



SIGMA

ROULETTE -KING-TM

OPERATION MANUAL

CODE NO. 8800-C0140

INTRODUCTION

This OPERATION MANUAL is intended for attendants, and provides the important information about Sigma Roulette Machines, focusing on the area where the access can be gained without any access key or tool.

It is strongly recommended to thoroughly read and understand this manual. Please always keep this manual at hand, so that you can quickly refer to it whenever necessary.

To turn ON the machine, to set the software options that affect the machine's operation, and/or to perform the diagnostic test, call qualified maintenance personnel.

HANDLE THIS MACHINE SAFELY AND CORRECTLY

SAFETY INSTRUCTIONS

1. Definition of Safety Words

The following safety words (DANGER, WARNING, and CAUTION) are used in this manual to indicate hazard levels. Please understand each meaning to handle the machine safely.

DANGER



It warns of the immediate hazards which **WILL** result in severe personnel injury or death.

WARNING



It warns of the hazards or unsafe practices which **COULD** result in severe personal injury or death.

CAUTION



It warns of the hazards or unsafe practices which **COULD** result in minor personal injury or product or property damage.

CHECK



It indicates a check or reference item for preventing hazards and malfunctions.

2. Specifications

- Rated voltage:
 - a) Europe 230VAC, 50Hz
 - b) Korea 220VAC, 60Hz
 - b) Other areas 220/230/240VAC, 50/60Hz
110/120VAC, 50/60Hz
- Temperature: 5 to 35 degrees C
- Humidity: 30 to 60%, Free from dew condensation

3. Handling of Monitors

Although the built-in monitors are protected from the danger of electric shock, NEVER access into the monitor.

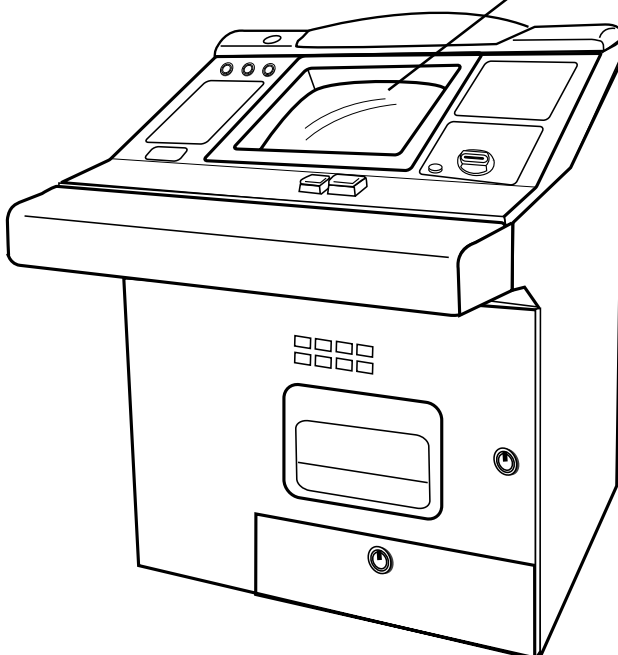


DANGER !

HIGH VOLTAGE

Risk of Electric Shock

Never access into
the monitor.



4. Grounding

Be sure to GROUND this machine to prevent a current leak.



WARNING !

Risk of Electric Shock.

SIGMA makes no warranty as to the accidents (including failures) caused by improper grounding.

5. Others

Please observe the following for your safety.



WARNING !

NEVER retrofit the machine. Retrofitting the machine could cause an accident or a failure.

SIGMA makes no warranty as to the accidents (including failures) caused by retrofit.

- Only qualified personnel can assemble, install, maintain, inspect, and troubleshoot the machine.
- Do not mount or sit on the machine. Or, do not put a heavy object on the machine. The dented machine could cause a trouble.
- As soon as smoke, a stink and/or an unknown trouble is detected, turn off the power breaker(s).
- Never use chemical duster, thinner, benzine, or alcohol for cleaning the machine. They will damage the surface of the machine. Diluted synthetic detergent can be used if necessary, but completely wipe it up with dry cloth thereafter.
- Use this machine in commercial area. The use in other area is prohibited.

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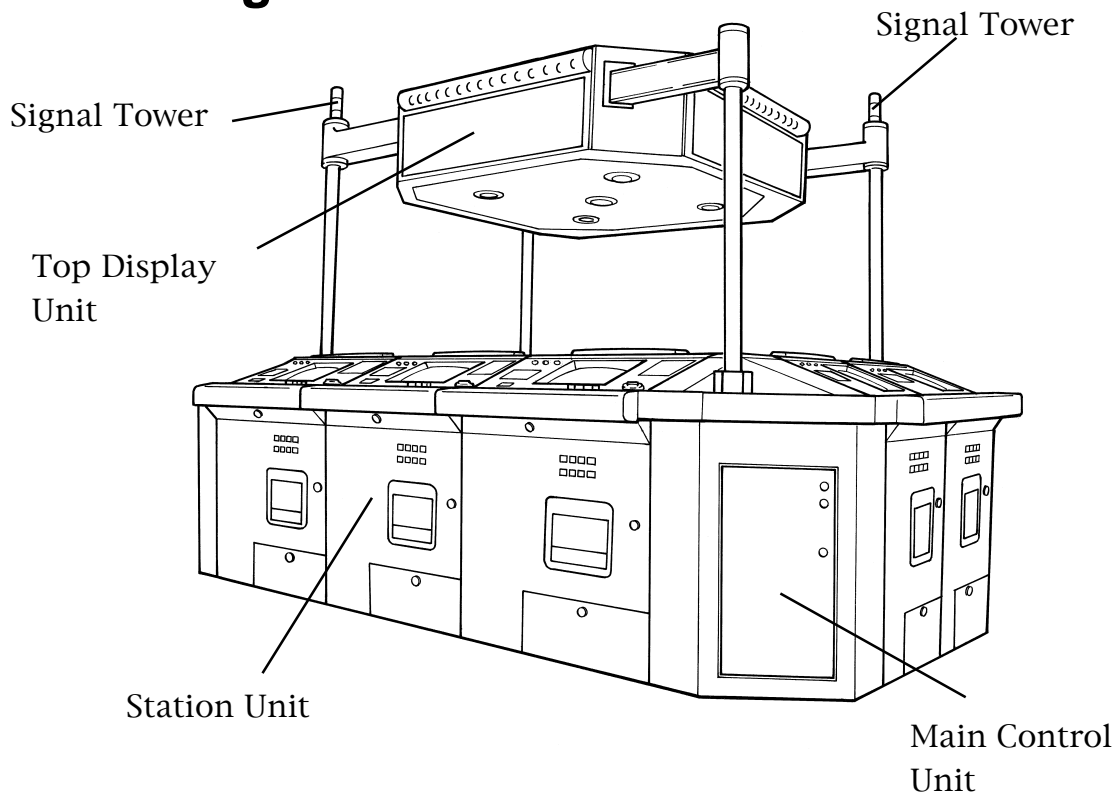
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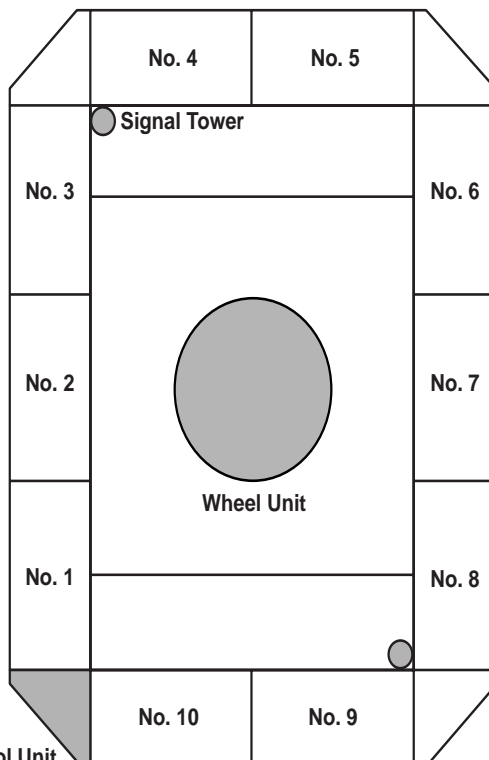
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1. MAJOR COMPONENTS

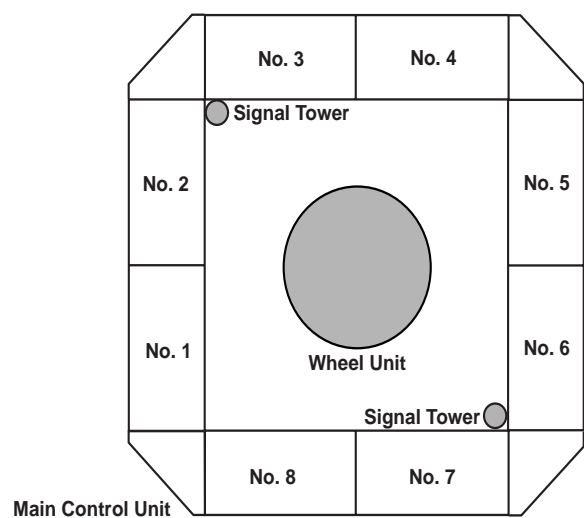
1.1 Configuration



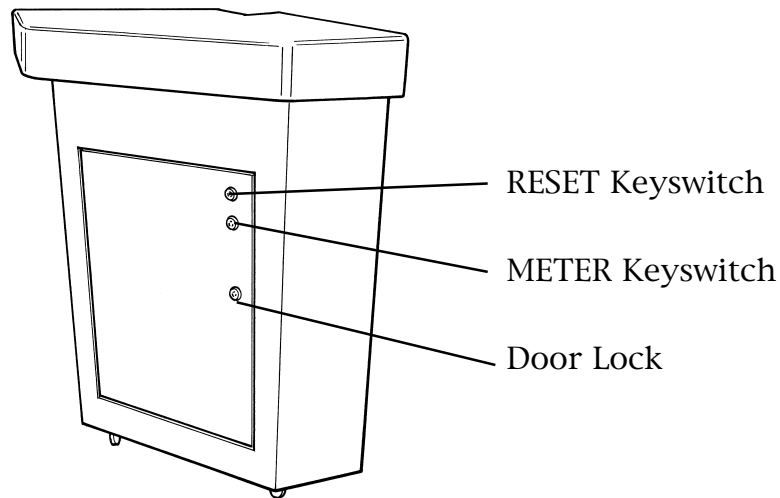
<In case of 10 station units installed>



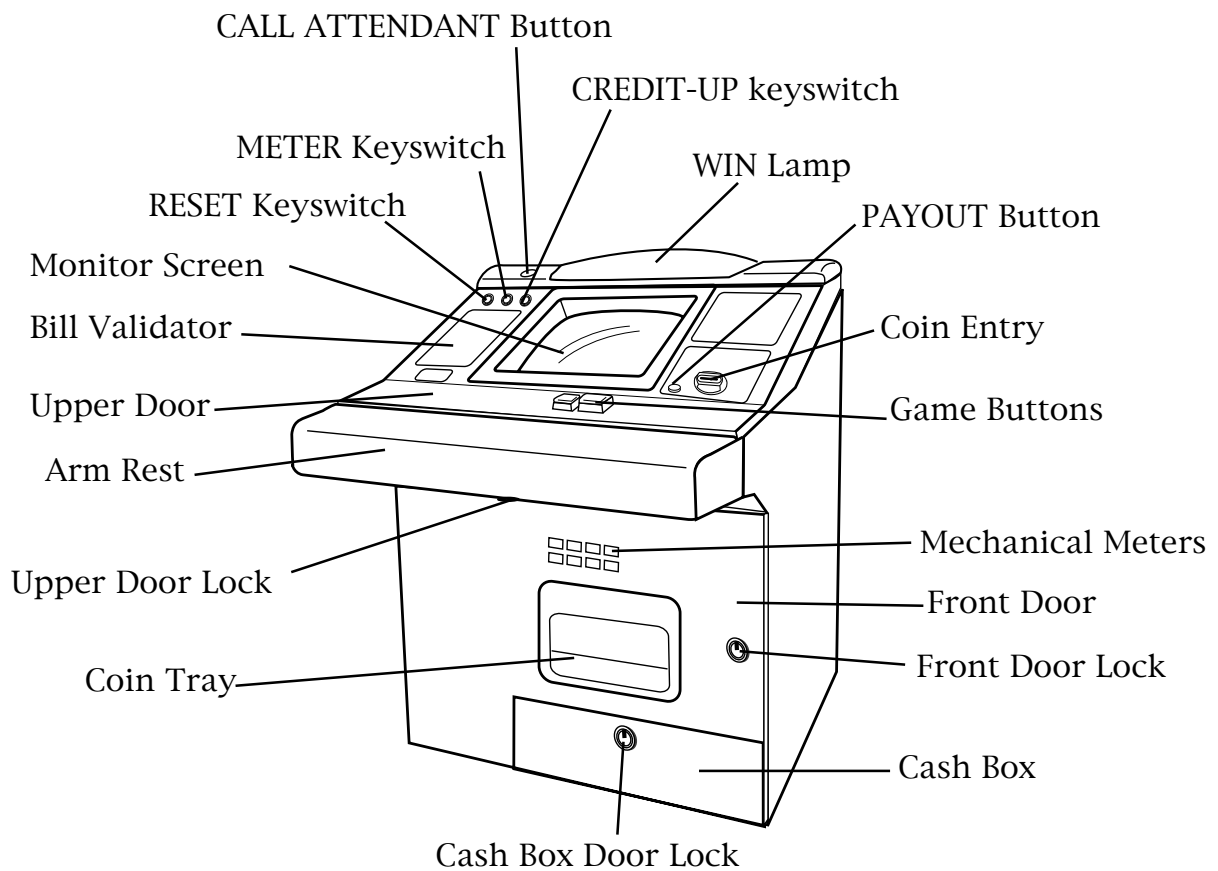
<In case of 8 station units installed>



1.2 Main Control Unit



1.3 Station Unit



2 HOW TO PLAY

This section is intended for players, and explains how to play the game.

2.1 Game Flow

This roulette game is performed in the following flow.

BET TIME	GAME TIME	PAY TIME
----------	-----------	----------

BET TIME: You can bet during this time period.

NOTE

The betting time is settable. For the detail, refer to our Maintenance Manual, Paragraph 3.3.2, "MAIN GAME SETUP".

GAME TIME: The game is carried out during this time period. A ball is shot, runs on the wheel, then falls into a numbered-pocket.

PAY TIME: The winning number is determined and announced. Your win is posted to your credit meter.

2.2 Betting Types

Use the following 10 types of betting in this game.

(1) STRAIGHT UP (One Spot) -- ODDS: x 36, 35, or 34 dependent on ROM No.

Bet on one number.

Action: Touch your desired number.



(2) **SPLIT (Two Spots)** -- ODDS: x 18, 17, or 16
dependent on ROM No.

Bet on two adjacent numbers.

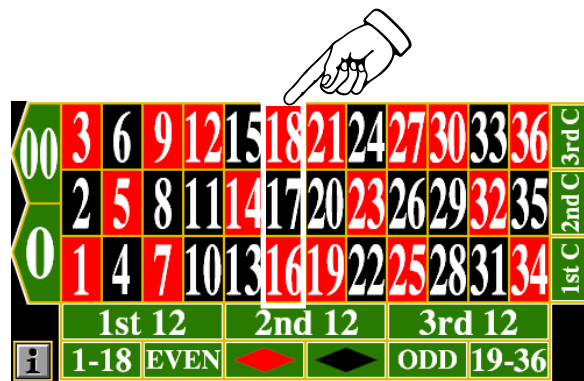
Action: Touch the boundary of your desired two adjacent numbers.



(3) **THREE NUMBER (Three Spots)** -- ODDS: x 12, 11, or 10
dependent on ROM No.

Bet on three numbers in a column.

Action: Touch the upside of your desired column.



(4) **CORNER NUMBER (Four Spots)** -- ODDS: x 9, 8
dependent on ROM No.

Bet on four adjacent numbers.

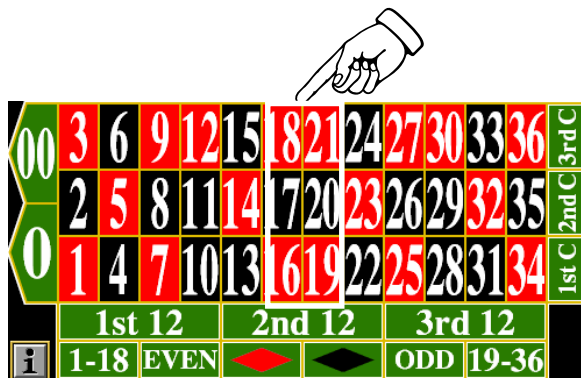
Action: Touch the intersection of your desired four adjacent numbers.



(5) SIX NUMBER (Six Spots) -- ODDS: x 6

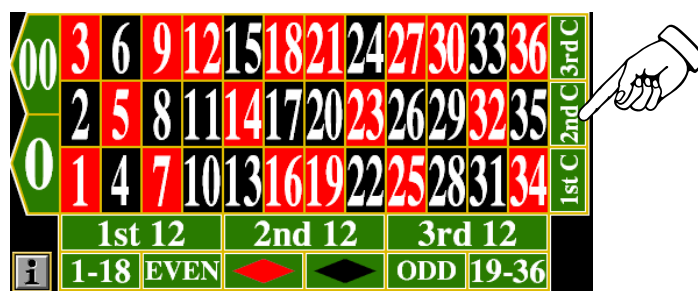
Bet on the six numbers in two adjacent columns.

Action: Touch the upper T-junction of your desired two adjacent columns.

**(6) COLUMN -- ODDS: x 3**

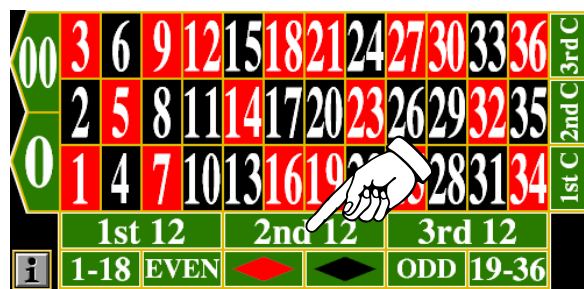
Bet on the numbers in the first, second, or third row.

Action: Touch "1st C", "2nd C", or "3rd C".

**(7) DOZEN (1st 12, 2nd 12, 3rd 12) -- ODDS: x 3**

Bet on the first 12 numbers (1 to 12), the second 12 numbers (13 to 24), or the last 12 numbers (25 to 36).

Action: Touch "1st 12", "2nd 12", or "3rd 12".



(8) 1 TO 18, 19 TO 36 -- ODDS: x 2

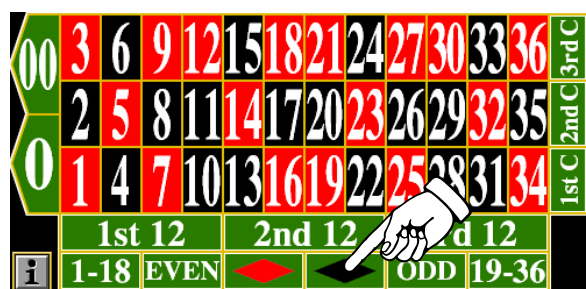
Bet on the lower numbers (1 to 18) or the higher numbers (19 to 36).

Action: Touch "1-18" or "19-36".

**(9) RED, BLACK -- ODDS: x 2**

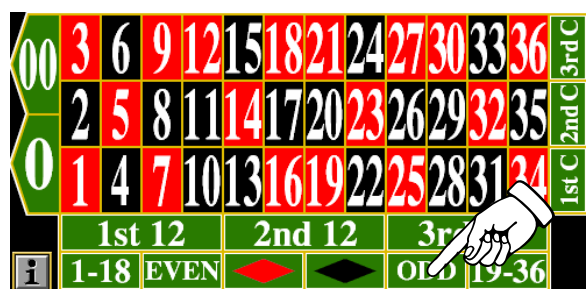
Bet on the red numbers or the black numbers.

Action: Touch the "red diamond" or "black diamond".

**(10) EVEN, ODD -- ODDS: x 2**

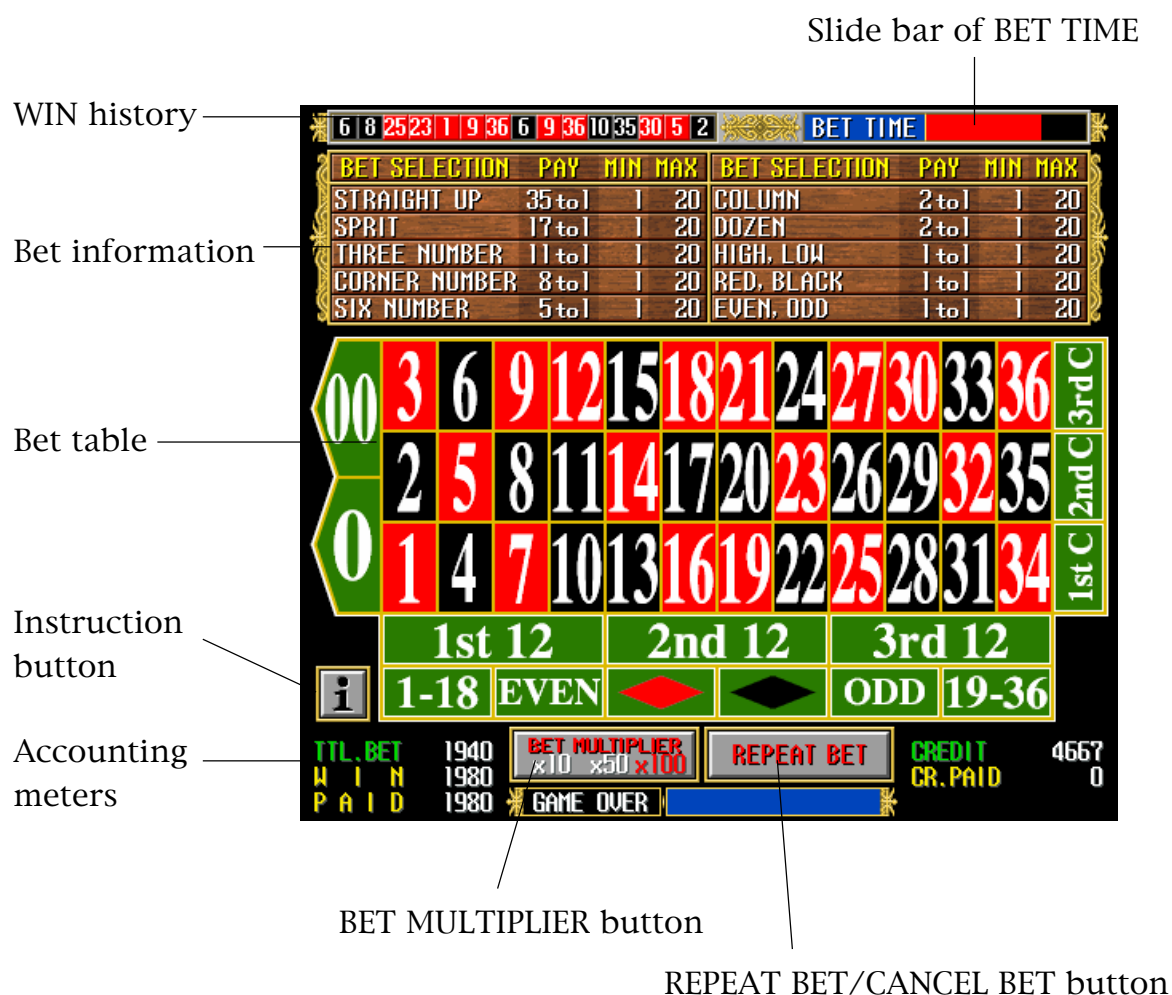
Bet on the even numbers or the odd numbers.

Action: Touch "EVEN" or "ODD".



2.3 Description of Game Screen

Because the touch panel is provided over the game screen, you can select a number(s) by touch.



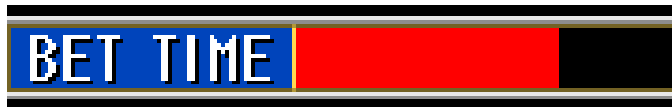
2.3.1 Bet information

BET SELECTION	PAY	MIN	MAX	BET SELECTION	PAY	MIN	MAX
STRAIGHT UP	35 to 1	1	20	COLUMN	2 to 1	1	20
SPRIT	17 to 1	1	20	DOZEN	2 to 1	1	20
THREE NUMBER	11 to 1	1	20	HIGH, LOW	1 to 1	1	20
CORNER NUMBER	8 to 1	1	20	RED, BLACK	1 to 1	1	20
SIX NUMBER	5 to 1	1	20	EVEN, ODD	1 to 1	1	20

The bet information shows you the odds and available bet counts (minimum and maximum) for each betting option. Your selection is highlighted in orange.

2.3.2 Slide bar of BET TIME

The slide bar indicates available betting time. As soon as this time period is over, the betting buttons come invalid.



2.3.3 Game instruction button

The game instruction can be displayed in the pop-up window by pressing the “i” button during the Bet Time.

This instruction window can be closed either by pressing the “i” button again, or when the “NO MORE BET” is displayed at the end of the Bet Time.



2.3.4 BET MULTIPLIER button



How many bets can be placed by pressing the BET MULTIPLIER button on the deck can be set by using this button.

Everytime pressing this button, X10, X50, and X100 are selected in order.

Before bettin, set this multiplier so that you can use the BET MULIPLIER button by your preference.

2.3.5 Bet table

Select your desired number(s) by touch on this table.

00	3	6	9	12	15	18	21	24	27	30	33	36	3rd C
0	2	5	8	11	14	17	20	23	26	29	32	35	2nd C
0	1	4	7	10	13	16	19	22	25	28	31	34	1st C
	1st 12			2nd 12			3rd 12						
i	1-18	EVEN						ODD		19-36			

To make your selection effect, pressing the bet button(s) is necessary.

If your selection has already reached the upper limit (software setting of MAX BET), the bet buttons do not light up. For the software setting of MAX BET, refer to our Maintenance Manual, Paragraphs 5.1.13 through 5.1.22.

2.3.6 REPEAT BET/CANCEL BET button



The REPEAT BET/CANCEL BET button is just beside the BET MULTIPLIER button.

To bet same as in the previous game cycle, press the REPEAT BET button. Once you bet, the REPEAT BET button changes to the CANCEL BET button. Select the bet you want to cancel and press the CANCEL BET button.

NOTE

This button is invalid when the repeat bet or the cancel bet is not available.

2.3.7 Chips

As soon as pressing the bet button, a chip is placed on your bet table. The number of your bets is indicated by the number on the chip colored as below.

1 to 9 bets:	Blue
10 to 49 bets:	Yellow
50 to 99 bets:	Pink
100 to 499 bets:	Green
500 to 999 bets:	Purple
1000 bets:	Light yellow



2.3.8 WIN history

The WIN history bar is at the top of the screen. The most recent 15 WIN numbers are displayed in real time.



To see the detailed information, touch the history bar. The pop-up window appears to show the hit information about each number.

To close this window, touch the history bar again.



NOTE

This pop-up window can be opened only when the software setting of RESULT WINDOW is ON. (The default setting is OFF.)

This window cannot be opened either after selecting the REPEAT BET and before entering the selection.

This window will be automatically closed when proceeding to the next game mode (BET TIME, GAME TIME, and PAY TIME).

2.3.9 Accounting meters and other functions

The accounting meters and other functions are outlined below.



TTL. BET meter:

Indicates the total credits you bet in the game.

WIN meter: Indicates the credits you won. This value is retained before the next bet game starts.

PAID meter: Indicates the credits transferred from the WIN meter to the CREDIT meter. This value is retained before the next bet game starts.

CREDIT/INSERT COIN:

Indicates the number of credits you have in the CREDIT meter.

When betting, the credits are subtract from this meter. The “**INSERT COIN**” message will be displayed when you need to insert coins to continue the game.

C.R. PAID/ATTEND:

C.R. PAID: Indicates the number of coins paid out by the hopper.

ATTEND: Indicates when attendant pay is necessary.

INSERT BILL/ACCEPTING BILL/ACCEPTED */RETURN BILL:**

Indicates the bill acceptor status as below.

INSERT BILL: A bill is acceptable.

ACCEPTING BILL:
The machine is now accepting a bill.

ACCEPTED * :**
The machine has accepted a bill of *** denomination.

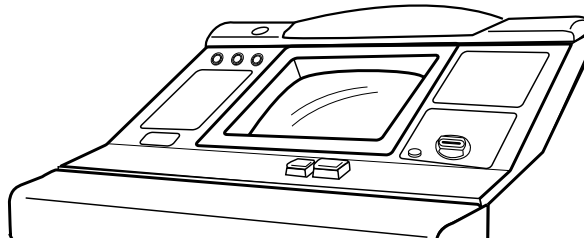
RETURN BILL :
The inserted bill is being rejected.

-DOOR: Indicates the door that is open.
Refer to Paragraph 5.3.1.

POWER UP SAVE:
Displayed just after POWER-UP and before the first bet game starts.

2.4 Buttons on Deck

The following buttons are provided on the deck of each station unit.



1 BET button:
Every time pressing this button, 1 bet is placed on your selection.

NOTE

You can place up to 30,000 bets in every game cycle.

BET MULTIPLIER button:
Every time pressing this button, the number of bets you set by the BET MULTIPLIER button on the game screen are placed on your selection(refer to Paragraph 2.3.4). Even if your credits are not enough for the multiple bet or even if the MAX BET (software setting) of the selection is exceeded by pressing this button, available number of bets are placed.

NOTE

You can place up to 30,000 bets in every game cycle.

PAYOUT button:

Press this button to convert your accumulated credits to coins. (The default setting of HOPPER MAX PAY is 500 coins.)

NOTE

*If the software setting of INSTALLATION PAY is ON, pressing the PAYOUT button again aborts the payout operation from the hopper.
For the INSTALLATION PAY, refer to our Maintenance Manual, Paragraph 5.1.5.*

CALL ATTENDANT button:

Press this button when you need attendant's help.

2.5 Starting Game

Start the game in the following procedure.

Procedure

1. Insert coins/bills into the coin/bill entry on your station unit.
2. Check that your credit meter reads the same valued credits as your inserted coins/bills.
3. When the betting time has come, select your desired number(s) by touch referring to Paragraph 2.2, "Betting Types". (Your selected numbers are highlighted.)
4. Press the 1BET button/BET MULTIPLIER button to bet on your selection.

NOTE

To bet the same number of credits as in the previous game cycle, press the REPEAT BET button on the game screen.

5. A chip is placed on the bet table according to the number of your bets.



6. To cancel your bet, select the number(s) you want to cancel, then press the CANCEL BET button on the game screen.
7. As soon as the betting time is over, the message of "NO MORE BET" appears to start the game.

2.6 Pay Time

At the pay time, your win is posted to your credit meter in the following procedure.

Procedure

1. The hit number flashes in yellow on your bet table.
2. When you won, your WIN light flickers, and the pop-up message of "Congratulation!" (for big win) or "WIN!" is displayed on the screen.
3. The WIN meter shows the total number you won.
4. The win is added to your CREDIT meter through the PAID meter.

NOTE

If your CREDIT meter hits the preset CREDIT UP LIMIT (software setting), the OUT OF ORDER message is displayed on the monitor screen with the WIN light lit. The player cannot join the game before the attendant's hand pay is finished. For the software setting of CREDIT UP LIMIT, refer to our Maintenance Manual, Paragraph 5.1.7.

2.7 Calling Attendant for Help

When you need attendant's help, press the CALL ATTENDANT button. Your WIN light and the the signal towers on the top display unit light up to call an attendant.

2.8 Canceling Accumulated Credits by Attendant (Credit-Clear)

When you want to leave and have lots of credits, press the CALL ATTENDANT button to have your accumulated credits converted to money by hand.

NOTE

This function can be used only when the software setting of CREDIT CLEAR is ON.

For the CREDIT CLEAR, refer to our Maintenance Manual, Paragraph 5.1.9.

3. ATTENDANT'S SERVICE FOR ASSISTING GAME

This section is intended for an attendant, and explains the service that will be necessary during the operating time.

3.1 Attendant Pay

3.1.1 Attendant pay against HOPPER MAX PAY

When pressing the PAYOUT button in the state where the reading of the CREDIT meter exceeds the preset HOPPER MAX PAY (software setting -- default: 500 coins), the WIN lamp of the station unit flashes to call an attendant. Perform the following hand pay according to your setting of ATTENDANT PAY TYPE (software setting). The player cannot resume the game before this hand pay is finished. For the settings of HOPPER MAX PAY and ATTENDANT PAY TYPE, refer to our Maintenance Manual, Paragraphs 5.1.3 and 5.1.8 respectively.

When your setting is BALANCE PAY;

Because the hopper pays the same number of coins as the HOPPER MAX PAY, pay the balance after "HOPPER MAX PAY".

When your setting is ALL AMOUNT PAY

Because the hopper pays no coin, pay for the entire credits.

ALL AMOUNT PAY/RETURN TO GAME

This is same as ALL AMOUNT PAY.

However, calling an attendant can be cancelled by pressing the PAYOUT button again to continue the game (the WIN lamp turns OFF).

Procedure

1. Jot down the count of the credit meter.
2. Turn ON the RESET keyswitch to clear the credit meter to zero.



3. Turn OFF the RESET keyswitch to go back to the game mode.
4. Pay the same valued money as the above count to the player.

3.1.2 Attendant pay against CREDIT UP LIMIT

When the credit meter hits the preset CREDIT UP LIMIT, use the same procedure as in Paragraph 3.1.1 to clear the meter to zero.

3.1.3 Attendant pay for canceling accumulated credits

When a player wants to leave and has lots of credits, an attendant may be called by the player for canceling the credits. In such case, use the same procedure as in Paragraph 3.1.1.

NOTE

This function can be used only when the software setting of CREDIT CLEAR is ON.

For the CREDIT CLEAR, refer to our Maintenance Manual, Paragraph 5.1.9.

3.2 Manually Posting Credits (Credit-Up)

Unless inserting coins/bills, credits can be manually posted to the credit meter in the following procedure.

NOTE

This function can be used only when the station unit PCB DIP switch post 1 is ON.

For the DIP switch setting, refer to our Maintenance Manual, Paragraph 5.3.1.

Procedure

1. Check that there is no pending bet or error on the station unit.
2. Turn ON the CREDIT-UP keyswitch on the deck to display the following pop-up window.



3. Set the same valued credits as the player-paid money by touch. To cancel the setting, touch "CANCEL".
4. Turn OFF the CREDIT-UP keyswitch to go back to the game mode.
5. As soon as the game mode is back, the set number of credits are posted to the credit meter.

3.3 WIN Light of Station Unit

The WIN light informs you the status of the station unit.

Use this WIN light in conjunction with the signal towers on the top display unit described in Paragraph 3.4.

Event	WIN Light
1. An error occurred.	Lights up.
2. An "OUT OF ORDER" error (ex. DOOR OPEN) occurred.	Lights up.
3. The ATTENDANT MENU is open.	Lights up.
4. A WIN occurred.	Flickers.
5. The CALL ATTENDANT button was pressed.	Lights up.
6. The PAYOUT button was pressed.	Flashes.
7. An attendant pay occurred.	Lights up.

3.4 Signal Towers on Top Display Unit

The signal towers on the top display unit inform you the whole machine status during the operation.

Use these signal towers in conjunction with the WIN light on each station unit described in Paragraph 3.3.

Event	Signal Tower
1. An error occurred on a station unit.	The upper tier flashes.
2. An attendant pay occurred.	The upper tier lights up.
3. An error occurred on the wheel unit.	The middle tier (or lower tier in case of 2-tier type) flashes.
4. The front door of the control unit is open.	The middle tier (or lower tier in case of 2-tier type) flashes.
5. The front/top door of a station unit is open.	The middle tier (or lower tier in case of 2-tier type) flashes.
6. The CALL ATTENDANT button was pressed on a station unit.	The middle tier (or lower tier in case of 2-tier type) lights up.

4. ATTENDANT MENU ON STATION UNIT

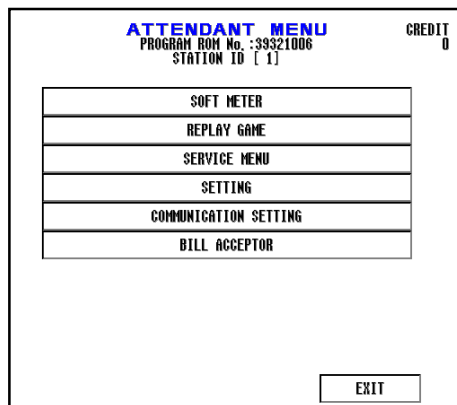
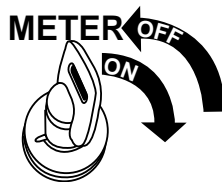
The ATTENDANT MENU can be invoked on the monitor screen of each station unit to control the operation. During the time when the ATTENDANT MENU is opened, the WIN light is lighting.

4.1 Calling Main Menu (Main Routine)

Call the Main Menu in the following procedure.

Procedure

1. Check that there is no pending bet or error on the station unit.
2. Turn ON and OFF the METER keyswitch to display the ATTENDANT MENU (Main Menu).



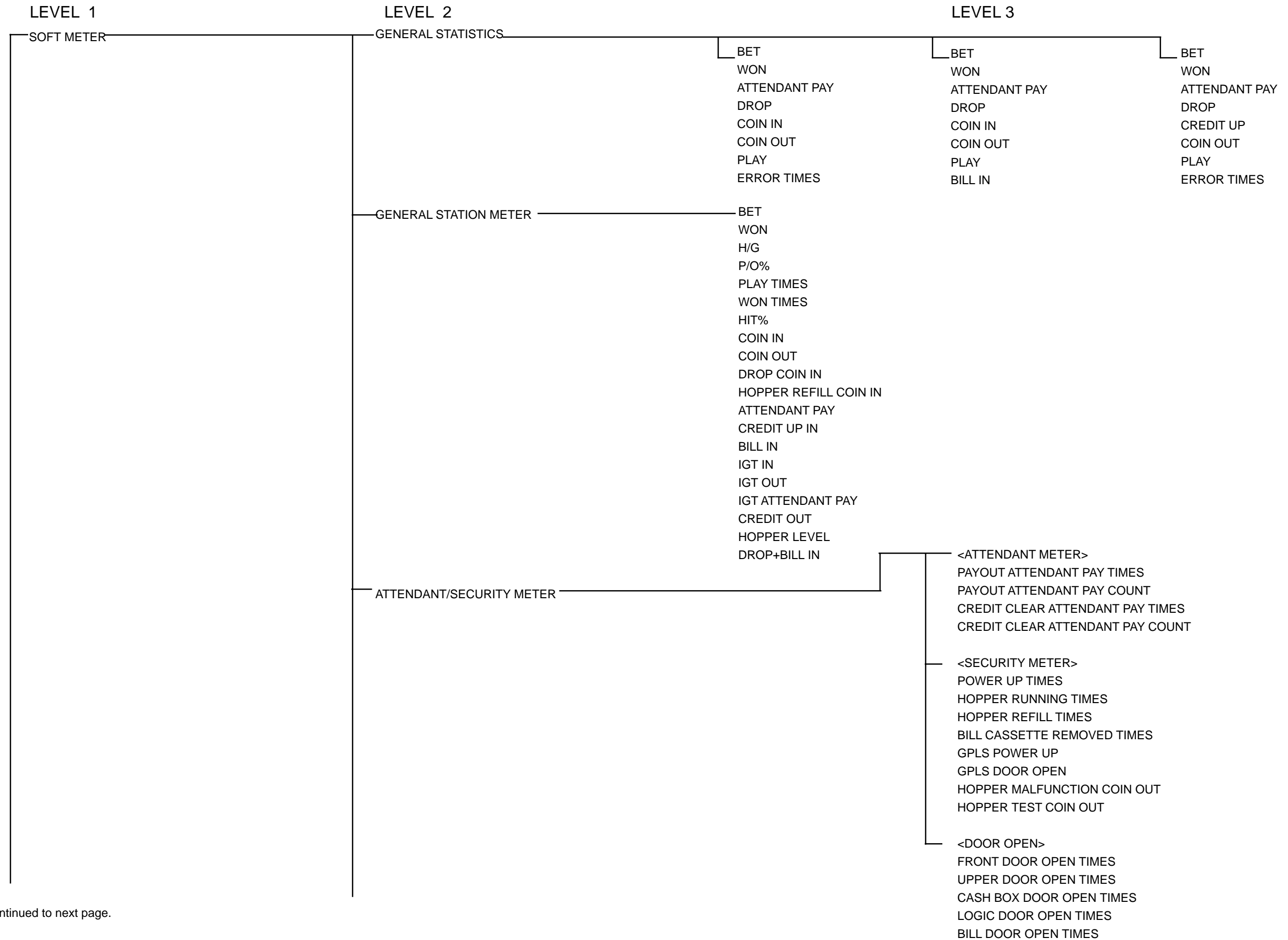
In ATTENDANT MENU, call your desired sub-routine by touch.

Otherwise, select the item by the BET MULTIPLIER button on the deck (the selected item turns red), then enter the selection by the 1 BET button.

NOTE

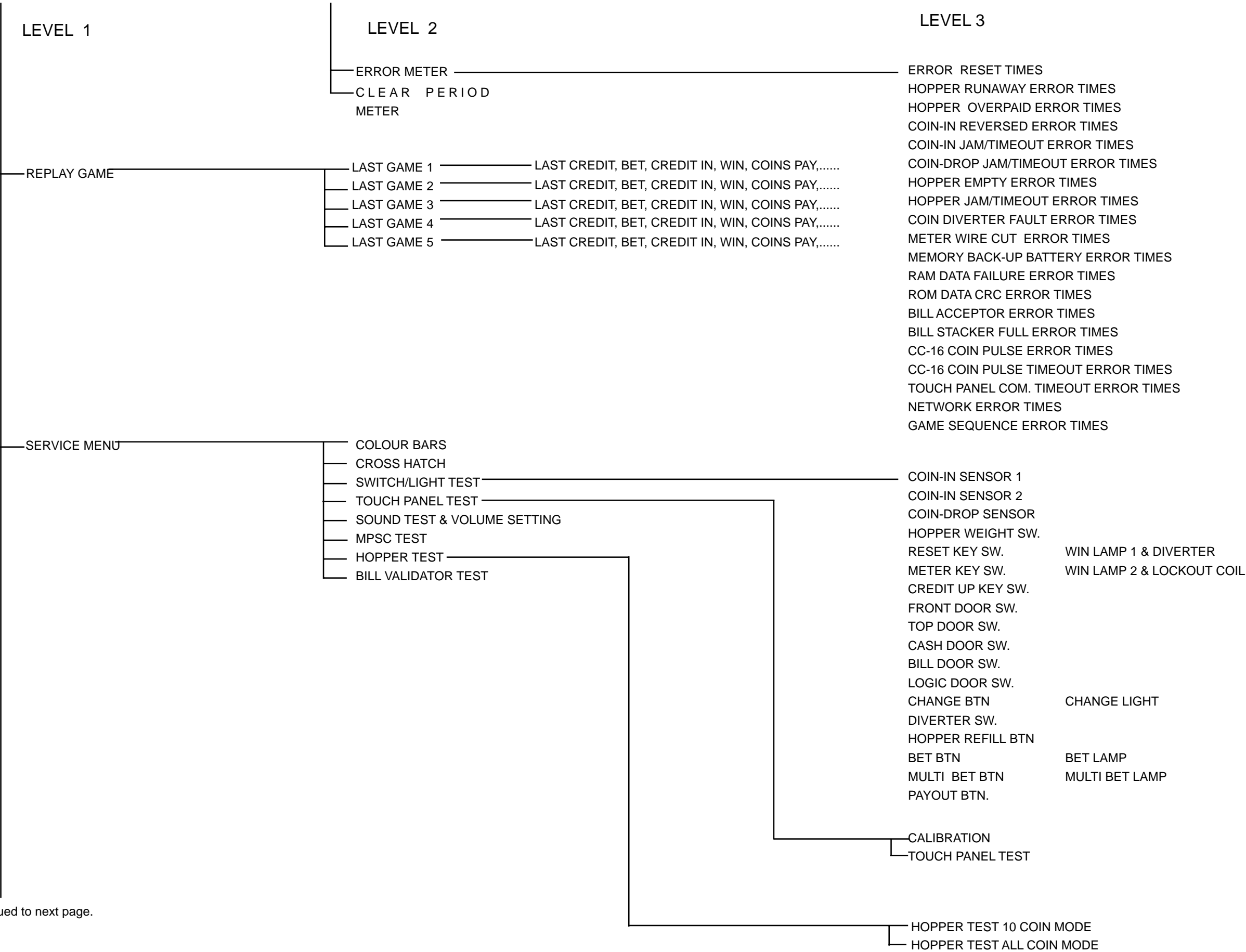
In the following description, unless specified, you can use the betting buttons instead of touching.

Tree Structure of ATTENDANT MENU



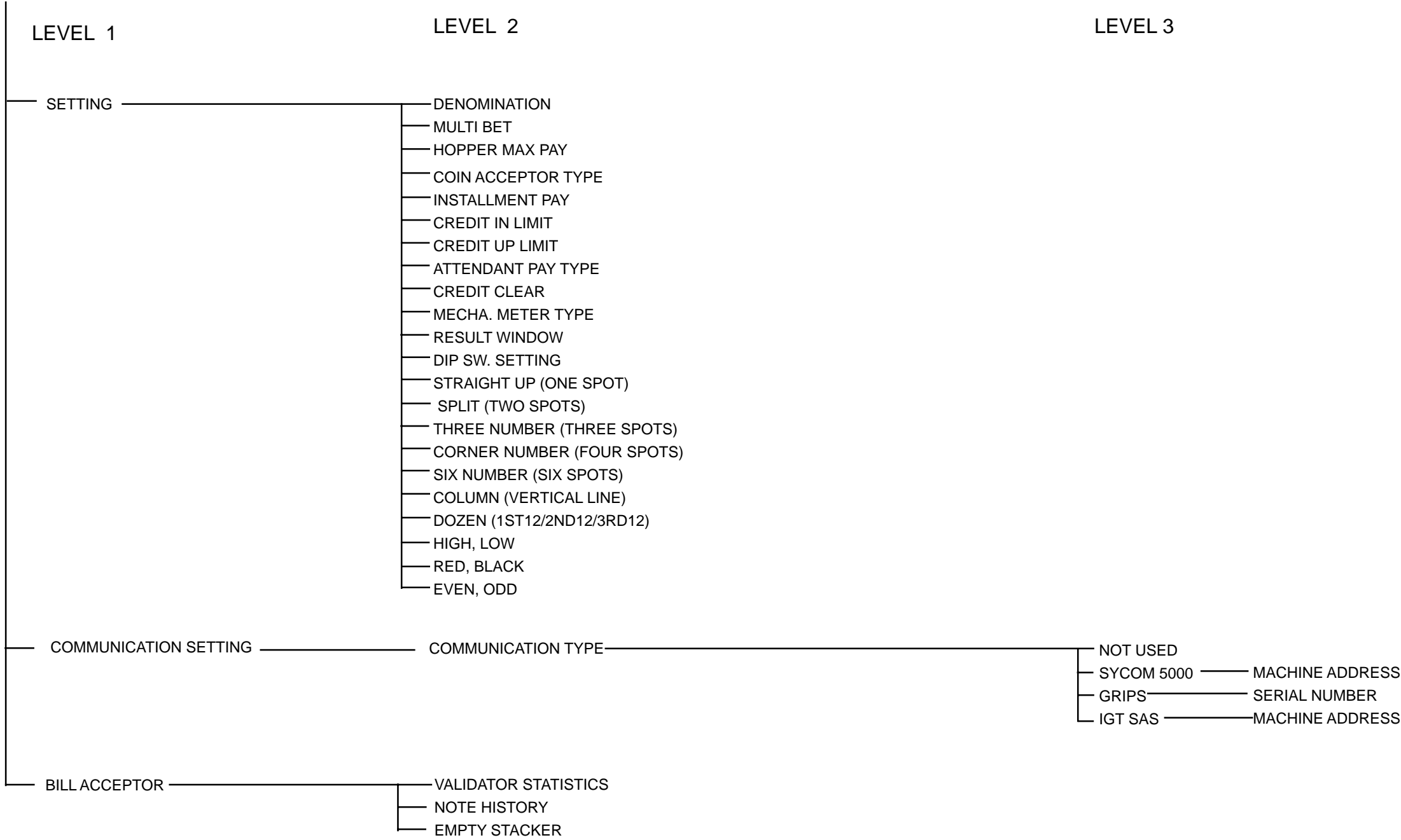
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NOTE
Some routines may not be used according to your specifications.

4.2 SOFT METER

Open the SOFT METER to see the various soft meter counts.

SOFT METER		CREDIT 297
GENERAL STATISTICS		
GENERAL STATION METER		
ATTENDANT/SECURITY METER		
ERROR METER		
CLEAR PERIOD METER		
		EXIT

In SOFT METER sub-routine, the meter counts are displayed in **PERIOD** and **PERMANENT**.

The **PERIOD** means temporary meters, and indicates the cumulative accounting information since the most recent PERIOD meter clear described in Paragraph 4.2.5 or RAM clear (clearing all the data stored) by turning the RESET keyswitch.

On the other hand, the **PERMANENT** indicates the cumulative accounting information since the most recent RAM clear.



CAUTION!

Clearing the PERMANENT meters is not necessary in normal operation. However, if necessary, jot down the meter counts before clearing them. They cannot be retrieved.

4.2.1 GENERAL STATISTICS

Open the GENERAL STATISTICS from the SOFT METER menu.

The following 3 types of statistics are displayed according to your mechanical meters.

<Type 1>

GENERAL STATISTICS			CREDIT
	PERIOD	PERMANENT	297
BET	3530	3530	
WON	2047	2047	
ATTENDANT PAY	0	0	
DROP	0	0	
COIN IN	641	641	
COIN OUT	181	181	
PLAY	29	29	
ERROR TIMES	2	2	

EXIT

BET: Indicates the number of credits bet.

WON: Indicates the number of credits won.

ATTENDANT PAY:

Indicates the number of credits paid by an attendant including credit clear.

DROP: Indicates the number of coins diverted to the cash box.

COIN IN: Indicates the number of coins accepted by the station unit.

COIN OUT: Indicates the number of coins paid out from the hopper.

PLAY: Indicates the number of games actually played on the station unit.

ERROR TIMES:

Indicates the number of errors cleared.

<Type 2>

GENERAL STATISTICS			CREDIT
	PERIOD	PERMANENT	783
BET	166	166	
WON	225	225	
ATTENDANT PAY	0	0	
DROP	0	0	
COIN IN	181	181	
COIN OUT	0	0	
PLAY	2	2	
BILL IN	0	0	

EXIT

4. ATTENDANT MENU ON STATION UNIT

BET: Indicates the number of credits bet.

WON: Indicates the number of credits won.

ATTENDANT PAY:

Indicates the number of credits paid by an attendant including credit clear.

DROP: Indicates the number of coins diverted to the cash box.

COIN IN: Indicates the number of coins accepted by the station unit.

COIN OUT: Indicates the number of coins paid out from the hopper.

PLAY: Indicates the number of games actually played on the station unit.

BILL IN: Indicates the total amount of money accepted by inserting bills (when a bill acceptor is equipped).

<Type 3>

GENERAL STATISTICS			CREDIT 783
	PERIOD	PERMANENT	
BET	166	166	
WON	225	225	
ATTENDANT PAY	0	0	
DROP	0	0	
CREDIT UP	0	0	
COIN OUT	0	0	
PLAY	2	2	
ERROR TIMES	4	4	

EXIT

BET: Indicates the number of credits bet.

WON: Indicates the number of credits won.

ATTENDANT PAY:

Indicates the number of credits paid by an attendant including credit clear.

DROP: Indicates the number of coins diverted to the cash box.

CREDIT UP: Indicates the number of credits manually posted by turning the CREDIT-UP keyswitch.

COIN OUT: Indicates the number of coins paid out from the hopper.

PLAY: Indicates the number of games actually played on the station unit.

ERROR TIMES:

Indicates the number of errors cleared.

4.2.2 GENERAL STATION METER

Open the GENERAL STATION METER from the SOFT METER menu to display the following accounting information. By using "AMOUNT/CREDIT" at the lower left of the screen, you can see the meter counts in credits or in money amount.

GENERAL STATION METER			CREDIT 0
	PERIOD	PERMANENT	
BET	0	0	
WON	0	0	
H/G	0	0	
P/O%	0.00%	0.00%	
PLAY TIMES	0	0	
WON TIMES	0	0	
HIT%	0.00%	0.00%	
COIN IN	0	0	
COIN OUT	0	0	
DROP COIN IN	0	0	
HOPPER REFILL COIN IN	0	0	
ATTENDANT PAY	0	0	
CREDIT UP IN	0	0	
BILL IN	0	0	
IGT IN	0	0	
IGT OUT	0	0	
IGT ATTENDANT PAY	0	0	
CREDIT OUT	0	0	
HOPPER LEVEL	0	0	
DROP + BILL IN	0	0	

AMOUNT EXIT

GENERAL STATION METER			CREDIT 0
	PERIOD	PERMANENT	
BET	0	0	
WON	0	0	
H/G	0	0	
P/O%	0.00%	0.00%	
PLAY TIMES	0	0	
WON TIMES	0	0	
HIT%	0.00%	0.00%	
COIN IN	0	0	
COIN OUT	0	0	
DROP COIN IN	0	0	
HOPPER REFILL COIN IN	0	0	
ATTENDANT PAY	0	0	
CREDIT UP IN	0	0	
BILL IN	0	0	
IGT IN	0	0	
IGT OUT	0	0	
IGT ATTENDANT PAY	0	0	
CREDIT OUT	0	0	
HOPPER LEVEL	0	0	
DROP + BILL IN	0	0	

CREDIT EXIT

BET: Indicates the number of credits or the money amount bet.

WON: Indicates the number of credits or the money amount won.

H/G: Indicates the number of credits or the money amount based on "BET - WON".

P/O%: Indicates the payout percentage based on "WON/BET x 100".

PLAY TIMES: Indicates the number of the games played on the station unit.

WON TIMES: Indicates the number of the games won.

HIT%: Indicates the percentage of the games won based on "WON TIMES/PLAY TIMES x 100".

4. ATTENDANT MENU ON STATION UNIT

COIN IN: Indicates the number of coins inserted from the coin entry.

COIN OUT: Indicates the number of coins paid out from the hopper.

DROP COIN IN:
Indicates the number of coins diverted to the cash box.

HOPPER REFILL COIN IN:
Indicates the number of coins supplied to the hopper by using the HOPPER REFILL function.

ATTENDANT PAY:
Indicates the number of credits or the money amount hand-paid by an attendant including credit clear.

CREDIT UP IN:
Indicates the number of credits or the money amount manually posted to the credit meter by using the CREDIT-UP function.

BILL IN: Indicates the number of credits or the money amount accepted by inserting bills.

IGT IN: Indicates the total coin-in based on "COIN BET+ CREDIT BET".

IGT OUT: Indicates the total coin-out from wins based on "COIN PAID + CREDIT BET".

IGT ATTENDANT PAY:
Indicates the number of credits hand-paid from wins.

CREDIT OUT:
Indicates the number of credits lost by CREDIT-CLEAR and HOPPER-PAYOUT.

HOPPER LEVEL:
Indicates the number of coins based on "(HOPPER REFILL COIN-IN + INSERTED COIN-IN) - (HOPPER MALFUNCTION COIN-OUT+ HOPPER TEST COIN-OUT + PAYOUT BUTTON COIN-OUT)".

DROP+BILL IN:
Indicates the number of credits based on "DROP COIN IN + BILL IN".

4.2.3 ATTENDANT/SECURITY METER

Open the ATTENDANT/SECURITY METER from the SOFT METER menu to display the following meter counts.

ATTENDANT/SECURITY METER CREDIT 0		
ATTENDANT METER		
PAYOUT ATTENDANT PAY TIMES	PERIOD 0	PERMANENT 0
PAYOUT ATTENDANT PAY COUNT	0	0
CREDIT CLEAR ATTENDANT PAY TIMES	0	0
CREDIT CLEAR ATTENDANT PAY COUNT	0	0
SECURITY METER		
POWER UP TIMES	4	4
HOPPER RUNNING TIMES	0	0
HOPPER REFILL TIMES	0	0
BILL CASSETTE REMOVED TIMES	0	0
GPST POWER UP	0	0
GPST DOOR OPEN	0	0
HOPPER MALFUNCTION COIN OUT	0	0
HOPPER TEST COIN OUT	0	0
DOOR METER		
FRONT DOOR OPEN TIMES	0	0
UPPER DOOR OPEN TIMES	1	1
LOGIC DOOR OPEN TIMES	0	0
CASH BOX DOOR OPEN TIMES	0	0
BILL DOOR OPEN TIMES	0	0
		EXIT

<ATTENDANT METER>

PAYOUT ATTENDANT PAY TIMES:

Indicates the number of hand-pays by an attendant.

PAYOUT ATTENDANT PAY COUNT:

Indicates the number of credits hand-paid by an attendant.

CREDIT CLEAR ATTENDANT PAY TIMES:

Indicates the number of credit clears by using the CREDIT CLEAR function.

CREDIT CLEAR ATTENDANT PAY COUNT:

Indicates the number of credits canceled by using the CREDIT CLEAR function.

<SECURITY METER>

POWER UP TIMES:

Indicates the number of times the power to the station unit was turned ON.

HOPPER RUNNING TIMES:

Indicates the number of times the hopper was activated.

HOPPER REFILL TIMES:

Indicates the number of times coins were supplied to the hopper by using the HOPPER REFILL function.

BILL CASSETTE REMOVED TIMES:

Indicates the number of times the bill stacker was removed.

GPLS POWER UP:

Indicates the number of games since the most recent power-up.

GPLS DOOR OPEN:

Indicates the number of games since the front/top door was most recently opened then closed.

HOPPER MALFUNCTION COIN OUT:

Indicates the number of coins paid-out by HOPPER RUNAWAY and OVERPAID errors.

HOPPRE TEST COIN OUT:

Indicates the number of coins paid-out by HOPPER TEST.

<DOOR METER>**FRONT DOOR OPEN TIMES:**

Indicates the number of times the front door was opened.

UPPER DOOR OPEN TIMES:

Indicates the number of times the upper (top) door was opened.

CASH BOX DOOR OPEN TIMES:

Indicates the number of times the cash box door was opened.

LOGIC DOOR OPEN TIMES:

Indicates the number of times the logic access door was opened.

BILL DOOR OPEN TIMES:

Indicates the number of times the door of the bill stacker container was opened.

4.2.4 ERROR METER

Open the ERROR METER from the SOFT METER menu to display the following meter counts.

ERROR METER		CREDIT
		297
	PERIOD	PERMANENT
ERROR RESET TIMES	2	2
HOPPER RUNAWAY ERROR TIMES	1	1
HOPPER OVERPAID ERROR TIMES	0	0
COIN-IN REVERSED ERROR TIMES(Y0-Y0)	1	1
COIN-IN JAM/TIMEOUT ERROR TIMES	0	0
COIN-DROP JAM/TIMEOUT ERROR TIMES	0	0
HOPPER EMPTY ERROR TIMES	0	0
HOPPER JAM/TIMEOUT ERROR TIMES	0	0
COIN DIVERTER FAULT ERROR TIMES	0	0
METER WIRE CUT ERROR TIMES	0	0
MEMORY BACK-UP BATTERY LOW ERROR TIMES	0	0
RAM DATA FAILURE TIMES	0	0
ROM DATA CRC ERROR TIMES	0	0
BILL ACCEPTOR ERROR TIMES	0	0
BILL STACKER FULL TIMES	0	0
HOPPER REMOVED TIMES	0	0
CC-16 COIN PULSE ERROR TIMES	0	0
CC-16 COIN PULSE TIMEOUT ERROR TIMES	0	0
TOUCH PANEL COM. TIMEOUT ERROR TIMES	0	0
NETWORK ERROR TIMES	0	0
GAME SEQUENCE ERROR TIMES	0	0
		EXIT

ERROR RESET TIMES:

Indicates the number of errors cleared.

HOPPER RUNAWAY ERROR TIMES:

Indicates the number of hopper runaways.

HOPPER OVERPAID ERROR TIMES:

Indicates the number of hopper overpays.

COIN-IN REVERSED ERROR TIMES:

Indicates the number of coin reverses (stringings).

COIN-IN JAM/TIMEOUT ERROR TIMES:

Indicates the number of coin-in jams or timeouts.

COIN-DROP JAM/TIMEOUT ERROR TIMES:

Indicates the number of coin drop jams or timeouts.

HOPPER EMPTY ERROR TIMES:

Indicates the number of times the hopper got empty.

HOPPER JAM/TIMEOUT ERROR TIMES:

Indicates the number of hopper jams or timeouts.

COIN DIVERTER FAULT ERROR TIMES:

Indicates the number of times the coin diverter malfunctioned.

METER WIRE CUT ERROR TIMES:

Indicates the number of times the mechanical meters were disconnected.

MEMORY BACK-UP BATTERY ERROR TIMES:

Indicates the number of times the back-up battery died.

RAM DATA FAILURE ERROR TIMES:

Indicates the number of RAM data failures.

ROM DATA CRC ERROR TIMES:

Indicates the number of CRC errors occurred in ROM data.

BILL ACCEPTOR ERROR TIMES:

Indicates the number of bill acceptor errors.

BILL STACKER FULL ERROR TIMES:

Indicates the number of times the bill stacker got full.

CC-16 COIN PULSE ERROR TIMES:

Indicates the number of times a coin passed the COIN-IN sensors without COIN-IN pulse generated.

CC-16 COIN PULSE TIMEOUT ERROR TIMES:

Indicates the number of times no coin passed the COIN-IN sensors within the preset time period after the COIN-IN pulse was generated.

TOUCH PANEL COM. TIMEOUT ERROR TIMES:

Indicates the number of communication timeouts with the touch panel.

NETWORK ERROR TIMES:

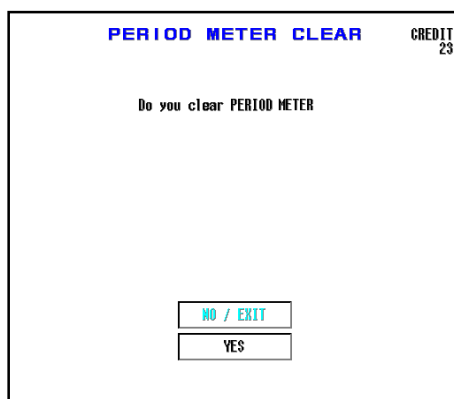
Indicates the number of network errors.

GAME SEQUENCE ERROR TIMES:

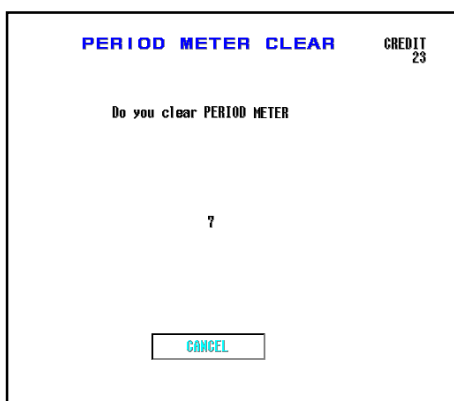
Indicates the number of times the game mode codes were received from the control unit in the wrong order.

4.2.5 CLEAR PERIOD METER

Use the CLEAR PERIOD METER from the SOFT METER menu to clear all the PERIOD meter counts at a time.



Touch **"NO/EXIT"** to go back to the SOFT METER menu without clearing. To clear the meter counts to 0, touch **"YES"** .



If you want to cancel the clear at this stage, select the **"CANCEL"**.

As soon as counting zero, the SOFT METER menu is back showing **"CLEAR PERIOD METER (PERIOD METER was cleared.)"**.

4.3 REPLAY GAME

Open the REPLAY GAME from the ATTENDANT MENU to view the most recent 5 games. (Five games are listed the most recent first.)

REPLAY GAME		CREDIT
LAST GAME 1		0
LAST GAME 2		
LAST GAME 3		
LAST GAME 4		
LAST GAME 5		
LAST CREDIT : 0 CREDIT IN : 0 COINS PAY : 0 ATTND. PAY : 0		
EXIT		

LAST CREDIT:

Indicates the number of credits left on the CREDIT meter at the end of the previous game.

CREDIT IN: Indicates the number of credits that have been added to the credit meter since the end of the previous game.

COINS PAY:

Indicates the number of credits that have been paid out from the hopper since the end of the previous game.

ATTND.PAY:

Indicates the number of credits that have been hand paid by an attendant since the end of the previous game.

Open your desired game to see the results.

6 18 25 23 1 9 36 6 9 36 10 35 30 5 2										LAST GAME 1	
										CREDIT 4527	
BET SELECTION	PAY	MIN	MAX	BET							
STRAIGHT UP	35 to 1	1	20	COLUMN	2 to 1	1	20				
SPRIT	17 to 1	1	20	DOZEN	2 to 1	1	20				
THREE NUMBER	11 to 1	1	20	HIGH, LOW	1 to 1	1	20				
CORNER NUMBER	8 to 1	1	20	RED, BLACK	1 to 1	1	20				
SIX NUMBER	5 to 1	1	20	EVEN, ODD	1 to 1	1	20				

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
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00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	3	

4. ATTENDANT MENU ON STATION UNIT

For more information, press the INFORMATION button to display the following pop-up meter counts window.



LAST CREDIT :	4667	
BET :		1940
CREDIT IN :	0	
WIN :	1800	
COINS PAY :		0
ATTND. PAY :		0
<hr/>		
GAME NO. :	78	
CREDIT SG :	2727	

LAST CREDIT:

Indicates the number of credits left on the CREDIT meter at the end of this game.

BET:

Indicates the number of credits left on the WAGER meter at the end of this game.

CREDIT IN: Indicates the number of credits that were added to the credit meter after the previous game ends and before this game ends. (The wins are excluded.)

WIN: Indicates the number of credits left on the WIN meter at the end of this game.

COINS PAY:

Indicates the number of credits that were paid out from the hopper after the previous game ends and before this game ends.

ATTND.PAY:

Indicates the number of credits that were hand paid by an attendant after the previous game ends and before this game ends.

CREDIT SG: Indicates the number of credits accumulated on the CREDIT meter at the start of this game.

4.4 SERVICE MENU

The following diagnostic tests can be performed by opening the SERVICE MENU from the ATTENDANT MENU.

For the detail, refer to our Maintenance Manual, Section 6.

SERVICE MENU		CREDIT 297
COLOUR BARS		
CROSS HATCH		
SWITCH/LIGHT TEST		
TOUCH PANEL TEST		
SOUND TEST & VOLUME SETTING		
MPSC TEST		
HOPPER TEST		
BILL VALIDATOR TEST		
<div>EXIT</div>		

Monitor test

Switch/light test

Touch panel test and calibration

Sound volume test and setting

MPSC test

Hopper test

Bill validator test

4. ATTENDANT MENU ON STATION UNIT

4.5 SETTING

The software machine options of each station unit can be configured by opening the SETTING from the ATTENDANT MENU.

For the detail, refer to our Maintenance Manual, Section 5.1.

SETTING 1/3		CREDIT 4527
DENOMINATION	: \$1	
MULTI BET	: 10, 50, 100	
HOPPER MAX PAY	: 500	
COIN ACCEPTOR TYPE	: CC16	
INSTALLMENT PAY	: OFF	
CREDIT IN LIMIT	: 1000	
CREDIT UP LIMIT	: 100000	
ATTENDANT PAY TYPE	: ALL ATTENDANT PAY	
CREDIT CLEAR	: OFF	
MECHA. METER TYPE	:	
BET NON ATTEN- DROP COIN COIN PLAY ERROR PAY IN OUT		
RESULT WINDOW	: OFF	
DIP SW. SETTING	:	
NEXT PAGE RETURN TO OLD DATA RETURN TO INIT. DATA EXIT		

SETTING 2/3		CREDIT 4527
MINIMUM BET		
STRAIGHT UP (ONE SPOT)	: 1	
SPLIT (TWO SPOTS)	: 1	
THREE NUMBER (THREE SPOTS)	: 1	
CORNER NUMBER (FOUR SPOTS)	: 1	
SIX NUMBER (SIX SPOTS)	: 1	
COLUMN (VERTICAL LINE)	: 1	
DOZEN (1ST 12/2ND 12/3RD 12)	: 1	
HIGH, LOW	: 1	
RED, BLACK	: 1	
EVEN, ODD	: 1	
NEXT PAGE RETURN TO OLD DATA RETURN TO INIT. DATA EXIT		

SETTING 3/3		CREDIT 4527
MAX BET		
STRAIGHT UP (ONE SPOT)	: 20	
SPLIT (TWO SPOTS)	: 20	
THREE NUMBER (THREE SPOTS)	: 20	
CORNER NUMBER (FOUR SPOTS)	: 20	
SIX NUMBER (SIX SPOTS)	: 20	
COLUMN (VERTICAL LINE)	: 20	
DOZEN (1ST 12/2ND 12/3RD 12)	: 20	
HIGH, LOW	: 20	
RED, BLACK	: 20	
EVEN, ODD	: 20	
PREVIOUS PAGE RETURN TO OLD DATA RETURN TO INIT. DATA EXIT		

4.6 COMMUNICATION SETTING

The communication with an external equipment can be configured by opening the COMMUNICATION SETTING from the ATTENDANT MENU.

For the detail, refer to our Maintenance Manual, Section 5.2.

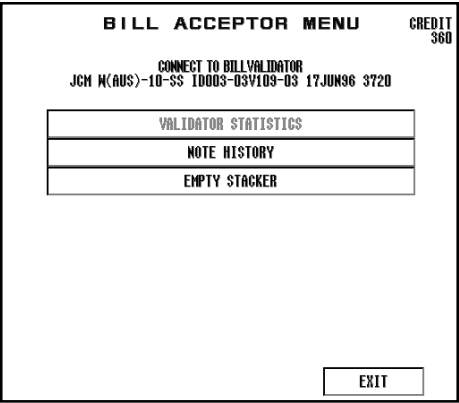
COMMUNICATION TYPE		CREDIT 44
NOT USED		
SYCON 5000		
GRIPS		
1GT SAS		
EXIT		

4.7 BILL ACCEPTOR

NOTE

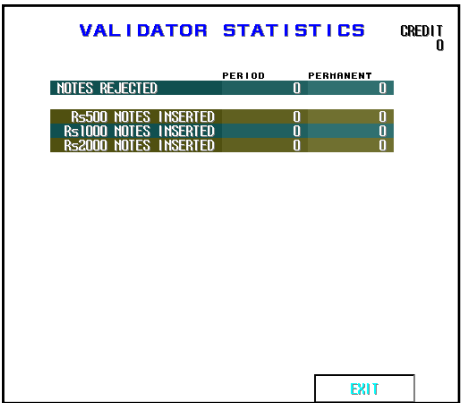
This item is not displayed when the setting of DIP switch post 6 is ON. For the DIP switch setting, refer to our Maintenance Manual, Paragraph 5.3.1.

Open the BILL ACCEPTOR from the ATTENDANT MENU to see the information about the bill validator.



4.7.1 VALIDATOR STATISTICS

Open the VALIDATOR STATISTICS from the BILL ACCEPTOR MENU to see the number of bills inserted according to denomination (the number of bills rejected is also indicated).



The PERIOD meters of VALIDATOR STATISTICS can be independently cleared by using the EMPTY STACKER described in Paragraph 4.7.3.

4. ATTENDANT MENU ON STATION UNIT

4.7.2 NOTE HISTORY

Open the NOTE HISTORY from the BILL ACCEPTOR MENU to see the last 10 bills inserted and their elapsed time.

The screenshot shows a screen titled "NOTE HISTORY" with a "CREDIT 360" indicator in the top right corner. Below the title is a table with two columns: "BILL TYPE" and "Time after inserting a bill(Min)". The table contains four rows of data. At the bottom right of the screen is an "EXIT" button.

BILL TYPE	Time after inserting a bill(Min)
\$20	1
\$10	21
\$10	23
\$50	23

4.7.3 EMPTY STACKER

Open the EMPTY STACKER from the BILL ACCEPTOR MENU to clear the PERIOD meters of VALIDATOR STATISTICS.

The screenshot shows a screen titled "EMPTY STACKER" with a "CREDIT 360" indicator in the top right corner. The main text on the screen asks: "Do you clear VALIDATOR STATISTICS(PERIOD METER)". At the bottom, there are two buttons: "CANCEL / EXIT" and "CLEAR / EXIT".

Touch "**CLEAR/EXIT**" to clear the meter counts to 0, and go back to the BILL ACCEPTOR MENU.

As soon as the BILL ACCEPTOR MENU is back, it shows "**EMPTY STACKER (BILL DATA was cleared)**".

Touch "**CANCEL/EXIT**" to go back to the BILL ACCEPTOR MENU without clearing.

5. ERRORS ON STATION UNITS

If an error occurs on a station unit, the error message is displayed on the monitor screen with the alarm sounding, and the WIN light lights up. At the same time, the top tier of the signal tower (on the top display unit) lights up to call an attendant. The player cannot join the game before the error is cleared by qualified personnel.

5.1 Power-Up Error Messages

At the power-up, the station unit performs several self tests. If an error occurs, the error message is displayed on the screen.

Message:	WARNING NOT FOUND 'xxx' MODULE CHECK P-ROM
Cause:	There is a problem in the PROGRAM ROM.
Action:	Call qualified service personnel to replace the P-ROM or PCB. Refer to Paragraph 5.1.1.

Message:	ATTENTION STATION ROM CHANGED PREVIOUS ROM xxxxxxxx THIS ROM xxxxxxxx TURN ON-OFF RESET SW. FOR CLEARING ALL DATA STORED
Cause:	The ROM # has been changed since the last power-up.
Action:	Turn the RESET keyswitch. Refer to Paragraph 5.1.1.

Message:	RAM DATA FAILURE TURN ON-OFF RESET SW. FOR CLEARING ALL DATA STORED
Cause:	A data failure occurred in RAM.
Action:	Turn the RESET keyswitch. Refer to Paragraph 5.1.1.

Message:	WARNING DIP SW. OR JUMPER SETTING STATUS IS CHANGED TURN ON-OFF RESET SW. FOR USING NEW SET- TINGS. GAME DATA EXCEPT METERS ARE CLEARED.

Cause: The setting of the DIP switch or jumper has been changed since the last power-up.

Action: Turn the RESET keyswitch to go to the game mode.

Message: **STATION ID: xxx**
 ILLEGAL STATION ID NUMBER
 CHECK DIP-SWITCH ON BACK PLANE PCB

Cause: The setting of the station unit ID number is not correct.

Action: Call qualified service personnel to correct the DIP switch setting on the back plane PCB.

Message: **ATTENTION**
 MAIN ROM VERSION OR SETTING CHANGED
 TURN ON-OFF RESET SW. FOR CLEARING ALL DATA
 STORED

Cause: The ROM version has been changed since the last power up.

Action: Turn the RESET keyswitch. Refer to Paragraph 5.1.1.

Message: **GAME HOST INOPERATIVE**
 CHECK CONNECTION

Cause: The communication with the main control unit could not be established.

Action: Call qualified service personnel to check the communication cables.

Message: **BILL ACCEPTOR INOPERATIVE**
 CHECK CONNECTION

Cause: The communication with the bill acceptor could not be established.

Action: Call qualified service personnel to check the communication cables.

Message: **WARNING**
 'xxxxx' CAN NOT OPEN
 CHECK P-ROM

Cause: There is a problem in the P-ROM.

Action: Call qualified service personnel to replace the P-ROM and/or PCB. Refer to Paragraph 5.1.1.

Message: OPTICAL COIN SENSORS ARE WRONG OR DIRTY
CHECK OR CLEAN THEM

Cause: The optic coin sensors are contaminated or defective.

Action: Call qualified service personnel to clean the sensors. If defective, replace it.

Message: RAM DATA FAILURE
CHECK RAM AND CIRCUIT

Cause: This message is displayed if a RAM data failure occurred just after clearing a power-up error by turning the RESET keyswitch.

Action: Call qualified service personnel to check the RAM or the interconnection of the PCB.

5.1.1 Default setting

When clearing a power-up error by turning the RESET keyswitch, the software machine options are initialized to the default values. In this case, turning the RESET keyswitch locks the machine to display the message of **“POWER OFF-ON TO USE INIT. SETTING”** on the monitor screen. As instructed, turn the POWER switch to restart the station unit with the default setting.

To set those options, refer to our Maintenance Manual, Section 5.1.

DENOMINATION:	\$1
MULTI BET:	10, 50, 100
HOPPER MAX PAY:	500
COIN ACCEPTOR TYPE:	CC16
INSTALLMENT PAY:	OFF
CREDIT IN LIMIT:	5000
CREDIT UP LIMIT:	500000
ATTENDANT PAY TYPE:	ALL ATTENDANT PAY
CREDIT CLEAR:	OFF
MECHA. METER TYPE:	BET/WON/ATTN.PAY/DROP/COIN IN/COIN OUT/PLAY/ERROR TIMES
RESULT WINDOW:	OFF

	MINI.	MAX.
STRAIGHT UP (ONE SPOT):	1	100
SPILIT (TWO SPOTS) :	1	100
THREE NUMBER (THREE SPOTS) :	1	100
CORNER NUMBER (FOUR SPOTS) :	1	100
SIX NUMBER (SIX SPOTS) :	1	100
COLUMN (VERTICAL LINE):	1	100
DOZEN (1ST 12 / 2ND 12 / 3RD 12) :	1	100
HIGH:	1	100
LOW:	1	100
RED, BLACK:	1	100
EVEN, ODD:	1	100

5.2 Error Messages During Game

If an error occurs during game, the error message window appears on the game screen with the relevant error highlighted in red.

NOTE

If an error occurs after a player bets and before he/she wins, the win is posted to the credit meter as soon as the error is cleared.



Message: RAM DATA FAILURE

Cause: A data failure occurred in RAM.

Action: Call qualified maintenance personnel to turn OFF-ON the power.

Message: COIN-IN JAM/TIMEOUT

Cause: A coin jam occurred at the COIN-IN sensors.

Action: Call qualified maintenance personnel to remove the jamming coin(s). Turn ON and OFF the RESET keyswitch.

Message: COIN-IN REVERSED

Cause: The COIN-IN sensors detected a coin moving in the reverse direction.

Action: It means stringing. Call a security. Turn ON and OFF the RESET keyswitch.

Message: COIN-DROP JAM/TIMEOUT

Cause: A coin jam occurred at the COIN-DROP sensor.

Action: Call qualified maintenance personnel to remove the jamming coin(s). Turn ON and OFF the RESET keyswitch.

Message: HOPPER EMPTY

Cause: No or few coins are left in the hopper.

Action: Call qualified maintenance personnel to supply coins into the hopper. Turn ON and OFF the RESET keyswitch.

Message: HOPPER JAM/TIMEOUT

Cause: A hopper jam occurred, or the COIN-OUT sensor was active over the specified time period.

Action: Call qualified maintenance personnel to remove the jamming coin(s). Turn ON and OFF the RESET keyswitch.

Message: HOPPER OVERPAID

Cause: The hopper paid extra coins.

Action: Turn ON and OFF the RESET keyswitch.

Message: HOPPER RUNAWAY

Cause: The hopper malfunctioned.

Action: Call qualified service personnel to check the hopper. Turn ON and OFF the RESET keyswitch.

Message: METER WIRE CUT

Cause: One or more of the mechanical meters have been disconnected, or malfunctioned.

Action: Call qualified service personnel to check the mechanical meters. Turn ON and OFF the RESET keyswitch.

Message: CC-16 COIN PULS ERROR

Cause: A coin passed the COIN-IN sensor without any COIN-IN pulse from the coin acceptor.

Action: Call qualified service personnel to check the coin acceptor. Turn ON and OFF the RESET keyswitch.

Message: CC-16 COIN PULS TIMEOUT

Cause: Any coin did not pass the COIN-IN sensor within the specified time period after the COIN-IN pulse was generated.

Action: Call qualified service personnel to check around the coin acceptor. Turn ON and OFF the RESET keyswitch.

Message: COIN DIVERTER FAULT
Cause: The coin diverter coil malfunctioned.
Action: Call qualified service personnel to check the coin diverter.
 Turn ON and OFF the RESET keyswitch.

Message: BILL ACCEPTOR ERROR
Cause: An error occurred on the bill acceptor.
 The communication from the bill acceptor could not be established.
Action: Call qualified service personnel to check the communication cables to the bill acceptor.

NOTE

Turning the RESET keyswitch is not necessary to clear this error. The bill acceptor can be automatically initialized.

Message: BILL STACKER FULL
Cause: The bill stacker is full of bills.
Action: Call authorized personnel to remove the bills from the bill stacker. Turn ON and OFF the RESET keyswitch.

Message: MEMORY BACK-UP BATTERY LOW
 Not used.

Message: ROM DATA CRC ERROR
 Not used.

Message: RAM DATA FAILURE
Cause: A data failure occurred in RAM.
Action: Call qualified maintenance personnel to turn OFF and ON the station unit POWER switch to restart.

Message: TOUCH PANEL COM. TIMEOUT
Cause: The communication with the touch panel could not be established.
Action: Call qualified service personnel to check the communication cables. Turn ON and OFF the RESET keyswitch.

Message: **GAME SEQUENCE ERROR**
Cause: The game mode codes were received from the main control unit in the wrong order.
Action: Call qualified service personnel to check the communication cables. Turn ON and OFF the RESET keyswitch.

NOTE

The front/upper door switch has the same function with the RESET keyswitch. After clearing an error with the front/upper door open, just close the door. The RESET keyswitch is invalid.

5.3 OUT OF ORDER Messages

5.3.1 DOOR OPEN Messages

If a door is opened during the operation, the 'OUT OF ORDER' pop-up window appears on the monitor screen indicating which door is open. This door OPEN status is also indicated at the lower right of the screen until the door is closed.

Message: **FRONT DOOR OPEN**
(F: "-DOOR" is displayed in red when opened, and turns white when closed.)
Cause: The front door of the station unit is open.
Action: Close the door.
 Check the door switch.

Message: **UPPER DOOR OPEN**
(U: "-DOOR" is displayed in red when opened, and turns white when closed.)
Cause: The upper door of the station unit is open.
Action: Close the door.
 Check the door switch.

Message: **CASH BOX DOOR OPEN**
 (C: "-DOOR" is displayed in red when opened, and turns white when closed.)

Cause: The door of the bill stacker container is open.

Action: Close the door.
 Check the door switch.

Message: **LOGIC DOOR OPEN**
 (L: "-DOOR" is displayed in red when opened, and turns white when closed.)

Cause: The door of the PCB box is open.

Action: Close the door.
 Check the door switch.

Message: **BILL CASSETTE REMOVE**
 (R: "-DOOR" is displayed in red when removed, and turns white when returned.)

Cause: The bill stacker has been removed.

Action: Replace the bill stacker.

5.3.2 Others

NOTE

The following OUT OF ORDER pop-up messages do not appear when the error message window described in Paragraph 5.1 or 5.2 is on the monitor screen.

Message: **CREDIT LIMIT, PLEASE COLLECT**

Cause: The credit meter is hitting the preset CREDIT UP LIMIT.

Action: Convert the accumulated credits to money referring to Paragraph 3.1.2.

Message: **COMMUNICATION TIMEOUT WITH MAIN**
Cause: The communication with the main control unit could not be established for at least 20 seconds.
Action: Call qualified service personnel to check the communication cable.

Message: **GAME DISABLE BY HOST**
Cause: The message of GAME DISABLE was sent by the main control unit. (ex. When the door of the main control unit is open.)
Action: Call qualified service personnel to check the main control unit.

Message: **DISPLAY ERROR (WHEEL UNIT)**
Cause: The message of DISPLAY ERROR was sent by the main control unit.
Action: Call qualified service personnel to check the main control unit.

Message: **CHANGED MAIN ROM**
Cause: The P/O percentage sent by the main control unit is not identical to the one stored in this station unit.
Action: Call qualified maintenance personnel to turn OFF and ON the station unit POWER switch.

NOTE

In this case, jot down the game data other than softmeters because they are cleared by turning the POWER switch.

Message: **NO SPIN ERROR**
Cause: A"Shoot mistake (Once again shoot)" error occurred on the wheel unit.
Action: This message is automatically cleared after the failed ball is recovered.

6 BEFORE TROUBLE SHOOTING

Before trouble shooting, check the following.

1. Input line voltage is present and correct.
2. All doors are properly closed.
3. Room temperature does not exceed recommendations.
4. All the cables and connectors are firmly connected.
5. Machine is installed conforming to Sigma's recommendations.

7. CLEANING MACHINE

Clean this machine daily as shown below.



CAUTION !

Be sure to turn OFF the machine before cleaning.

Procedure

1. Clean the machine surface.



CAUTION!

Never use chemical duster, thinner, benzine or alcohol.

It will damage the machine surface.

Diluted synthetic detergent can be used, but completely wipe it up with dry cloth thereafter.

2. Clean the touch panel over the monitor screen by using soft cloth.
The static electricity gathers dust.



CAUTION!

Never use wet cloth.

Do not rub the screen.

ROULETTE KING OPERATION MANUAL

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