# LOHAS <br> (5 REELS 10/20 LINES VIDEO XVGA SLOT GAME) 

A style new edition of SUBSINO Video 5-reels and 10/20 lines slot game - Vertical-Monitor 16:9 formats. New symphony for LOHAS! It's a real symphony, and almost too much fun to play.

## HOW TO PLAY



MAIN GAME

- Insert coin(s) or bill(s).
- Press [Bet] button to increase bet value on each active line. Or, press [Max Bet] button to bet 'Max Bet' and start automatically.
- Then press [Start] button to spin the reels. Press [Stop1], [Stop2], [Stop3], [Stop4] or [Stop5] button to stop the reel or [Start] button again to stop all reels.
- When you have any win combination, you win. Press [Take Score] button to take winning score into Credit, or press [Double Up], [Half Double] or [ReDouble] button to play Double Up game. If Double-Up function is disabled, the system will take scores automatically.
- Press [Help] button to check the result of last game and relative game information. Or, select Denomination value when the function is available.



## GAME FEATURES

- WILD is joker and can replace for any of symbols, except SPIN and Fishing BUOY Symbol
- SUPER LUCKY REEL: Watch the cruise go forward and growing bigger and bigger. Access instantly when three SPIN symbols find on Reel \#1, Reel \#3 and Reel \#5 each.

There is one great reel and three arrows to point the winning, which will random offer and light ON. Press START button or gesture touch the screen to trigger great Reel for great reward. The Max. Award is 1,000 times of Bet, and Max. 20 times Free Play. In which, find WILD symbol will be held within Free Play.

- BUOY BONUS \& 4-LEVELS JACKPOT: Find the Shark on sea and stare FISHING BUOY lands on middle of Reels (Reel \#3) to go fishing for Bonus Win or Lose. If Win, access Bonus screen and you'll receive 12 fishing Buoys. Selecting (Touching) a Buoy will reveal a fish or Times, and choose again. End the Bonus till EXIT finds.

When 2 matching symbols (same kind of fish) have been revealed, the corresponding Jackpot (JP1, JP2, JP3 and JP4) will be awarded. When Times award as "Bet x2", "Betx3" have been revealed, win instantly the times of


FREE PLAY
 Total Bet value.

BUOY BONUS \& 4-LEVELS JACKPOT

## INSTALLATION

## 1) MAIN PCB

- Make sure you have powered-off game.
- Mount 'Game PC Board' on the cabinet.
- Connect 36 pin and 10 pin edge connector of the cabinet to male Edge connectors (36pin \& 10 pin) of 'Game PC Board'. Refer Page 11 for the diagram of Connector.


## 2) MONITOR

- Make sure the monitor (CRT/LCD) supports 1366x768 resolutions.
- Connect monitor connector to the monitor socket (VGA D-Sub) of ‘Game PC Board'.



## 3) SPEAKER

- Audio Amplifier of hardware is newest powerful stereo Amplifier. It uses 2 set separate speakers for Audio Out. Connect two speakers to (R+:R-) and (L+:L-) of J3.
- Don't connect any of "Audio Out" to Ground (GND) or link directly the speaker to Ground. In the case of wrong Ground linkage, it will cause PC Board (hardware) damage.
- The 20watt, 8 ohm speaker and more is recommended. If the power of speaker doesn't enough, the "distortion" may find when audio out.



## 4) TOUCH PANEL

- It's optional and shows relative function automatically after connect.
- Make sure (a) The panel is 3M Microtouch panel or compatible. (b) Connect to DP3 - Touch Panel port. (c) Touch Screen function in Game Setup B of Test/ Setup set to "Enable" to activate. (d) Power Off and On again to ensure the setup is available. The screen will show relative buttons and function this moment.
- Calibrate: Press [Test/ Setup] on the cabinet to go to "Test/ Setup Mode" and select "Touch Screen Calibrate". Touch a Cross symbol for two times to calibrate.


## 5) BILL ACCEPTOR (SERIAL TYPE)

- The game is available to use both pulse and serial type of Bill Acceptor.
- If use serial type of Bill Acceptor as JCM WBA/ UBA or compatible, adjust Dip Switch Dip\#1 to ON and link the connector of Bill Acceptor to DP2 - Bill Acceptor.


## 6) TICKET PRINTER AND SAS PROTOCOL

Both Ticket Printer (DP1) and SAS Protocol (CMS) are unavailable in the version, and supports in specific version only.

## 7) CONTROL PANEL



Establish above buttons on the panel. Refer the page of Connector Diagram.

- STOP1/ DOUBLE UP, STOP2/ HALF DOUBLE, STOP3/ RE-DOUBLE, STOP4 / BIG, STOP5 / SMALL
a. Stop the reel by [Stop1], [Stop2], [Stop3], [Stop4] and [Stop5].
b. Select Double-Up Game \& Mode by [Double Up], [Half D-UP] (Half Double) or [Re-Double], and Play by [Big] or [Small].
- START/ ALL STOP/ TAKE SCORE
a. Begin the game and again to stop all reels.
b. Take winning score after won.
- BET: To bet one credit per push for each select line.
- MAX BET: To wager max value of bet and start the game.
- HELP: Check last game and game features before the player bets.


## 8) POWER ON AND CHECK

- After you do all of above, please power on the game. Check +5 V DC on main PCB side. The voltage between +4.95 to 5.05 V DC is good.
- Press [Test/ Setup] on the cabinet to go to "Test/ Setup Mode".
- Refer Page 4 to 7 of "Test/ Setup Mode" to set each setting.
- Also, check each function and movement in Test/ Setup Mode. (All buttons \& lamps, TV size and color adjustment ... etc.)
- Please refer to page 11 of "Error" or "Troubleshooting" if you have any problems or malfunctions.


## TEST AND SETUP

If you need to check the condition of the game circuitry, controls or set system value, you can use the Test/ Setup Mode. Power ON and Press [Test/ Setup] key will go to the mode, as right.

- Moving the bar by pressing [Stop1] button. After choosing one of the contents with the bar, press [Stop5] to enter.
- Press [Start] to exit and back to game mode of main screen. In the case, the value you adjusted would available instantly, which don't necessary to turn off the power.


## 1) SCREEN TEST

- Use this screen to check the color of monitor and the size of pictures.
- The color bands in the center should be Red, Green, Blue and White from left to right.
- The Cross Hatch test pattern has a white grid on a black background. The check as follows:
- The grid line should be straight, and the lines should not have excessive pincushion or barrel distortion.
- "Out" line of grid line is same size as "Out" line of game screen, which should able to be seen without overflow of grid lines on screen.
- If the screen does not match above description, adjust the monitor as
 described in the monitor's manual.
- Press [Start] button to back main menu.


## 2) SWITCH AND BUTTONS TEST

Use this screen to check the buttons and switch in this game.

- To check the functioning of each button and switch, activate it and watch the corresponding "OFF" letters change to "ON". If the "ON" and "OFF" letters don't appear correctly, check the hardness connections and switches.
- Press [Start] button to back main menu.


## 3) OUTPUT TEST

Use this screen to check the lamp of buttons in this game.

- To check the functioning of each output, including Counters and lamp of button. Press [Stop1] to move and press [Stop5] to test as watch corresponding lamp ON.
- Counters, Bill Inhibit, Coin Inhibit and HP Full Out are to test the action, no lamp.
- Press [Start] button to exit.



## 4) SOUND TEST AND VOLUME SETUP

Use this screen to check all game sounds and setup the volume as soft volume control.

- Adjust the volume by pressing [Stop1] to decrease and [Stop2] to increase.
- Choose a sound by pressing [Stop3] button (previous) or [Stop4] button (next), and the machine will make a sound in the moment.
- Press [Start] button to back main menu.


## 5) GAME SETUP A

The setup items are important and operated by important person as owner only. The password is necessary before enter the screen of Game Setup A. The default value is 111111 (six 1) and enable to change in same password screen.
[Stop1] button for 1 ;
[Stop4] button for 4;
[Stop2] button for 2; [Stop3] button for 3; [Stop5] button for 5;

When the password input with correct, "OK!" is shown on the screen. To change new password, press [Max Bet] button and input new password as you want. Or, press [Start] button to enter 'Game Setup A'. Use the screen to manually adjust the game setting.

- Moving the bar by pressing [Stop1] button. Select the setting value by
 pressing [Stop5] button.
- Press [Start] button to back main menu. In the case, the value you adjusted would available instantly, which don't necessary to turn off the power.

| CONTENTS | SETTING SELECTION (Underline item is default) |
| :---: | :---: |
| COIN | Disable, 1, 2, 5, 10, 20, 25, 50, 75, 100, 200, 300, 500, 1000 |
| KEYIN | Disable, 1, 2, 5, 10, 20, 25, 50, 75, 100, 200, 300, 500, 1000 |
| PAYOUT | Disable, 1, 2, 5, 10, 20, 25, 50, 75, 100, 200, 300, 500, 1000 |
| KEYOUT | Disable, 1, 2, 5, 10, 20, 25, 50, 75, 100, 200, 300, 500, 1000 |
| BILL IN | Disable, 1, 2, 5, 10, 20, 25, 50, 75, 100, 200, 300, 500, 1000 |
| MIN. BET | 10, 20, 40, 60, 80, 100 |
| MAX. BET | 100, 200, 300, 400, 500 |
| WIN RATE | 90, 91, 92, 93, 94, 95, 96, 97, 98 |
| GAME LIMIT | 5000, 10000, 20000, 30000, 40000, 50000 <br> 60000, 80000, 100000, 150000, 200000, 300000, 500000 |
| WIN RATE WAVE | NORMAL, HIGH |
| DOUBLE FUNCTION | ENABLE, DISABLE |
| RE-DOUBLE | ENABLE, DISABLE |
| HALF-DOUBLE | ENABLE, DISABLE |
| DOUBLE RATE | 91, 92, 93, 94, 95, 96, 97, 98 |
| DOUBLE LIMIT | 5000, 10000, 20000, 30000, 40000, 50000, 60000, 80000, 100000 |
| MIN. JP BET | 200/120/80/40, 100/60/40/20 |

a. Coin: Adjust how many credits per insert coin. 'Disable’ set the function is unavailable.
b. Keyin: Adjust how many credits per Keyin. 'Disable’ set the function is unavailable.
c. Payout: Adjust how many credits per pay coin. ‘Disable’ set the function is unavailable.
d. Keyout: Adjust how many credits per pay Step when Keyout. ‘Disable’ set the function is unavailable.
e. Bill In: Adjust how many credits per Bill signal. 'Disable’ set the function is unavailable.
f. Min Bet: Adjust how many min bets to start the game.
g. Max Bet: Adjust how many max bets can bet at one play.
h. Win Rate: Adjust total rate \% of game.

The win Rate is calculated and defines as follows:
$\underline{\text { Win Rate }=\text { Total Won Score } / \text { Total Played Score }}$
Since this is quite different from some games, which defined the rate as "Coin Out" divided by "Coin In" (Usually call Payout Rate). You shouldn't set the win rate at the same value used in the games. In our experience, the ideal Win Rate is $94 \%$.
Please don't RESET except necessary. To stabilize the rates, the game should operate a period (more long, more steady) for the balance as setup.
i. Game Limit: Adjust how many credits game can hold.
j. Win Rate Wave: It's to assign the prizes and rate. Big wave has more big prizes and focus more win or lose. Small wave has more small prizes and rate with more steady.
k. Double Function: Play D-Up game when Main Game won. The play score in D-Up is winning score in main game.

1. Re-Double: The play score in Double Up is twice winning score in main game.
m. Half Double: The play score in Double Up is a half of winning score in main game.
n. Double Rate: The rate of D-Up game and defines as Win Rate.
o. Double Limit: To limit the winning score in Double Up. The system will take the score automatically when winning score is over Double Limit.
p. Min. Jackpot Bet: Min Bet to win the Jackpot.

| MIN. BET | Set \#1 | 100 | 60 | 40 | 20 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Set \#2 | 200 | 120 | 80 | 40 |
| JACKPOT <br> AVAILABLE | Jackpot 1 |  |  |  |  |
|  | Jackpot 2 | Jackpot 2 |  |  |  |
|  | Jackpot 3 | Jackpot 3 | Jackpot 3 |  |  |
|  | Jackpot 4 | Jackpot 4 | Jackpot 4 | Jackpot 4 |  |

## 6) GAME SETUP B (NO PASSWORD)

The setup items are general ones and can operate by the staff in field. The password is unnecessary for the function of Game Setup B. Use the screen to manually adjust the game setting.

| CONTENTS | SETTING SELECTION (Underline item is default) |
| :--- | :--- |
| TOUCH SCREEN | ENABLE, DISABLE |
| DEMO MUSIC | ENABLE, DISABLE |
| DEMO SHOW | ENABLE, DISABLE |


| KEYOUT TYPE | ZERO, REST |
| :--- | :--- |
| MAX. PAY TOKENS | 200, 300, 400, 500, 1000, FREE |
| BILL INHIBITION | $\underline{\text { N.C., N.O. }}$ |
| HOPPER SW TYPE | $\underline{\text { N.C., N.O. }}$ |
| AUTO PLAY | $\underline{\text { ENABLE, DISABLE }}$ |
| LINE | $10, \underline{20}$ |
| BILL ACCEPTOR | JCM, ICT, MEI |
| COLLECT BUTTON | $\underline{\text { PAYOUT, KEYOUT, DISABLE }}$ |

a. Touch Screen: To enable or disable Touch Function.
b. Demo Music: To enable or disable demo music.
c. Demo Show: To enable or disable demo function.
d. Keyout Type: Adjust Keyout should take to 0 (zero) or under one Keyout value (rest).
e. Max Pay Tokens: Adjust max coins are paid, which to avoid the hopper empty.
f. Bill Inhibition: For Bill Acceptor. N.C. - Normal close (low), N.O. - Normal Open (Hi).
g. Hopper Sw. Type: For Hopper. N.C. - Normal close (low), N.O. - Normal Open (Hi).
h. Auto Play: To enable or disable play automatically.
i. Line: Set how many active lines for playing.
j. Bill Acceptor: For serial port of Bill Acceptor.
k. Collect Button: Set the function of Collect button on screen.

1) Payout: For Hopper. Select this one if the machine operates by Hopper and Coin payout. And, Payout (Collect) Button on Control Panel link to Payout (36pins, Side A \#21).
2) Keyout: For Printer. Select this one if the machine pay out by Printer paper (ICT GP58CR). And, Payout (Collect) Button on Control Panel link to Keyout (36pins, Side B \#21).
3) Disable: For Hand pay. Select this one if the machine pay out by the staff. And, Payout (Collect) Button on Control Panel is unnecessary to install.

## 7) TOUCH SCREEN CALIBRATE

The item appears only when Touch Panel was connected. It's to calibrate the touch position. Enter the item and touch a Cross symbol for two times to calibrate.

## 8) DIP SWITCH FUNCTION

Except Screen Setup, some of functions are defined and setup from Dip Switch of PC Board, as follows:

| DIP SWITCH |  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BILL ACCEPTOR | Serial | ON | JCM bill acceptor or compatible |  |  |  |  |  |  |
|  | Pulse | OFF |  |  |  |  |  |  |  |
| DOOR OPEN | N.C. |  | ON |  |  |  |  |  |  |
|  | N.O. |  | OFF |  |  |  |  |  |  |
| HOPPER PULSE | 30 ms |  |  | OFF | OFF |  |  |  |  |
| (Milli-Second) | 40 ms |  |  | ON | OFF |  |  |  |  |
|  | 50 ms |  |  | OFF | ON |  |  |  |  |
|  | 60 ms |  |  | ON | ON |  |  |  |  |

## BOOK

Press [Book] button to enter Book screens. Press [Stop5] to enter next page and [Stop1] button for previous page. Press [Start] button to back normal game.

## First Page



The page shows the records from last "check out".
Total Times: Total played times.
Total Played: Total played score.
Total Won: Total won score.
"Check Out": To clear this page. Please refer Page 9, Reset function for Clear Current Record Only.

The Score column of top form shows the score of Coin, Payout, Keyin, Keyout, Bill In and Net.
The Counter column shows "System Counters". It didn't able to clear by anyway and affected by Reset function, which to compare relatively with machine's mechanical counters when "check out each time".
(Total/ Main/ Double) Played \& Won Played scores and Won scores in Total/ Main game/ Double game.
(Total/Double) Play Times \& Win Times Played times \& Win times in Total/Double game.

Power Times: The times of Power ON.

Third Page


The page shows win times and score of Bonus.
(Super Lucky Reel/ Buoy Bonus \& 4-Levels Jackpot/ Free Play) Times Win times of Super Lucky Reel, Buoy Bonus \& 4-Levels JP \& Free Play.
(Super Lucky Reel/ Buoy Bonus \& 4-Levels Jackpot/ Free Play) Score Win score of of Super Lucky Reel, Buoy Bonus \& 4-Levels JP \& Free Play.

## Fourth \& Fifth



Both pages show win times of each prize.

## Sixth Page



The page shows last 10 played records. (Press [Stop2] to move the record and [Stop3] to View the record)

## RESET (Clear)

## - CLEAR ALL

Turn off the power of machine. Turn on [Book] and [Setup] Key simultaneously and then turn on the power of machine. (If [Book] or [Setup] make by the buttons, you should press without release.)

The screen will show "System Reset", which means all of Book data have cleared and game setup values have changed to default value. ("System Counters" in the second page of Book remain unchanged and cleared to zero.).

- RESET button on the board is unavailable in current version.
- You should do Reset if you change the Master Rom (Rom_1) or after changed the Win Rate.


## - CLEAR CURRENT RECORD ONLY (CHECK OUT)

Turn on [Book] Key (or press [Book] button) to enter first page of Book for Current Record. Press [Stop2] and [Stop3] button simultaneously to clear the data of this page. The total records (second page) for from initial operation remain unchanged by this function.

## MACHINE LAYOUT



## ICT BILL ACCEPTOR - CONNECTOR - CN\#1

```
PIN#1 (Red) - To PCB +12V
PIN#2 (Orange) - To PCB GND
PIN#3 (Yellow) - To PCB +12V
PIN#4 (Green) - To PCB BILL GND (36 Pin Side A, #34)
PIN#5 (Blue) - To PCB BILL (36 Pin Side A, #15)
PIN#6 (Purple) - Unused
```


## ERROR MESSAGE

| MESSAGE | DESCRIPTION |
| :--- | :--- |
| System Error | The system may a little confusion instantly. Please do Reset function. |
| Coin Jam | Power off. Remove the jammed coin from coin selector and power on <br> again. For general error (without jam), press directly "Reset Error" <br> button. |
| Hopper Jam | Power off. Remove the jammed coin from the hopper and power on <br> again. For general error (without jam), press directly "Reset Error" <br> button. |
| Hopper Empty | Hopper without Coins/Tokens. Please power OFF and insert <br> Coins/Tokens then power ON again. |

## TROUBLESHOOTING

| SITUATION | FIX |
| :--- | :--- |
| Coin Error | Check coin switch, coin selector and wire wrong. |
| No sound | - Check the wire of (R+:R-) and (L+:L-) of J3. Two Speaker GND <br> need to be wired separately and don’t use same ground. <br> Check "Volume setup" on setup page whether close or not. |
| The counter doesn’t work | Check the +12V DC (or +5V DC) line of the counter wire. The wires <br> sometimes are not linked together 10 pin edge connector side of <br> hardness. Please re-wire. |
| Malfunction of the button, <br> switch and lamps | Check the GND wire. The button, Switch GND has to wire with <br> common GND. Or, check micro switch of button is too old or dirty and <br> the lamp whether out of order. |
| Coin or Keyin with wrong <br> value | - Check Coin and Keyin wire. Keyin SW port may wire to Coin SW <br> or Bill Acceptor and so on. Please re-wire to correct port. <br> - Check Game Setup. |
| Test/ Setup unavailable | Check connection of GND wire between "Test/ Setup" line and <br> common GND line. The GND wire needs to connect with other <br> common GND line. |
| The Monitor unregulated <br> or Wavy | Adjust the brightness, size and so on as described in the monitor's <br> manual. |
| Touch Screen doesn't react | - Make sure the panel is 3M Microtouch panel or compatible, and <br> - Connect to DP3 - Touch Panel port. <br> Check "Game Setup B" of Test/ Setup Mode", Touch Screen set to <br> "Enable" item. And then, power Off and On again to ensure the <br> setup is available. |

## CONNECTOR DIAGRAM

LOHAS (Standard)

| COMPONENT SIDE A | $\begin{gathered} 36 \\ \text { PIN } \end{gathered}$ | SOLDER SIDE B |
| :---: | :---: | :---: |
|  | 1 |  |
|  | 2 |  |
|  | 3 |  |
| Stop 1 | 4 |  |
| Stop 2 | 5 |  |
| Stop 3 | 6 |  |
| Stop 4 | 7 |  |
|  | 8 |  |
| Stop 5 | 9 |  |
| Bet | 10 |  |
| Max. Bet | 11 |  |
| Attendant | 12 |  |
| Start | 13 |  |
| Help | 14 |  |
| Bill | 15 |  |
| Clear Error | 16 |  |
|  | 17 |  |
| Coin | 18 | Keyin |
| Door Alarm | 19 |  |
| Book | 20 | Test/ Setup SW |
| Payout | 21 | Keyout SW |
| HP Full SW | 22 | Hopper Coin SW ${ }^{(1)}$ |
| Coin Counter | 23 | Attendant Lamp |
| Keyin Counter | 24 |  |
|  | 25 |  |
| Bill Counter | 26 |  |
| Payout Counter | 27 |  |
| Keyout Counter | 28 | Door Open Lamp |
| Stop 1 Lamp | 29 | Bet Lamp |
| Stop 2 Lamp | 30 | Max Bet Lamp |
| Stop 3 Lamp | 31 | Start Lamp |
| Stop 4 Lamp | 32 | Help Lamp |
| Stop 5 Lamp | 33 | Max. Win Lamp |
| Bill Inhibit | 34 | Coin Inhibit |
| HP Full Out | 35 |  |
| GND | 36 | GND |


| COMPONENT <br> SIDE A | 10 <br> PIN | SOLDER <br> SIDE B |
| ---: | :---: | :--- |
| GND | 1 | GND |
| GND | 2 | GND |
| +5 V | 3 | +5 V |
| +5 V | 4 | +5 V |
| +12 V | 5 | +12 V |
|  | 6 |  |
| ${ }^{(2)}$ Hopper Control | 7 | HP VCC ${ }^{(3)}$ |
|  | 8 |  |
| GND | 9 | GND |
| GND | 10 | GND |

${ }^{(1)}$ Hopper Coin SW: Out signal for Hopper
${ }^{(2)}$ Hopper Control: In signal for Hopper
${ }^{(3)} \mathrm{HP}$ VCC $-(\mathrm{DC}+12 \mathrm{~V})$


- Clear Error button: To correct instantly the message of "Coin Error", "Coin Jam" and "Hopper Jam" etc after fix.

