

MANUAL Pluto6+BackPlane

GENERAL INFORMATION

The author of this manual has devoted great care to the production and compilation of all technical information taking advantage of advanced controlling mechanisms. Nevertheless, possible errors cannot be totally excluded.

Thus, "Noble Gaming" cannot be held liable nor does it take legal responsibility for any consequences that may arise from incorrect statements.

Of course, the author welcomes any notification of errors.

Please report errors or comments to our company.

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This manual is part of the device and must be handed over to the new owner in case of changing hands. It must be kept for the whole durability of the device and be accessible to technical staff all the time. The instructions presented in this manual are to be obeyed implicitly.

This manual was created according to the European norm EN 62079:2001 in an accepted language of the manufacturer of the device and is valid for the respective machine until a newer version is released.

The identification of the device is made by the ID-plate on one side of the device. There you also find the necessary official test symbol.



Fig. 0.1: ID - Plate

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Lima, Peru



This manual is meant to be a permanent source of reference for the user. The individual sections contain important information on:

- Installation
- Handling
- Use
- Service
- Repairs

This manual is divided into six sections. Each chapter explains a specific area of how to use the machine.

Part II Installation

- installation and initialization of the machine

Part III Troubleshooting

- description of possible sources of errors

Part IV Game and Software

- error messages of the software
- audit system
- possibilities of configuration and initialization

ATTENTION

Certain photos may display parts which are not relevant to the respective section of the manual.

GENERAL INFORMATION

List of abbreviations

abbr. - abbreviation

AC - alternation current

cm - centimeter

CPU - Central Processing Unit

DC - direct current

Definition of terms

Attendant-key The attendant key is a key that allows service staff (attendant) to access certain data of the machine and make adjustments.

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Audit-Menu Menu item with which you adjust different parameters of the machine and in which you can see the accountancy.

Backplane This is a plane which contains the connection sockets and wrap connection, to which additional electronic devices, prints or cards can be attached if required.

Bill acceptor Device for examination and collection resp. rejection of bills.

Credits Deposit, gaming currency.

DIP-switch abbr.: Dual In-line Package-switch; those are numerous attached micro switches; according to the position of the switches, different adjustments are possible.

EEPROM abbr: Electrically Erasable Programmable Read-Only Memory; an EEPROM is a ROM that is modifiable by the user. It contains the set-up of the device. It is programmed in the plant.

Flash-ROM abbr: Flash Read Only Memory; the information in a Flash-ROM can only be read. The Flash-ROM contains software that allows the device to reboot whenever powering up. Information in the Flash-ROM is not lost when the machine is powered down. The Flash-ROM does not have any battery supply.

Handpay Pay-out of an account by the attendant.

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Jackpot Fund of non-distributed insertions in gambling; the Jackpot grows until one player reaches the essential gain criteria

Main power supply Power supply that provides voltage for the consuming devices.

Mechanical counters Mechanical devices for automatic counting of continuous, uniform activities such as coin insertion, gains.

Modular power supply Complete power supply unit, consisting of main power supply unit and switching power supply;

Motherboard, Mainboard This is a physical assembly of fundamental circuits and components. On a typical motherboard the circuits are imprinted or fixed on a hard, planar surface. It also contains all important software components.

RAM abbr: Random Access Memory; this is the temporary, writable memory within the computer, in which the operating system, applications and actually used data are stored in a way that the processor can quickly access them. RAM-arrays are cleared whenever the system is powered down.

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Real Time Clock This is an electronic clock within the computer that continues working after the machine has been powered down and therefore displays the correct time after powering up again.

Remote A function that permits to post credits onto the machine when using the attendant key.

ROM abbr: Read Only Memory; Information can only be read. The ROM contains software that allows the machine to power up whenever being switched on. Information stored in the ROM does not get lost when the computer is powered down. The ROM is energized by a small, durable battery on the motherboard.

Switching Power Supply Power supply that provides voltage for the logic area.

Touchscreen Display with sensor fields; the control of certain functions results from touching the screen.

UPS abbr: Uninterruptible Power Supply; UPS provides uninterruptible and undisturbed AC-voltage within defined tolerance (battery).

Validation number This is a generated, coded number that verifies the authenticity of a printed ticket.

Legend

ATTENTION- provides further information and/or explanation.

INFO- alludes to important and/or dangerous situations.

DEBUGGING- gives further information.

NOTE- explains the debugging of different errors.



Part I - Installation

- I.1 Inspection (damages caused by transport)
- I.2 Installation instructions
- I.3 Safety precautions

I.1 - Inspection (damages caused by transport)

- 1.) Remove the shipping carton.
- 2.) Remove the material used to secure the machine components during transport.
- 3.) Should any damages caused by transport have occurred on the exterior, report them immediately to the sender and have them confirmed by the same.

I.2 - Installation instructions

It must be ensured that the machine is operated in an upright position. Further, the machine has to be screwed down tightly to the base by means of the mounting material included in the delivery.

The minimum distance between two machines should be 30 cm to avoid possible damage when opening the main door. The minimum distance to a possible back wall or the like should be 10 cm.

The drilling jig has to be used in case the machine is to be installed on a table provided by the customer (i.e. if the machine has been delivered without base).

There are potentially dangerous high voltage components inside.

ATTENTION

Environment



Suitable for indoor use only!

Do not expose the machine under any circumstances to rain or temperatures greater than 50° C.

The operating temperature must not exceed 35° C.

If the machine has been exposed to very low temperatures, do not power it up immediately.

The machine has to reach room temperature (convenient temperature is 10° C to 35° C).

Be aware not to exceed the operation humidity range of 30% to 80% (not condensing).

Do not install it close to a radiator heating either.

Do not install the machine in locations with rapidly changing temperatures or excessive dust.

This could cause the risk of fire hazard, short circuit or other damages.

Provide adequate space for ventilation!

Openings on top, sides and in the bottom of the cabinet are provided for ventilation. To ensure proper operation and to prevent overheating, these openings should not be blocked or covered. To allow hot air to escape make sure that there is a minimum space of 10 cm between the machine and a wall or alike.

If the machine becomes too hot, it might cause a fire hazard.

MISCELLANEOUS

Influence of magnetic fields

Do not install machines with CRT-monitors close to strong magnetic fields like loudspeakers or fluorescent lamps.

Those equipments could bias the monitor, or unusual noises could be heard.

Machines with LCD-monitor

Do not hit or scratch the surface. High pressure or sharp objects could cause irreparable damages.

To clean the surface, use some absorbent cotton or soft cloth and a window cleaner.

If the display accidentally breaks and the liquid crystal material leaks, it should be kept away from the eyes or mouth.

In case of contact with hands, legs or clothes, it must be washed away thoroughly with soap.

<u>NOTE</u>

If you follow these instructions closely and the machine is maintained and handled in a proper way, it complies with the usual safety standards.

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The manufacturer warns explicitly against predictable, unconventional use of the machine as well as predictable malpractice. Do not bypass the built-in safety precautions in the machine!

Arbitrary alterations and changes of the machine are prohibited for safety reasons.

For security reasons any changes and exchanges of defective parts have to be accomplished with originally or manufacturer-registered parts.

The manufacturer calls attention to the fact that spare parts that were not delivered by the "Noble Gaming" are neither tested nor approved.

The installation and/or use of such parts might negatively affect the machine's performance.

The manufacturer cannot be held responsible for errors that result from such parts.

We hereby disclaim any warranties for improper handling of the machine.

ATTENTION

The following service instructions are for use by qualified or trained personnel only. The owner of the machine has to assure that only qualified or trained personnel perform services.

To avoid personal injury or damage to the equipment, do not perform any servicing other than such contained in this manual.



Part II - Troubleshooting

II.1 Lack of line voltage

II.2 Error messages of the software

II.1 - Lack of line voltage

Such voltage indications facilitate servicing and are an initial source of information. However, more details regarding defective line voltage can only be given by measurements with suitable devices.

ATTENTION

Usually errors in the electronics can only be handled by an expert.

The exchange of parts is the quickest way to perform a repair if this is eventually necessary.

If no spare parts are at hand, make use of our technical support and send us the defective electronic part together with a short error description.

II.2 - Error messages of the software

After the machine has been powered up, the major parts of the machine (e.g. CPU board etc.) are subject to a self test.

If this test has been successful, the machine switches automatically to the ready-for-play status. The error management engages each time a malfunction and/or manipulation is detected.

If the machine detects an error, the corresponding code is shown on the screen.

Error handling (procedures to rectify an error):

- 1.) Turn the attendant key.
- 2.) Clear the error.
- 3.) Release the attendant key.
- 4.) Usually the machine should now be ready for operation again.

ATTENTION

If the error cannot be cleared this way, see part **IV** - **Game and software**.



Part III – Game and Software

III. 1. Errors and errors handling

III. 2. Accounting menu

III. 1. Errors and errors handling

BILL ACCEPTOR:

"CASSETTE IS FULL" – Remove the cassette and empty it, or replace it with an empty one.

"CASSETTE IS OUT" - Check if cassette is installed correctly.

"CASSETTE JAMMED" - Remove the cassette from the bill validator and remove jammed bill.

- Turn power on and check stacking motor operation.

"VALIDATOR JAMMED" - Remove the cassette from the bill validator and clean the bill path.

GAME:

"EEPROM ERROR - ERROR CODE #READ" - The EEPROM is missing. Insert appropriate EEPROM.

"COUNTERS ERROR" – Counters do not work. Check the condition of the cables and connectors of the counters.

"USER CALL ATTENDANT" - The machine is blocked. Call ATTENDANT. ATTENDANT KEY clears the message.

"WIN LIMIT IS REACHED" – The maximum available win is reached.

"WIN ALERT IS REACHED" - Call ATTENDANT. ATTENDANT KEY clears the message.



"DEVICE ERROR" - Incorrect game ID or redemption percent. Call authorized service.

"NOT ENOUGH CREDIT" - The credit is smaller or not enough according to actual bet. Insert more credits or lower the bet.

"PLEASE CLOSE DOOR" – The main door is open. Close the door and clear the message with ATTENDANT KEY.

"PLEASE INSERT YOUR KEY" – Insert the ATTNEDANT KEY.

"PLEASE REMOVE YOUR KEY" – Remove the ATTENDANT KEY.

"PLEASE RESTART MACHINE ..." – The machine needs to be restarted. Turn off the machine and after a while turn it on again.

"CALIBRATION FAILED" - Calibration of the touchscreen failed. Do calibration of the touchscreen again.

"TOUCHSCREEN NOT CALIBRATED OR NOT PRESENT" - Touchscreen is not present or hasn't been calibrated. Check connectors and wires of the touchscreen. Do a calibration of the touchscreen.

"SERVICE MODE" - The main door is open. The machine is in SERVICE MODE. Close the main door.



III. 2. Accounting menu

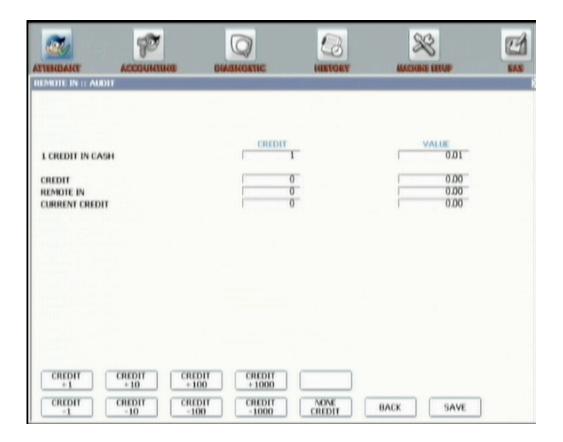
1. - Attendant menu



Keys	Function	Description
Line 3	Up	Move UP in the menu
Bet 1	Left	Move LEFT in the menu
Bet 2	Down	Move DOWN in the menu
Bet 5	Right	Move RIGHT in the menu
Start	ENTER	Start the function



1. 1 – Remote In





Serves to insert credit by Attendant.

Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Line 1	+1 CR	Adds 1 CR to REMOTE IN
Line 3	+10 CR	Adds 10 CR to REMOTE IN
Line 5	+100 CR	Adds 100 CR to REMOTE IN
Line 9	+1000 CR	Adds 1000 CR do REMOTE IN
Bet 1	- 1 CR	Deducts 1 CR from REMOTE IN
Bet 2	- 10 CR	Deducts 10 CR from REMOTE IN
Bet 5	- 100 CR	Deducts 100 CR from REMOTE IN
Bet 10	- 1000 CR	Deducts 1000 CR from REMOTE IN
Bet 20	None credit	Clear the credit
Start	Save	Save the changes

REMOTE IN:

Displays value of inserted amount

CURRENT CREDIT:

Displays actual value of inserted credit. No actual value REMOTE IN is added to it.

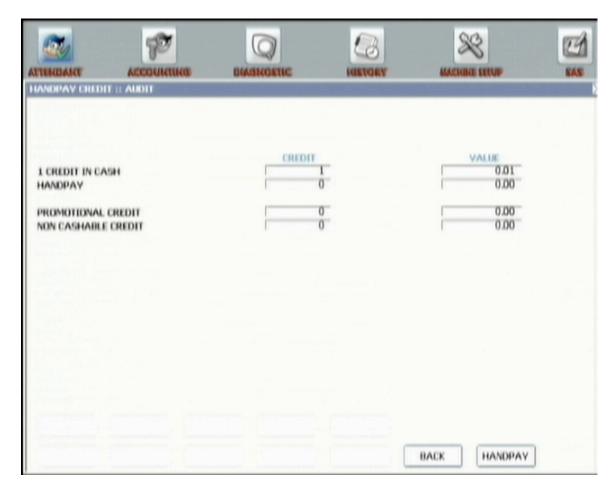
DENOMATION:

Displays value of actual denomination.

There are displayed conversed values of credit to actual currency in the bottom of the screen.



1.2 – Handpay Credit

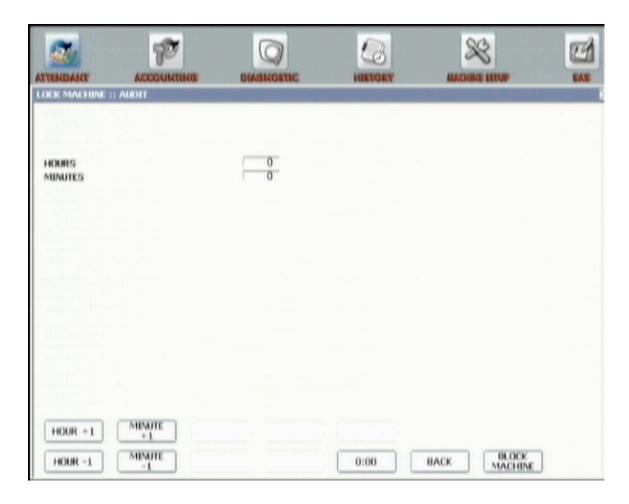


Serves for credit payout by Attendant. Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return do Menu
Start	HANDPAY	Pays out credit



1.3 – Lock Machine





Serves to block the machine for adjusted time by Attendant.

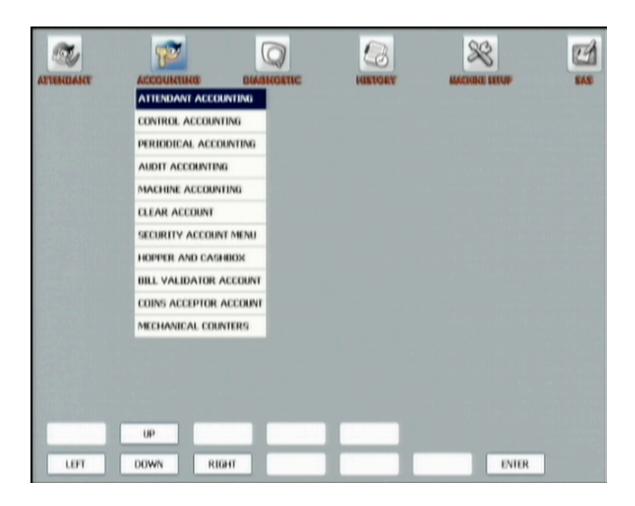
Description of functional keys:

Keys	Function	Description
Line 1	HOUR + 1	Add 1 hour
Line 3	MINUTE +1	Add 1 minute
Bet 1	HOUR - 1	Deduct 1 hour
Bet 2	MINUTE -1	Deduct 1 minute
Bet 20	0:00	Set the time
Info/Gamble	Back	Back to Main menu
Start	BLOCK MACHINE	Blocks machine for adjusted time

After the time is set and BLOCK MACHINE button pressed, Attendant is asked to remove the key. Now, machine is blocked for adjusted time. Repeated insertion of the key inactivates blocked machine.



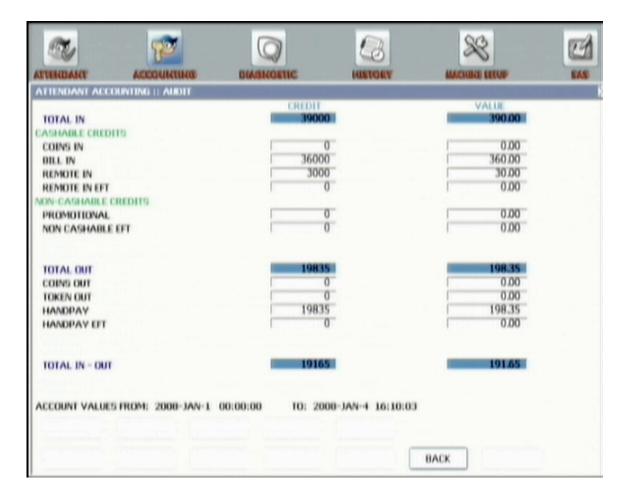
2 - Accounting



Keys	Function	Description
Line 3	Up	Move UP in the menu
Bet 1	Left	Move LEFT in the menu
Bet 2	Down	Move DOWN in the menu
Bet 5	Right	Move RIGHT in the menu
Start	ENTER	Start the function



2.1 - Attendant Accounting



Serves to display statistics for ATTENDANT key.

Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu

TOTAL IN: Total inserted amount

COINS IN: Total inserted amount through coin acceptor BILL IN: Total amount inserted through bill acceptor REMOTE IN: Total amount inserted using REMOTE IN

REMOTE IN EFT: Total amount paid using SAS

PROMOTIONAL: Total amount of inserted promotional credits

NON CASHABLE

EFT: Total amount credit inserted to play, which cannot be paid by

the system



TOTAL OUT: Total out

COINS OUT:
Total amount of paid out coins
TOKEN OUT:
Total amount of paid out tokens
Total amount paid using HANDPAY

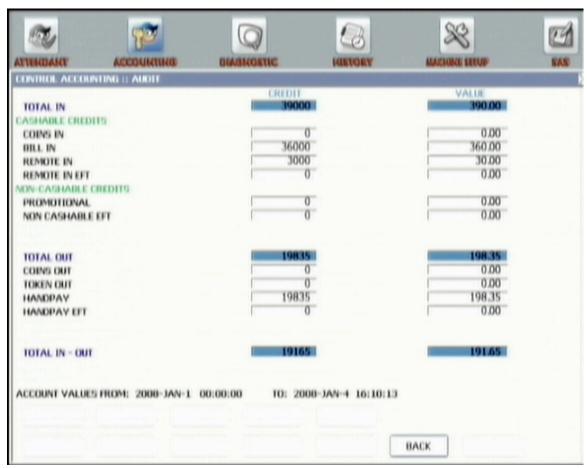
HANDPAY EFT: Total amount paid using SAS

TOTAL IN – OUT: Difference of values TOTAL IN – TOTAL OUT

FROM: Date of the last statistic reset

TO: Actual Date

2.2 - Control Accounting



Serves to display key CONTROL statistics Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu



TOTAL IN: Total inserted amount

COINS IN: Total inserted amount through coin acceptor BILL IN: Total amount inserted through bill acceptor REMOTE IN: Total amount inserted using REMOTE IN

REMOTE IN EFT: Total amount paid using SAS

PROMOTIONAL: Total amount of inserted promotional credits

NON CASHABLE

EFT: Total amount credit inserted to play, which cannot be paid by

the system

TOTAL OUT: Total out

COINS OUT:
Total amount of paid out coins
TOKEN OUT:
Total amount of paid out tokens
HANDPAY:
Total amount paid using HANDPAY

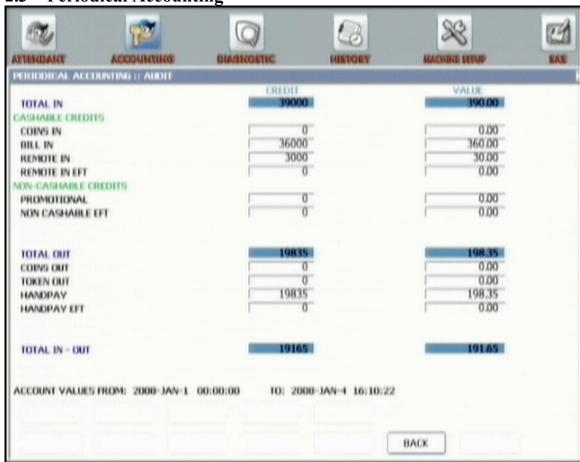
HANDPAY EFT: Total amount paid using SAS

TOTAL IN - OUT: Difference of values TOTAL IN - TOTAL OUT

FROM: Date of the last statistic reset

TO: Actual Date

2.3 - Periodical Accounting





Serves to display PERIODICAL key statistics

Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu

TOTAL IN: Total inserted amount

COINS IN: Total inserted amount through coin acceptor BILL IN: Total amount inserted through bill acceptor REMOTE IN: Total amount inserted using REMOTE IN

REMOTE IN EFT: Total amount paid using SAS

PROMOTIONAL: Total amount of inserted promotional credits

NON CASHABLE

EFT: Total amount credit inserted to play, which cannot be paid by

the system

TOTAL OUT: Total out

COINS OUT:
Total amount of paid out coins
TOKEN OUT:
Total amount of paid out tokens
Total amount paid using HANDPAY

HANDPAY EFT: Total amount paid using SAS

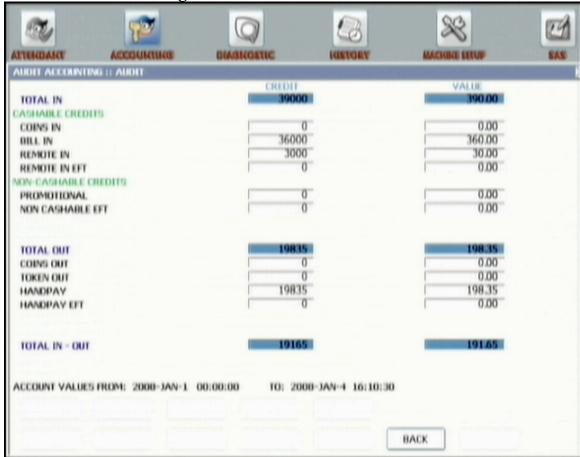
TOTAL IN – OUT: Difference of values TOTAL IN – TOTAL OUT

FROM: Date of the last statistic reset

TO: Actual Date



2.4 – Audit Accounting



Serves to display AUDIT key statistics

Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu

TOTAL IN: Total inserted amount

COINS IN: Total inserted amount through coin acceptor BILL IN: Total amount inserted through bill acceptor REMOTE IN: Total amount inserted using REMOTE IN

REMOTE IN EFT: Total amount paid using SAS

PROMOTIONAL: Total amount of inserted promotional credits

NON CASHABLE

EFT: Total amount credit inserted to play, which cannot be paid by

the system

TOTAL OUT: Total out

COINS OUT: Total amount of paid out coins



TOKEN OUT: Total amount of paid out tokens
HANDPAY: Total amount paid using HANDPAY

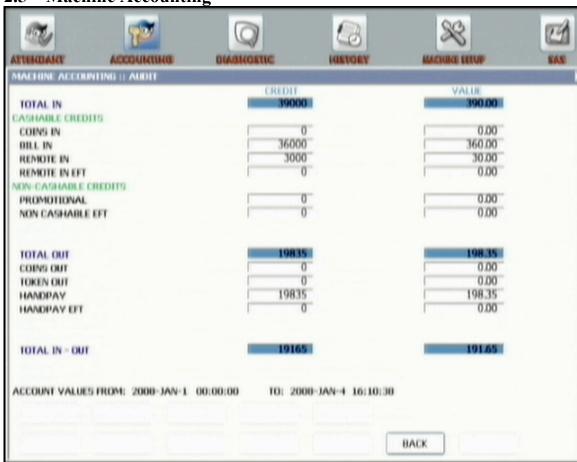
HANDPAY EFT: Total amount paid using SAS

TOTAL IN - OUT: Difference of values TOTAL IN - TOTAL OUT

FROM: Date of the last statistic reset

TO: Actual Date

2.5 – Machine Accounting



Serves to display MACHINE statistics

Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu

TOTAL IN: Total inserted amount

COINS IN: Total inserted amount through coin acceptor BILL IN: Total amount inserted through bill acceptor



REMOTE IN: Total amount inserted using REMOTE IN

REMOTE IN EFT: Total amount paid using SAS

PROMOTIONAL: Total amount of inserted promotional credits

NON CASHABLE

EFT: Total amount credit inserted to play, which cannot be paid by

the system

TOTAL OUT: Total out

COINS OUT: Total amount of paid out coins
TOKEN OUT: Total amount of paid out tokens
HANDPAY: Total amount paid using HANDPAY

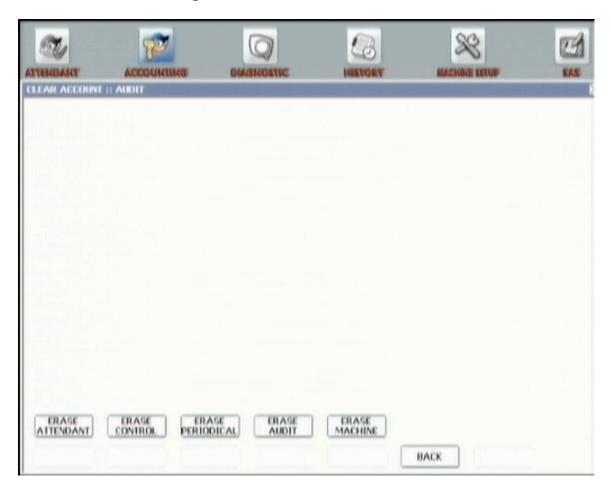
HANDPAY EFT: Total amount paid using SAS

TOTAL IN - OUT: Difference of values TOTAL IN - TOTAL OUT

FROM: Date of the last statistic reset

TO: Actual Date

2.6 - Clear Accounting



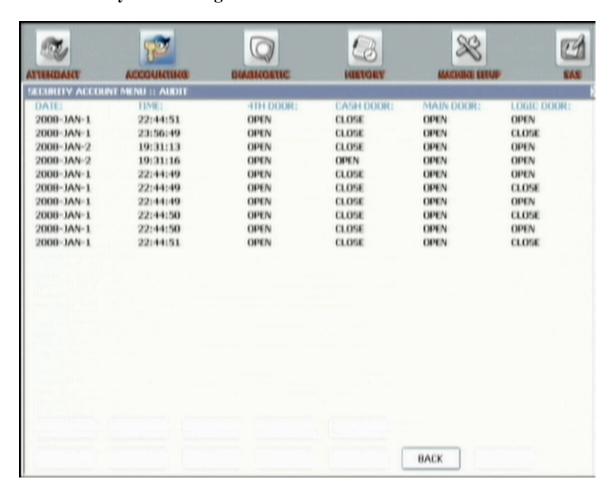


Serves for erasing of the particular statistics for particular keys.

Attendant can erase only statistics of the appropriate inferior keys. Audit key can erase the statistics of all the keys; Attendant key can not erase any of the statistics.

Keys	Function	Description
Line 1	Erase attendant	Erasing accounting from attendant
Line 3	Erase control	Erasing accounting from control
Line 5	Erase periodical	Erasing accounting from periodical
Line 9	Erase audit	Erasing accounting from audit
Line 15	Erase machine	Erasing accounting from machine
Info/Gamble	Back	Back to menu

2.7 – Security Accounting





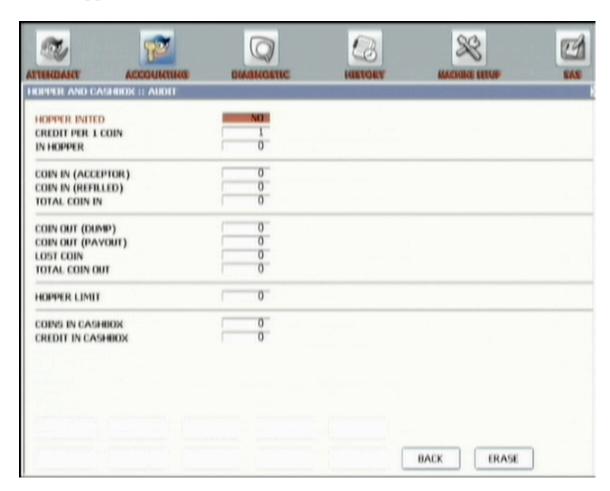
Statistic of the door opening

Description of functional keys:

Key	Function	Description
Info/Gamble	BACK	Return to Menu

If the DATE is 0:0:0 TIME: 0:0 – door hasn't been opened yet

2.8 – Hopper Account



Hopper Statistic

Description of functional keys:



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Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Start	Erase	Erase the data

credit value / amount of money for 1 coin. **CREDIT PER 1 COIN:**

IN HOPPPER: number of coins in the hopper stated in credits / money

COIN IN (ACCEPTOR): number of coins inserted through COIN ACCEPTOR **COIN IN (REFILED):** number of coins inserted through HOPPER REFILL

TOTAL COIN IN: total number of coins inserted

COIN OUT (DUMP): number of coins paid out by HOPPER DUMP function

number of coins paid out by PAYOUT COIN OUT (PAYOUT):

LOST COIN: Lost coins, balancing the missing coins from hopper

after the dump function

TOTAL COIN OUT: sum of all the paid out coins

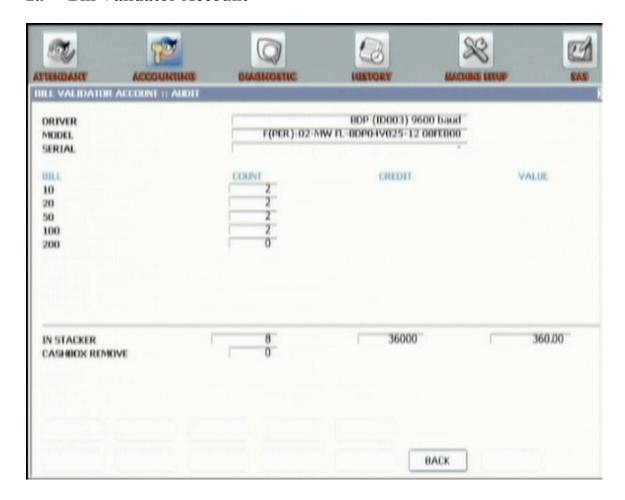
COINS IN CASHBOX: number of coins left in cashbox CREDIT IN CASHBOX: number of credits left in cashbox

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2.9 – Bill Validator Account



Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu

Driver: Type of drivers

Model: Type of Bill Acceptor

Serial: Bill Acceptor Serial Number, in case when SN is supported

Bill Chart Statement:

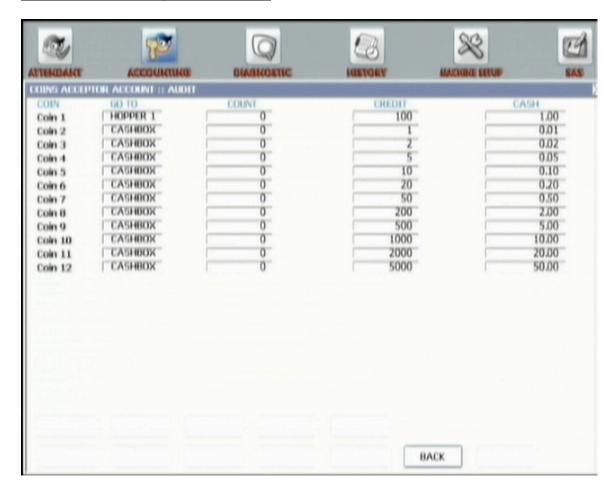
- Count number of bills of that particular face-value accepted

Cash Box Remove: number of Cash Box extractions
Bill In Stacker: number of bills inside the stacker

Cash In Stacker: sum of the bill face values in the stacker



2.10 - Coins Acceptor Account



Informational page on the Coin Acceptor Configuration

Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu

Coin: Coin canal

Go To: Coin drop direction (Cashbox / Hopper)

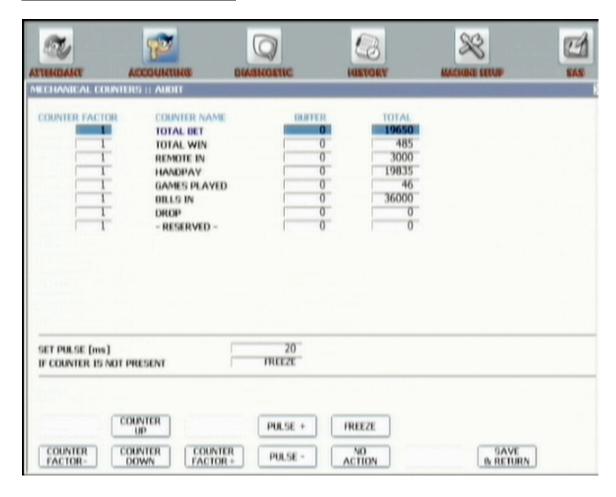
Count: Number of coins registered on a particular canal

Credit: Credit expression of the coin value

Cash: The actual value of the bills



2.11 – Mechanical counter



Serves for echo check of the values on the mechanical meters. In this menu the speed of the mechanical meters and automat reaction on the meter failures can be set up.

Description of functional keys:

Keys	Function	Description
Line 3	Counter UP	Moves counter up
Line 9	Pulse +	Increase the pulse on the mechanical accouter
Line 15	Freeze	Game break and error message occurrence
Bet 1	Counter factor -	Value decrease
Bet 2	Counter DOWN	Moves cursor down



Keys	Function	Description
Bet 5	Counter factor +	Value increase
Bet 10	Pulse -	Decrease the pulse on the mechanical accouter
Bet 20	No action	Problem is ignored
Start	Save & Return	Return to Menu

PULSE: Meter speed (pause between the particular meter states in ms)

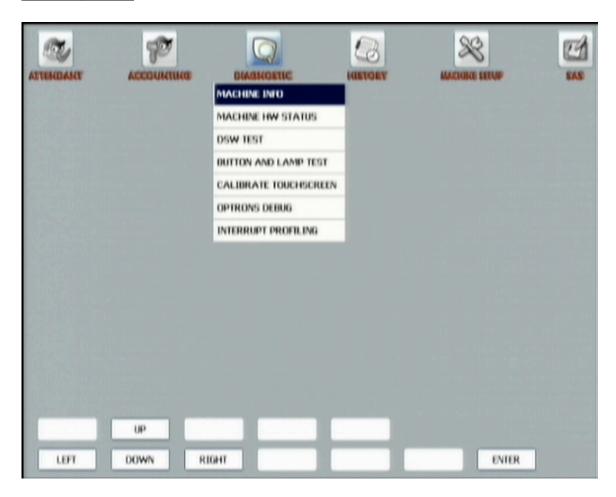
When is Counter not present: "freeze" - game break and error message occurrence "no action" - problem is ignored

Meter Chart:

Meter number
Meter name
Remain value to be counted on the meter
Meter state



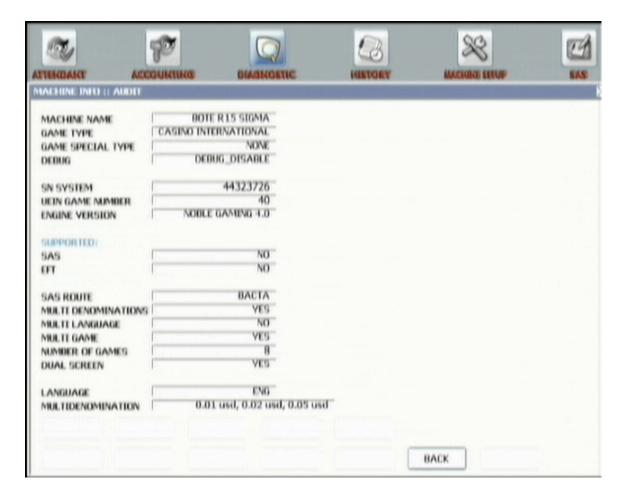
3 – Diagnostic



Keys	Function	Description
Line 3	Up	Move UP in the menu
Bet 1	Left	Move LEFT in the menu
Bet 2	Down	Move DOWN in the menu
Bet 5	Right	Move RIGHT in the menu
Start	ENTER	Start the function



3.1 - Machine Info



Description of functional keys:

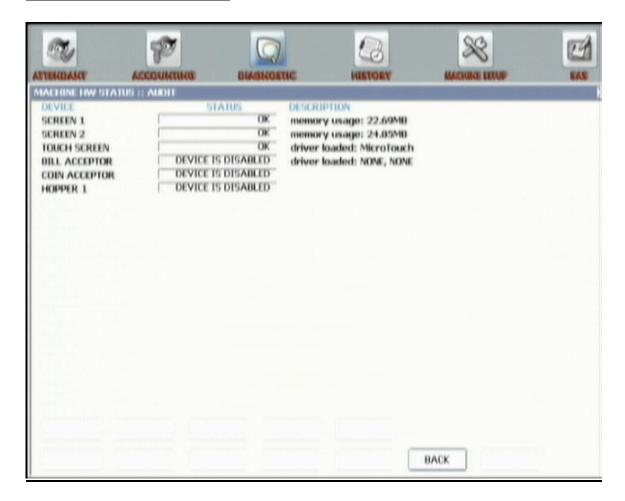
Keys	Function	Description
Info/Gamble	BACK	Return to Menu

Information for the machine.

.



3.2 – Machine HW Status



Description of functional keys:

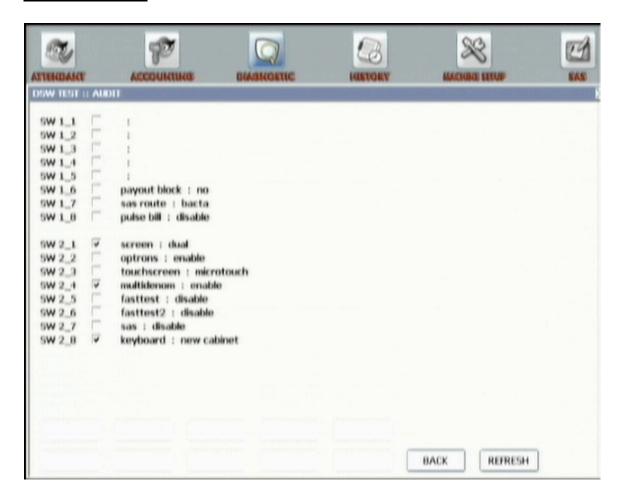
Keys	Function	Description
Info/Gamble	BACK	Return to Menu

Information on the HW state.

In case "OK" value is not present by particular items, there is an error in HW or HW is absent.



3.3 – DSW Test



Information on the DSW configuration.

Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Start	Refresh	Serves to refresh the values

DSW1: marks 1_X DSW2: marks 2 X

ON/OFF – set to the value TRUE (1) / FALSE (0)



3.4 - Button and Lamp Test



Serves for user test of the keys and lamps functionality. Test is automatically finished after $20~\rm s$ or after key extraction.



3.5 - Calibrate Touchscreen

During the calibration follow the displayed on the screen:

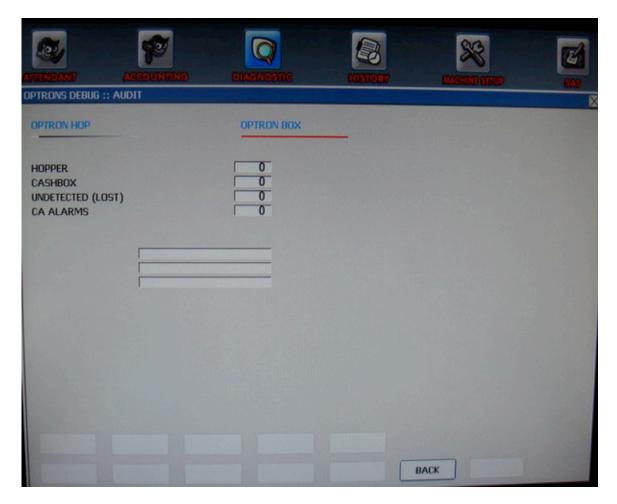
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Touch the target in left down corner, then target in right up corner. In case of failure or touch screen absence the error message is displayed: "TOUCHSCREEN NOT CALIBRATED OR NOT PRESENT"

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3.5 Optrons Debug



Keys	Function	Description
Info/Gamble	BACK	Return to Menu

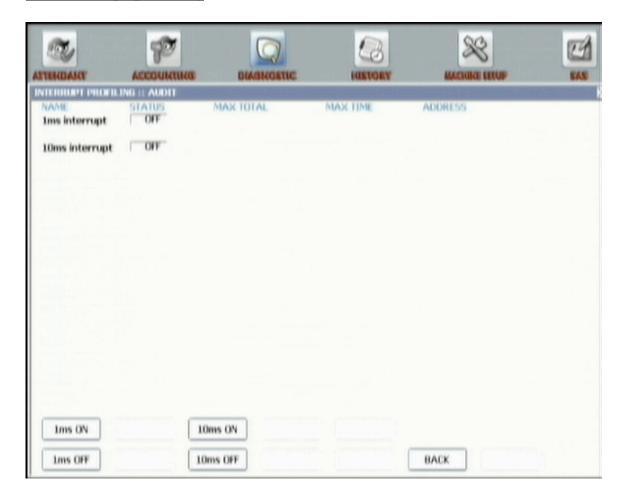
HOPPER: coins checked by the optrons in the hopper.

CASHBOX: coins checked by the optrons in the CASHBOX.

UDETECTED: undetected coins. CA ALARMS: attempt for cheating.



3.6 Interrupt profiling



It measures the interrapting.

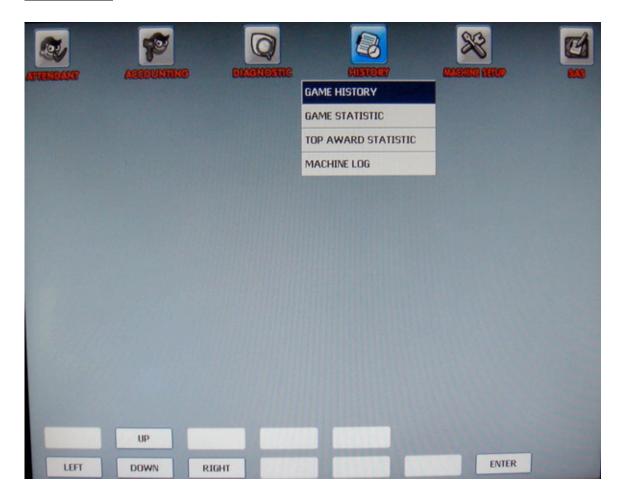
Description of functional keys:

Keys	Function	Description
Line 1	1 ms ON	Turning on 1 ms
Line 5	10 ms ON	Turning off 10 ms
Bet 1	1 ms OFF	Turning on 1 ms
Bet 5	1 ms OFF	Turning off 10 ms
Info/Gamble	BACK	Return to Menu

ATTENTION: After every test the machine must be restarted!!!



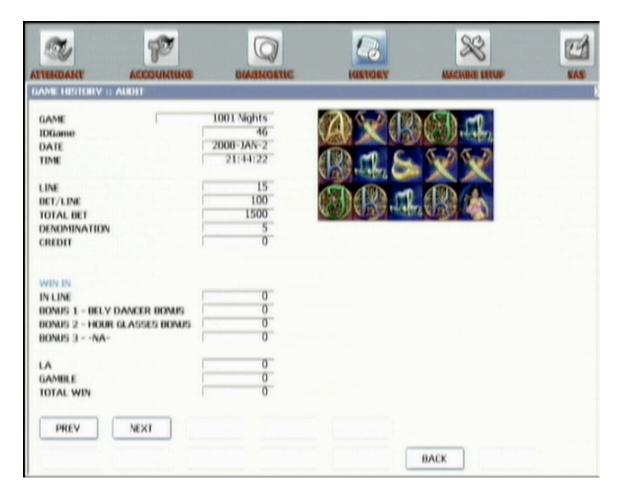
4 – History



Keys	Function	Description
Line 3	Up	Move UP in the menu
Bet 1	Left	Move LEFT in the menu
Bet 2	Down	Move DOWN in the menu
Bet 5	Right	Move RIGHT in the menu
Start	ENTER	Start the function



4.1- Game History



Description of functional keys:

Keys	Function	Description
Info/Gamble	Back	Return to Menu
Line 1	Prev	Previous record
Line 3	Next	Following record

GAME: shows the game name

ID GAME: sequence number of the game (is counted from the first machine run)

DATE: date when the game was finished time when the game was finished LINE: number of lines in the game

Bet/line: bet value on 1 line for the particular game total Bet: total bet value for the particular game

Denomination: denomination use in the game



Credit: current credit value after the game played

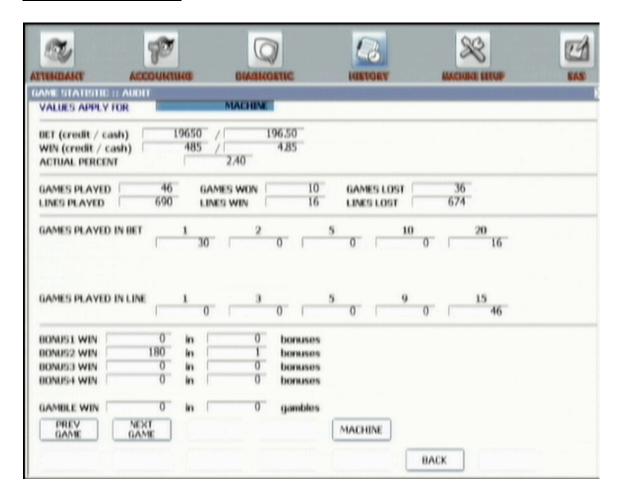
In Line: total win on all the active lines

Bonus 1: win in credits in the bonus game of the Bonus 1 type Bonus 2: win in credits in the bonus game of the Bonus 2 type LA: win in credits in the bonus game of the LA type

Gamble: win in Gamble

Total Win: total amount of the win, which is the sum of the below stated subwins

<u>4.2 – Game Statistic</u>



Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Line 1	Prev Game	Previous record
Line 3	Next Game	Following record

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Keys	Function	Description
Line 15	Machine	Machine record

Total BET(credit/cash) number of credit played **Total Any Win Combination:** number of winning lines **Actual Percent** percentage win/bet

Total Games Played: number of games played **Total Lines Played:** number of lines played **Total Game Won:** number of games won **Total Lines Win:** number of lines win number of games lost **Total Games Lost:** number of lines lost **Total Lines Lost:**

Total of games played in bet: number of the games played in different bet **Total of games played in line:** number of the games played in different lines

Total Bonus1 Win: value of credit won in the bonus game of the

Bonus 1 type

Total Bonus2 Win: value of credit won in the bonus game of the

Bonus 2 type

value of credit won in the bonus game of the **Total Bonus3 Win:**

Bonus 3 type

Total Bonus4 Win: value of credit won in the bonus game of the

Bonus 4 type

Total Bonus1 Win: number of winning combinations of the bonus

games of the Bonus1 type

number of winning combinations of the bonus **Total Bonus2 Win:**

games of the Bonus2 type

Total Bonus3 Win: number of winning combinations of the bonus

games of the Bonus3 type

number of winning combinations of the bonus **Total Bonus4 Win:**

games of the Bonus4 type

number of wins of the TOP AWARD type **Total Top Award Win: Total Top Award Win:** value of credit won in the winnings of the TOP

AWARD type

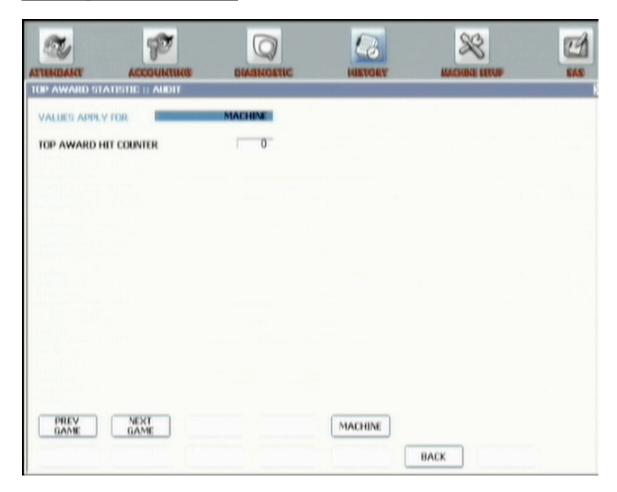
number of games in GAMBLE **Total Game in gamble: Total Win in gamble:** number of wins in GAMBLE

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4.3 – Top Award statement



Description of functional keys:

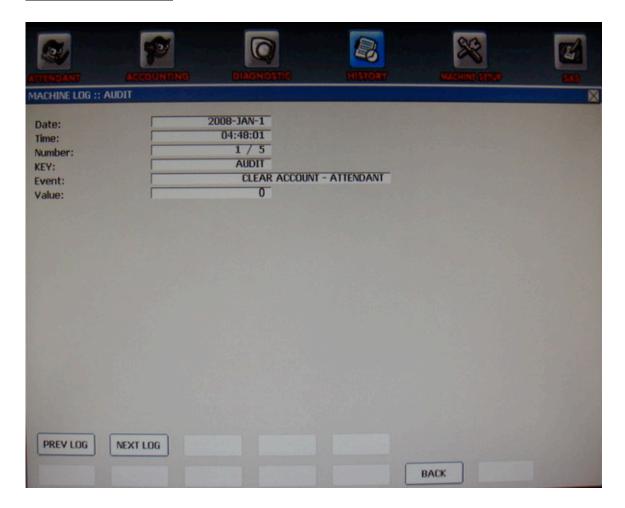
Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Line 1	Prev Game	Previous record
Line 3	Next Game	Following record
Line 15	Machine	Machine record

TOP AWARD HIT COUNTER: number of times that the top award have been won

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4.4 - Machine Log



Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Line 1	Prev	Previous record
Line 3	Next	Following record

Displays events connected with the machine run except of Game Statistic and Game History, which have separate record administration in their own menu.

Event log displays last 60 records.

Date/Time: date and time of the record

Number: number of events

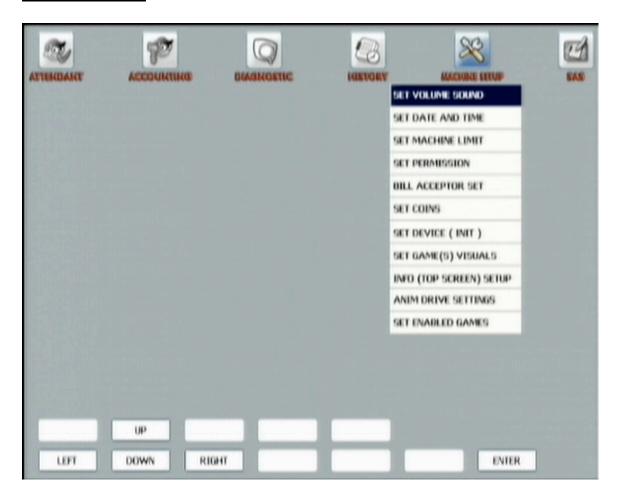
Key: key, which registered the event – if required



Event: text label

Value: value connected with the event (e.g value inserters with Remote In)

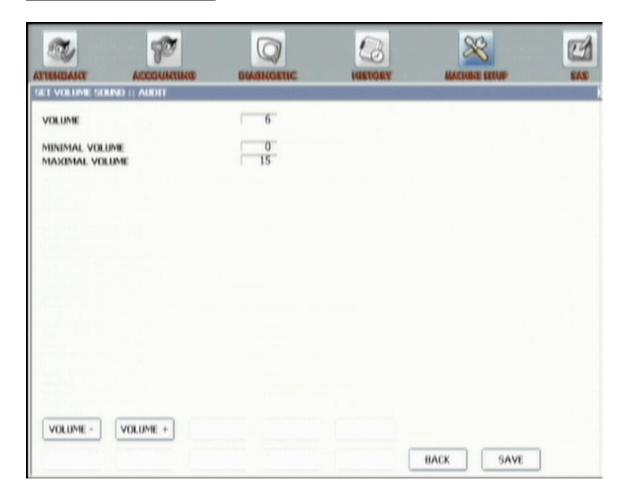
5 - Machine Set



Keys	Function	Description
Line 3	Up	Move UP in the menu
Bet 1	Left	Move LEFT in the menu
Bet 2	Down	Move DOWN in the menu
Bet 5	Right	Move RIGHT in the menu
Start	ENTER	Start the function



<u>5.1 – Set Volume Sound</u>



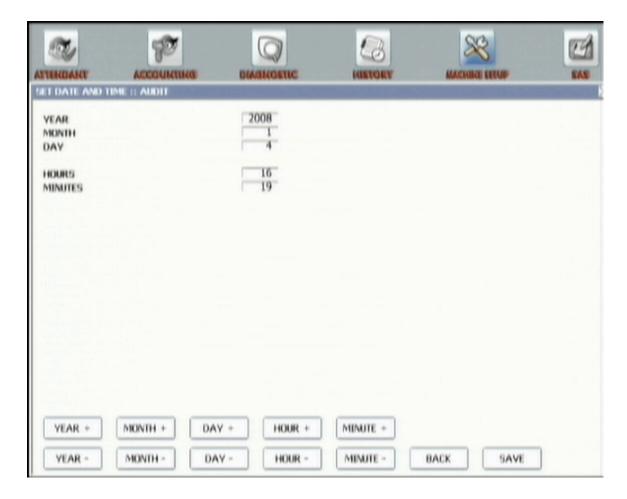
Description of functional keys:

Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Start	Save	Save the changes
Line 1	Volume -	Volume up
Line 3	Volume +	Volume down

Volume can be set up with the help of Line1 and Line3 keys. User volume in the game is then maximum +-2 points from set the value.



5.2 – Set Time and Date



Description of functional keys:

Keys	Function	Description
Line 1	YEAR +	Increase year value
Line 3	Month +	Increase month value
Line 5	Day +	Increase day value
Line 9	Hours +	Increase hours value
Line 15	Minute +	Increase minutes value
Bet 1	YEAR -	Decrease year value
Bet 2	Month -	Decrease month value
Bet 5	Day -	Decrease day value

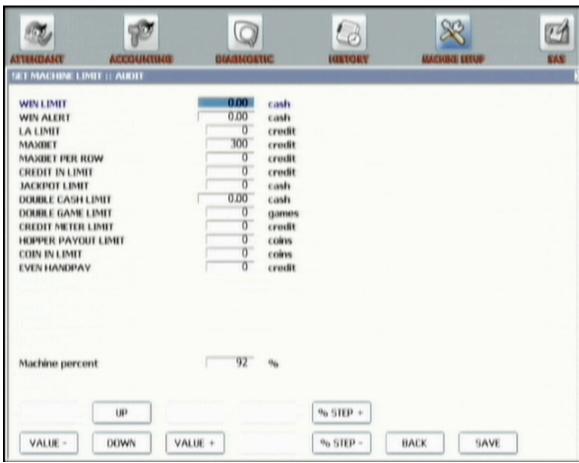


Keys	Function	Description
Bet 10	Hours -	Decrease hours value
Bet 20	Minute -	Decrease minutes value
Info/Gamble	BACK	Return to Menu
Start	Save	Save the changes

Change the time value to the current using the navigation keys.

!!! Always make the time configuration changes before the records to the machine statistic are done. Later the time can be changed only after CLEAR RAM !!!

5.3 – Set Machine Limit



When the value is set to "0" limit is set to "no limit"



Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Start	Save	Save the changes
Line 3	Up	Move the cursor up
Line 15	%STEP+	Increase the % value
Bet 1	Value -	Decrease the value
Bet 2	Down	Move the cursor down
Bet 5	Value +	Increase the value
Bet 20	%STEP+	Decrease the % value

WinLimit: Maximum reachable win. After exceeding the limit, machine signals "WIN LIMIT IS REACHED". Machine waits for the Attendant key to be inserted, win is shorted to this value and added to the credit/bank.

WinAlert: Warning on high value. After exceeding the limit machine signals "WIN ALERT IS REACHED". Machine waits for the Attendant key to be inserted, win is added to the credit/bank in the full amount.

LA Limit: Indicates the defined LA win limit. (LA = Legislation Authority)

MaxBet: Maximum possible bet for one game play

MaxBet Per Row: Maximum possible bet from the credit according to LA
Credit In Limit: If the limit has been reached, no more credits can be added
(coin acceptor and bill acceptor are blocked), also the remote
function is disabled.

Jackpot Limit: Maximum amount of win paid out by the machine (added to credit or paid out via the hopper). All wins in excess are paid out via the handpay function in case of no limit.

Double Cash Limit: Maximum credit value that may be reached in the Double Up game.

Double Game Limit: Maximum game that may be reached in the Double Up game. Credit meter limit: Maximum credit value that may be reached in the game. Hopper payout Limit: Maximum coin value that may be paid out by the hopper

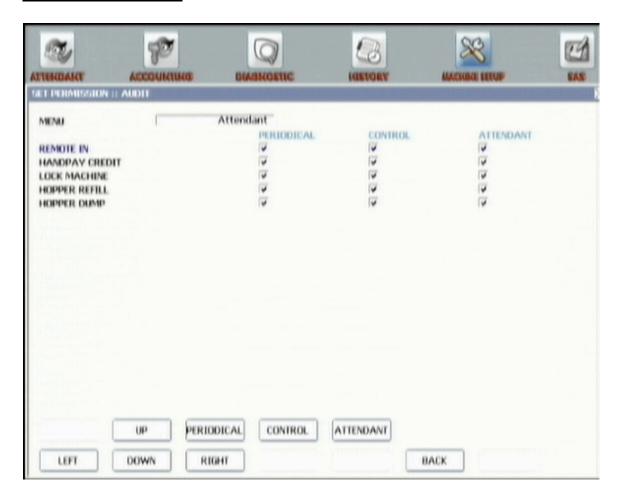
Coin In Limit: Maximum number of coins that can be inserted to the

CoinAcceptor

Even handpay: Indicates the rounding factor for handpay.



5.4 – Set Permission



Description of functional keys:

Keys	Function	Description
Line 3	UP	Move the cursor up
Line 5	Periodical	Turn ON/OFF the periodical rights
Line 9	Control	Turn ON/OFF the control rights
Line 15	Attendant	Turn ON/OFF the attendant rights
Bet 1	LEFT	Previous record
Bet 2	DOWN	Move the cursor down
Bet 5	RIGHT	Next record
Info/Gamble	BACK	Return to Menu



On this page choose the key you want to set up. Only keys with inferior rights in relation to your key can be set up (that means Attendant can set up no rights, Audit key can set up all keys except of his own).

Choice is made with the help of Line 3 - 15 keys, Bet 1-5 keys, Info/Gamble returns back to menu.

Here you can choose the specific menu where you wish to set up the rights. With the help of Bet 1 and Bet 3 keys move left and right along the menu. Current menu including the submenu will always be displayed to you. By pressing Line 5, Line 9 or Line 15 key you enter the particular submenu configuration setup. Info/Gamble returns to menu.

With the help of Bet 1, 3 keys move left and right along the menu. In case you wish to change the particular submenu item for the host key and you have the rights for this item, press Line 5, Line 9 or Line15 and the rights will be changed. Info/Gamble key will bring you back to the previous screen and save the changed in the set up rights.

5.5 – Bill Acceptor Set

THADAUTA	ACCOUNTING	DIAGROSTIC	METORY	MACHINE SECUP	SAS
DRIVER MODEL SERIAL OK HW FAILED, NI HW FAILED, RE REJECT LEVEL REJECT LEVEL REJECT LEVEL JAMMED TIME EXPIRAT 77 10	ON - RECOVERABLE ECOVERABLE 1 2 3	0 IGNOR 1 MACH 2 IGNOR 15 INFO B 4 CALL 1 CALL 1 CALL 600	PER)+02-MW FL-BDPC E INE FREEZE E	(ID003) 9600 baud 94V025-12 00FE000	
DILL ACCEPTOR	R SYSTEM MESSAGE R STATUS R ERROR CODE CHANGE BILL	ENABLE DISABLE	IGNORI ON UNKNOWN EUROF	("	

Serves to the testing of bill acceptor Description of functional keys:



Keys	Function	Description
Info/Gamble	Back	Return to Menu
Line 1	Next bill	Moving to another bill value
Line 3	Change bill	Temporal permission/bills forbiddance (function only until machine is turned off)
Bet 10	Enable/Disable	Permission/forbiddance of accepting bills to bill acceptor
Bet 20	Null Bill	Setting of accumulated amount to zero (credit is not added) from inserted amount during the test

DRIVER: currently used driver

Table all possible validator states, setting of how many times should be such state ignored (impossible to change), and what reaction should be created in case of another appearance of such state (impossible to change).

Name and serial number of firmware bill validator

TIME EXPIRATION: if bill validator is in an "OK" state after here defined time, all currently counted errors with other states will be set to zero.

Table of bills accepted by bill validator

Here it is possibility to temporary permit/prohibit bills. (for permanent permit/prohibit, use HW dipswitch on the bill validator)

BILL IN: accumulated amount of inserted bills during the test. After the return to the game, this amount will be added to the credit, that is why we recommend setting to zero using button Line 4.

The last action made after the detecting error, current state of bill validator, description of the last error.

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5.6 – Set Coins



Description of functional keys:

Keys	Function	Description
Line 3	Up	Moves cursor up
Bet 1	Credit -	Decrease the credit
Bet 2	Down	Moves cursor down
Bet 5	Credit +	Increase the credit
Bet 10	Go to -	
Bet 20	Go to +	
Info/Gamble	Back	Return to Menu
Start	Save	Save the changes

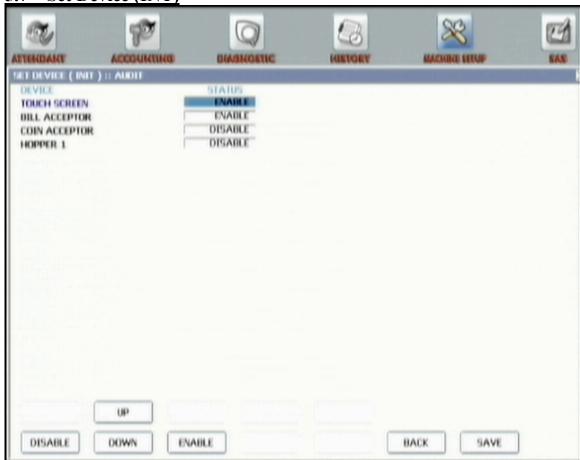


Coin: Coin canal

Credit: Credit expression of the coin value
GO To: Coin drop direction (Cashbox / Hopper)

Counter: Number of coins registered on a particular canal

5.7 – Set Device (INT)



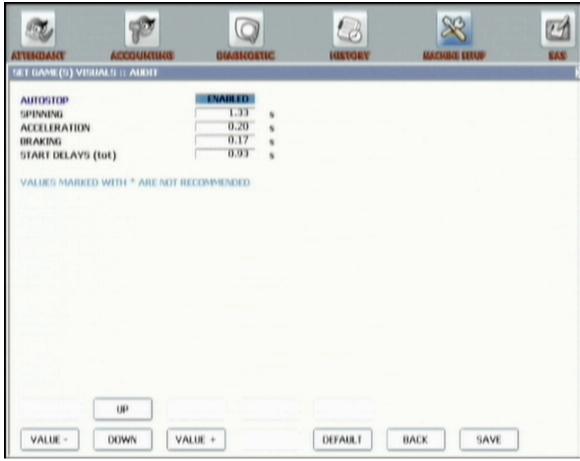
Forbiddance or permission to initialize each component.

Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Start	Save	Save the changes
Line 3	Up	Move the cursor up
Bet 1	Disable	Disable the entry



Keys	Function	Description
Bet 2	Down	Move the cursor down
Bet 5	Enable	Enable the entry

5.8 – Set Game(s) Visuals



Description of functional keys:

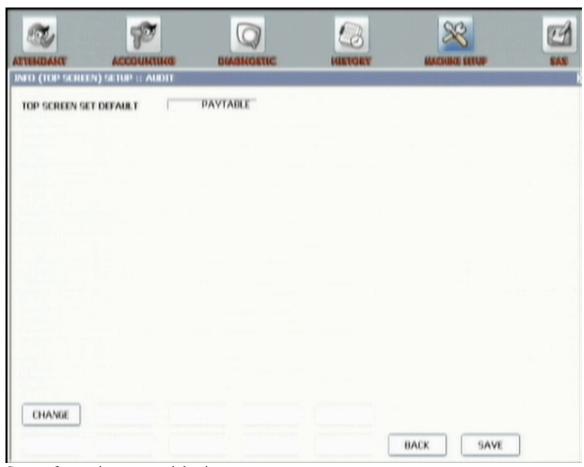
Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Start	Save	Save the changes
Line 3	Up	Moves cursor up
Line 15	Default	Set the parameters by default



Keys	Function	Description
Bet 1	Value -	Decrease the value
Bet 2	Down	Moves cursor down
Bet 5	Value +	Increase the value

By entering this menu you see all the effects that can be setup in the games. Here you can setup the acceleration, spinning, braking effects and delays in seconds. For the particular entry setup, move with the help of Line 3 (up), Bet 2 (down) and Bet1 and Bet 5 (change) keys. After entering the setup choose the necessary value using the navigation keys.

5.9 - Info (Top screen) Setup: Audit



Serves for setting up special prizes.

Keys	Function	Description
Info/Gamble	Back	Return to Menu

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Keys	Function	Description
Start	Save	Save the changes
Line 1	Change	Change the settings on top screen

5.10 Anim Drive Settings



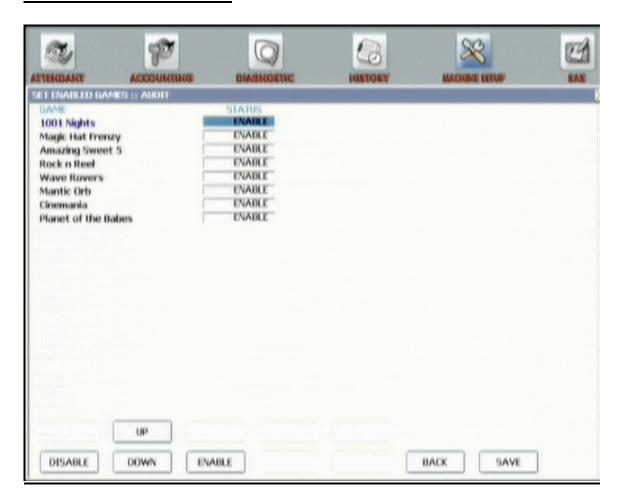
Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Start	Save	Save the changes
Bet 1	Change Drive 1	Moving the cursor Down
Bet 2	Change Drive 2	Moving the cursor to the left
Line 15	Value +	Increase the value



Keys	Function	Description
Bet 20	Value -	Decrease the value

This screen enable you to setup the effect and the animation on the machines (jackpots, lights, etc.)

5.11 - Set Enabled Games



Keys	Function	Description	
Info/Gamble	BACK	Return to Menu	
Start	Save	Save the changes	
Line 3	Up	Move the cursor up	
Bet 1	Disable	Disable the entry	

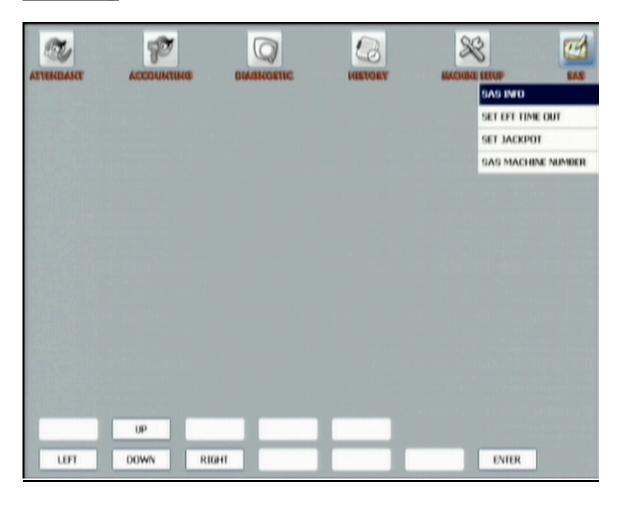


Keys	Function	Description	
Bet 2	Down	Move the cursor down	
Bet 5	Enable	Enable the entry	

By entering this menu you can enable and disable the games that you want to play.



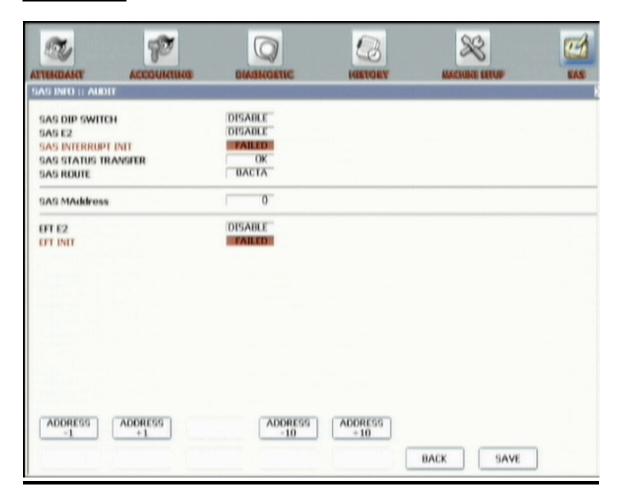
6. Sas Setup



Keys	Function	Description	
Line 3	Up	Move UP in the menu	
Bet 1	Left	Move LEFT in the menu	
Bet 2	Down	Move DOWN in the menu	
Bet 5	Right	Move RIGHT in the menu	
Start	ENTER	Start the function	



6.1 - Sas Info

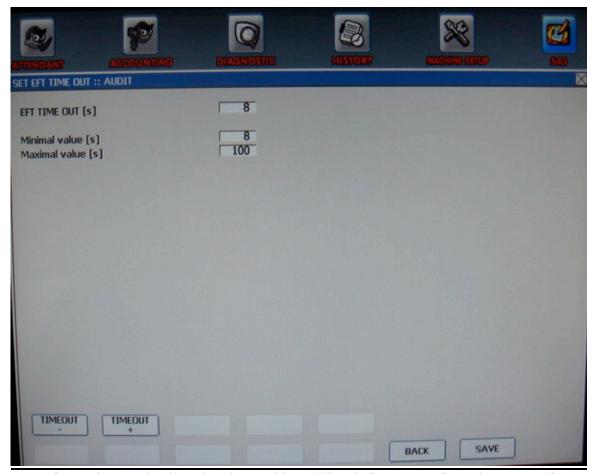


Serve for information about the SAS

Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Start	Save	Save the changes
Line 1	Address - 1	Decrease the address with 1
Line 3	Address + 1	Increase the address with 1
Line 9	Address - 10	Decrease the address with 10
Line 15	Address +10	Increase the address with 10



6. 2 - Set EFT timeout



Serve for setting up the time that the machine will wait for answer from the server after pressing the PAY-OUT button.

Keys	Function	Description
Info/Gamble	BACK	Return to Menu
Start	Save	Save the changes
Line 1	Timeout -	Decrease the time
Line 3	Timeout +	Increase the time



6.3 - Set Jackpot: Audit

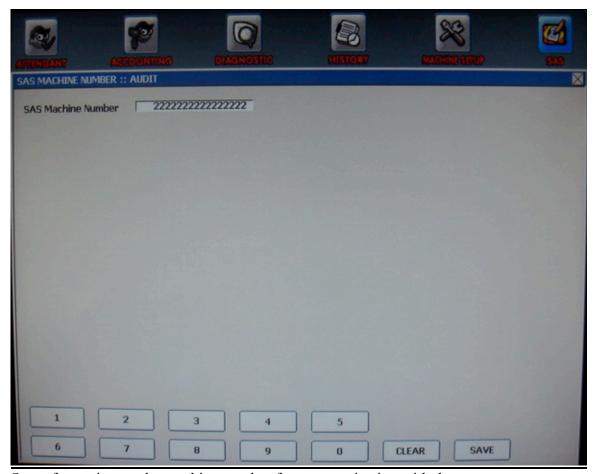


Serve to ENABLE/DISABLE the definite jackpot and shows the information about it.

Keys	Function	Description		
Line 3	Up	Move UP in the menu		
Bet 1	-	Decrease the value		
Bet 2	Down	Move DOWN in the menu		
Bet 5	+	Increase the value		
Line 15	Enable	Enable the jackpot		
Bet 20	Disable	Disable the jackpot		
Start	Save& Return	Save the changes and return to main menu		



6.3 - Set machine number



Serve for setting up the machine number for communication with the server.

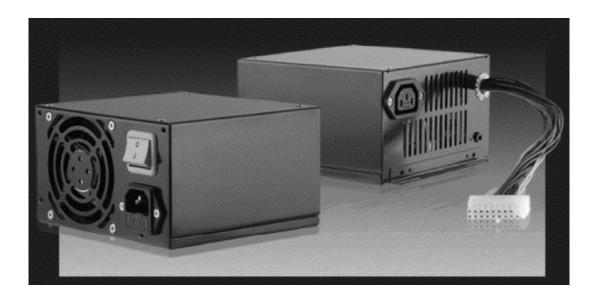
Keys	Function Description	
Info/Gamble	Clear	Clear the value
Start	Save	Save the changes



PART IV - Hardware

IV.1 Power supply

IV.1.1 – Function



Power supply of all the machine components. Contains the following modules:

- Fuse entry DC Line
- DC Filter

Features In Brief

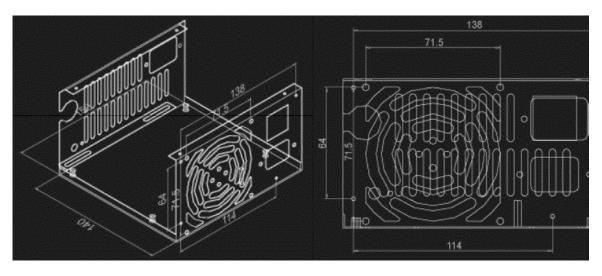
- High Efficiency
- Comply with CISPR22 230Vac Operation
- Meet EN 55022:1998 EMC Requirement
- Meet EN 61000-3-2:1998 Harmonics Requirement
- Meet EN 61000-3-3:1998 Voltage Fluctuation & Flicker
- Over Voltage Protection
- Over Power Protection
- Short Circuit Protection
- 100% Hi-Pot & Function Test
- 100% Burn-In
- MTBF above 100,000 Hours At Room Temperature(25 °C)
- Low Noise & Low Ripple

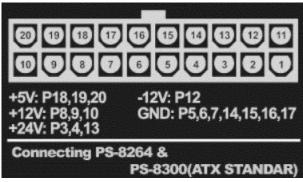


Input Chara	cteristics		
Voltage	180-264 Vac	Frequency	47-63Hz

Output Characteristics						
Model/Output	+5 V	+12V	+24V	-5V	-12 V	Total Power
PS-8300X	10A	10A	5A		1A	300W

Dimension & Output Connecting





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Specifications	
Temperature Range	Operating 10 °C - 50 °C, non-operating - 40 °C - 70 °C
Hold-Up Time	17.0ms minimum at full load & nomal input voltage
Dielectric Withstand	Input/Output 1800Vac 0.5mA for 1 second Input to fram ground 1800Vac 0.5mA for 1 second
Hu m idity	5 - 95% RH
Effiency	> 72% typical at full load
Overload Protection	110 - 150 % load
Inrush Current	80A Max. for 230Vac
Cooling	80mm DC fan 2500rpm

All the output voltage are protected with resetable fuses, which are placed on a backplane.

IV.1.2 – Troubleshooting

Check the LEDs (L1, L2, L3, L4) on the backplane. If the light is off, it indicates the problem with corresponding voltage.

IV.1.3 - Pin assignment

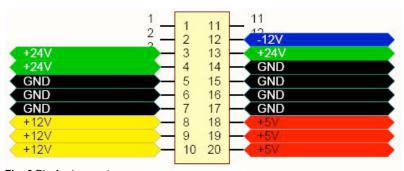


Fig. 6 Pin Assignment

IV.2 - Motherboard

IV.2.1 - Function

IV.2.2 - Troubleshooting



IV.2.3 - DIP-switches

IV.2.4 - Components and their changing

V.2.1 – **Function**

Type: Pluto 6

Game control and drive of the components.

The motherboard is the main board of the machine.

IV.2.2 – Troubleshooting

If any defects of the motherboard (main board) cannot be repaired, the board has to be exchanged.

Fig. 31 Exchange of the motherboard

Dismounting instructions for the main electronic unit:

There are static-sensitive parts inside the machine which could be damaged by electric discharge. Ground yourself by touching the ground strap inside the machine to neutralize electric charges before changing or maintaining inner parts.

- a. Open the door and disconnect the machine from the mains.
- b. Unlock the security switch lock of the logic box and open the door
- c. Disconnect all cables from the motherboard
- d. Release all fixing screws
- e. Exchange the motherboard

IV.2.3 – DIP-switches

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Two banks of Dual In-line Package (DIP) switches DSW 1 and DSW 2 are located on the Processor Board Pluto 6. To make DIP switch option selection, turn the machine power OFF, set switches to new position and turn the machine ON.

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IV.2.4 - Components and their changing

There are static-sensitive parts inside the machine which could be damaged by electric discharge. Ground yourself by touching the ground strap inside the machine to neutralize electric charges before changing or maintaining inner parts.

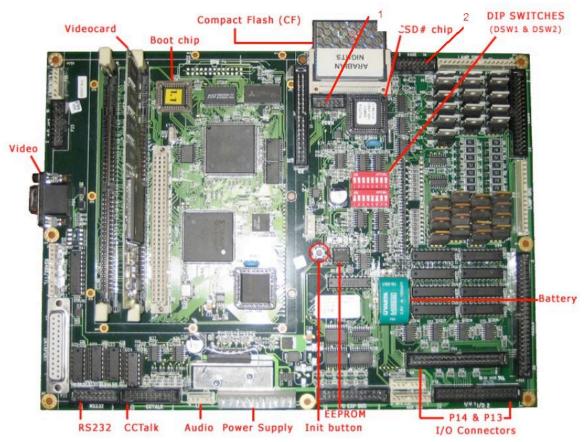
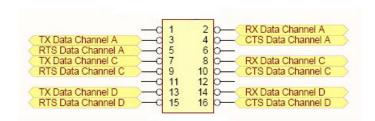


Fig. 32 Components and their changing

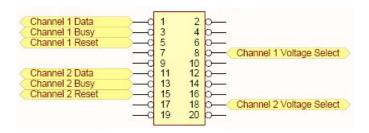
Connectors

RS232

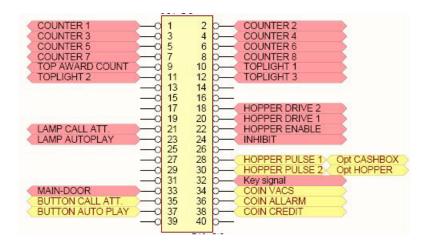




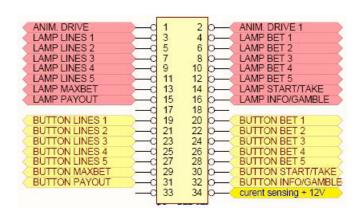
CCTalk



P14

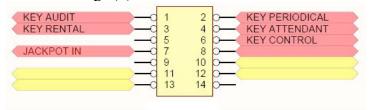


P13

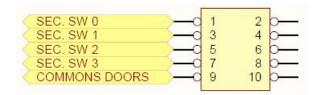




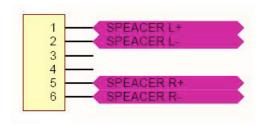
P7 – Percentage (2)



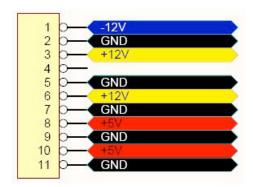
P8 – Security (1)



Sound



Power





Removing the video card



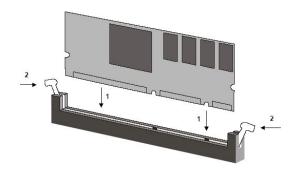


Fig. 33: Video card

Fig. 34: Removing the video card

- 1.) Press holding clips sideways.
- 2.) Tilt the card towards the rear side of the motherboard and pull it out.

Installation

- 1.) Insert the new card in the plug-in socket at a slight angle (the card can be inserted only in one position!).
- 2.) Tilt the card to the front side of the motherboard until the two holding clips click into place.

IV.2.4.1 – Changing the game

Instructions for changing the game

- 1.) Move up the compact flash
- 2.) Pull up the CSD chip by using a chip pliers
- 3.) Insert a new compact flash with the new game
- 4.) Insert the new CSD chip with a suitable software for the game

IV.2.4.2 – Changing the EEPROM

Instructions for changing the EEPROM

- 1.) Open the secure box door.
- 2.) Remove the existing EEPROM by pulling it straight.
- 3.) Insert new EEPROM.

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ATTENTION

Note the insertion direction (see fig. 35).

4.) Close the secure box door back

Installation:

The EEPROM and the socket have a notch on one side.

When installing the EEPROM ensure that the notch on the EEPROM and the notch on the socket both show in the same direction.

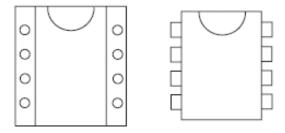


Fig. 35 Correct insertion position

ATTENTION

After the components have been changed, a RAM - cleaning may be necessary. See RAM - clear.

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IV.3 – Backplane

- IV.3.1 Function
- IV.3.2 Pin assignment
- IV.3.3 Troubleshooting

IV.3.1 – Function

The backplane is responsible for all input and output signals of the main electronic unit.

IV.3.2 - Pin assignment

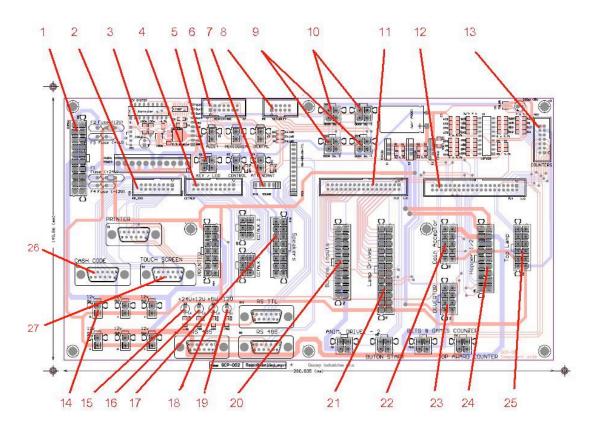
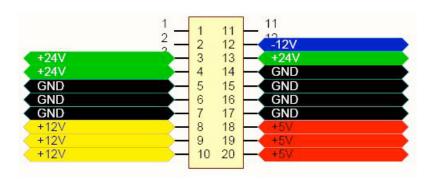


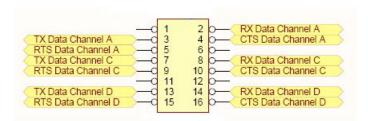
Fig. 37 Pin assignment



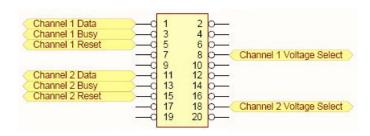
1. MS1 – Power



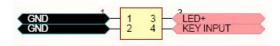
2. P21 RS232



- 3. Key system
- 4. P22 CCTalk

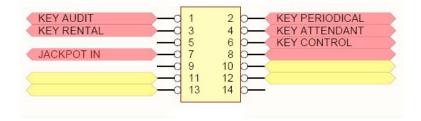


5. K6 – KEY / LED

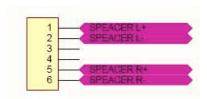


6. P7 – Percentage

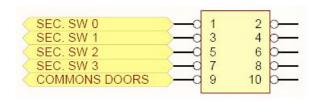




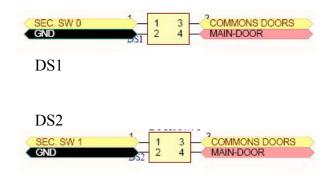
7. P18 – Sound



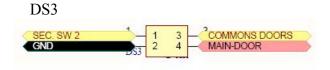
8. P8 – Security



9. DS1 / DS2 – Door Sw1 (PCB) / Door Sw2 (Main door)



10. DS3 / DS4 – Door Sw3 (Bill door) / Door Sw4 (Cash box)

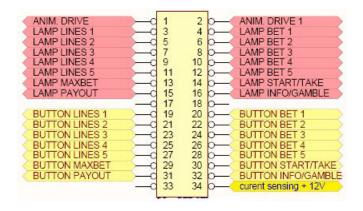


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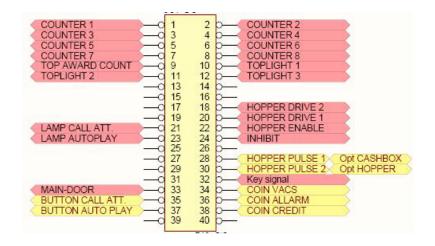


DS4

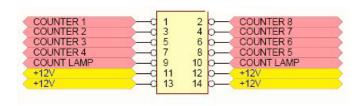
11. P13 I/O



12. P14 I/O

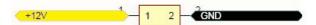


13. MS2 - Counters

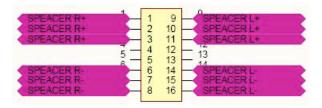


14. PW1 / PW2 / PW3 / PW4 – 12V

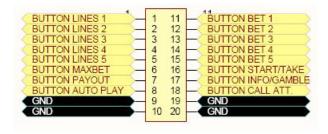




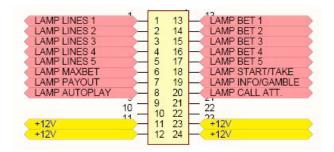
- 15. Green led which indicates +24V
- 16. Yellow led which indicates +12V
- 17. M12 Speakers



- 18. Red led which indicates +5V
- 19. Blue led which indicates 12V
- 20. M2 Button inputs



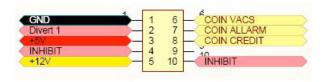
21. M1 – Lamp drivers



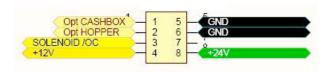
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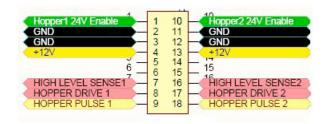
22. M3 – Coin acceptor



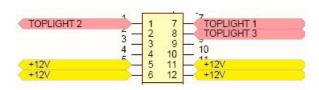
23. M4 – Diverter



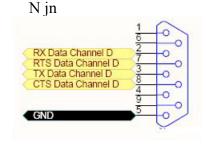
24. M5 – Hopper



25. M6 – Top lamp

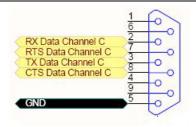


26. S3 – Cash Code



27. S2 – Touch screen





IV.3.3 - Troubleshooting

If any defects occur, check whether all connectors are fixed correctly on the backplane.



IV.4 - Mechanical counters

IV.4.1 - Function

IV.4.2 - Troubleshooting

IV.4.3 - Pin assignment

IV.4.4 - Exchange of the counters



IV.4.1 – Function

Mechanical counters for: Bet; Win; In – key; Out – key; Games; In – bill; Drop; Token

- 1. Bet: total value of all bets
- 2. Win: total value of all wins
- 3. In key: total value of all credits added via the

remote function

4. Out – key: total value of all credits paid out via

handpay

- 5. Games: Total number of all games played.
- 6. In bill: Total value of all bills inserted in credits
 - 7. Drop: Total value of all coins diverted into the drop box in credits
 - 8. Token: total value of inserted tokens in credits

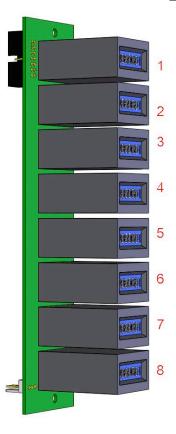
NOTE: The are versions of the machines with the counters placed in an opposite order (8=1, 7=2, 6=3, ...)

IV.4.2 – Troubleshooting

Check the connectors of the counter unit.

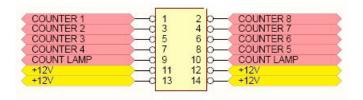
ATTENTION

If an error message is triggered by a malfunction or non-activation of individual meters the device must be removed from operation and the meters circuit board must be exchanged.



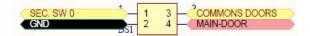


IV.4.3 – Pin assignment



1. Logic Box DS

2. Main Door DS



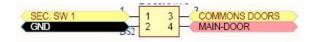


Fig. 53 Door switches dismounting

- 1. Exchange off the door switch
- 2. Assemble all the parts in reverse order

IV.4.4 - Exchange of the counters

If any defects cannot be repaired, the defective meter has to be exchanged

IV.5 - Pushbuttons panel

For all actual games in this time the pushbuttons panel contains 16 buttons. Buttons are on metal plate for easy modification.

- 1. Bets 1; 2; 5; 10; 20
- 2. Pay Out
- 3. Call Attendant
- 4. Info / Gamble
- 5. Start / Take
- 6 Max Bet
- 7. Lines 1; 3; 5; 9; 15
- 8. Auto Start



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