Diamond Games Premium III

Setup and Service Menu Manual

Revision 1.1

Applicable to:
1) Diamond Games Premium III 1.11.0.0 and higher;
2) Diamond Games Premium IV 1.1.0.0 and higher;
3) Diamond Games Premium V 1.1.0.0 and higher;

1 Table of Contents

1.1 Sections

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2 Revision History

Version	Date	Author	Description
1.0	2010.05.11	DLV	Initial document release
1.1	2011.06.03	DLV	Added ticket printer description; Updated list of error codes;

3 RAM Clear

RAM Clear operation can performed by using special "RAM Clear" CompactFlash card or by turning DIP switch 8 on the I/O board to ON position.

RAM Clear using "RAM Clear" CompactFlash card
1. Open the main door;
2. Power down the machine;
3. Open the logic box door;
4. Remove the game CompactFlash card from the upper socket on the motherboard;
5. Insert "RAM Clear" CompactFlash card into the first (upper) socket on the motherboard;
6. Close the logic box door;
7. Power up the machine;
8. After software initialization press "START" button or touch "YES" button on the screen (if touch screen is connected) to perform complete RAM clear;
9. Wait for confirmation message to appear on the screen;
10. Power down the machine;
11. Replace "RAM Clear" CompactFlash card with game CompactFlash card;
12. Close logic box door;
13. Close main door;
14. Power up the machine;
15. After software initialization game will automatically switch to "Initial Setup" menu.

RAM Clear using DIP switch 8 on the I/O board
1. Open the main door;
2. Power down the machine;
3. Open the logic box door;
4. Turn DIP switch 8 to ON position;
5. Close the logic box door;
6. Power up the machine;
7. After software initialization press "START" button or touch "YES" button on the screen (if touch screen is connected) to perform complete RAM clear;
8. Wait for confirmation message to appear on the screen;
9. Power down the machine;
10. Turn DIP switch 8 to OFF position;
11. Close logic box door;
12. Close main door;
13. Power up the machine;
14. After software initialization game will automatically switch to "Initial Setup" menu.

NOTE: RAM Clear operation can be canceled without loosing any data stored in RAM by pressing "BET" button, touching "NO" button on the screen (if touch screen is connected) or by powering down the machine.

WARNING: RAM Clear operation will permanently erase all the settings, accounting and statistical data from the RAM!
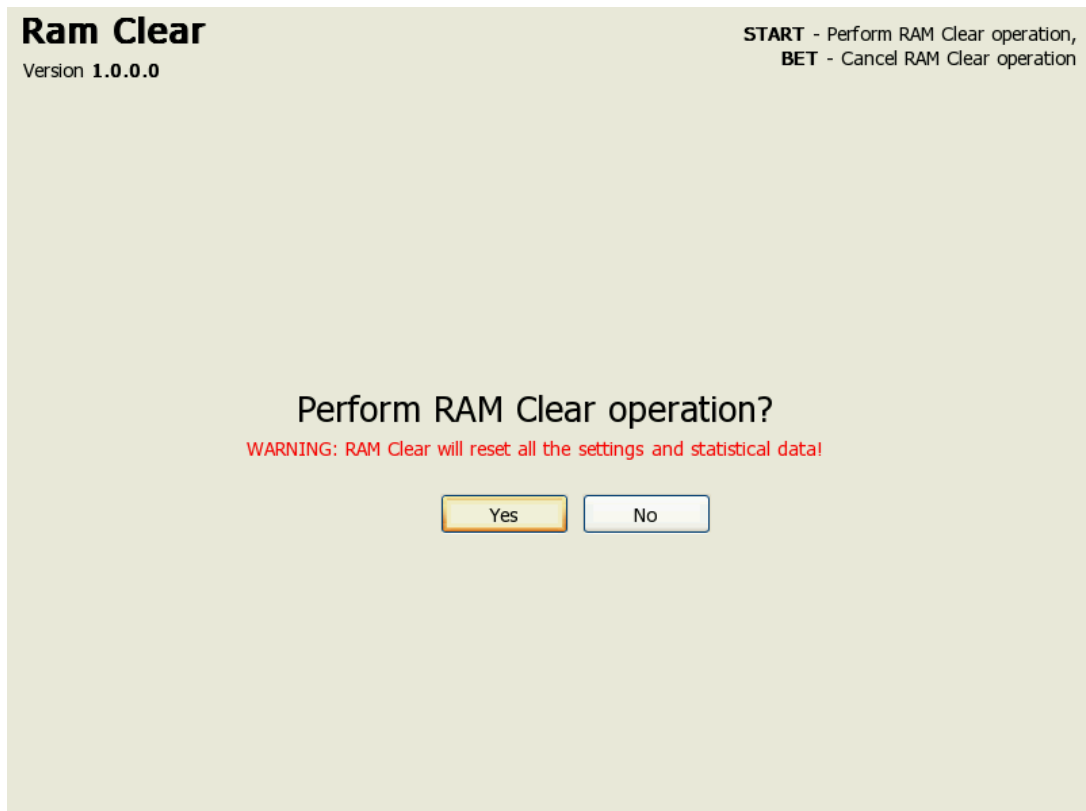
Figure 1: Ram Clear confirmation screen

4 Navigation and Access

System supports two methods of navigating through menus – using game panel buttons or using touch screen (if applicable).
Currently selected tab/list is highlighted with red color or border around the button.

4.1 Initial Setup and Service Menus

Button/Key	Function
START BUTTON	Enter into currently selected tab, press selected button or change the state of the checkbox.
BET BUTTON	Exit currently selected tab – go level up.
HOLD1 BUTTON	Select previous value in list
HOLD2 BUTTON	Select next value in the list
HOLD3 BUTTON	Select previous component or tab
HOLD4 BUTTON	Select next component or tab
TEST BUTTON	Exit Initial Setup or Service Menu
OWNER KEY	Exit Initial Setup

4.2 Input Dialogs

Button/Key	Function
START BUTTON	When input field is active – confirm changes and close the dialog, or when button is active – press current button
BET BUTTON	Previous character in current position of the input field
MAXBET BUTTON	Next character in current position of the input field
HOLD1 BUTTON	Delete current or previous character in the input field (depending on position of cursor)
HOLD2 BUTTON	Move to next position in input field
HOLD3 BUTTON	Move between input field and buttons
HOLD4 BUTTON	Move between input field and buttons
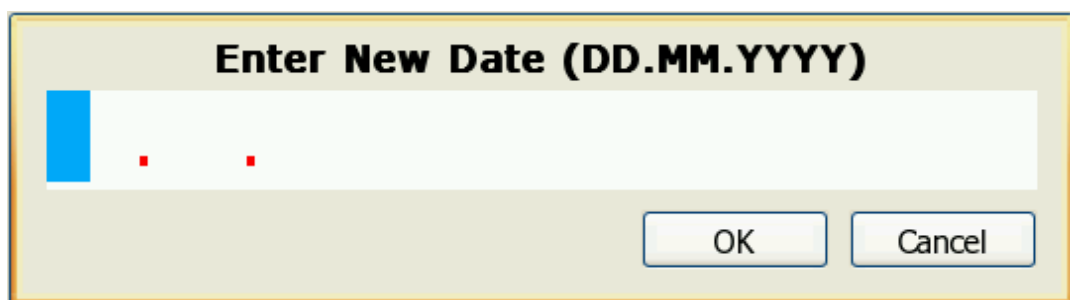
Figure 2: Date Input Dialog

4.3 Digital and Mechanical Keys

Digital and mechanical can have 4 different access levels.

Access Level	Description
OWNER	Owner key gives access to the setup and service menu – overall and period statistics; period meter reset function, history, diagnostics and setup. **NOTE:** Setup and overall meters are available only when number of available credits is zero.
RENTIER	Rentier key gives access to the limited number of functions in service menu – period meters, history and diagnostics.
CASHIER	Cashier key provides access to enter remote input menu, reset handpays and reset errors.
CROUPIER	Croupier key can only be used to enter remote input menu.

Table 1: Digital and Mechanical Key Access Levels

5 Activation

After performing RAM Clear operation, machine can request the activation code.

To activate the machine, Request code should be sent directly to the manufacturer or another official representative or distributor via e-mail or SMS. In reply to request code, activation code will be sent. Activation code should be entered in "Activation Code" field.

After code is entered, "Activate" button should be pressed. If the code is valid, "OK" button will appear. After pressing "OK" button, Initial Setup Menu will appear.

NOTE: If the activation code is not valid or entered incorrectly, machine will generate new request code, and the new activation code should be requested from the manufacturer as described above. Previous activation code will not work!

NOTE: Initial setup should be completed and confirmed before switching off the machine, otherwise on the next startup machine will request activation code again.

Rent Mode	Yes if machine is rented, no – regular operation.
Time Remaining	Displays number of days, hours and minutes machine can be operated.
	When rent time runs out, Activation screen will be shown.

Figure 3: Activation

6 Initial Setup Menu

Initial setup is activated on the first power up of the machine or after the RAM clear operation was performed.

Initial gaming machine setup provides options for performing configuration of critical gaming machine parts.

NOTE: Some options are available for configuration only within the Initial Setup. Values of these options will not be available for editing after the initial setup is completed.

After performing initial setup of the machine and reviewing selected options press TEST BUTTON or turn mechanical OWNER KEY to save parameters and exit Initial Setup.

6.1 Initial Regional Setup

Figure 4: Initial Setup, Regional tab

Currency Options

Currency String	Currency string to be displayed in accounting and games
Set Currency…	Opens dialog to set currency string (3 characters)
No. of Digits after Decimal	Number of decimal digits to be displayed for cash fields in service, accounting menus and game screens
	• 0

- 1
- **2**
- 3

Date/Time

Date Format   Date format to be used in service menus
- **DD.MM.YYYY**

Set Date…   Opens dialog to set current date
Time Format   Date format to be used in service menus
- **HH:MM:SS**

Set Time…   Opens dialog to set current time

Language

Game Language   Default game language
- **English**

Menu Language   Language in setup and service menus
- **English**

6.2 Initial Machine Setup

General

Machine Number   Machine number on the floor
Set Number...   Opens machine number edit dialog

Credit Denomination

Base Denomination   Base denomination unit used in accounting and statistics
- 0.001
- 0.005
- **0.01**
- 0.02
- 0.025
- 0.05
- 0.10
- 0.20
- 0.25
- 0.50
- 1.00
- 2.00
- 2.50
- 5.00
- 10.00
- 20.00
- 25.00
- 50.00
- 100.00
- 200.00
- 250.00
- 500.00
- 1000.00

Bets

5 Line Game Bet per Line Selection Mode	See list of available bet next to each item in the menu
10 Line Game Bet per Line Selection Mode	- **Progressive (1..100)**
20 Line Game Bet per Line Selection Mode	- Progressive (1..30)
	- Progressive (1..50)
	- Progressive (10..1000)
	- Progressive (10..300)
	- Progressive (10..500)
Poker Bet Selection Mode	- **Progressive (1..1000)**
	- Progressive (1..300)
	- Progressive (1..500)
	- Progressive (10..10000)
Total Bet Limit	- 100
	- 200
	- 300
	- 400
	- 500
	- 600
	- 700
	- 800
	- 900
	- **1000**
	- 10000

Limits

Win Log Limit	Games with winning that exceeds current value will be registered in Win Log.
	- **Disabled**
	- 1000
	- 10000
	- 100000
	- 1000000
	- 10000000
	- 100000000
Game Win Limit	Winning limit in the game. If winning in the single game exceeds selected value, hand pay window will appear.
	- **Disabled**
	- 100.00
	- 1000.00
	- 10000.00
	- 100000.00
	- 1000000.00
	- 10000000.00
	- 100000000.00

6.3 Initial Games Setup

Figure 5: Initial Setup, Games tab

Games tab contains list of games and available percentages for selection.

Average Theoretical Payout   Average payout percentage for all games

6.4 Initial Hardware Setup

6.4.1 Bill Acceptor

General

Enable Bill Acceptor   Enables bill acceptor support.
- Disabled
- **Enabled**

Autodetect…   Auto detects currently connected bill acceptor device.
NOTE: Currently software supports only JCM EBA/WBA ID-003 protocol compatible devices.

Enable Tickets   Enables ticket barcode reading support on JCM UBA bill acceptors.
- **Disabled**
- Enabled

Bill Configuration

Query Device…	Read pre-programmed bill table from the bill acceptor device. Pressing this button will override values in Bill Table.

Bill Table

Channel 0…15   Enable/disable individual channels
- **Disabled**
- Enabled

Value 0…15   Contains values of the bills on the corresponding channel. Even is channel is enabled, bill on channels that are equal to zero will not be accepted.
- **0.00**
- 1.00
- 2.00
- 2.50
- 5.00
- 10.00
- 20.00
- 25.00
- 50.00
- 100.00
- 200.00
- 250.00
- 500.00
- 1000.00
- 2000.00
- 2500.00
- 5000.00
- 10000.00
- 20000.00
- 25000.00
- 50000.00
- 100000.00
- 200000.00
- 250000.00
- 500000.00
- 1000000.00

6.4.2 Coin Acceptor

General

Enable Coin Acceptor   Enables coin acceptor support
- Disabled
- **Enabled**

Type   Type of coin acceptor device
- **NOT INSTALLED**   Coin Acceptor is not installed
- NRI G-13 MFT   NRI G-13 MFT Coin Acceptor

Coin Table

Channel 0…5	Enable/disable individual channels

- **Disabled**
- Enabled

Value 0…5	Contains values of the coins on the corresponding channel

- **0.00**
- 0.01
- 0.02
- 0.025
- 0.05
- 0.10
- 0.20
- 0.25
- 0.50
- 1.00
- 2.00
- 2.50
- 5.00
- 10.00
- 20.00
- 25.00
- 50.00
- 100.00
- 200.00
- 250.00
- 500.00
- 1000.00
- 2000.00
- 2500.00
- 5000.00
- 10000.00
- 20000.00
- 25000.00
- 50000.00
- 100000.00
- 200000.00
- 250000.00
- 500000.00
- 1000000.00

6.4.3 Coin Hopper

General

Enable Coin Hopper	Enables coin hopper support

- Disabled
- **Enabled**

Type	Type of coin hopper device

- **NOT INSTALLED** Coin hopper is not installed
- SUZO CUBE HOPPER SUZO CUBE HOPPER MKII
  MKII
- MONEY CONTROLS MONEY CONTROLS UNIVERSAL
  UNIVERSAL
- MONEY CONTROLS MONEY CONTROLS UNIVERSAL MK4 with presence
  UNIVERSAL MK4 control.

Coin Configuration

Coin Value Value of single coin in currency

- **0.01**
- 0.02
- 0.025
- 0.05
- 0.10
- 0.20
- 0.25
- 0.50
- 1.00
- 2.00
- 2.50
- 5.00
- 10.00
- 20.00
- 25.00
- 50.00
- 100.00
- 200.00
- 250.00
- 500.00
- 1000.00
- 2000.00
- 2500.00
- 5000.00
- 10000.00
- 20000.00
- 25000.00
- 50000.00
- 100000.00
- 200000.00
- 250000.00
- 500000.00
- 1000000.00

6.4.4 Hardware Meters

General

High Speed   Speed of mechanical meters
- Disabled
- **Enabled**

Meter Configuration

Configuration   Configuration of hardware meters
- **Default**
- 1
- 2
- 3
- 4
- 5

Meter Table

Meter   Meter index

Type   Meter type

Denomination   Denomination of meter spin.

6.5 Summary

This tab contains software and game information as well as some of the selected options for the final review.

Figure 6: Initial Setup, Summary tab

6.5.1 Software

System

Boot Version	Version of the bootloader
OS Version	Operating system version
Serial Number	Unique serial number of the system
Primary Flash MD5	MD5 digest of primary CompactFlash card

Application

Name	Application name
Version	Software version
Executable MD5	MD5 digest of executable file

Games

Name	Game name
Version	Version of game resources
Percentage	Theoretical payout percentage of the game
MD5 Digest	MD5 digest of the pay table file
Average Theoretical Payout	Average theoretical payout for machine

6.5.2 Machine

Machine

Denomination	Base credit denomination value

Limits

Win Log Limit	Winnings that exceed this value will be added to the Win Log
Game Win Limit	Winnings that exceed this value will be automatically handpaid

6.5.3 Regional

Currency

Currency	Currency string

Date and Time

Date and Time	Current date and time

6.5.4 Hardware

Peripherals

Bill Acceptor	Detected Bill Acceptor device model and version
Coin Acceptor	Selected Coin Acceptor device model
Coin Hopper	Selected Coin Hopper device model
Ticket Printer	Ticket printer device model
Touchscreen	Detected Touchscreen device model and version

7 General Service and Setup Menu

To enter General Service and Setup Menu press TEST BUTTON, turn mechanical OWNER KEY or insert digital OWNER KEY (if applicable) into the reader from the Game Selector in multi-game machine or Main Game in single-game machine.

NOTE: During demo mode it is not possible to enter General Service and Setup Menu, press any button on the game panel to exit demo mode!

NOTE: Setup tab and overall accounting meter values are only available if current value of available credits is zero!

7.1 Summary

Summary tab contains all the same information as the Summary tab in Initial Setup Menu.

7.2 Statistics

7.2.1 General Statistics

General Statistics contains basic information of cash flow and number of games played and won.

Total Credits In	Total amount of cash inserted into machine
Total Credits Out	Total amount of cash paid out be the machine
Physical Payout %	Total Credits Out / Total Credits In
Total Credits Wagered	Cash amount wagered in games
Total Credits Won	Cash amount won in games
Current Game Payout %	Total Credits Won / Total Credits Wagered
Main Games Played	Total number of main games played (does not include number of bonus games, freespins and gamble games played)
Main Games Won	Total number of main games won (does not include number of bonus games, freespins and gamble games won)
Available Credits	Number of credits currently available to the played
Period Meters Last Reset	Date and time of last period meters reset.
Reset Period Meters…	By pressing this button, system will reset all the period meters to zeroes.

7.2.2 Accounting Statistics

Accounting Statistics contains detailed information of cash flow.

Total Credits In	Total amount of cash inserted into machine
Credits In From Bills	Cash accepted from Bill Acceptor
Credits In From Coins	Cash accepted from Coin Acceptor
Remote In	Amount cash inserted using Remote Input function
Host In	Cash inserted from the host (EFT or AFT)
Ticket In	Cash redeemed from ticket
Total Credits Out	Total amount of cash paid out be the machine

Handpaid Credits	Amount of cash hand paid by the operator
Hopper Out	Cash paid out by the Coin Hopper
Host Out	Cash transferred to host (EFT or AFT)
Ticket Out	Cash transferred to ticket
Total Credits Wagered	Cash amount wagered in games
Total Credits Won	Cash amount won in games
Profit	Profit of the machine (Total Credits Wagered – Total Credits Won)
Hopper Dump Coins	Number of coins that has been dumped from Coin Hopper diagnostics menu
Physical Payout %	Total Credits Out / Total Credits In
Current Game Payout %	Total Credits Won / Total Credits Wagered

7.2.3 Bill Acceptor Statistics

Bill Acceptor Statistics contains detailed information of bills accepted on each channel, as well as total number of cash accepted from Bill Acceptor.

Channel	Channel number
Bill	Value of bill on current channel.
Accepted	Number of bills accepted on current channel.
Credits In	Total number of cash accepted on current channel.

7.2.4 Coin Acceptor Statistics

Coin Acceptor Statistics contains detailed information of coins accepted on each channel, as well as total number of cash accepted from Coin Acceptor.

Channel	Channel number
Coin	Value of coin on current channel.
Accepted	Number of coins accepted on current channel.
Credits In	Total number of cash accepted on current channel.

7.2.5 Access Statistics

Access Statistics contains accumulated values (overall and period) of door opens.

Main Door	Number of times main door was opened.
Logicbox Door	Number of times logicbox door was opened.
Billbox Door	Number of times billbox door was opened.
Dropbox Door	Number of times dropbox door was opened.

7.2.6 Main Game Statistics

Main Game Statistics contains extended information about game play. This statistics can be used to monitor several game parameters and to analyze player preferences.

7.3 History

7.3.1 Bill Log

Bill Log contains information about last 20 inserted bills.

#	Event number
Date/Time	Date and time when credits were added.
Value	Amount of cash that was added.
Channel	Bill Acceptor channel number

7.3.2 Coin Log

Coin Log contains information about last 20 inserted coins.

#	Event number
Date/Time	Date and time when credits were added.
Value	Amount of cash that was added.
Channel	Coin Acceptor channel number

7.3.3 Remote Input Log

Remote Input Log contains a list of 20 last remote input events (using CROUPIER or CASHIER keys).

#	Event number
Date/Time	Date and time when credits were added.
Value	Amount of cash that was added.
Type	Cash type

- Cashable
- Non-restricted
- Restricted

Input   Source

- Host
- Ticket
- Key

7.3.4 Payout Log

Payout Log contains a list of 20 last payout events.

#	Event number
Date/Time	Date and time when payout event occurred.
Value	Amount of cash that was paid out in currency.
Type	Cash type

- Cashable
- Non-restricted
- Restricted

Payout   Payout device
                                    • Coin Hopper
                                    • Hand pay
                                    • Host
                                    • Ticket

7.3.5 Access Log

Access Log contains list of 20 access events.

#	Event number
Date/Time	Date and time when access was granted.
Door/Access Level	Door name that was opened or access level that was granted.

Access Levels
  • OWNER   Owner access level was granted.
  • RENTIER   Rentier access level was granted.
  • CASHIER   Cashier access level was granted.
  • CROUPIER   Croupier access level was granted.

Doors
  • MAIN DOOR   Main door was opened.
  • BILLBOX DOOR   Billbox door was opened.
  • LOGBOX DOOR   Logicbox door was opened.
  • DROPBOX DOOR   Dropbox door was opened.

7.3.6 Error Log

Error Log contains a list of last 50 error conditions. Each page contains 10 errors, to switch between pages, "Prev Page" and "Next Page" buttons should be used.

#	Error number
Date/Time	Date and time when error condition was raised or reset.
Severity	Severity of the error

  • FATAL   Fatal error – can only be cleared by performing RAM clear operation or replacing broken/malfunctioning hardware parts.
  • CRITICAL   Critical error – this type of errors can only be reset with some event in the system, for example, door opened error can only be reset by closing corresponding door.
  • WARNING   Warning message informs player/operator about some non-critical event in the system, like hopper level low.
  • NORMAL   Normal error – can be reset with TEST button or CASHIER key.
  • BACKGROUND   Background errors are not shown on the display, but are added silently to the Error Log.

Code   Code of the error
Condition   State of the error
  • Raised   Indicated that the error condition occurred.
  • Reset   Indicated that the error condition was reset.

Description	Textual description of error condition

7.4 Diagnostics

7.4.1 Coin Acceptor Test

General

Coin Acceptor	Coin Acceptor model

Coin Acceptor Test Table

Channel	Channel number
Coin	Coin value in currency
Accepted	Number of coins accepted in current diagnostics session
	NOTE: Number of accepted coins is per diagnostics session, i.e. exiting and entering Coin Acceptor Diagnostics menu will reset these values to zero.
	WARNING: Coins inserted during diagnostics are not accounted into any of accounting meters.

Figure 7: Coin Acceptor Diagnostics

7.4.2 Bill Acceptor Test

Bill Acceptor Diagnostics is designed to detect and reinitialize Bill Acceptor device, as well as to test bill acceptance rate.

General

Bill Acceptor	Displays currently installed and detected Bill Acceptor model and version.
	NOTE: If Bill Acceptor device is not installed or not functioning correctly, this field will contain message "NOT INSTALLED"
Enabled	Yes if bill acceptor support is enabled
Tickets Enabled	Yes if tickets support is enabled
Restart Bill Acceptor…	By pressing this button system will try to auto-detect and reinitialize Bill Acceptor device.
	NOTE: If after restarting Bill Acceptor, "Bill Acceptor" filed does not contain valid model and version, this means that Bill Acceptor device is damaged or is not connected properly.

Bill Acceptor Test Table

Channel	Channel number
Bill	Bill value in currency
Accepted	Number of bills accepted in current diagnostics session
	NOTE: Number of accepted bills is per diagnostics session, i.e. exiting and entering Bill Acceptor Diagnostics menu will reset these values to zero.
	WARNING: Bills inserted during diagnostics are not accounted into any of accounting meters.

Bill Acceptor Diagnostics

Diamond Games I Version **1.1.0.1** Number: **0**

START - Press button
HOLD 1 - Next value, HOLD 2 - Prev value,
HOLD 3 - Next component, HOLD 4 - Prev component
Insert any key to exit.

General

Bill Acceptor: Bill Acceptor Emulator 1.0

Restart Bill Acceptor

Bill Acceptor Test

Channel	Bill	Accepted
0	5.00 Ls	0
1	10.00 Ls	0
2	20.00 Ls	0
3	50.00 Ls	0
4	100.00 Ls	0
5	0.00 Ls	0
6	0.00 Ls	0
7	0.00 Ls	0

Figure 8: Bill Acceptor Diagnostics

7.4.3 Ticket Printer Test

Ticket printer diagnostics with current ticket printer status and functions to print test tickets, and to reset device.

General

Ticket Printer	Displays currently installed and detected ticket printer model and version. NOTE: If ticket printer is not enabled, this field will contain "NOT ENABLED" text, if enabled but no valid device detected – "NOT DETECTED"
Connected	Yes if ticket printer is connected
Print test ticket	Prints test ticket
Form feed	Feed paper
Reset	Reset device
Status flags	List of ticket printer status flags

7.4.4 Coin Hopper Test

Coin Hopper Diagnostics

General

Coin Hopper	Coin Hopper model
Number of coins dumped	Number of coins dumped
	NOTE: Number of coins dumped is per diagnostics session, i.e. exiting and entering Coin Hopper Diagnostics will reset this value to zero.
Dump Hopper	Start dumping of coins from the hopper. Dump will be finished when hopper is empty or if operator exits from this diagnostics menu.
	Number of coins dumped will be added to the "Hopper Dump Coins" meter, which can be accessed from Statistics > Accounting menu.

Figure 9: Coin Hopper Diagnostics

7.4.5 Buttons and Lamps Test

Input/Output Diagnostics is designed for testing of game panel buttons and lamps, top lights and TEST button.

Pressing button on the game panel or on the screen will change the state of the corresponding lamp. Lamps and top lights have four states – "on", "blink", "inverted blink" and "off".

Pressing HOLD1 button on the panel will also change the state of the PAYOUT top light, HOLD2 will change the state of the ERROR top light.

NOTE: CALL ATTENDANT lamp and top light have only two states – "on" and "off".

NOTE: AUTOPLAY lamp can be tested only within the game, i.e. pressing AUTOPLAY button would not toggle state of the lamp in this testing menu.

Figure 10: Input/Output Diagnostics

7.4.6 Display and Touch Screen Test

Display and Touch Screen Diagnostics can be used to test and adjust color and geometry of the display device.

If Touch Screen is connected, touching the panel will move the pointer on the screen.
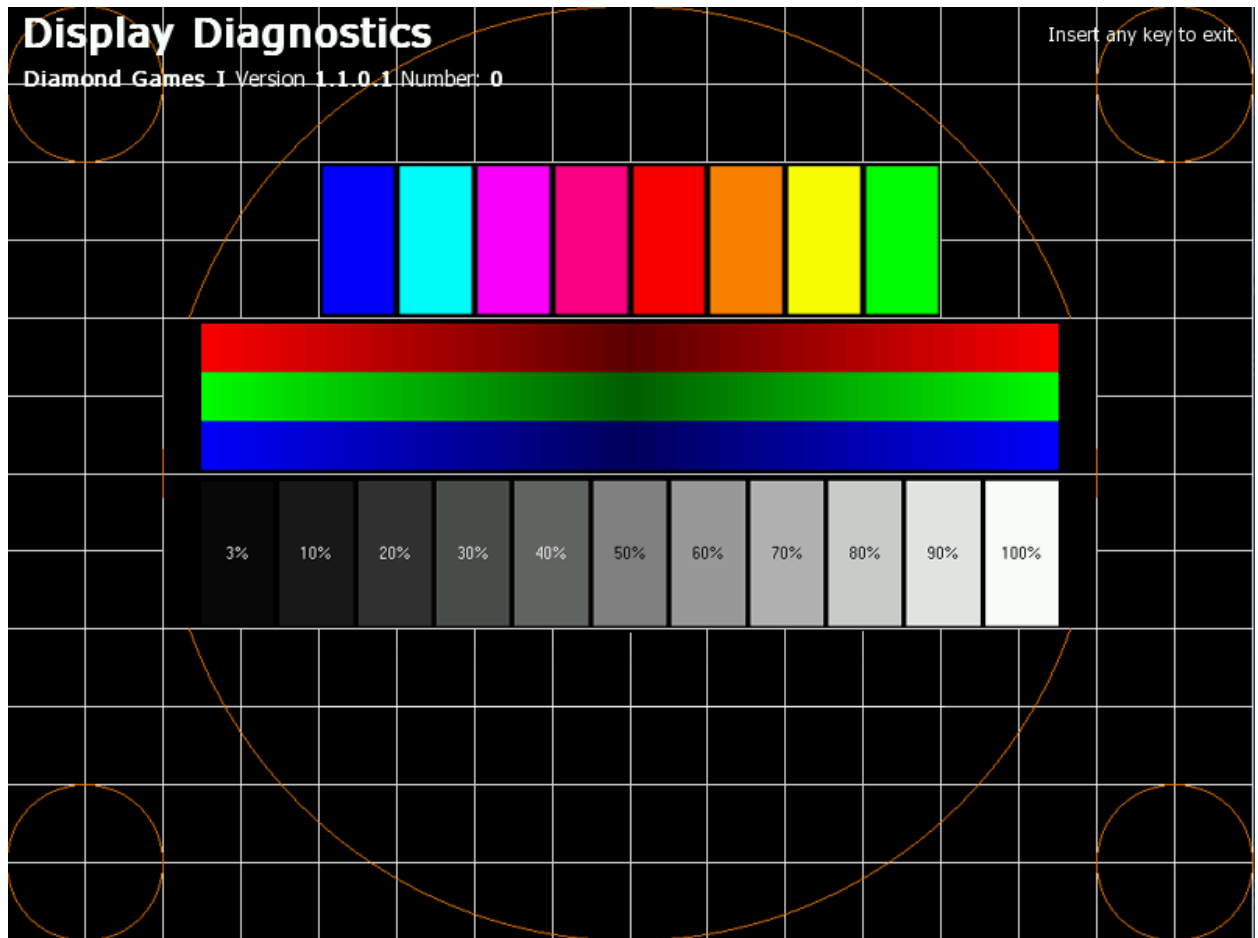
Figure 11: Display and Touch Screen Diagnostics

7.4.7 Hardware Monitoring

This tab contains information about system health status – including CPU and system temperatures, FAN rotation speed and voltage levels.

7.4.8 Sound Test

Sound Volume	Current sound volume level
Test Both Channels	Play test sound on both channels
Test Left Channel	Play test sound on the left channel
Test Right Channel	Play test sound on the right channel

7.5 Setup

7.5.1 Limits Setup

Cash Limits

Cash Limit	Maximum amount of cash that can be available to the player If number of available credits exceeds this limit (either by winning in the game, or by inserting bill or coin), hand pay event will be triggered.

- **Disabled**
- 100.00
- 1000.00
- 10000.00
- 100000.00
- 1000000.00
- 10000000.00
- 100000000.00

Cash In Limit	Maximum amount of cash that can be inserted into machine. When number of available credits exceeds this limit, all the acceptor devices, including Coin and Bill Acceptors will be disabled. As well as Remote Input menu would not allow to add additional credits.

- **Disabled**
- 100.00
- 1000.00
- 10000.00
- 100000.00
- 1000000.00
- 10000000.00
- 100000000.00

NOTE: Bill and Coin Acceptors will be disabled if addition of any coin/bill would cause number of available credits to overflow current limit.

Remote Input Limit	Maximum amount of cash that can be entered using Remote Input Menu

- Disabled
- 100.00
- 1000.00
- **10000.00**
- 100000.00
- 1000000.00
- 10000000.00
- 100000000.00

Hopper Payout Limit	Maximum number of coins that can be paid out via Coin Hopper. If Limit is disabled, machine will try to payout all credits via hopper.

- **Disabled**
- 5
- 10
- 20
- 30
- 40
- 50
- 100
- 150

- 200
- 250
- 300
- 350
- 400
- 450
- 500

Gamble Limits   Limits below apply to gamble game, if it is enabled

Hit Limit   Maximum number of consequent wins in gamble game. If disabled, there will be no hit limit for gamble game.
- Disabled
- 5
- **10**
- 20
- 30
- 40
- 50

Bet Limit   Maximum number of credits that can be bet in gamble game. If disabled, there will be no bet limit for gamble game.
- Disabled
- 100
- 500
- 1000
- 5000
- **10000**
- 50000
- 100000
- 500000
- 1000000
- 5000000
- 10000000
- 50000000
- 100000000

7.5.2 Game Setup

This menu is designed to enable/disable games in multi game machines. Depending on the game set, this menu will contain list of games in the machine. To enable game, place a mark in corresponding checkbox next to the game name. Disabled games logos will appear grayed in the game selector menu.

Games Enabled

Game Name
- Disabled
- **Enabled**

7.5.3 Machine Setup

This menu is designed to setup various machine parameters.

Payout

Enable Partial Payout | If checked and Coin Hopper is enabled, credits below "Hopper Payout Limit" will be paid out by Coin Hopper, remaining credits will be hand paid.
- **Disabled**
- Enabled

Hand Pay Hopper Remaining Amount | If checked and Coin Hopper is enabled, credits that can not be paid by coin hopper will be hand paid.
- **Disabled**
- Enabled

Game

Enable Autostart | Enable or disable "automatic play" feature. When enabled, player can press AUTOSTART button and machine will play automatically (including bonus and freespins games).
- Disabled
- **Enabled**

NOTE: When playing with autostart turned on, machine would not enter the gamble game.

Max Bet Starts Reels | When checked, pressing MAX BET button would also start spinning of the reels.
- **Disabled**
- Enabled

Auto Adjust Total Bet | When checked, machine will automatically adjust total bet when number of available credits is less then the current total bet. If not checked, current total bet will not be altered.
- Disabled
- **Enabled**

Enable Gamble | Enable or disabled gamble feature.
- **Disabled**
- Enabled

Autoplay Feature | When disabled player has to press START button after entering bonus or freespins game
- **Disabled**
- Enabled

Allow stop reels manually | When checked player is allowed to stop specific reel by pressing buttons HOLD1…HOLD5 or to stop all the reels by pressing START button.
- **Disabled**
- Enabled

Other

Sound Volume | Sound volume level for the game
- Muted
- 1%
- 2%

- 3%
- 4%
- 5%
- 10%
- 20%
- 30%
- 40%
- 50%
- 60%
- 70%
- 80%
- 90%
- **100%**

Screen Saver Wait Time	Number of minutes before starting of demonstration play. Demonstration is started only when number of available credits is zero.

- Disabled
- 1 minute
- 5 minutes
- **10 minutes**
- 15 minutes
- 20 minutes

Enable Sound in Demo Mode	Enable or disable sound during demonstration play

- **Disabled**
- Enabled

7.5.4 Remote Input Setup

This tab is used to configure remote input functionality.

Enable Remote Input	If checked, remote input menu will be available when CROUPIER or CASHIER key is inserted.

- Disabled
- **Enabled**

Remote In Amount 1…4	Amount of credits to be added by pressing corresponding button in Remote Input Menu.

- Disabled
- **1.00 (1)**
- **10.00 (2)**
- **100.00 (3)**
- **1000.00 (4)**
- 10000.00
- 100000.00
- 1000000.00
- 10000000.00
- 100000000.00

Handpay from Remote In Menu	When checked, hand pay button will be available within Remote Input menu.
	• Disabled
	• **Enabled**

7.5.5 Date and Time Setup

Date and time configuration tab.

Date

| Current Date | Current date |
| Set Date… | Opens dialog to set current date |

Time

| Current Time | Current time |
| Set Time… | Opens dialog to set current time |

7.5.6 Bill Acceptor Setup

This menu allows operator to enable/disable Bill Acceptor as well as individual bill channels.

General

Enable Bill Acceptor	If checked, bill acceptor will accept bills.
	• Disabled
	• Enabled
	NOTE: If all of the bill acceptor channels are disabled, bill acceptor will be disabled.
Manufacturer / Model	Type of detection Bill Acceptor device
Enable Tickets	Enables ticket barcode reading support on JCM UBA bill acceptors.
	• **Disabled**
	• Enabled

Bill Configuration

Channel 0…15	Bill channel number. When checked, Bill Acceptor will be enabled to accept bill on this channel.
	• Disabled
	• Enabled
	NOTE: If bill value was configured as zero in initial setup, Bill Acceptor would not acceptor bills on this channel.
Value 0…15	Value of bill on specified channel

7.5.7 Coin Acceptor Setup

This menu allows operator to enable/disable Coin Acceptor as well as individual coin channels.

General

| Enable Coin Acceptor | If checked, coin acceptor will accept coins. |
| | • Disabled |

- Enabled

NOTE: If all of the coin acceptor channels are disabled, coin acceptor will be disabled.

Type	Type of configured Coin Acceptor

Coin Configuration

Channel 0…5	Coin channel number. When checked, Coin Acceptor will be enabled to accept coins on this channel.

- Disabled
- Enabled

NOTE: If coin value was configured as zero in initial setup, Coin Acceptor would not acceptor coins on this channel.

Value 0…5	Value of coin on specified channel

7.5.8 Coin Hopper Setup

This menu allows operator to enable/disable Coin Hopper.

General

Enable Coin Hopper	If checked, coin hopper will be enabled to process payout requests.

- Disabled
- Enabled

Type	Type of Coin Hopper that was configured during initial setup
Coin Value	Single coin value

7.5.9 Touch Screen Setup

This menu allows to setup touch screen device. Currently system supports ELO-compatible serial and USB touchscreens. For serial touchscreens COM2 port on the backplane should be used, for USB devices any USB port can be used on the backplane. When touchscreen is enabled, system will automatically detect connected device and its model.

General

Enable Touchscreen	Enables touch screen support.
Autodetect Touchscreen	Enables touch screen device autodetection.
Type	Touchscreen type manual selection

- USB HID Touchscreen
- ELO Serial Touchscreen
- GeneralTouch Serial Touchscreen

NOTE: GeneralTouch touchscreen should be selected manually with Autodetect Touchscreen option turned off.

Manufacturer / Model	Connected device manufacturer and model
Connected	"Yes" if device is connected and detected properly

Configuration

Swap Axes	Swaps input of X and Y axes
Invert X Axis	Inverts X coordinates received from the device
Invert Y Axis	Inverts Y coordinates received from the device
	NOTE: This option should be checked for most of the serial

<table>
<tr><td></td><td>touch screen devices before testing or calibration</td></tr>
<tr><td>Calibrate and Test…</td><td>This button will appear on the screen, when touch screen device is detected. Follow on screen instructions to calibrate and test touch screen.</td></tr>
</table>

7.5.10 Ticket Printer Setup

This menu allows operator to enable/disable Ticket Printer.

General

<table>
<tr><td>Enable Ticket Printer</td><td>Enable or disable ticket printer support.
• **Disabled**
• Enabled</td></tr>
<tr><td>Manufacturer / Model</td><td>Detected ticket printer device model</td></tr>
<tr><td>Connected</td><td>"Yes" if device is connected and detected.</td></tr>
</table>

NOTE: Currently software supports Future Logic GEN2 (Serial interface) and TransAct Epic 950 (Serial interface) printers.

7.5.11 Digital Keys Setup

This menu is used to setup digital keys. Each access level can have up to three different digital keys associated with it.

To remove key from the access list, press "Clear" button next to key number.

To modify or add a new digital key, press "Modify…" button next to key number. Then the Digital Key Reader dialog will appear. Insert digital key and wait for its identification number to appear in the "ID" field. Press START button to accept newly inserted key or press BET to cancel changes.

Figure 12: Digital Key Setup
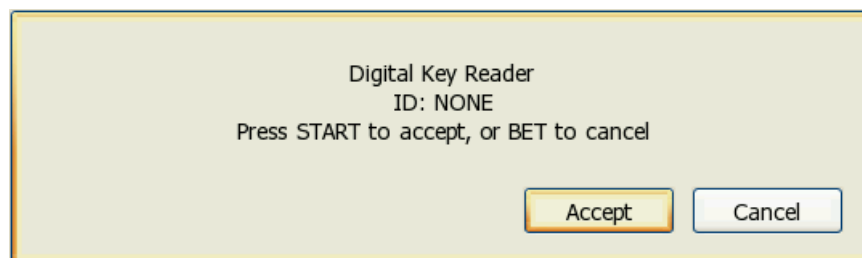

Figure 13: Digital Key Reader Dialog

7.5.12   SAS Setup

This menu contains options for machine configuration in Slot Accounting System (SAS) network.

General

Enable	If checked, SAS communication will be enabled.

- Disabled
- **Enabled**

Address	Machine address in SAS network
Set Address…	Opens dialog to set machine address

Asset Number	Current asset number
Set Asset Number…	Opens asset number configuration dialog
Funds Transfer Type	Specify fund transfer type

- **Disabled – funds transfer is disabled**
- EFT – Electronic Funds Transfer
- AFT - Advanced Funds Transfer

Advanced Funds Transfer

Transaction Limit	Funds transfer limit for all transactions

- **Disabled**
- 1.00
- 10.00
- 100.00
- 1000.00
- 10000.00
- 100000.00
- 1000000.00
- 10000000.00
- 100000000.00

Electronic Funds Transfer

Enable Payout to Machine	Enables host to payout funds from machine
Enable Payout to Host	Enables host to payout funds to the host
Cashable Input Limit	Limit for cashable funds transfer to machine

- **Disabled**
- 1.00
- 10.00
- 100.00
- 1000.00
- 10000.00
- 100000.00
- 1000000.00
- 10000000.00

Non-cashable Input Limit	Limit for non-cashable funds transfer to machine

- **Disabled**
- 1.00
- 10.00
- 100.00
- 1000.00
- 10000.00
- 100000.00
- 1000000.00
- 10000000.00

Promotional Input Limit	Limit for promotional funds transfer to machine

- **Disabled**
- 1.00
- 10.00
- 100.00

- 1000.00
- 10000.00
- 100000.00
- 1000000.00
- 10000000.00

Payout To Host Limit   Limit for payouts to host

- **Disabled**
- 1.00
- 10.00
- 100.00
- 1000.00
- 10000.00
- 100000.00
- 1000000.00
- 10000000.00

Tickets

Validation Type   Ticket validation mode:

- **Disabled**
- System

Enable Ticket Redemption   Enables or disables ticket redemption

- Disabled
- **Enabled**

8 Game Menu

Game Menu is available only on multi game machines. To enter Game Menu, select desired game from the game selector screen, and then turn and release mechanical OWNER KEY or corresponding digital key.

8.1 General Statistics

This tab displays general statistics meters for selected game.

Theoretical Payout	Theoretical payout of current game
Games Played	Number of main games played in current game
Games Won	Number of main games won
Cash Won	Cash won in current game
Cash Wagered	Cash wagered in current game
Payout Percentage	Current payout percentage of current game
Average Bet	Average bet per game
Available Credits	Number of currently available credits to the player

8.2 Game Log

Game Log contains information about last 100 games, including main games, gamble games, free games and bonuses.

Game log entries can be scrolled by using "Prev Page" and "Next Page" buttons. Each game log entry contains following information:

- Type of game – Main game, Gamble game, Free game or Bonus;
- Date and time when game was started;
- Amount of credits, cash amount and denomination before game was start;
- Total bet ("Number of Lines" x "Bet per Line") value when the game was started;
- Credits Won – number of credits won in current game;
- Payout – Cash amount that was paid out after current game;

By using "<" and ">" buttons it is possible to see all the winning combinations on every line and scatters that were triggered in current game.

Figure 14: Game Log

8.3 Win Log

Win Log contains information about up to 20 most recent games, where the winning exceeded Win Log Limit (configured in Initial Setup). Information provided for each game is identical to the Game Log.

8.4 Main Game Statistics

This statistics tab is identical to single game machine Main Game Statistics. (see Main Game Statistics section).

9 Remote Input and Payout

9.1 Remote Input Menu

Remote Input menu allows operator to increment amount of cash that will be available to the player.

To enter Remote Input Menu operator has to turn and hold CASHIER or CROUPIER mechanical key or insert and hold corresponding digital key.

Every Remote Input addition event is registered in log (see Remote Input Log section).

Credit Limits

Active Credit Limit	Maximum amount of cash that can be available to the player, zero means no limit
Remote In Limit	Cash amount that operator can insert in single turn
Available Credits	Number of credit in currency that is currently available to the player
Inserted Credits	Number of credit in currency that will be added to the available credits when operator confirms addition
Final Credits	Total number of credits in cash that will be available after operator accepts addition

Button	**Function**
PAYOUT	Handpay all the credits available to the player
	NOTE: To use handpay function from the remote menu, "Handpay from Remote Input Menu" options should be enabled (see Remote Input section).
HOLD1	
HOLD2	Add specified amount of credits. Each amount can be set or
HOLD3	disabled from the Service Menu > Setup > Remote Input
HOLD4	
BET	Reset number of credits pending for addition
START	Confirm that "Inserted Credits" amount will be added to available credits

Figure 15: Remote Input Menu

9.2 Hand pay Dialog

Handpay dialog appears when user presses PAYOUT button and coin hopper payout function is disabled, or when payout amount is higher than coin hopper payout limit (see Limits Setup section). Handpay dialog will also appear when number of available credits exceeds cash limit (see Limits section). YELLOW top light will inform personnel about handpay event.

To reset Handpay event operator should turn and release CASHIER KEY or insert and remove corresponding digital key. Handpay events are registered in log (see Payout Log section).

Cash   Amount of cash pending for handpay

Figure 16: Handpay Dialog

9.3 Coin Hopper Payout Window

Coin Hopper Window will appear when during hopper payout process.
If hopper runs out of coins during payout process, corresponding error message will appear on the screen and payout process will be terminated. If Hand Pay Hopper Remaining option is enabled (see Game Setup
This menu is designed to enable/disable games in multi game machines. Depending on the game set, this menu will contain list of games in the machine. To enable game, place a mark in corresponding checkbox next to the game name. Disabled games logos will appear grayed in the game selector menu.

Games Enabled

Game Name

- Disabled
- **Enabled**

Machine Setup section), remaining unpaid amount will be hand paid, otherwise machine will try to pay remaining amount by hopper.

Total Coins   Total number of coins for payout
Paid Coins   Number of coins that already have been paid out
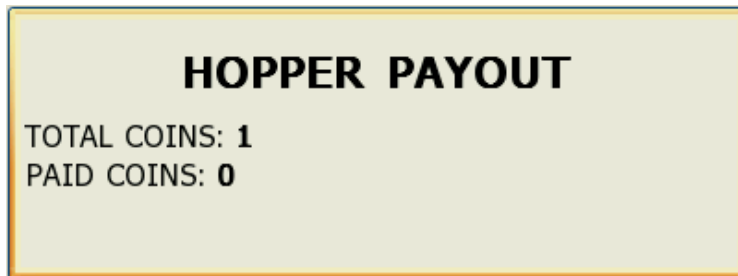
Figure 17: Coin Hopper Payout Window

10 Error Messages

10.1 Error Screen

Error screen appears when error condition occurs in machine. Error conditions include door openings, communication failures with peripheral devices, internal program errors, RAM errors, etc.

Severity	Severity of the error
• FATAL	Fatal error – can only be cleared by performing RAM clear operation or replacing broken/malfunctioning hardware parts.
• CRITICAL	Critical error – this type of errors can only be reset with some event in the system, for example, door opened error can only be reset by closing corresponding door.
• WARNING	Warning message informs player/operator about some non-critical event in the system, like hopper level low.
• NORMAL	Normal error. Should be reset with TEST button or CASHIER key.
• BACKGROUND	Background errors are not shown on the display, but are added silently to the Error Log.
Code	Code of the error
Description	Textual description of error condition
Action	Action that should be taken to reset/fix error.

```
Severity: NORMAL
Code: 0x00000010
Description: Jam in Coin Acceptor
Action: Remove jammed coin from the acceptor
```
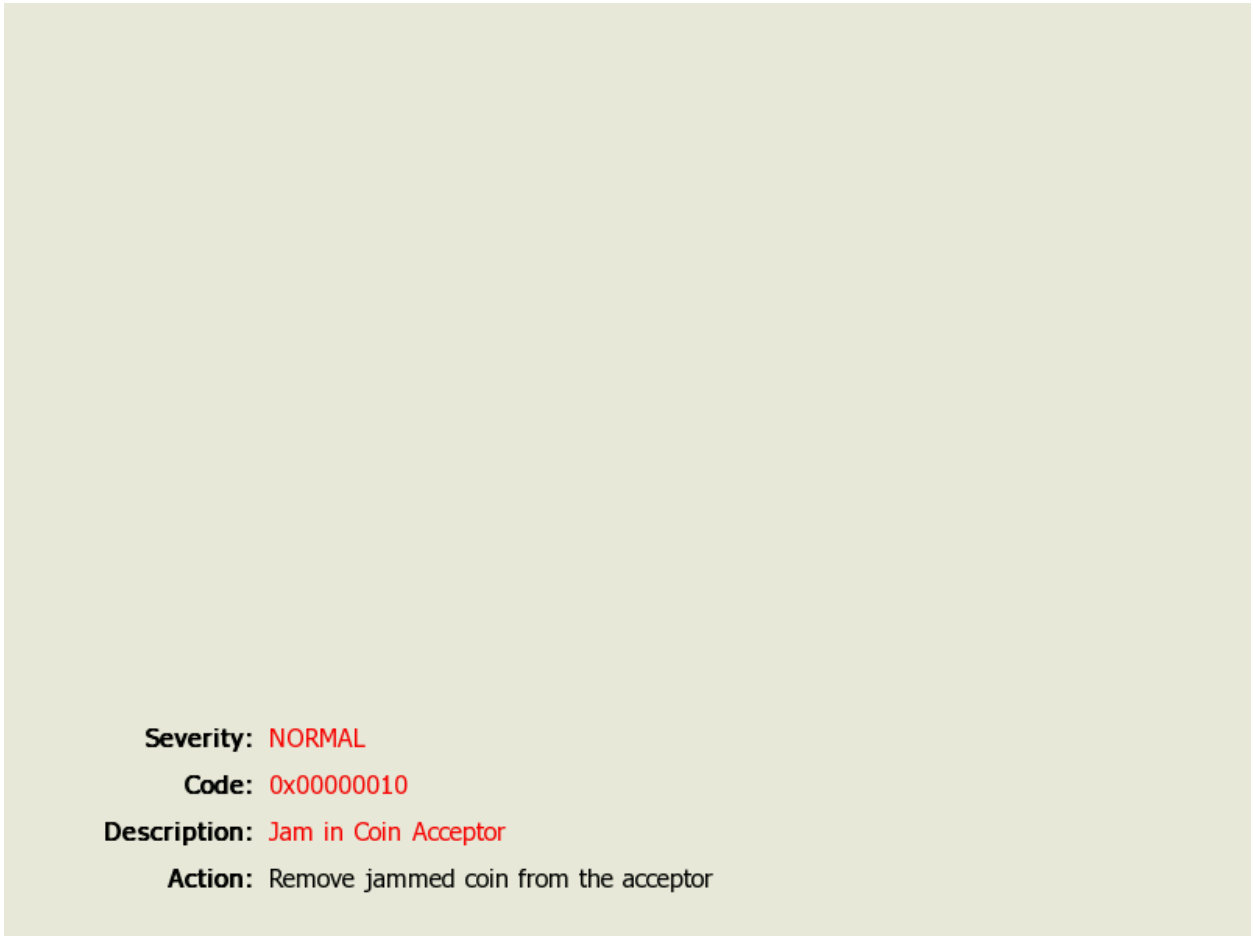
Figure 18: Error Screen

10.2 Table of Error Codes

Code	Severity	Description	Action
0x00000001	NORMAL	Bill acceptor disconnected	Check bill acceptor communications
0x00000002	CRITICAL	Bill acceptor cashbox is full	Remove bills from the cashbox
0x00000003	CRITICAL	A bill is jammed in the acceptor	Remove jammed bill from the acceptor
0x00000004	CRITICAL	Bill acceptor malfunction detected	
0x00000005	CRITICAL	Bill acceptor stacker is removed or not completely installed	Check if stacker is installed correctly
0x00000006	CRITICAL	Error in the bill acceptor firmware occurred	Restart bill acceptor or perform firmware consistency check
0x00000007	CRITICAL	Bill acceptor motor failure	Check bill acceptor motor
0x00000008	CRITICAL	Bill Acceptor cashbox is not ready	Check cashbox
0x00000009	CRITICAL	Bill Acceptor validator head is removed or wrong type is	Replace or repair validator head

		installed	
0x0000000A	NORMAL	Fraud bill inserted	
0x0000000B	NORMAL	An undefined error occurred in Bill Acceptor	Replace or repair bill acceptor
0x0000000C	NORMAL	Ticket printer is out of paper	Load ticket into a feed mechanism
0x0000000D	NORMAL	Ticket printer paper jam	Open printer chassis, pull out ticket and reload
0x0000000E	NORMAL	Ticket printer failure	Reconnect printer
0x0000000F	NORMAL	Ticket printer is disconnected	Check printer power and data cable connections
0x00000010	NORMAL	Jam in Coin Acceptor	Remove jammed coin from the acceptor
0x00000012	NORMAL	Strim attempt in Coin Acceptor	Check the coin acceptor
0x00000014	NORMAL	Coin hopper is empty	Refill hopper
0x00000016	NORMAL	Coin hopper output switch malfunction	Check coin hopper output switch
0x00000017	NORMAL	Jam in Coin Hopper	Remove jammed coin from the hopper
0x00000018	NORMAL	Coin hopper is disconnected	Check if coin hopper is installed correctly
0x0000001B	FATAL	RAM consistency check failed	RAM clear is required
0x0000001D	FATAL	RAM write error occurred	RAM Clear is required
0x0000001E	FATAL	Hardware meter memory is corrupted	RAM Clear is required
0x0000001F	NORMAL	Coin hopper memory is corrupted	RAM Clear is required
0x00000020	NORMAL	Real time clock error	Set date and time
0x00000021	FATAL	I/O board address capture error	Replace or repair I/O board
0x00000022	FATAL	One or more I/O board power up tests failed	Replace or repair I/O board
0x00000024	CRITICAL	Main door opened	Close main door
0x00000025	CRITICAL	Bill box door opened	Close bill box door
0x00000026	CRITICAL	Drop box door opened	Close drop box door
0x00000027	CRITICAL	Logic box door opened	Close logic box door
0x00000028	NORMAL	Backup battery voltage level is low	Replace backup battery
0x00000029	NORMAL	Hardware meters are disconnected	Check if hardware meters are connected properly
0x0000002A	NORMAL	Security MCU timeout	Check motherboard, I/O and backplane connections
0x0000002B	NORMAL	AC power failure	
0x0000002C	NORMAL	Main door was opened	Main door was opened while machine was powered off
0x0000002D	NORMAL	Bill box door was opened	Bill box door was opened while

			machine was powered off
0x0000002E	NORMAL	Drop box door was opened	Drop box door was opened while machine was powered off
0x0000002F	NORMAL	Logic box door was opened	Logic box door was opened while machine was powered off
0x00000030	FATAL	Incompatible RAM version	RAM contains game information from incompatible version
0x00000031	NORMAL	Internal NVRAM memory corrupted	Private part of NVRAM memory is corrupted
0x00000038	NORMAL	Ticket bucket is at low level	Load tickets into a printer
0x00000039	NORMAL	Ticket printer is not ready	Close printer cover or chassis
0x0000003A	FATAL	Primary flash card check failed	Check primary flash card

Table 2: Error codes