
24. The machine will now display the Machine Configuration Page with all items enabled.
25. To scroll the options use the GAMBLE (scroll up) and TAKEWIN (scroll down) buttons.
26. To select an option to change, press COLLECT. The highlight changes colour.
27. To change a field use GAMBLE or TAKEWIN to scroll the list of available settings.
28. To enter a change press COLLECT, or to discard the change press RULES.
29. Repeat the above steps to change the remaining fields as desired.
30. When you complete Machine Configuration, scroll to the Save option.
31. To save the changes press COLLECT (to discard all changes press RULES).
32. A green message "Data Saved to EEPROM Correctly." should appear. If it doesn't, the Main Board is faulty.
33. To exit Machine Configuration scroll to the Exit option and press COLLECT.

The revised configuration data is saved to NVRAM and automatically copied to the EEPROM for it to be available as a backup.

Finishing

34. Re-install, lock and re-seal the Logic Cage Door.
35. Close and lock the Main Door.
36. Configuration resets the Sound Volume to a default value: remember to reset this to the desired value as described in *Sound System Setup* in the *Operator's Manual*.

Error Messages

The following is a list of messages that may be displayed. The most common causes and remedies are also listed.

After clearing faults, use the audit key to reset the machine.

In the table below, the response “Decision” indicates that the operator needs to consider what action to take. Usually the significance of the message is “information only”: for example, when the message appears while a technician is working on the machine. However, if the message appears for no apparent reason, it may be an indication that action is required.

Message	Meaning	Technician Response
APB Communication Error	Communications with the APB are not responding	Check the cables: failing that, change the APB
APB Communication OK	The system has reestablished communication with the APB	OK
APB Connected	Connection to the APB has been restored	OK
APB Disconnected	As Stated	Re-seat the APB, Check connection or replace APB or Main Board
APB Main Failure	No power to the APB	Check power connection to the APB
APB Main Restored	Power has been restored to APB	OK
Cash Box Door Closed	As Stated	OK
Cash Box Door Opened	The Cashbox is open Close and lock the Cashbox	If not cleared, the Cashbox switch is out of adjustment, or the Cashbox switch or wiring or interface is damaged
Coin In Yo Yo	The Coin Validator has detected a coin passing in the opposite direction or the Coin Validator is damaged Reset the machine	Replace Condor
Coin Jam Cleared	As Stated	OK
Coin Validator Connected	As Stated	OK
Coin Validator Disconnected	Communications with the Coin Validator are not responding	Check the Coin Validator connections
Coin Validator Error	Coin Validator general error message: one or more of several fault conditions has occurred	Check connections and device function Replace if necessary
Coin Validator Error Cleared	Above fault rectified	OK
Coin Validator Jam	Coin(s) jammed at the sensor (in the Coin Validator)	Remove the Coin Validator ensure the coin path/sensor is clear. If the problem persists replace validator.
CONGRATULATIONS YOU HAVE WON	As Stated	Check EGM has been awarded the prize by the Host System.
CONGRATULATIONS! LARGE WIN	As Stated	Check EGM has been awarded the prize larger than the Large Win limit set by the Host System.

Message	Meaning	Technician Response
CRC Table Error	The CRC Table is corrupted—this is a memory error	Power down and up. If the fault persists, change the main board
Diverter Error	Coin Diverter not in commanded position	Check solenoid, gate, and flag operation
Diverter Error Cleared	Above fault cleared	OK
E2PROM Data Error	EEPROM (or E2PROM) write failure	<p>In Audit menu (with the 'Audit' key) go to the Machine Configuration page</p> <p>Select the 'Save' option to save the current configuration (no setting changes required) Note: The soft meters will be reset</p> <p>If the configuration data is written to EEPROM successfully (saved), the 'E2PROM Error Cleared' event will be generated</p> <p>After this event, the lockup condition can be cleared with the 'Reset' key</p> <p>If the configuration data fails to be written to EEPROM or the 'E2PROM Error Cleared' event is not generated, then:</p> <ol style="list-style-type: none"> 1 Open the EGM main door 2 Switch the EGM Off 3 Replace the EEPROM on the Auxiliary Processor Board (APB) if it is the socketed type, or replace the Main Board 4 Switch the EGM On 5 Close the EGM main door 6 When the EGM is running, if a fault condition is shown on the screen, then reset the fault with the 'Reset' key <p>If the fault persists, repeat steps 1 - 6, except, in step 3, replace the Main Board with a known working</p>
E2PROM Data Error Cleared	Above fault cleared	OK
EGM Disable	As Stated	The host system has disabled the EGM.
EGM Main Door Closed	The main door is correctly closed	OK
EGM Main Door Mismatch	Main door switches in incorrect state, or door switches or wiring damaged	Check that the Main Door has been closed correctly. Check the Main Door Optic and Switch are not damaged.
EGM Main Door Mismatch Cleared	A door mismatch event has been cleared	OK
EGM Main Door Opened	The main door is indicating open	Check status of mechanical switch, optical sensor, and Interface PCB
EPROM Error	EPROM corrupted or mismatched	Attempt a Clear, replace EPROM or Main Board if fault persists

Message	Meaning	Technician Response
Excessive Note Rejects Fault	An invalid/damaged Note has been entered 10 consecutive times or the optical sensors within the Banknote Validator are dirty/damaged Adjust the video level	Video level adjust Replace Note Acceptor
Extra Coin Out	Excess coins were dispensed by the Coin Hopper	Test: Hopper PCB, Main and Interface PCB, Hopper Optic and Flag
Flash CRC Error	Flash CRC corrupted	Reseat Flash Cards, Clear NVRAM and Reconfigure
Gamble exited due to win limit	As Stated	The gamble feature was exited due to the last gamble win being greater than 50% of Max Win.
Gamble not available due to win limit	As Stated	The gamble feature was not available due to the win being greater than 50% of Max Win.
Game Corruption	The game object in memory is corrupted or is not the same as the configured selection	Clear the NVRAM and reconfigure If the fault persists, call the manufacturer (AGT)
Hard Meter Disconnected	The Hard Meters have been disconnected or are faulty	Check for correct jumper on Connector Board
Hopper Connected	Coin Hopper is reconnected	OK
Hopper Disconnected	The Coin Hopper is not installed or connector not correctly mated	Check optic, swap Hopper or PCB
Hopper Empty	The Coin Hopper is out of coins (long timeout mode)	Check Hopper probe, associated wiring, and Interface PCB
Hopper Jam Cleared	As Stated	OK
Hopper Jammed	Coins Jammed across the Coin Hopper sensor	Check coin path on Hopper.
Hopper Optic Error	The software detected an error from the Hopper optics	Clean the optical sensor, check its flag operation and position, and reset the EGM
Low NV-RAM Battery(Main Battery B1)	As Stated	Replace battery or Main Board
Low NV-RAM Battery(Main Battery B2)	As Stated	Replace battery or Main Board
Low PF Door Detection Batt(APB Battery B3)	As Stated	Replace battery or Main or AP Board
Monitor Door Closed	Closed after access	OK
Monitor Door Opened	The Monitor Mask is not latched	Check switch on Monitor Door.
Note Acceptor Cheated	Note has been detected moving in reverse in the Banknote Validator	Investigate for possible attempted fraud, and test machine
Note Acceptor Connected	Banknote Validator reconnected	OK
Note Acceptor Disconnected	Banknote Validator is disconnected or Banknote Validator Defect	Check the connector on the Note Acceptor.
Note Acceptor Error Cleared	The fault below was cleared	OK
Note Acceptor Fault	A failure has been detected in the Banknote Validator	Repair or replace

Message	Meaning	Technician Response
Note Acceptor Jam Cleared	The fault below was cleared	OK
Note Acceptor Jammed	A Note is jammed in the Banknote Validator See Banknote Stacker Assembly in Chapter 4) Or the Banknote Validator has incorrectly identified a Note jam	Check note entry path on Note Acceptor. Remove any objects blocking path.
Note Acceptor Stacker Door Closed	The Stacker door has been correctly closed	OK
Note Acceptor Stacker Door Opened	The Banknote Stacker door is not in the locked position	Check the Banknote Stacker door switch adjustment and operation
Note Acceptor Stacker Removed	The Banknote Stacker has been removed or not correctly mated in the Banknote Validator	Check the connectors, or replace Stacker or Note Acceptor as required
Note Acceptor Stacker Returned	After access	OK
Banknote Stacker Full	The Banknote Stacker is full or the pusher plate is jammed	Check pusher plate, Guides, and Optic sensor Replace Stacker
Banknote Stacker Full Cleared	Above condition cleared	OK
NV-RAM Battery (Main Battery B1) Charging Failed	Battery could not be charged	Replace the battery
NV-RAM Battery (Main Battery B1) Charging OK	Battery is charging correctly	OK
NV-RAM Battery (Main Battery B1) OK	Battery voltage is within limits	OK
NV-RAM Battery (Main Battery B2) Charging Failed	Battery could not be charged	Replace the battery
NV-RAM Battery (Main Battery B2) Charging OK	Battery is charging correctly	OK
NV-RAM Battery (Main Battery B2) OK	Battery voltage is within limits	OK
NVRAM Device Error	NVRAM device is damaged	Clear NVRAM; replace main board if required
NVRAM Error	NVRAM has been corrupted or cleared	Perform NVRAM Clear
PF Door Detection Batt (APB Battery B3) Charging Failed	Battery could not be charged	Replace battery or PCB
PF Door Detection Batt (APB Battery B3) Charging OK	Battery is charging correctly	OK
PF Door Detection Batt (APB Battery B3) OK	Battery voltage is within limits	OK
Processor Door Closed	Logic Cage has been accessed but is now closed.	Error is self clearing.
Processor Door Opened	Logic Cage has been accessed and is still opened.	Close Logic Cage door.
Pwr Off Processor Door Access	The Logic Cage door was opened, tripping the intrusion detection, while machine power was off. This message is displayed when the machine re-starts	Check logic cage door and switches, power cycle the machine and reset

Message	Meaning	Technician Response
Self Audit Error	Self Audit Check failed Reset the machine	Clear NVRAM
System Error	NVRAM or EPROM is corrupted or there is a Game mismatch	Clear NVRAM
SYSTEM LOCKUP	Program failure	Clear NVRAM

Troubleshooting

The following table lists conditions that may be encountered in operating the machine. Conditions that may be remedied by actioning on-screen prompts are not included.

If the machine fault remains after carrying out the suggested remedy, replacement of the circuit board assemblies within the Logic Cage should be considered.

Symptoms and Causes

Symptom	Possible Cause
Button does not operate.	Button switch faulty. Button jammed. Improper connection to the Connector Board. Short or open-circuited switch/wiring.
Button Lamp(s) not illuminating.	Button lamp blown (for single lights). Connector on button disconnected. Improper connection to the Connector Board (for all lights). Open circuited wiring.
Coin in Yo-Yo event.	Coin Validator solenoid faulty. Reset the fault with the 'Reset' key. Insert a coin in the coin validator. If the EGM still declares a Coin In Yo-Yo, replace the coin validator with a new working coin validator. When the EGM is running, if a fault condition remains on the screen, reset the fault with the 'Reset' key.
Coins jammed in the coin entry.	Coin validator misaligned.
Coins not credited to machine and not routed to the coin return.	Coins jammed in the reject chute <i>See also "Coins jammed in the coin entry"</i> .
Hopper does not dispense coins/dispenses coins slowly.	Hopper faulty. Jam in hopper. Hopper motor or coin disc binding.
Hopper Empty and coins routed to the Cashbox.	Hopper Full probe open circuit. Coin Diverter jammed. Coin Diverter solenoid faulty.
Hopper overfilling.	Hopper probe shorted to ground.
Machine does not operate.	Mains power lead not plugged in/not turned on. Power switch on Banknote Stacker not turned on. Fuses on Power Supply blown. Power Supply faulty.

Symptom	Possible Cause
Machine continually rejecting coins (no credit given).	Check config page to ensure coin device is activated. Coin Validator sensors damaged. Coin path jammed. Coin Validator faulty.
Machine will not accept bank notes.	Video level adjustment required. Banknote Validator optical sensors contaminated/damaged.
No display on Monitor.	Monitor settings too dark. Faulty Power Save operation of Power Supply. Faulty custom PCB. Faulty Monitor. Faulty main board.
No Sound from the machine/No sound from one side of the machine.	Speaker(s) faulty. Sound corrupted. Audio Power Amplifier faulty. Improper connection to the Audio Power Amplifier. Improper connection at the Connector Board.
Rejected coins not routed to the Coin Return.	Coins jammed in the Coin Return Chute.

Banknote Validator Error Display

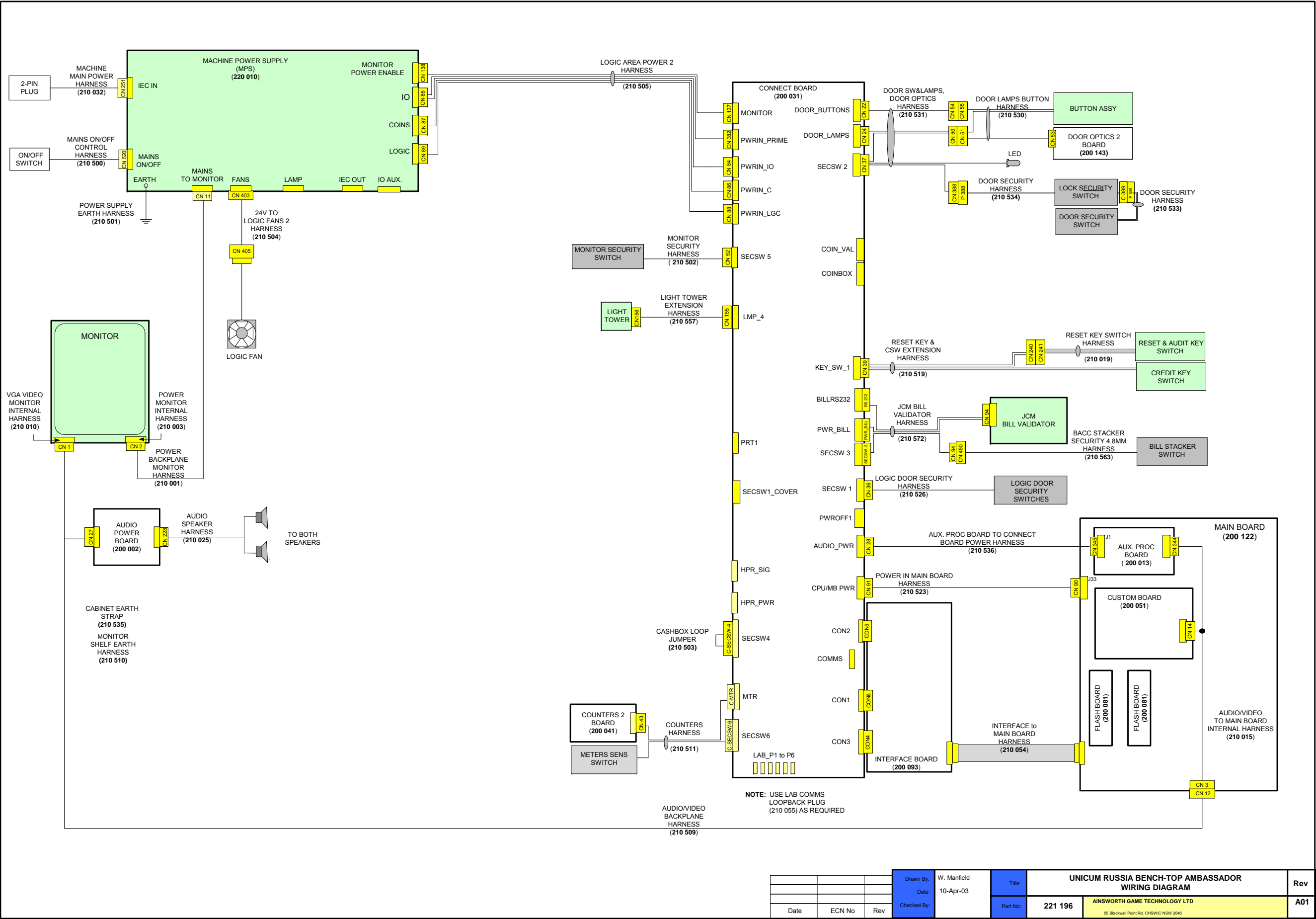
The following list provides the possible causes of errors associated with the Banknote Validator.

Note: The rows of LEDs on the illuminated bezel are numbered one through 4. Row one is the row nearest to the front of the machine, with row four being the furthest.

Banknote Validator Error Displays

LED Row Illuminated	Possible Cause
No.1 - Hardware Fault	Banknote Validator Upper Guide not in position.
	Banknote Validator not securely connected.
	Banknote Validator not securely connected to the Banknote Stacker.
No.2 - Banknote Stacker Full	Banknote Stacker is full.
	Faulty Banknote Stacker.
No.3 - Jam in the Stacker	Note jammed in the stacker.
No.4 - Jam in the Note Channel	Note jammed in the upper guide, or Optical sensors contaminated.

Wiring Diagram



Spare Parts List

The following nickel-metal-hydride (NiMH) rechargeable batteries are used in the machine. Replace **ONLY** with the correct AGT part number shown below.

Ref	Location	Volts	AGT part number
BT1	Main board	3.6	198020
BT2	Main board	3.6	198020
BT3	Auxiliary processor board	4.8	198021



WARNING

There is a risk of explosion where an incorrect battery is used as a replacement.

Do not incinerate or puncture cells

Batteries should not be opened or disassembled. Exposure to the ingredients within or products formed by combustion could be harmful.

Dispose of batteries according to all federal, state and local regulations.

Ambassador BenchTop Spare Parts

This parts list applies only to the BenchTop series: many parts are different from the Console units.

Part Description	Part No.
Audio power board	200002
Audio Speaker Harness	210025
Audio/Video Backplane Harness	210509
Audio/Video to Main Board Internal Harness	210515
Aux Proc Board to Connector Board Power Harness	210536
Banknote Stacker Security 4.8mm Harness	210563
Cabinet Ground Strap Harness	210535
Cashbox Extension Harness	210513
Chip tray assembly	010820
Connector board PCA	200031-A
Counters board + meters	200041
Door Lamps Button Harness	210530
Door lock assembly	010766
Door optics board	200143
End cheek l/h	010825
End cheek r/h	010826
Fan 80mm	010497
Interface assembly	011120
Interface to Main Board Harness	210054

Part Description	Part No.
Light Tower Extension Harness	210557
Logic Area Fan Harness	210504
Logic Area Power In Harness	210505
Logic Door Security Harness	210526
Machine Main Power Harness	210032
Main board - service part complete assembly	010075
Main Door Security Harness	210534
Mains ON/OFF Control Harness	210500
Meters Harness	210511
Monitor assembly complete	011097
Monitor Security Switch Harness	210502
Monitor Shelf Earth Harness	210510
Banknote Validator JCM roubles	011139-01
Banknote Validator JCM Harness	210572
Power in Main Board Harness	210523
Power Supply	220010
Power Supply Earth Harness	210501
Reset Key Extension Harness	210519
Reset Key Switch Harness	210019
Speaker 7 ohm 15w	010440
Switch, Micro DB-3	010498