

OPERATOR'S MANUAL



- ▶ READ THIS MANUAL BEFORE OPERATING THE MACHINE.
- **▶ KEEP THIS MANUAL FOR YOUR REFERENCE.**

ISO 9001 CERTIFIED ORGANIZATION





LAI GAMES

Correspondence regarding this machine should be addressed to your closest *LAI GAMES* office, or *LAI GAMES* Distributor. For contact details, refer to the back page of this manual.

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LAI GAMES NOTES

Dear Customer,

Keep up-to-date with any new Software release or Service Bulletins for this Game.

Check our Website at <u>www.laigames.com</u> and click on Product Support, here you will find links to all the Bulletins and Software Updates to keep your game in top working order.

You can also subscribe to our Service Bulletin mail listing at support@mleisure.co.id.

Thanks,







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SAFETY PRECAUTIONS

The following safety precautions and advisories are used throughout this manual and are defined as follows.

* WARNING! *

Disregarding this text could result in serious injury.

* CAUTION! *

Disregarding this text could result in damage to the machine.

* NOTE! *

■ An advisory text to hint or help understanding.



BE SURE TO READ THE FOLLOWING



* WARNING! *

<u>Always</u> turn **OFF** Mains AC power and unplugged the game, before opening or replacing any parts.

<u>Always</u> when unplugging the game from an electrical outlet, grasp the plug, not the line cord.

<u>Always</u> connect the Game Cabinet to grounded electrical outlet with a securely connected ground line.

<u>**Do Not**</u> install the Game Cabinet outdoors or in areas of high humidity, direct water contact, dust, high heat or extreme cold.

<u>**Do Not**</u> install the Game Cabinet in areas that would present an obstacle in case of an emergency, ie. near fire equipment or emergency exits.

* CAUTION! *

<u>Always</u> use a Digital Multimeter, logic tester or oscilloscope for testing integrated circuit (IC) logic PC boards. The use of a continuity tester is not permitted.

<u>**Do Not**</u> Connect or disconnect any of the integrated circuit (IC) logic PC boards while the power is **ON**.

Do Not use any fuse that does not meet the specified rating.

<u>**Do Not**</u> Subject the game cabinet to extreme temperature variations. Reliability of electrical components deteriorates rapidly over 60 °C.





MACHINE INSTALLATION and INSPECTION

When installing and inspecting "Squid Spies", be very careful of the following points and pay attention to ensure that the players can enjoy the game safely.

- "Squid Spies" is shipped from the factory in separate parts and requires assembling. Please refer to the separate Squid Spies Assembly Manual for details.
- Be sure to turn the power **OFF** before working on the machine.

* WARNING! *

<u>Always</u> Turn **OFF** mains power before removing safety covers and refit all safety covers when work is completed.

- Make sure the power cord is not exposed on the surface (floor, ground, etc.) where people walk through.
- Always make complete connections for the integrated circuit (IC) logic PC Boards and other connectors. Insufficient insertion can damage the electrical components.

* CAUTION! *

<u>**Before**</u> switching the machine on be sure to check that it has been set on the correct voltage for your area!

<u>Refer</u> to the mains voltage adjustment section of this manual on page 34. Machines are normally shipped on 220V AC unless otherwise specified.

- Only qualified personnel should inspect or test the integrated circuit (IC) logic PC Boards.
- If any integrated circuit (IC) logic PC Boards should need servicing. Please contact the nearest *LAI GAMES* distributor. (*Refer to the back page of this manual*)





INTRODUCTION

CONGRATULATIONS! You have just bought the "Squid Spies", another great product from LAI Games. "Squid Spies" is a thrilling ball throwing game with double points. "Squid Spies" features an impressive cabinet with colorful graphics and 3d submarine display. With a simple but exciting game play and the chance to collect double points, we feel that the "Squid Spies" will make a great addition to any location, on or off site.

I hope you take the time to read this manual and learn about the many other features and user-friendly adjustments that can be made to "fine-tune" the game for maximum earning potential.

DESCRIPTION

■ The "Squid Spies" is a one player, ticket redemption game, where players attempt to throw as many balls as they can into the targets to collect points. The more points they collect, the more tickets they won.

PACKAGING

DELIVERY

■ At delivery, the machine should arrive in good condition. To move the packaged machine for transport or placement, use a forklift and take care not to hit the package or stack heavy objects on top, as this may cause damage to the machine.

* NOTE! *

■ Squid Spies is shipped from the factory in separate parts and requires assembling. Please refer to the separate *Squid Spies Assembly Manual* for details.

CONTENTS

- The "Squid Spies" cabinet
- Keys: 2 x coin door keys
 - 2 x back door keys
 - 2 x front door keys
 - 2 x ticket door keys
- Operator's manual
- Assembly manual
- IEC Power Cord (In cash box)
- Accessories (In cash box)





SPECIFICATIONS

DIMENSIONS

Weight: 435 kg (959lb)
Height: 1958mm (77-7/8")
Width: 876mm (34-1/2")
Length: 1800mm (70-7/8")

■ Power: Maximum 400 W – (220V @ 2 A) (120V @ 3.4 A) Average 220 W – (220V @ 1 A) (120V @ 1.8 A)

ELECTRIC SUPPLY

■ The game has the option to operate on, 110V, 120V, 220V or 240V AC 50/60Hz single phase mains electric supply.

The supply must be a three wire grounded supply.

* CAUTION! *

<u>**Before**</u> switching the machine on be sure to check that it has been set on the correct voltage for your area!

<u>Please</u> Refer to the mains voltage adjustment section of this manual on page 34. Machines are normally shipped on 220V AC unless otherwise specified.

LOCATION REQUIREMENTS

■ Ambient temperature: between 5°C and 40°C.

Ambient humidity: Low
 Ambient U.V. radiation: Very low
 Vibrations level: Low



HOW TO PLAY

THE PLAYER'S AIM IS TO COLLECT POINTS BY THROWING THE BALLS INTO THE TARGETS

- Insert coin(s) for credit. (*The exact amount of coins per play is dependant on Program settings P1 and P2. See program settings, page 12 for details*).
- Press the Start button to start the game. The ball gate will open and balls will be released to the player.
- Throw as many balls as you can into the targets in the amount of time given to collect points. Try to get the balls into the flashing targets to get double points. For each ball that went through a target, players will get 5 points. For each ball that went through a flashing target, players will get 10 points.

* NOTE! *

The maximum number of points a player can collect per play is 999. When that value is reached in a play, the score will stop incrementing.

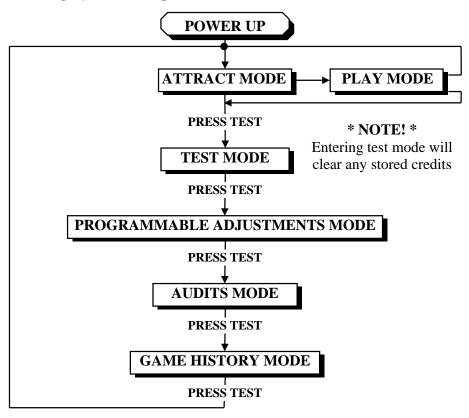
■ When the time is up, the ball gate will close and tickets will be paid according to the points collected. The exact number of points per ticket is dependant on program settings P5. (The minimum and maximum number of tickets paid out per game depends on the program settings P6 and P7. See program settings, page 12 for details).



OPERATION

The "Squid Spies" has 6 operational modes: Attract mode, Play mode, Test Mode, Programmable Adjustments mode, Audits mode and Game History mode.

OPERATIONAL DIAGRAM



ATTRACT MODE

■ The Attract mode provides a light and sound display, while the game is not being played. This feature is to attract potential customers to play the game. The attract mode sound can be turned on and off.

(Refer to programmable adjustment P10, see page 12 of this manual).

PLAY MODE

■ The Squid Spies has two play modes. The Standard *Coin Play* mode, where a coin, or coins are inserted. Or *Free Play* where no coins are necessary.

COIN PLAY

■ The *Coin Play* mode is entered from Attract mode, by inserting coins in any of the two coin slots on the front of the machine cabinet, then following the instructions in the "How to Play" section of this manual.

FREE PLAY

- The free play mode is entered from attract mode by holding the Service button for longer than five second, FrE will be displayed on the 3-digit LED display.
- For a single free game, just press the Service button once. When issuing single free games in this manner, tickets will be dispensed as normal.





TEST MODE

The Squid Spies Test mode has *three test configurations* allowing you to test the function of the Sound, LED & Credit Displays, the Game Switches, all game lamps, and the ball gate. (*Refer to the Test Mode Diagram on next page*).

The Test mode is also used for Clearing Game Errors. If there is an active error, its code will be displayed. To try to clear the error code, press the red Test button once. The error can be bypass by quickly pressing the red Test button twice. (For Game Errors codes, refer to page 22).

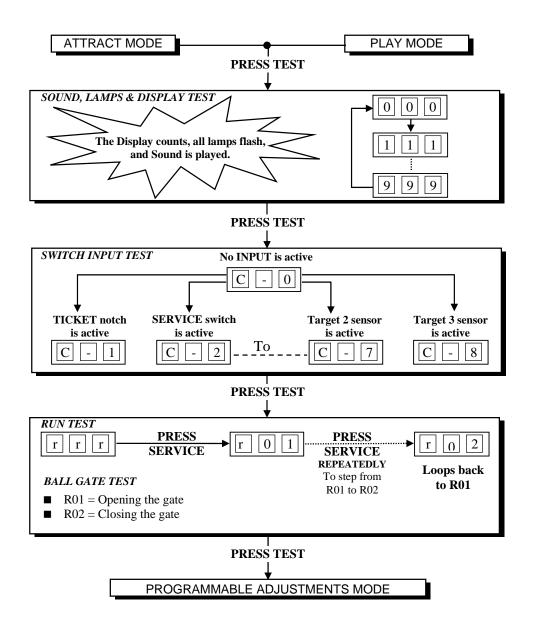
* NOTE! *

- Entering Test Mode will CLEAR any CREDITS remaining in the game.
- If during test mode no ADJUSTMENTS or actions are made to the game for approximately four minutes, it will automatically RETURN to Attract Mode.





TEST MODE DIAGRAM





SOUND, LAMPS & DISPLAY TEST

■ ENTER The Sound, Lamp & Display test is entered from Attract mode by pressing the Test button once.

* NOTE! *

- If there is an active error displayed, press the red Test button once to try and clear the error.
- If the error code will not clear, it can be bypass by quickly pressing the red Test button twice.

DURING THE TEST:

- o Game music will be played.
- o The Time Indicator lamps will light on and off in sequence.
- o The double point lamps will flash on and off.
- o The Credit display will count from 000 to 999 and then repeat.
- o The target lamps will light on and off in sequence.
- o The Start button lamps will flash on and off.
- **EXIT** The Sound, Lamp & Display test is exited by pressing the Test button. The next test will be switch test.

SWITCH TEST

■ ENTER The Switch Test can be entered by pressing the Test button once while in the Sound, Light & display test or by pressing the Test button twice while in Attract mode, will be displayed on the 3-digit display where 'XX' is a number representing the switch that is active.

■ TESTING THE GAME SWITCHES

All game switches have a code from C1 to C8 as tabled below. By activating any of the switches, their code will be displayed on the 3-digit display. If no switches are active then 🗀 🗓 will be displayed.

CODE	DISPLAY	SWITCH FUNCTION	SWITCH LOCATION
C0	C - 0	No Switch Active	-
C1	C - 1	Ticket Notch is Active	Ticket Door
C2	C - 2	Service Switch is Active	Service Bracket
C3	C - 3	Start button is Active	Player Control panel
C4	C - 4	Coin 1 Switch is Active	Coin Door
C5	C - 5	Ball Gate Switch is Active	Ball Gate
C6	C - 6	Target 1 sensor is Active	Rear Cabinet
C7	C - 7	Target 2 sensor is Active	Rear Cabinet
C8	C - 8	Target 3 sensor is Active	Rear Cabinet

Normal condition for the game is $\Box \Box \Box$, no switches are active.

* NOTE! *

■ Several switches can be simultaneously activated in Switch test. The display will then consecutively show their codes, indicating which switches are active. However, it is much easier to test the game switches individually.

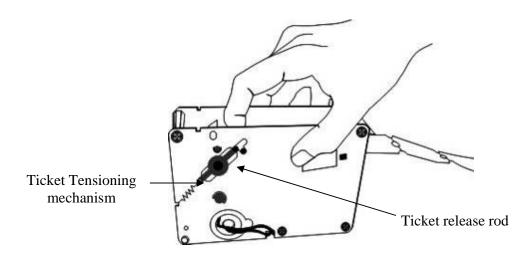




■ TICKET DISPENSER NOTCH

(If optional Ticket or Capsule dispenser is fitted)

The Ticket Notch Switch (C1) can be activated or deactivated from the Ticket Feed Button on the Ticket Dispenser PCB or by manually pushing the tickets from the ticket holder through the dispenser after pulling the ticket release rod upwards



* NOTE! *

- For more information on the servicing and testing the ticket or Capsule dispenser please look at the Dispenser Reference guide.

 (Only supplied if Optional Kit is fitted)
- **EXIT** The Switch Test is exited into Run Test Mode by pressing the Test Button once.





RUN TEST

- ENTER The Run Test can be entered by pressing the Test button once while in the Switch Test or by pressing the Test button three times while in Attract mode, 「「「」」 will be displayed on the 3-digit display.
- **SELECT** The Service button is pressed once to start the run test mode. The credit display will show 「□ 1, opening ball gate. The Service button is then pressed again to close the gate, showing 「□ 2 on the 3-digit display.
- EXIT The Run Test is exited into Programmable Adjustments Mode by pressing the Test button once.



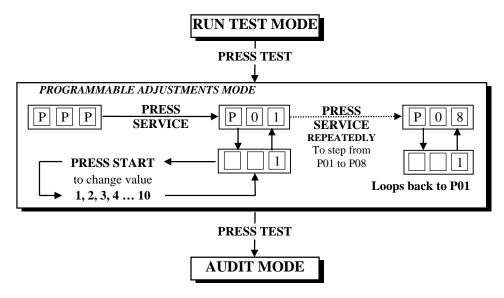


PROGRAMMABLE ADJUSTMENTS MODE

The Squid Spies has eight programmable adjustments that can be changed in this mode. They are P01 to P08 and their codes and values are displayed alternatively during the adjustment procedure.

Example: Code **P01** (*Number of Coins Mech 1*) is displayed as $\boxed{P01}$ and its value of **1** as $\boxed{1}$ on the 3-digit display.

PROGRAMMABLE ADJUSTMENTS MODE DIAGRAM



PROGRAMMABLE ADJUSTMENTS PROCEDURE

- ENTER The Programmable Adjustments Mode can be entered by pressing the Test button once while in the Run Test or by pressing the Test button four times while in Attract mode, 「PIPIP will be displayed on the 3-digit credit display.
- **SELECT** The green Service button is pressed to step through each of the adjustment configurations, starting from the PPP display, P01 being the first step, continuing through to P08, and then looping again from P01 to P08 until the mode is exited.
- CHANGE The Start button is pressed to change the displayed value. The value can only be stepped up by using the Start button, but the value will loop back to its minimum value the next step after its max value.

* NOTE! *

- Certain program adjustments have a fast adjustment feature. By holding the Start button down, the values step through quicker.
- **EXIT** The Programmable Adjustments mode is exited into Audits mode, by pressing the Test button once.





PROGRAMMABLE ADJUSTMENTS QUICK REFERENCE TABLE

CODE	PROGRAMMABLE ADJUSTMENTS	OPTIONAL VALUES	DEFAULT SETTINGS	FEATURES
P01	1 – 10	1, 2, 310	1	Coin Slot 1 – Coins / Credit
P02	1 – 10	1, 2, 310	1	Coin Slot 1 – Games / Credit
P03	ON or OFF	ON or OFF	ON	Attract Mode Sound
P04	20s - 90s	20, 21, 22,90	45	Game Duration
P05	5 – 10	5, 6,710	5	Number of Points / Ticket
P06	0 – 10	0, 1, 210	6	Minimum Tickets payout
P07	OFF, P06 – 10	OFF, P06,10	12	Maximum Tickets payout
P08	1 – 5	1, 2, 35	1	Flashing Target Reposition Time
P09	ON – OFF	ON,OFF	ON	Ticket Option
P10	0 - 5 s	0,1,2,3,4,5 s	0	Ball gate time out

PROGRAMMABLE ADJUSTMENTS DETAILED

■ P01 = COIN MECH 1: NUMBER OF COINS PER CREDIT (Default 01) (Adjustable 1 – 10)

This sets the *number of coins* that need to be inserted into coin mechanism 1, for each credit. It can be set to either of 1, 2, 3... to 10 coins for one credit.

■ **P02** = **COIN MECH 1: NUMBER of PLAYS PER CREDIT** (Default 01) (Adjustable 1 – 10)

This sets the *number of games* for each credit inserted into coin mechanism 1. It can be set to either of 1, 2, 3... to 10 plays for each credit.

■ P03 = ATTRACT MODE SOUND

(Default ON) (Adjustable ON or OFF)

This adjustment turns the *attract mode sound* **ON** or **OFF**. This is the sound and music that the game generates to attract customers when it is not being played. The music will cycle approximately every 3 minutes.

■ P04 = GAME DURATION

(Default 45s) (Adjustable 20s – 90s)

This variable sets the *number of seconds* the game can be played per play. It is adjustable from 20s to 90s per play.

■ P05 = NUMBER OF POINTS PER TICKET

(Default 5) (Adjustable 5 - 10)

This setting sets the *number of points* a player must collect to win ONE ticket. The adjustment values are from 5 to 10.

■ P06 = MINIMUM TICKETS PAYOUT

(Default 6) (Adjustable 0 - 10)

This variable sets the *minimum number of tickets* the machine dispenses per play, regardless to how many points a player has collected. It is adjustable from 0 to 10.

■ P07 = MAXIMUM TICKETS PAYOUT

(Default 12) (Adjustable OFF, P06 – 100)



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This adjusts the *maximum number of tickets* paid out per play, regardless to how many points a player has collected. The minimum value of this setting is the value of program setting P06. When sets to OFF, the machine will have no maximum value for dispensing tickets and will dispense tickets according to the points a player has collected and program setting P05.

* NOTE! *

- The maximum number of points a player can collect per play is 999. When that value is reached in a play, the score will stop incrementing.
- If P06 is set to 0, then the minimum value of P07 is 1.

■ P08 = FLASHING TARGET REPOSITION TIME

(Default 1) (Adjustable 1 - 5)

This adjusts *how long a target is flashing* before the flashing moves to another targets. The value of 1 is the longest (approx. 3 seconds), while 5 is the shortest (approx. 0.25 seconds). In the last ten seconds of a play, all three targets will flash.

■ P09 = TICKET OPTION

(Default ON) (Adjustable OFF – ON)

This adjusts *how the ticket is dispense* the default set to ON this mean machine will able to dispense ticket, when set to OFF machine will not be able to dispense any ticket at all.

■ P10 = BALL GATE TIME OUT

(Default 0) (Adjustable 0 - 5 s)

This adjust *how the ball gate time out closest before the end of a game* the default set to 0 this mean machine will close the gate at the end of a game, the value of 1s is the shortest gate closest and the longest is 5 s before the game ends.





AUDITS MODE

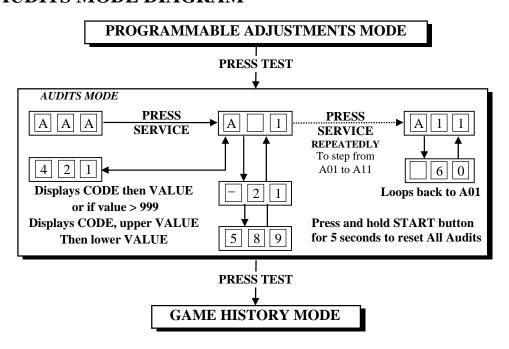
The Audits Mode allows the operator to view statistics in all areas of the Game Play. This enables the operator to make calculated adjustments and "Fine Tune" the machine to maximize earning potential. The Audits mode stores bookkeeping of the games processed since the last game audits reset. While in this mode, the game audits can also be reset to zero.

The Squid Spies has eleven Audits that can be viewed in this mode. They are A01 to A11 and their codes and values are displayed alternatively during the Audit Mode.

Example: Code **A01** will be displayed as A and a value of **421** as **421** on the 3-digit display.

Or it will display large values like **21589** as **-21** and **589** on the 3-digit display.

AUDITS MODE DIAGRAM



* NOTE! *

- For Audit values that are greater than 999 the audits' values will be displayed in two steps.
- The first number, which is displayed as [] 1, has leading dash symbols (-). The number displayed here must be multiplied by 1,000 and added to the second value.
- The second value is displayed as 589, which has no dash symbols.
- In this example the final value is $21,589 \{(21 \times 1,000) + (589)\}$.





AUDIT PROCEDURE

- ENTER The Audits mode is entered from Programmable Adjustments mode by pressing the Test button once or from Attract mode by pressing the Test button five times. AAA will be displayed on the 3-digit display.
- **SELECT** The green Service button is pressed for advancing each step through the set of audits configurations, starting from the AAA display, A01 being the first step, continuing through to A11, and then looping again from A01 to A11 until the mode is exited.
- RESET The entire set of user audits can be reset during any of the audit configurations, by holding the Start button for longer than 5 seconds. The displays will be cleared while still holding the button pressed and will return to the same audit step after releasing the button. The value of all audits will be reset to "00 000".
- **EXIT** The Audits mode is exited into Game History mode, by pressing the Test button once.

* NOTE! *

- <u>ALL</u> Audits will <u>STOP INCREMENTING</u> when the "Total Number of Games Played", audit A01, reaches 60,000.
- To restart the audits they must be reset to 00 000 by holding The Start button for longer than 5 seconds while in audits mode.





AUDITS QUICK REFERENCE TABLE

CODE	DISPLAY	AUDIT FUNCTION
A01	A - 1	Total Number of Games Played
A02	A - 2	Total Coins in Coin Mechanism 1
A03	A - 3	Total Number of Service Credits
A04	A - 4	Total Number of Balls Exit Through Target 1 (Flashing)
A05	A - 5	Total Number of Balls Exit Through Target 1 (Not Flashing)
A06	A - 6	Total Number of Balls Exit Through Target 2 (Flashing)
A07	A - 7	Total Number of Balls Exit Through Target 2 (Not Flashing)
A08	A - 8	Total Number of Balls Exit Through Target 3 (Flashing)
A09	A - 9	Total Number of Balls Exit Through Target 3 (Not Flashing)
A10	A 1 0	Total Number of Ball Gate Errors (Err4)
A11	A 1 1	Total Number of Target Sensor Errors (Err5)



AUDITS DETAILED

■ A01 = TOTAL NUMBER OF GAMES PLAYED

This Audit displays the *total number of Games Played* since the audits were last cleared.

* NOTE! *

- <u>ALL</u> Audits will <u>STOP INCREMENTING</u> when the "Total Number of Games Played", audit A01, reaches 60,000.
- To restart the audits they must be reset to 00 000 by holding The Start button for longer than 5 seconds while in audits mode.

■ A02 = TOTAL COINS IN COIN MECHANISM 1

This Audit displays the *total number of coins* inserted into coin mechanism 1 since the audits were last cleared.

■ A03 = TOTAL NUMBER OF SERVICE CREDITS

This Audit displays the *total number of Service Credits* since the audits were last cleared. This records the number of credits given by pressing the Service Button on the service panel.

■ A04 = TOTAL NUMBER OF BALLS EXIT THROUGH TARGET 1 (FLASHING)

This Audit displays the *total number of exiting balls passed through target 1* as the target flashed.

■ A05 = TOTAL NUMBER OF BALLS EXIT THROUGH TARGET 1 (NOT FLASHING)

This Audit displays the *total number of exiting balls passed through target 1* when the target is not flashing.

■ A06 = TOTAL NUMBER OF BALLS EXIT THROUGH TARGET 2 (FLASHING)

This Audit displays the *total number of exiting balls passed through target 2* as the target flashed.

■ A07 = TOTAL NUMBER OF BALLS EXIT THROUGH TARGET 2 (NOT FLASHING)

This Audit displays the *total number of exiting balls passed through target* 2 when the target is not flashing.

■ A08 = TOTAL NUMBER OF BALLS EXIT THROUGH TARGET 3 (FLASHING)





This Audit displays the *total number of exiting balls passed through target 3* as the target flashed.

■ A09 = TOTAL NUMBER OF BALLS EXIT THROUGH TARGET 3 (NOT FLASHING)

This Audit displays the *total number of exiting balls passed through target 3* when the target is not flashing.

■ A10 = TOTAL NUMBER OF BALL GATE ERRORS (ERR4)

This Audit displays the *total number of ball gate errors (ERR4)* occurred since the audits were last cleared.

■ A11 = TOTAL NUMBER OF TARGET SENSOR ERRORS (ERR5)

This Audit displays the *total number of target sensor errors (ERR5)* occurred since the audits were last cleared.

* NOTE! *

■ For more information on Error Codes [Err4] & [Err5] see page 22.

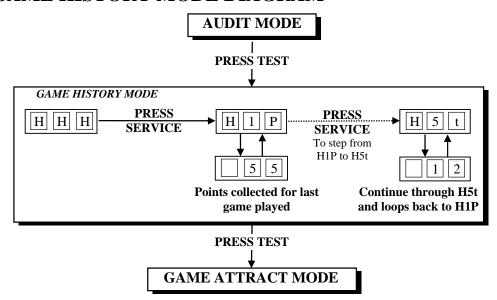


GAME HISTORY MODE

By using the Game History Mode the operator can view the results of the last five games played. This enables the operator to verify player's win results.

Example: The diagram below shows the game history for the very last game and 5th last game played. **H1P** displays the points collected by player for the very last game played. **H5t** shows the number of tickets paid out for the 5th last game played.

GAME HISTORY MODE DIAGRAM



* NOTE! *

■ Score Histories will be erased if the game is switched off then on. Empty score histories show as □□□ on the 3-digit display





GAME HISTORY PROCEDURE

- ENTER The Game History mode is entered from Audits mode by pressing the Test button once or from Attract mode by pressing the Test button six times. HHH will be displayed on the 3-digit display.
- **SELECT** The green Service button is pressed for advancing each step through the set of Game Histories, starting from the HHH display, H1P being the first step, continuing through to H5t, and then looping again from H1P to H5t until the mode is exited.
- EXIT The Game History mode is exited into Game Attract mode, by pressing the Test button once.

GAME HISTORY QUICK REFERENCE TABLE

CODE	DISPLAY	HISTORY RESULTS
H1P	H1P	Number of Points for Very Last Game Played
H1t	H1t	Number of Tickets for Very Last Game Played
H2P	H2P	Number of Points for 2 nd Last Game Played
H2t	H2t	Number of Tickets for 2 nd Last Game Played
НЗР	H3P	Number of Points for 3 rd Last Game Played
H3t	H3 t	Number of Tickets for 3 rd Last Game Played
H4P	H4P	Number of Points for 4 th Last Game Played
H4t	H4t	Number of Tickets for 4 th Last Game Played
H5P	H 5 P	Number of Points for 5 th Last Game Played
H5t	H 5 t	Number of Tickets for 5 th Last Game Played





ERRORS AND TROUBLESHOOTING

If the microprocessor detects any problems with the operation of the game, an Error will be displayed on the 3-digit display and the machine will play a voice message. "Please Call the Attendant". Some error Messages will only be displayed when test mode is entered. Errors are displayed on the displays as Errix, where 'X' is the error number, listed as follows:

ERROR CODE QUICK REFERENCE TABLE

CODE	ERROR DESCRIPTION	SOLUTION
Err1	TICKET DISPENSE ERROR Jammed tickets, no tickets or no ticket notch pulse for longer than 3 seconds.	Clear ticket dispenser jam or replenish tickets. After this, push Test button once to clear error.
Err2	COIN INPUT ERROR No coin switches are active for more than 5 seconds	Check coin switches for coin jam and clear the jam. Use the Switch Test mode to check coin switches. Adjust, and/or replace if necessary.
Err3	EEPROM ERROR Problem with on-board EEPROM	The main MCU is getting errors reading the EEPROM (24C16 IC on MCU). Send MCU PCB to the closest LAI Games distributor for repair.
Err4	BALL GATE ERROR Ball gate switch is not properly closed	Check ball gate switch for jam and clear the jam. Use Switch Test to check gate switch. Press Test button to clear the error and close the gate.
Err5	TARGET SENSOR BLOCKED Target sensor are blocked for longer than 3 seconds	Clear Blockage from between target sensors or test sensor using Switch Test.





TROUBLESHOOTING GAME ERRORS

■ CLEARING GAME ERRORS

Game errors can be cleared, by pushing the test button ONCE. The game will try and check if the error is fixed. If the reason for the error is fixed, the game will continue as normal. If the error is not fixed, the error will remain on the display.

■ Err1 – TICKET ERROR

This error usually occurs if the game has run out of tickets or there is a ticket/capsule jam. A less common reason is if the game PCB tries to dispense tickets/capsules but doesn't get a notch pulse for approximately three seconds. Use the Switch Test and test the notch pulse by passing a ticket in and out of the notch sensor or manually activating the microswitch on the capsule dispenser, an active notch will be display as **C1**, (See Page 9 for Details).

If the game was out of tickets, replace the tickets, clear the ticket/capsule jam and then push the test button once to clear the error. The game will then payout any owed tickets/capsules.

■ Err2 – COIN INPUT ERROR

This error occurs if one of the coin switches is closed for more than 5 seconds. The problem can be a coin stuck in the coin switch path or the coin switch is out of adjustment or faulty. Enter Switch Test mode to check the coin mechanisms, (See Page 9 for Details).

■ Err3 – EEPROM ERROR

This Error is only displayed in test mode and means that the CPU cannot read the EEPROM, or is receiving errors during communication with the EEPROM (The 23C16 IC on the main MCU PCB). This could cause problems with the game audits and program settings. If this error occurs, take your game to the nearest authorized *LAI GAMES* dealer for repair.

■ Err4 – BALL GATE ERROR

This error occurs if the ball gate switch is not properly closed after a game is played. Enter Switch Test mode to check the ball gate switch (*See Page 9 for Details*). If **C5** is displayed, then the switch is not closed. The problem can be something obstructing the gate/gate switch from closing. Check for ball gate jam and clear the jam.

■ Err5 – TARGET SENSOR BLOCKED

This error usually occurs if the target sensor is blocked or a ball is jammed in the ball exit, blocking the infrared beam of the target sensor for longer then 3 seconds. The sensor can be tested using the switch test, (See Page 9 for Details). If the sensor is blocked C6, C7, or C8 will be displayed in this test (depends on the target). Clear what ever is blocking the sensor and the error will clear itself. If you cannot find anything blocking the sensor, there could be faulty infrared sensors. The sensor PCB's should be returned to your nearest LAI Games distributor for repair.





FUSE INFORMATION

* WARNING! *

Always turn OFF Mains power and unplugged the game, before replacing any fuses.

■ MAIN AC SUPPLY FUSE (1 x 6 AMP FAST BLOW, M205 TYPE) This fuse is for the main AC supply and is situated in the IEC mains input socket.

* NOTE! *

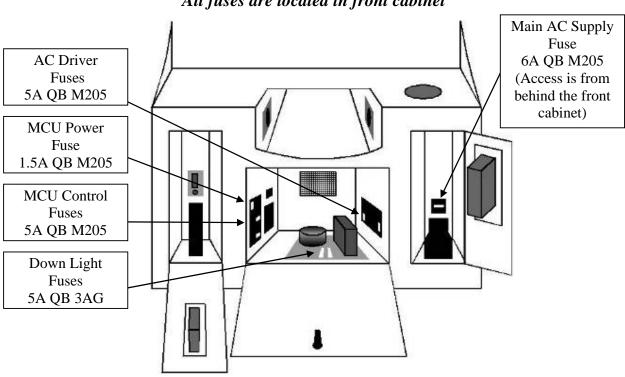
- The power cord must be removed before the fuse can be accessed.
- MCU POWER FUSE (1 x 1.5 AMP FAST BLOW, M205 TYPE) This fuse is for the power supply to the MCU PCB.
- MCU CONTROL FUSES (2 x 5 AMP FAST BLOW, M205 TYPE) These fuses are for the DC transistor drivers on the MCU PCB.
- DOWN LIGHT FUSES (2 x 5 AMP FAST BLOW, 3AG TYPE) These fuses are for the two 12VAC 20W Down Light Lamps.
- AC DRIVER FUSES (2 x 5 AMP FAST BLOW, M205 TYPE) These fuses are for target, double points, and time lamps.

* CAUTION! *

Do Not use any fuse that does not meet the specified rating.

FUSE LOCATION DIAGRAM

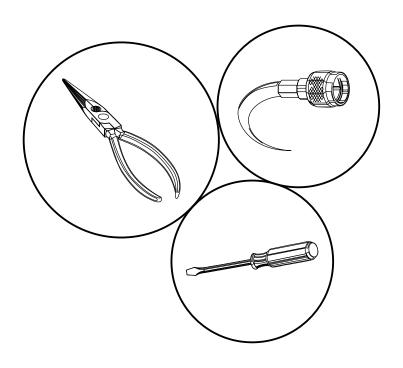
All fuses are located in front cabinet







SECTION A: SERVICE INSTRUCTIONS





BE SURE TO READ THE FOLLOWING
Carefully before servicing this machine





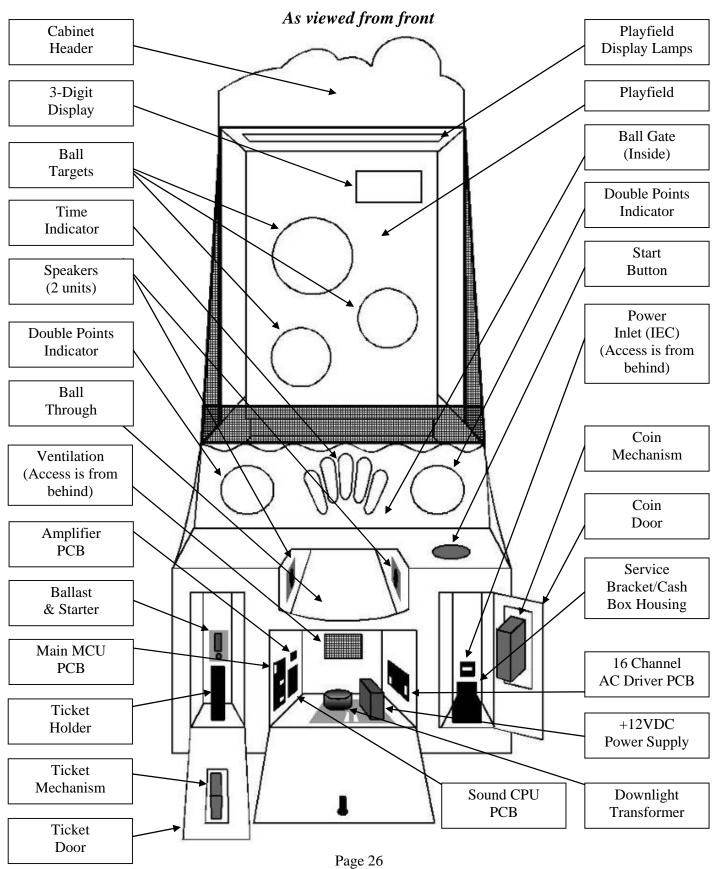






LOCATING AND ACCESSING PARTS

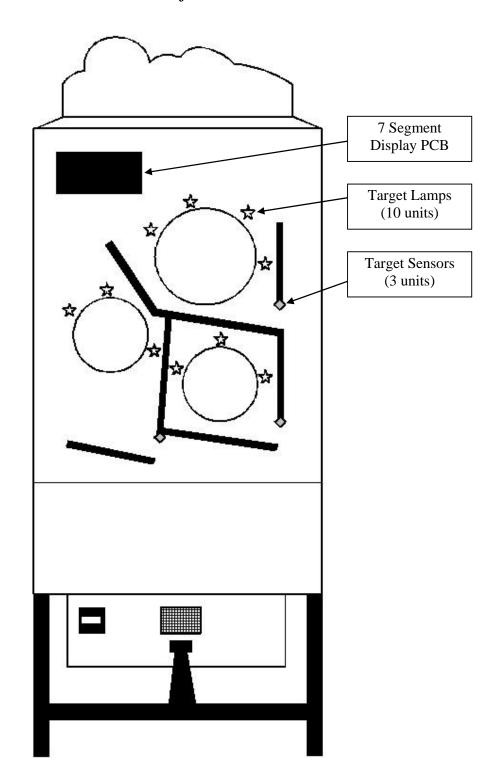
PARTS LOCATION DIAGRAM





PARTS LOCATION DIAGRAM Cont.

As viewed from rear







PARTS DESCRIPTION

■ COIN MECHANISM

The coin mechanism is located inside the coin door located to the right on the front of the machine.

■ CASH BOX

The cash box is located inside the coin door. Access is from the front of the machine.

■ TICKET MECHANISM

The ticket mechanism is located inside the ticket door located to the left on the front of the machine.

■ SPEAKERS

Two speakers are located to the front of the cabinet inside the ball receiving through. Access is through the ticket and coin doors.

■ GAME CONTROLS

Located in the center of the front cabinet. The control panel can be accessed through the coin door.

START BUTTON: The Start button is the large red round illuminated button located at the right-hand side of the control panel. This button is used to start a game and for test and program adjustments.

■ SERVICE CONTROLS

Located on the service panel mounted on top of the cash box and accessed through the coin door.

SERVICE BUTTON: Used to input credits to the game without activating the coin counter, and to perform test procedures in combination with the test button.

TEST BUTTON: Used to perform the test mode, in combination with the Service button.

VOLUME KNOB: Used to adjust the speaker's sound level.





■ POWER CORD

The power cord is a standard IEC power cord (as used on computers) that is plugged in to the power inlet socket at the rear of the machine. The power cord can be removed for transport.

■ POWER INLET

The power inlet is located at the rear of the machine on the left-hand side as viewed from the rear. It is a standard IEC inlet socket.

■ MAINS SWITCH

The mains switch is located on the power inlet assembly along with the mains fuse, and IEC inlet socket.

■ FUSES

For locations of all fuses refer to Fuses and Fuse location, page 24 of this manual.

* WARNING! *

<u>Always</u> turn **OFF** Mains power and unplugged the game, before replacing any fuses

Always use the correct rated fuse. Refer to page 24 for fuse information.

■ 7-SEG DISPLAY

There is a 3-digit display located on the playfield. Access is through the back of the cabinet.

■ PCB's

For location of all game PCB's, refer to the Parts Location diagram page 26 of this manual.

■ POWER SUPPLY

The power supply is located at the front of the cabinet and is accessed from the front door. It is a 12V 13A switching power supply.

■ DOWN LIGHT TRANSFORMER

The down light transformer is located at the front of the cabinet and is accessed from the front door. It is 2 x 12VAC 5A supply output.

■ TARGET SENSORS

All three target sensors are located at the back of the cabinet. Access is from the back door.





LAMPS

* WARNING! *

<u>Always</u> turn **OFF** Mains power and unplugged the game, before replacing any lamps.

<u>Always</u> allow time for cooling as Lamps that have been active for a time may still be too hot to touch.

COIN DOOR LAMPS

The coin door lamps all are 12V/DC GE194 or equivalent and can be accessed through the coin door.

■ BUTTON LAMPS

The button lamp is 12V/DC GE194 or equivalent and can be accessed through the coin door.

■ TARGET LAMPS

The target lamps are all biyonet 12VR10W. Each target has three target lamps. Access is from the rear of the machine.

■ DOUBLE POINT LAMPS

The double point lamps are all 12V/DC GE906 and can be accessed from the playfield.

TIME INDICATOR LAMPS

The time indicator lamps are all 12V/DC GE906 and can be accessed from the playfield.

■ PLAYFIELD DISPLAY LAMPS

There is one standard F18T8 18W fluorescent tube for the playfield display. Access is from the top of the machine.

* CAUTION! *

Always replace the lamps with the same or equivalent size, wattage and voltage.





MAINTENANCE

CLEANING AND CHECK UP

■ EXTERIOR

Regularly dust and clean the external cabinet areas as required, using a soft water-damp cloth and mild soap. Check for blown bulbs and replace as required.

Any scratches or marks in the fiberglass or acrylic can be buffed out using car polish or cut and polish.

* CAUTION! *

<u>Do not</u> use solvents on the panels as it may affect the artwork.

■ INTERIOR

Regularly dust and vacuum the interior of the cabinet, taking care to remove any objects that may have fallen on the PCBs. Check and tighten all fixing hardware and fasteners as required.

* WARNING! *

<u>Always</u> turn **OFF** Mains power and unplugged the game, before cleaning the interior of the machine.

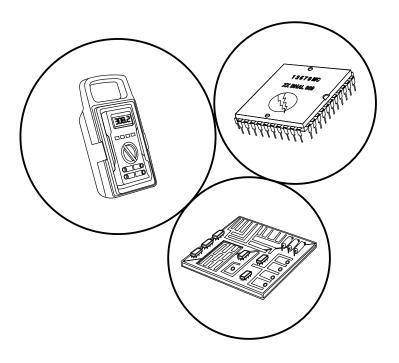
<u>Always</u> after cleaning the cabinet interior, check all harness connectors and restore all loose or interrupted connections.

Regularly check that all the Display and Button Lamps are operating through the Sounds, Lamps and Display Test (*See page 9*). Replace any globes that are not operational.





SECTION B: TECHNICAL DETAILS





It is advised that anybody using SECTION B for repairing or modifying any of the components of the game should be a qualified technician, having at least a basic knowledge of digital components, integrated circuits and electricity.







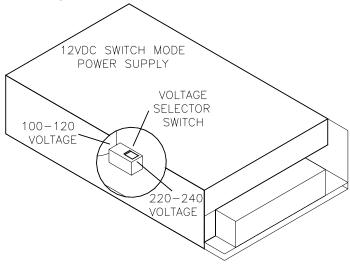




MAINS VOLTAGE ADJUSTMENT

■ POWER SUPPLY

The Switch Mode Power Supply has a switch to set the mains voltage range. It is located at the rear of the game cabinet, and is accessed via the back door. Use a thin blade screwdriver to move the selector switch to the desired mains voltage (See Diagram Below)

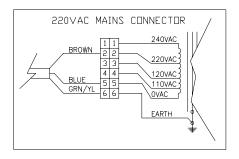


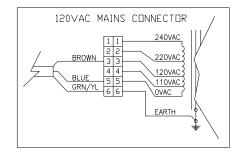
■ TRANSFORMER CONNECTORS

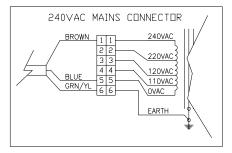
Locate the machine transformer(s) in the base of the cabinet. If unsure of the location of the transformer(s), refer to Parts location diagram on page 26 of this manual. Change the position of the 'ACTIVE' or 'HOT WIRE' input, (marked brown on the diagram), to the position for the desired mains voltage. (See Diagram Below)

6 WAY CONNECTOR PINOUT

PIN	FUNCTION
1	240VAC
2	220VAC
3	120VAC
4	110VAC
5	0VAV (NEUTRAL)
6	EARTH







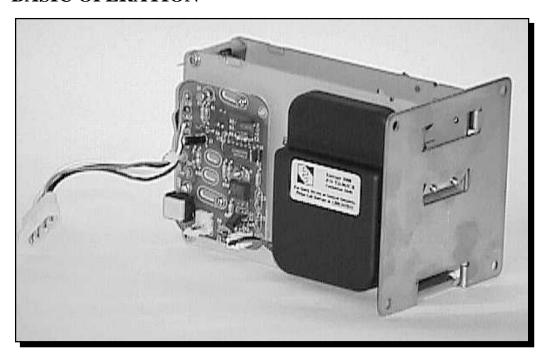




TICKET DISPENSER REFERENCE GUIDE

The ENTD-2000 Ticket Dispenser has been designed with features that virtually eliminate ticket jams. It requires very little maintenance, making it the most reliable and compatible ticket dispenser on the market today. This guide is designed to explain the basic functions and specifications of the ticket dispenser.

BASIC OPERATION



■ LOADING TICKETS

- 1. Select ticket width.
- 2. Slide ticket through guide plates until they reach the rollers.
- 3. Depress the auto advance button until the tickets reach the desired location.
- 4. If tickets do not load, ensure that the upper rollers are engaged by pulling back on the latch bar.

* **NOTE!** *

■ The upper rollers can be disengaged by pulling on the latch bar. This is useful to clear tickets, etc.

■ TICKET STOP ADJUSTMENT

This function allows the length of the tickets protruding from the face plate to be adjusted.

- 1. Turn the two Phillips pan headed screws on the PCB one quarter of a revolution counter-clockwise.
- 2. Move the board forward or backward to the appropriate position.
- 3. Re-tighten the screws.



Operator's Manual – **Squid Spies**

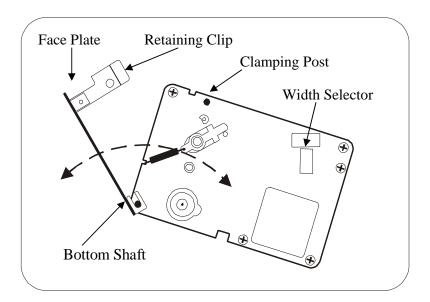


■ CLEARING TICKET JAMS

- 1. Gently pull any tickets that are between the rollers and front plate out the front of the unit.
- 2. Lift the upper rollers by pulling the latch bar back into the unlock position.
- 3. Unlatch the upper ticket guide by raising it off its post in the back.
- 4. Push the tickets away from the ticket width selector toward the optic switch. Gently pull the tickets toward the rear of the unit.
- 5. Tear off the damaged tickets and put the upper ticket guide back into place.
- 6. Reload tickets as previously discussed. (Be sure to place the latch bar back to the locked position).

■ EASY RELEASE AND RE-INSTALL

- 1. Hold the dispenser unit and bend the retainer clip to remove it from the face plate.
- 2. Swing the unit down then lift it slightly until the dispenser unit releases from the face plate.
- 3. To reinstall: align the post on the dispenser unit w/the U shape brackets on the face plate.
- 4. Swing unit up and snap in place



* NOTE! *

■ Ensure the dispenser is firmly locked in place before running it again!





SPECIFICATIONS

■ LED FUNCTION

GREEN LED: Notch output indicator.

YELLOW LED: Motor Enable.

■ STANDARD TICKET UNIT: TD-963CR

The TD-963CR is designed to fit more applications. The game's software turns the dispenser on with a logic high signal and monitors a return notch signal from dispenser to turn it off.

■ OUT PULSE TICKET UNIT: TD-963PR

The TD-963PR is designed for one logic input - one ticket game. The game pulses the dispenser once and one ticket is dispensed.

■ OUT PULSE TICKET UNIT: TD-963PR

The Td-963sr uses a switch rather than a logic input. The game must ensure the switch will not be activated more than twice per second.

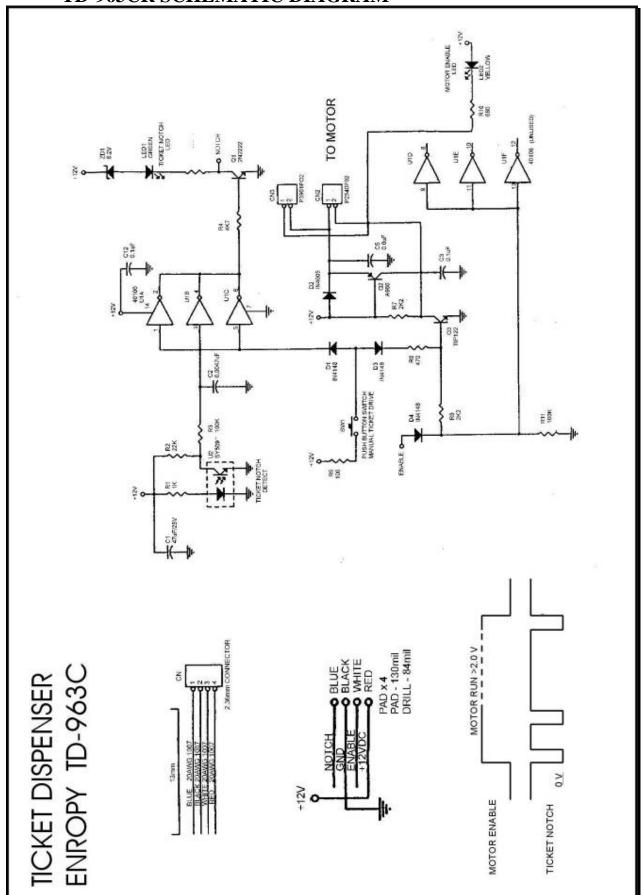
■ ELECTRICAL CHARACTERISTICS TD-963CR:

	Min.	Typical	Max.
Supply Voltage	11.0 V	12.0 V	13.0V
Standby Current		25mA	
Motor Start Current	1.2 A	1.3 A	1.4 A
Motor Run Current	0.3 A	0.3 A	0.35 A
Motor Enable On Voltage	2.4 V		12.0 V
Motor Enable On Current	160 uA		4.2 mA
Motor Enable Off Voltage			1.0 V
Motor Enable Off Current			0 A
Ticket Notch Sink Current			50 mA
Ticket Notch Voltage Pull-up			30 V





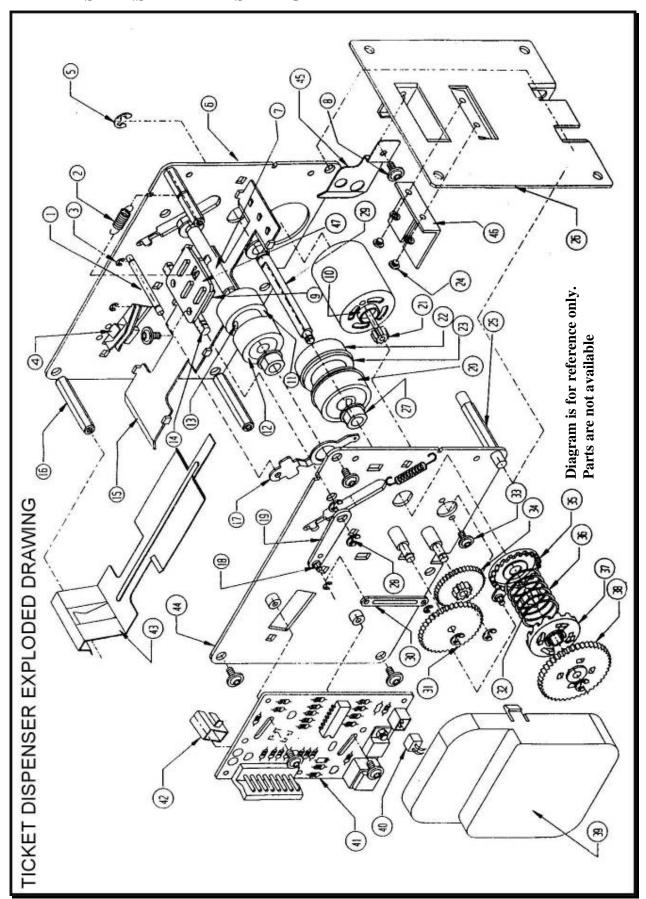
TD-963CR SCHEMATIC DIAGRAM







DISPENSER PARTS DIAGRAM

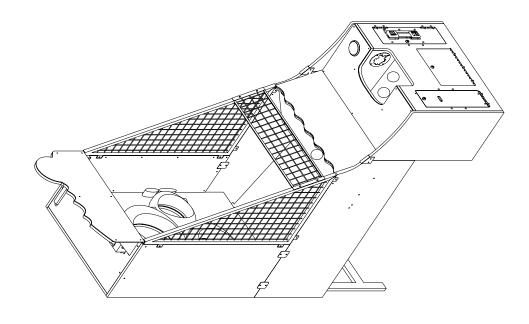


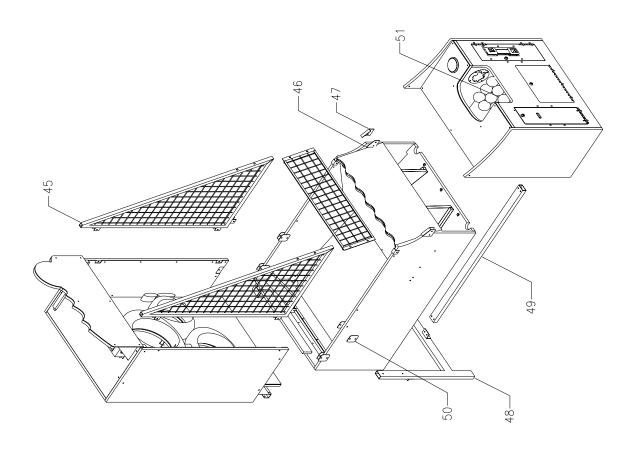




3 D EXPLODE PARTS

QTY	1R,1L	1R,1L	1R,1L	-		∞	10
DESCRIPTION	SIDE MESH	SP1-FM-019-R0 JOINT BRACKET INNER	SP1-FM-018-R0 JOINT BRACKET OUTER	STAND BLOCK	SP1-FM-035-R0 FOOT REINFORCE	JOIN PLATE	PLASTIC BALL DIA 65 mm
CODE	SP1-SA-012-R1 SIDE MESH	SP1-FM-019-R0	SP1-FM-018-R0	SP1-SA-011-R0 STAND BLOCK	SP1-FM-035-R0	SP1-FM-026-R1 JOIN PLATE	HP0012
ON	45	46	47	48	49	50	51

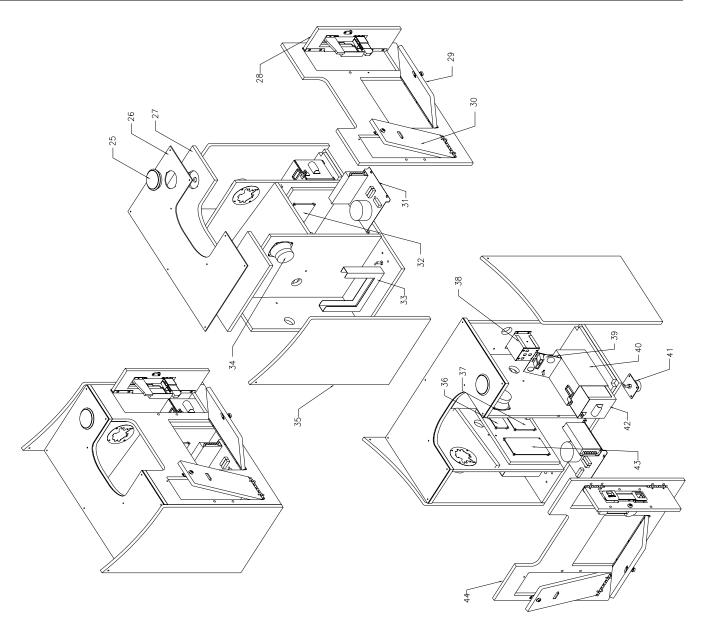








	L	i di	> E
ON S	CODE	DESCRIP II	
67	EAU523 AT3399B	SWITCH LARGE RED MEGA BUTTON ACRILLIC CONTROL PANEL	
27	SP1-FW-008-R1	ANFI FRO	-
28	SP A006	COINDOOR ASSEMBLY	-
			-
288	SP1-MM-001-R1	COINDOOR HINGE	-
28C	SP1-MM-004-R1	COINDOOR HINGE	- -
78F	SP1-FM-022-RU	COINDOOR PLAIE	-
28F	HA0014	COIN MECHANISM HOLDER	-
29	SP A008	DOOR ACCES ASSEMBLY	-
29A	SP1-FW-010-R0	DOOR ACCES PANEL	-
29B	SP1-MM-003-R1	DOOR ACCES HINGE	
290	HM0004	OFF.	
000	SP A00/		- -
308	SP1-MM-002-R1	TICKET DOOR HINGE	-
30C	SP1-FM-032-R1	TICKET PLATE	-
30D	HM0004	LOCK ANGLE	
30E	EA1102	TICKET DISPENCER ENTROPY	
- ⊨	SP EUU6	TAD / 2 , 115	- -
A18	EAU022	X 542	- -
310	EA0614	300 VAC / VDC TERMINAL BLOCK 4 Poles 44"	-
31D	EA0016	FUSE 3AG FAST BLOW 10A	2
31E	EA0042		2
31F	SP1-FM-021-R0	TRAFO BRACKET METAL ONLY	- -
32	BAFR71	PCB FB71 16—WAY AC DRIVER	
7.2	SP1_FM_024_R0	T HOLDER	-
34	SP A005		. 6
34A			2
348	-30A-R1		2
	-FM-30B-R1	: GRILL	2
35	SP1-FW-001-R1	FRONT SIDE PANEL WITH STICKER	1R,1L
35A	AT3393A	STICKER FRONT SIDE PANEL LEFT	
36	BAFB52C	6 Mhz 280	-
37	BA0029	PCB FB29 STEREO AUDIO AMPLIFIER	-
38	SP E007		-
-	SP E007a	DB BOX METAL ONLY	-
ı		BINDING POST	1
1	EA1358	SPLIT CORE EMI FILTER FOR CE MACHINE	- -
1 1	EA0649	IEC TYPE NOISE EMI FILTER	- -
	EA0635	POWER LEAD MOLDED IEC TO 3 PIN USA	
ı	EA0636	2 PIN	-
1	EA0637	POWER LEAD MOLDED IEC TO 3 PIN AU	- -
30	SP FOOR		-
<u> </u>	SP1-FM-040-R0	ANEL ME	
398	EA0519	SWITCH SMALL ROUND RED BUTTON	-
39C	EA0520		- 0
390	EA1252	COIN COUNTER 12V REAR MOUNTING	7
39F	EP0602	COUL COUL	-
1	SP H003	SERVICE PANEL HARNESS	-
40	SP1-SA-002-R0	CASHBO	-
41	нМ0002	RUBBER MACHINE GLIDE	3
42	SP1-SA-001-R0	CASHBOX	-
43			-
44	SP A009	FRONT PANEL LOWER WITH STICKER	
-	- H004	FRONT PANEL LOWER STICKER MAIN HARNESS FRONT DANE	- -
	5		





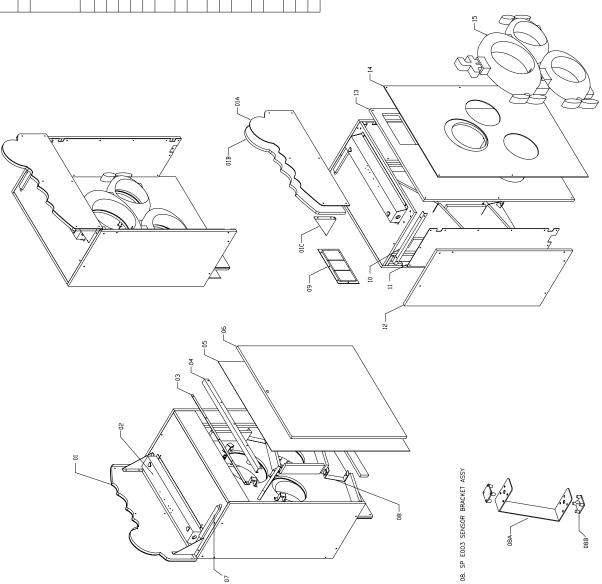


∑ <u>-</u>	T		
CODE DESCRIPTION SPI-FW-015-R0 BALL GATE COVER SPI-MM-005-R0 BRACKET HINGE	SPT - SA - 0.16 - P. 0.1	ACRILLIC TIMER ARTWORK SOUID SPICE BALL GATE ASSEMBLY FITTING RIGHT GATE BLOCK BALL GATE PLATE BALLGATE RUBBER RUBBER CLAMP MOTOR HOLDER METAL ONLY MOTOR HOLDER METAL ONLY MOTOR HOLDER ST I mm MOTOR MOTOR: BOOD DO 12Y I R RPM SIDE PANEL BACK WITH STICKER STICKER BOTTOM SIDE PANEL LEFT STICKER BOTTOM SIDE PANEL LEFT STICKER BOTTOM SIDE PANEL RIGHT	
CODE SP1-FW-015-RO SP1-MM-005-RO	SP1-SA-016-R0 SP E004 SP1-SA-014-R1 EA0222 EA0226 SP E005 SP1-FM-033-R1 EA0222 EA0222 EA0226	A13397A SP A003 SP A003 SP A004 SPI-FM-008-R0 SPI-FM-010-R1 SP I-FM-010-R1 SP A004 EA41382A A13392A	22
NO 16	194 198 190 204 208 200	22 23 23 236 236 236 236 236 24 24 24 24 24 24 24 24 24 24 24 24 24	
			· · · · · · · · · · · · · · · · · · ·
			23. SP A005 BALL CATE ASSEMBLY 236 236 236 236 237





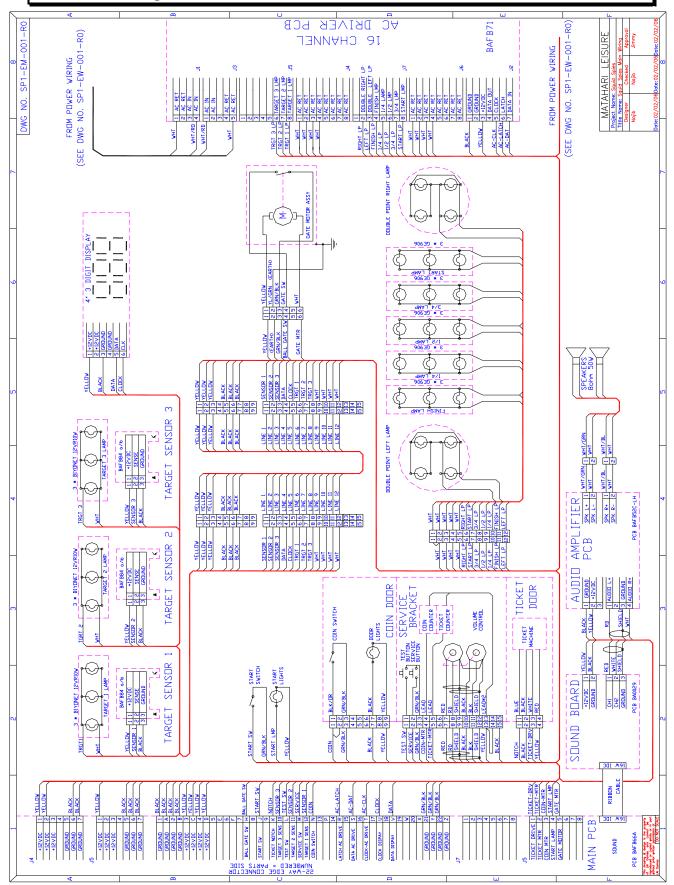
ON N	CODE	DESCRIPTION	QTY
10	SP A001	HEADER ASSEMBLY SQUID SPIES	-
01A	AT3397B	ACRILLIC HEADER LOGO SQUID SPICE	-
018	SP1-FW-022-R0	HEADER PANEL	_
01C	SP1-FM-043-R0	LOGO BRACKET	1R,1L
02	SP E001	HEADER LIGHT ASSEMBLY	
02A	SP1-SA-017-R1	TOP LIGHT COVER	-
02B	EA0206	LAMPU NEON 18W COOL WHITE	-
02C	EA0325	LAMPU NEON BALLAST CE 240Volt 15/18/20W	-
02D	EA0311	LAMPU STARTER BASE FSB-003 UL Listed	-
02E	EP0434	LAMP NEON END CAP HOLDER MODEL 713-HS	2
03	SP1-FM-037-R1	PLASTIC CLAMPING	2
04	SP1-FM-036-R1	PLASTIC MOUNTING BRACKET	2
90	_	PLASTIC	-
90	SP1-FW-024-R0	BACK DOOR	-
07	HP0011	CABLE TRAY	-
80	SP E003	SENSOR BRACKET ASSEMBLY	3
08A	SP1-FM-020-R1	SENSOR BRACKET	3
088	BAFB840-b	PCB FB84a-b SENSOR BALL	3
60	SP E002	DISPLAY ASSEMBLY	-
A60	BA1601	PCB FB45a 3 Digit 7 SEGMENT 4" DISPLAY	-
860	SP1-FM-048-R1	DISPLAY BRACKET	-
10	SP1-FM-015-R0	L FRAME CABINET	1R,1L
11	_	SIDE ACRILLIC	1R,1L
11A	-	ACRILLIC INTERNAL ARTWORK LEFT	1
118	1	ACRILLIC INTERNAL ARTWORK RIGHT	-
12	SP A002	SIDE PANEL UPPER WITH STICKER	1R,1L
12A	-	STICKER LEFT SIDE A TOP PANEL	-
128	ı	STICKER RIGHT SIDE A TOP PANEL	-
13	SP1-FW-021-R1	SCORE PANEL	1
14	_	SCORE PANEL COVER	-
15	HM2516	FIBER GLASS MOULDING "SUBMARINE"	-







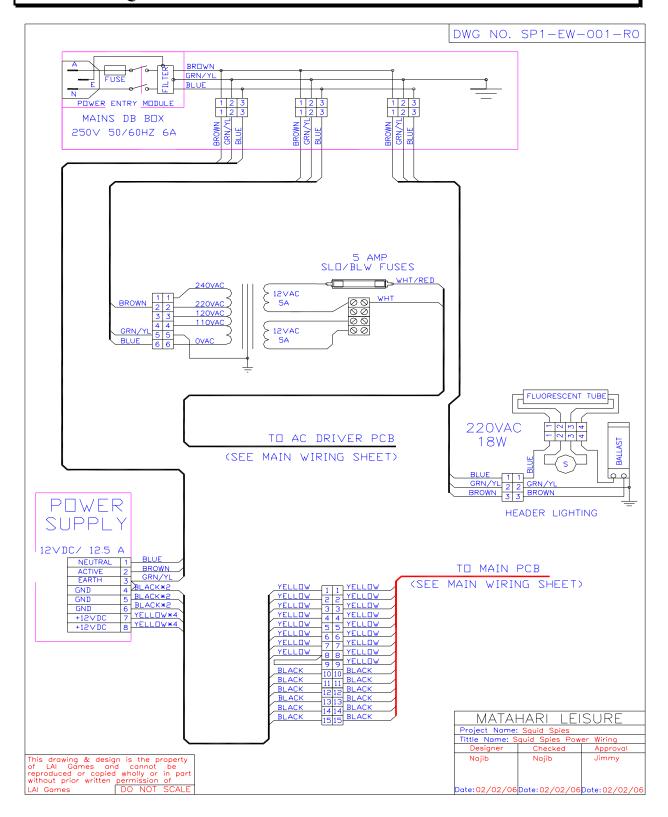
SQUID SPIES MAIN WIRING DIAGRAM







SQUID SPIES POWER WIRING DIAGRAM



WARRANTY

LAI GAMES warrants its manufactured products for a period of 3 months inclusive of parts and labor from the date of sale.

LAI GAMES exclusive obligation is to repair any item with any defects as a result of faulty workmanship or materials, providing the defective item or items of equipment are returned to the *LAI GAMES* distributor from which the machine was purchased.

LAI GAMES shall have no obligation to make repairs necessitated by negligence or interference to any component by any unauthorized personal. This will automatically void any existing warranty.

IF MAKING A WARRANTY CLAIM:

- (a) A Copy of the sales invoice must accompany the claim.
- (b) To and from Transport and freight costs are not covered by the warranty.
- (c) Warranty is not transferable with the sale of a machine from one owner to another.



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