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# **OPERATOR'S MANUAL**



► READ THIS MANUAL BEFORE OPERATING THE MACHINE.

KEEP THIS MANUAL FOR YOUR REFERENCE.

ISO 9001 CERTIFIED ORGANIZATION









### 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.

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</u>** Not install the Game Cabinet in areas that would present an obstacle in case of an emergency, i.e. 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**.

**<u>Do Not</u>** 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  $^{\circ}C$ .





### **MACHINE INSTALLATION and INSPECTION**

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

■ 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.
- Check that the rubber glide feet levelers are set evenly on the floor so that the game cabinet is unable to roll and is stable.
- 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 21. 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 "*Time Buster*". Another sensational product from LAI games. This is, in our opinion, one of the best prize vending games made in the world. It is very simple, yet challenging to play and includes features based on the internationally successful "Stop The Clock on 1000".

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 *"Time Buster"* is a one-player, prize vending game, requiring players to use their timing skill to stop the counting display on 1000 to win a jackpot prize or, an adjustable near miss zone for a consolation prize.

#### PACKAGING

#### DELIVERY

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

#### CONTENTS

- *"Time Buster"* game machine fully assembled, on castors.
- Keys:  $1 \times \text{coin door key}$ 
  - $1 \times$  back door key
  - $1 \times$  prize door key
- Operator's manual





# **SPECIFICATIONS**

#### DIMENSIONS

_	*** * 1 .	1 4 0 1	(21011)
	Weight:	140kg	(310lb)
	Height:	2000mm	(78.1/2")
	Width:	640mm	(25")
	Length:	770mm	(30.1/2")
	Power:	Maximum	550w - (220V @ 2·5A)(120V @ 4·6A)
		Average	330w - (220V @ 1·5A)(120V @ 2·8A)

#### **ELECTRIC SUPPLY**

The game has the option to operate on a 120V, 220V, 240V AC 50/60Hz mains electric supply. The supply must be a three wire grounded supply.

\* NOTE: **BEWARE!!!** Before switching the machine on be sure to check that it has been set on the correct voltage for your area!! Refer to the mains voltage adjustment section of this manual. Page 34. Machines are normally shipped on 220V AC unless otherwise specified.

#### LOCATION REQUIREMENTS

- Ambient temperature: between  $5^{\circ}$ C and  $40^{\circ}$ C.
- Ambient humidity: Low
- Ambient U.V. radiation: Very low
- Vibrations level: Low





# FITTING PRIZES TO THE PRIZE ARM

#### **STEP ONE: Removal of Prize Locking Pin.**



- 1. Unscrew the Prize Locking pin (lefthand thread), by turning it in a clockwise direction.
- 2. Remove the pin by pulling it all the

#### **STEP TWO: Attachment of Hanging Ties.**



Attach the prizes securely to the Hanging Ties.

\* **NOTE:** Be sure to allow a loose, 3-finger gap in the 'hanging tie' to ensure that the 'hanging tie' does not interfere with the operation of the Prize Arm mechanism.



**STEP THREE: Loading of Prizes.** 

Load the prize arm by sliding the Hanging Tie over the entire arm, as shown making sure that the prizes are facing towards the customer.

**STEP FOUR: Correct positioning of prizes.** 





Position the Hanging Ties on the prize arm as shown. Space the prizes apart on the arms so they present well looking from the front. Ensure the prizes do not restrict the viewing of the 4-digit display. Do not have the prizes spaced more than 'five spring turns' apart, or the prize arm will time out and display error Err4.

\* **NOTE:** If completely filling the prize arm, start filling the prize arm from the back and work your way towards the front.

#### **STEP FIVE: Reinsertion of Prize Locking Pin.**



- 1. Reinsert the Prize Locking pin by positioning it in the centre of the spiral making sure it <u>ALWAYS</u> stays **ABOVE** the hanging ties.
- 2. Re-fit and tighten the Prize Locking pin (Left-hand thread), by turning it

#### **STEP SIX:** Correct positioning of Prize Locking Pin.



■ Ensure the Prize Locking Pin <u>ALWAYS</u> remains <u>ABOVE</u> the Hanging Ties.





# HOW TO PLAY

#### PLAYERS PLAYERS AIM IS TO HIT '1000' TO WIN THE "JACKPOT PRIZE".

- Insert coins.
- Press the Start/Stop button to begin the game. The clock's display will start counting from 0 up to 1100.
- Press the button to stop the count on 1000 to win the 'JACKPOT' prize. The jackpot prizes are displayed on the top three prize arms.
- If the count is stopped within a programmable range close to 1000, then a consolation prize is won. The consolation prizes are displayed on the bottom five prize arms.
- The player can select a prize within the permitted prize zone by using the green select button on the control panel. If a jackpot is won, then **ANY** prize arm can be selected. A lamp above the prize arm, 'lights up' to display the selected arm.
- To dispense a prize after selection, the large red Start/Stop button is pressed on the control panel.
- The clock will not stop if the button is pressed earlier than the 500<sup>th</sup> count. A warning sound will be played to mark the incident, but the clock will continue counting as in a normal game.
- IF the Start/Stop button is not pressed after the game is started, the clock will automatically stop after counting up to 1100, signifying "GAME OVER".







# **OPERATION**

The "*Time Buster*" game has five operational modes: Attract mode, Play mode, Test Mode, Programmable Adjustments Mode and Audits Mode.



#### ATTRACT MODE

■ The *Attract mode* provides a light and sound display and a demo game, while the game is unattended. 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 P08, page 13 of this manual).

#### PLAY MODE

■ This game 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 seconds. F E will be displayed on the 4-digit LED display until the first game is played or attract mode starts.
- For a single free game, just press the Service button once. When issuing single free games in this manner, prizes will be dispensed as normal.

\* **NOTE:** Free play mode can only be exited by turning the machine **Off** and **On**. Option P09, determines if prizes are dispensed during Free Play.





# PRIZE SELECTION AND PAYOUT ADJUSTMENT

Please read the following guide as a good starting point for setting up of your new *"Time buster"* machine. By testing different merchandise and fine-tuning the settings you can maximize your game earnings.

\* NOTE: All the following recommendations are based on an approximate payout of 30%. This payout is recommended for maximum earnings. 30% payout means that approximately 30% of the game income will be paid out in prizes. E.g. For every \$100 in the cashbox, \$30 worth of prizes should be won.

■ The recommended game operation for maximum earnings, are as follows:

**JACKPOT WINS** – Approximately '1' win every '100' games. The jackpot prizes should make up about one half of the machines overall payout.

**JACKPOT PRIZE VALUE** – Approximately 15 – 20 times the price per play.

**JACKPOT PRIZES** – Use good quality stock that is currently in demand by the customers who frequent the machines. Try to use three different types of prizes to determine which prizes are most desired by the players. You can then use the game audits (page 15 - 18), to vary the stock accordingly. Varying the prize stock will also keep interest in the game.

**CONSOLATION WINS** – Approximately '1' win every '10 - 15' games. The consolation prizes should make up the other half of the machine payout.

**CONSOLATION PRIZE VALUE** – Approximately 'one' to 'two' times the price per play.

**CONSOLATION PRIZES** – Use cheaper prizes or sweets for consolation prizes. Cheaper prizes work well. E.g. If large Disney plush toys are used as a jackpot prize, try Disney pens or keyrings, as a consolation prize. You can then use the game audits (page 15 - 18) to determine which prizes are most in demand.

PRICE PER PLAY	25¢	50¢	\$1.00	\$2.00
JACKPOT PRIZE	\$3.50 to	\$7.50 to	\$15.00 to	\$30.00 to
CONSOLATION PRIZE VALE	\$3.00 25¢ to 50¢	50¢ to \$1.00	\$20.00 \$1.00 to \$2.00	\$40.00 \$2.00 to \$4.00
AUTOMATIC JACKPOT PRIZE WINS (P11)	100	100	100	100
AUTOMATIC CONSOLATION PRIZE WINS (P12)	10	10	10	10
AUTOMATIC SETTING (P10)	1	1	1	1

#### PRIZE PAYOUT QUICK REFERENCE TABLE

\* NOTE: If manual adjustments are used, adjust the game difficulty (P05) to achieve similar results.





# **TEST MODE**

The Test mode has *three test configurations* allowing you to test the function of the Sound, Lamps & Display, the Game Switches, and to test the Prize Arm Lights & motors. (Refer to Diagram below). Test mode can also be used for Clearing Game Errors, Setting Game Options and Checking Game Audits. (For Game Errors, refer to the Errors and Troubleshooting section of the manual page 22). Once test mode is entered, and if there is an active error, it's code will be displayed. To bypass or try to clear the error code, press the test button.







- \* The test button is also used for **DISPLAYING & CLEARING ERRORS**. For more information refer to Errors & Troubleshooting Page 22.
- \* 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.

#### SOUND, LIGHT & DISPLAY TEST

• ENTER The Sound, Light & Display test is entered from Attract mode by pressing the test button once.

#### **DURING THE TEST:**

- Game music will be played.
- All lamps will flash ON and OFF.
- The 4-digit display will count from 0000 to 9999 and then repeat.
- EXIT The Sound, Light & 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. C X will be displayed on the 4-digit display where 'X' is the switches that are 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 4-digit display. If no switches are active, C 0 will be displayed.



CODE	DISPLAY	MESSAGE DELIVERED	SWITCH LOCATION
C0	C 0	No Input is active	
C1	C 1	Ticket Notch	Ticket door (Optional)
C2	C 2	Service Switch is active	Service Bracket
C3	C 3	Stop Switch is Active	Player Control Panel
C4	C 4	Coin Mech. 1 Switch Active	Coin Door
C5	C 5	Coin Mech. 2 Switch Active	Coin Door
C6	C 6	Prize Sensor is Active	Inside Prize Chute
C7	C 7	Tilt Sensor is Active	Inside Rear of Cabinet
C8	C 8	Step Switch is Active	Player Control Panel

- Normal condition for the game is either:
  - \* C 0 indicating that no switches are active, or
  - \* C 1 indicating that the Ticket Notch is active (If optional Ticket Dispenser is fitted).
- **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.
- EXIT The Switch Test is exited into Ball Gate Run Test by pressing the Test Button once.

#### **PRIZE ARM, LIGHTS & MOTORS TEST**

■ ENTER The Prize Arm, Lights and Motors Test can be entered by pressing the Test button once, while in Switch test, or by pressing the Test button three times while in Attract mode. The 4-digit LED display will show **r r r r**.

#### **DURING THE TEST:**

- Operation of the Prize Arm, Lights and Motors can be tested. To start the test, press the Service button. The Service button is then pressed again to step through each prize arm; the arm lamp flashing indicates this. When the start button is pressed, the motor on the current prize arm i.e., the one with the flashing lamp, will be powered on. It will keep turning while the start button is pressed
- **EXIT** The Prize Arm, Lights and Motors Test is exited into Programmable Adjustments by pressing the Test button once.





# **PROGRAMMABLE ADJUSTMENTS MODE**

#### GAME ADJUSTMENTS

• The game has thirteen programmable adjustments that can be changed in this mode. They are P1 to P13 and their codes and values are displayed alternatively during the adjustment procedure.

**Example**: displayed adjustment  $\mathbb{P}[0|1]$  alternates with its value [0|1]. Refer to the diagram below:



• There is a range of values for each variable of the game, and any value in this range can be chosen for the game settings, using the change procedure.

#### ADJUSTMENT PROCEDURE

- **ENTER** The Programmable Adjustments mode is entered from Switch test by pressing the Test button once, or from Attract mode by pressing the Test button 4 times. This will prompt the PPP code on the display indicating the program mode.
- SELECT The Service button is pressed to step through each of the adjustment configurations, starting from the P01 display, P01 being the first step, continuing through to P13, and then looping again from P01 to P13 until the mode is exited.
- CHANGE The Start/Stop button is pressed to change the displayed value. The value can <u>ONLY</u> be stepped up by using the Start/Stop button, but the value will loop back to its min value the next step after its max value.
- \* NOTE: Certain program adjustments have a fast adjustment feature. By holding the Start/Stop button down, the values step through quicker.
- **EXIT** The Programmable Adjustments mode is exited into Audits mode, by pressing the Test button once.





### PROGRAMABLE ADJUSTMENTS QUICK REFERENCE TABLE

CODE	PROGRAMMABLE ADJUSTMENTS	OPTIONAL VALUES	DEFAUL T SETTIN GS	FEATURES
P01	1 - 10	1, 2, 310	1	COIN SLOT 1 COINS / CREDIT
P02	1 – 10	1, 2, 310	1	Coin Slot 1 Plays / Credit
P03	1 - 10	1, 2, 310	1	Coin Slot 2 Coins / Credit
P04	1 - 10	1, 2, 310	1	Coin Slot 2 Plays / Credit
P05	0.4 – 15milisec	0.4, 0.5, 0.615	Auto	JACKPOT TIMING (Adjustable in Manual Only)
P06	1 – 10	1, 2, 310	05	CONSOLATION PRIZE RANGE
P07	1 – 20 if range 1 – 5 4.5 – 20 if range 6 – 10	1, 1.2, 1.420 4.5, 5.5, 6.520	Auto	<i>CONSOLATION TIMING</i> (Adjustable in Manual Only)
P08	ON [1] or OFF[0]	[1](on),[0] (off)	ON	<b>Attract Sound</b> ON / OFF
P09	ON [1] or OFF[0]	[1](on),[0] (off)	ON	<i>PRIZES PAID OUT IN FREE PLAY</i> ON / OFF
P10	ON [1] or OFF[0]	[1](on),[0] (off)	ON (Auto)	Auto / Adjust ON / OFF
P11	50 - 200	20, 25, 30800	100	GAME / JACKPOT PRIZE WIN (Auto on Only)
P12	5 – 20	5, 6, 740	10	Games / Consolation Prize Win (Auto on Only)
P13	0 – 10	0, 1, 220	0	Number of Mercy Tickets / Capsules (If Optional Ticket Dispenser or Capsule System Fitted)
P14	Disable Mercy System[0]Mercy Paid No-win[1]Mercy Paid all games[2]	1, 2, 3.	0	Mercy System Mode. Disable, Tickets / Capsules Paid on a No- Win game or Paid at game credit (every Game)





#### PROGRAMABLE ADJUSTMENTS DETAILED

#### ■ P01 = COIN MECH 1: NUMBER OF COINS PER CREDIT (default 01) (Adjustable 1 - 10)

This variable sets the number of coins that need to be inserted for each game 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 game plays* for each credit. It can be set to either of 1, 2, 3... to 10 plays for each credit.

■ P03 = COIN MECH 2: NUMBER OF COINS PER CREDIT (default 01) (Adjustable 1 - 10)

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

#### ■ P04 = COIN MECH 2: NUMBER OF PLAYS PER CREDIT (default 01) (Adjustable 1 - 10)

This sets the *number of game plays* for each credit. It can be set to either of 1, 2, 3... to 10 plays for each credit.

# ■ **P05 = JACKPOT PRIZE DIFFICULTY** (default Auto)

(Adjustable 0.4 - 15ms)

This adjustment is used to *manually adjust* the playing difficulty of the top three jackpot prize arms. It is the time period, in milliseconds, that the jackpot can be won. A lower number makes the jackpot prizes harder to win. A higher number makes the jackpot prizes easier to win.

\* NOTE: Values of less than 1.0ms is EXTREMELY DIFFICULT to win prizes on.

\* NOTE: The P05 setting is **ONLY** adjustable if the game is set to **MANUAL**. (P10 set to [0])

If P10 is set to [1] (automatic game adjustment), the display will show A  $\|\mathbf{u}\| \mathbf{t} \|\mathbf{0}\|$  in the LED display, and cannot be adjusted.





#### ■ **P06 = CONSOLATION PRIZE RANGE** (default 05)

(Adjustable 1 - 10)

This is the *range* in which consolation prizes are won. E.g. A setting of 5 is equal to 5 steps either side of the '1000 jackpot', or between 995 and 1005. Only a score in this range will win a consolation prize.

\* **NOTE:** If the option is changed from the default setting, the artwork on the machine showing the winning ranges, must also be changed to match.

• **P07 = CONSOLATION PRIZE ARM DIFFICULTY** (default Auto) (Adjustable 1 - 20 with arm range P06 1 - 5 and 4 - 20 with arm range 6 - 10)

This adjustment is used to manually adjust the difficulty of the bottom five consolation prize arms. It is the time period in milliseconds for each step in the consolation prize range. 10ms is the standard time period for the rest of the game count. A lower number makes the consolation prizes harder to win, and a higher number makes the consolation prizes easier to win.

\* NOTE: The P05 setting is <u>ONLY</u> adjustable if the game is set to <u>MANUAL</u>. (P10 set to [0]).

If P10 is set to  $\begin{bmatrix} 1 \end{bmatrix}$  (automatic game adjustment), the display will show  $A \begin{bmatrix} u \\ t \end{bmatrix} = t$  in the LED display, and cannot be adjusted.

P08 = ATTRACT MODE SOUND (default 01) (Adjustable ON [ 1 ] or OFF [ 0 ])

This adjustment turns the *attract mode sound* **ON** [1] or **OFF** [0]. This is the sound and music that the game generates to attract customers when it is not being played. The music cycles approximately every 4 minutes.

P09 = PRIZES IN FREE PLAY MODE (default 1) (Adjustable ON [ 1 ] or OFF [ 0 ])

This setting controls whether or not the *game dispenses prizes* in free play mode. **ON** [1] or **OFF** [0].

■ **P10 = AUTOMATIC/MANUAL ADJUSTMENT** (default 1) (Adjustable ON [1] or OFF [0])

This option allows the game difficulty to be manually or automatically adjusted. **Manual** P10 set to [0], **Automatic** P10 set to [1]. If P10 is set to [1], automatic, the game automatically adjusts the P05 and P07 setting according to the required wins set on P11 and P12.





#### P11 = AUTOMATIC JACKPOT PRIZE WINS (default [ 100 ] ) (Adjustable 20 – 800, Steps of 5)

This option sets the average number of games that should be played for every jackpot prize win. (For information on calculation of this figure, refer to the prize selection and payout section of this manual Page 21).

\* NOTE: This adjustment is only available if P10 is set to Automatic [1].

# ■ **P12 = AUTOMATIC CONSOLATION PRIZE WINS** (default 10) (Adjustable 5 – 40)

This option sets the average number of games that should be played for every consolation prize win. (For information on calculation of this figure, refer to the prize selection and payout section of this manual Page 21).

\* NOTE: This adjustment is only available if P10 is set to Automatic [1].

#### ■ P13 = NUMBER of MERCY TICKETS / CAPSULES ADJUSTMENT (default 0) (Adjustable 0 – 20)

This option adjusts the number of mercy tickets or capsules paid out if the optional ticket or capsule dispenser is fitted. See **P14** for setting Mercy System Mode payout options.

\* **NOTE:** If no ticket or capsule dispenser is fitted to the machine, make sure this adjustment is set to [0].

# ■ **P14 = MERCY SYSTEM MODE ADJSUTMENT** (default 0) (Adjustable 0 – 2)

This option adjusts the way that mercy tickets or capsules paid out if the optional ticket or capsule dispenser is fitted. See **P13** for setting the number of mercy tickets or capsules that will be dispensed.

- [0] = Mercy System disabled, no ticket or capsules will be paid. This setting must be used if optional ticket or capsule dispenser is not fitted
- [1] = Mercy tickets / capsules are paid if no Jackpot or Consolation prize is won. Optional ticket / capsule dispenser must be fitted
- [2] = Mercy tickets / capsules are paid on every game credit, regardless if prizes are won or not. Optional ticket / capsule dispenser must be fitted

\* **NOTE:** If no ticket or capsule dispenser is fitted to the machine, make sure this adjustment is set to [0].





# **AUDITS MODE**

- By using the Audits Mode the operator can 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 allows bookkeeping of the games processed since the last game audits reset. While in this mode, the game audits can also be reset to zero.
- 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. This will prompt the AAA a code on the display, indicating the Audits mode.
- SELECT The Service button is pressed for advancing each step through the set of audits configurations, starting from the AAAA display with A1 and ending with A11, and then looping again from A1 to A11 until the mode is exited.
- **RESET** The entire set of audits can be reset during any of the seven audit configurations, by holding the Start/Stop button for longer than 5 seconds.

The display 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 "0000".

- EXIT The Audits mode is exited into the Second Audit Mode A2A2 by pressing the Test Button once, or into Score History Mode by pressing the Test Button twice.
  - \* NOTE: The Second Audit Mode A2A2 are Manufacturer Audits only and serve no useful function for the operator of this game.

\* NOTE: <u>ALL</u> Audits will **STOP INCREMENTING** when the "Total Games Played", audit A10, reaches 9999.

To restart the audits they must be reset to 0000 by holding the Start/Stop button for longer than 5 seconds while in audits mode.





# GAME AUDITS QUICK REFERENCE TABLE

DISPLAY	CODE	GAME AUDITS
A 0 1	A1	No. of Jackpot prizes dispensed Arm 1
A 0 2	A2	No. of Jackpot prizes dispensed Arm 2
A 0 3	A3	No. of Jackpot prizes dispensed Arm 3
A 0 4	A4	No. of Consolation prizes dispensed Arm 4
A 0 5	A5	No. of Consolation prizes dispensed Arm 5
A 0 6	A6	No. of Consolation prizes dispensed Arm 6
A 0 7	A7	No. of Consolation prizes dispensed Arm 7
A 0 8	A8	No. of Consolation prizes dispensed Arm 8
A 0 9	A9	No. of Non-winning games played
A 0 10	A10	Total No. of games played
A 0 11	A11	Total No. of games that stopped on "1000"

#### ARM NUMBERS RELATING TO AUDITS





#### **GAME AUDITS DETAILED**

#### ■ A01 = TOTAL JACKPOT PRIZE ARM 1

This Audit displays the total number of *Jackpot Prizes* selected from "Prize Arm 1" since the audits were last cleared. (For position of Arm 1, refer to diagram Page 16).

#### ■ A02 = TOTAL JACKPOT PRIZE ARM 2

This Audit displays the total number of *Jackpot Prizes* selected from "Prize Arm 2" since the audits were last cleared. (For position of Arm 2, refer to diagram Page 16).

#### ■ A03 = TOTAL JACKPOT PRIZE ARM 3

This Audit displays the total number of *Jackpot Prizes* selected from "Prize Arm 3" since the audits were last cleared. (For position of Arm 3, refer to diagram Page 16).

#### ■ A04 = TOTAL CONSOLATION PRIZES ARM 4

This Audit displays the total number of *Consolation Prizes* selected from "Prize Arm 4" since the audits were last cleared. (For position of Arm 4, refer to diagram Page 16).

#### ■ A05 = TOTAL CONSOLATION PRIZES ARM 5

This Audit displays the total number of *Consolation Prizes* selected from "Prize Arm 5" since the audits were last cleared. (For position of Arm 5, refer to diagram Page 16).

#### ■ A06 = TOTAL CONSOLATION PRIZES ARM 6

This Audit displays the total number of *Consolation Prizes* selected from "Prize Arm 6" since the audits were last cleared. (For position of Arm 6, refer to diagram Page 16).

#### ■ A07 = TOTAL CONSOLATION PRIZES ARM 7

This Audit displays the total number of *Consolation Prizes* selected from "Prize Arm 7" since the audits were last cleared. (For position of Arm 7, refer to diagram Page 16).

#### ■ A08 = TOTAL CONSOLATION PRIZES ARM 8

This Audit displays the total number of *Consolation Prizes* selected from "Prize Arm 8" since the audits were last cleared. (For position of Arm 8, refer to diagram Page 16).





#### ■ A09 = TOTAL NON WINNING GAME

This Audit displays the total number of *Games* that have not won a prize since the audits were last cleared.

#### ■ A10 = TOTAL GAMES PLAYED

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

\* NOTE: This Audit and all other Audits STOP when A10 reaches '9999'.

#### ■ A11 = TOTAL JACKPOT WINS

This Audit displays the total number of *Jackpot Wins* since the audits were last cleared.

\* **NOTE:** Sometimes there are more "Jackpot Wins" than "Jackpot Prizes" selected because Jackpot Winners can select a consolation prize if they want to.

#### **SECOND AUDITS MODE**

#### ■ A2A2 MANUFACTURE AUDITS

These are Manufacturer Audits only and serve no useful function for the operator of this game

\* NOTE: The Factory may request from the operator the values of these audits.





# **SCORE HISTORY MODE**

- By using the Score History Mode the operator can view the score for the last five *results* of the Games Played. This enables the operator to verify player win results.
- ENTER The Score History is entered from Second Audits Mode by pressing the Test button once, or from Attract mode by pressing the Test button Seven times. This will prompt the code HHHHH on the display, indicating the Score History mode.
- SELECT The Service button is pressed for advancing each step through the set of Score History configurations, starting from the HHH Hellsplay with H1 and ending with H5, and then looping again from H1 to H5 until the mode is exited.
- **DISPLAY** For each of the Score History steps from H1 to H5 the Display will consecutively show the Score History Number and Score result.
- **EXIT** The Score History mode is exited into Attract mode, by pressing the Test Button once.

\* NOTE: Score Histories will be erased if the game is switched off then on. Empty Score Histories show as [0000] in Display.

### SCORE HISTORY QUICK REFERENCE TABLE

DISPLAY	CODE	GAME AUDITS
H 1	H1	Most Resent Score Result
H 2	H2	Second Last Score Result
H 3	Н3	Third Last Score Result
H 4	H4	Forth Last Score Result
H 5	Н5	Fifth Last Score Result





# **ERRORS AND TROUBLESHOOTING**

If the microprocessor detects any problems with the operation of the game, an Error will be displayed on the 4-digit LED display and the machine will play a voice message. "Please Call Attendant". Some error Messages will only be displayed when test mode is entered. Errors are displayed on the LED display as ErrX, where 'X' is the error number.

There are nine error messages listed as follows:

CODE	ERROR DESCRIPTION	SOLUTION
Err1	<b>TICKET or CAPSULE DISPENSER ERROR</b> Jammed tickets, no tickets / capsules or no ticket / capsule notch pulse for longer than 3 seconds. <b>NOTE:</b> <i>If</i> <b>Err1</b> <i>occurs and no ticket/ capsule</i> <i>dispenser is fitted make sure</i> <b>P13</b> & <b>P14</b> <i>is set to</i> <b>[0]</b> .	Clear ticket jam or replenish tickets / capsules. After this, push Test button once to clear error. <b>NOTE:</b> <i>The ticket / capsules</i> <i>dispenser is an optional extra.</i>
Err2	<b>COIN ERROR</b> Coin switch stuck <b>ON</b> for longer than 1 second.	Clear coin switch jam, possibly customer strimming coin mechs. If fault is cleared, MCU will automatically clear error after 30 seconds.
Err3	<b>EEPROM ERROR</b> Problem with on-board EEPROM.	Send MCU PCB to the closest LAI Games distributor for repair.
Err4	PRIZE ARM EMPTY or PRIZE SENSOR NOT WORKING	Refill Prize Arms or test sensor using switch test.
Err5	PRIZE SENSOR BLOCKED or PRIZE SENSOR FAULTY	Clear Blockage from between prize sensors or test sensor using switch test.
Err6	AUTOMATIC SOFTWARE can not make jackpot prize wins harder.	Reduce P11 setting and value of jackpot prizes to compensate.
Err7	AUTOMATIC SOFTWARE can not make jackpot prize wins easier.	Increase P11 setting and value of jackpot prizes to compensate.
Err8	AUTOMATIC SOFTWARE can not make consolation prize wins harder.	Try reducing P12 setting and value of consolation prizes or reduce P06, consolation prize range
Err9	AUTOMATIC SOFTWARE can not make consolation prize wins easier.	Try increasing P12 setting and value of consolation prizes or increase P06, consolation prize range

\* NOTE:

Errors **Err6** to **Err9** only occur when P10 is set to **AUTOMATIC**.





# **TROUBLESHOOTING 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 / CAPSULE ERROR
  (Optional Extra Ticket / Capsule Dispenser)

Usually this error occurs if the game has run out of tickets / capsules 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. You can test the notch pulse by passing a ticket in and out of the notch sensor on the ticket dispenser or if capsule dispenser is fitted, check that the capsule switch is activating. For entering Switch Test mode see page 8. If the game was out of tickets or jammed, replace the tickets / capsules, 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.

\* NOTE: The ticket / capsule dispenser is an optional extra for *"Time buster"*, so if a Err1 error occurs and <u>NO</u> ticket / capsule dispenser is fitted to the game, check program adjustment P13 & P14 is set to [0].

#### • Err2 = COIN ERROR

Usually this Error occurs if the coin switch is jammed on, or the coin switch has operated for longer than one second. The coin switch can be tested using the switch test, page 8.

If the coin switch wire is pressed using your finger, this can cause a coin error because the coin pulse is to long. To test the coin switch, use a coin. To play a game, use the service switch. If the coin switch is not permanently jammed on, the coin error will clear itself in about 5 seconds.

#### • Err3 = EEPROM ERROR

This Error is only displayed in test mode and means that the EEPROM on the CPU board is faulty. This could cause problems with the game audits and program settings.

If this error occurs, take your game to the nearest authorised LAI games dealer for repair.

#### ■ Err4 = PRIZE ARM EMPTY / PRIZE SENSOR NOT WORKING

• This error is usually displayed if an empty prize arm is selected by a prizewinner or if the game activates the prize arm and does not sense a prize dropping through the prize sensor.

• The error can also occur if the prize arm "TIMES OUT" caused by taking to long to dispense a prize. If there is more than 'five spring turns' between prizes on the prize arm, this can happen.

• Using the switch test page 8, and passing your hand through the infrared beams in the prize chute can test the prize sensor. These beams shine through the eight holes seen on the left and right sides of the prize chute. Blocking the invisible



beams will display C6 in switch test. Removing your hand from the beams stops C6 from being displayed.

#### ■ Err5 = PRIZE SENSOR BLOCKED OR FAULTY

This error usually occurs if the prize sensor is blocked or a prize is jammed in the prize chute blocking the infrared beam of the prize sensor. The sensor can be tested using the switch test page 8. If the sensor is blocked C6 will be displayed in this test. Clear what ever is blocking the sensor and the error will clear itself.

If you can not find anything blocking the sensor, there could be faulty infrared sensors or receivers on the prize sensor. The sensor PCB's should be returned to your nearest LAI Games distributor for repair.

#### Err6 = AUTOMATIC CAN NOT MAKE JACKPOT PRIZE WINS HARDER.

This error will only be displayed when entering test mode. It occurs when in automatic mode. The game has made the jackpot prize wins difficulty the most difficult possible and still can not achieve the desired jackpot prize wins set in programmable adjustment P11. Try reducing the setting of P11. A reduction of the value of the jackpot prizes would have to be done also to keep the payout balanced.

# ■ Err7 = AUTOMATIC CAN NOT MAKE JACKPOT PRIZE WINS EASIER.

This error will only be displayed when entering test mode. It occurs when in automatic mode. The game has made the jackpot prize wins difficulty the easiest possible and still can not achieve the desired jackpot prize wins set in programmable adjustment P11. Try increasing the setting of P11. An increase in the value of the jackpot prizes would have to be done also to keep the payout balanced.

#### Err8 = AUTOMATIC CAN NOT MAKE CONSOLATION PRIZE WINS HARDER.

This error will only be displayed when entering test mode. It occurs when in automatic mode. The game has made the consolation prize difficulty the most difficult possible and still can not achieve the desired consolation prize wins set in programmable adjustment P12. Try reducing the setting of P12 or decrease the consolation prize range P06, if you want to keep the same consolation prize value.

#### Err9 = AUTOMATIC CAN NOT MAKE CONSOLATION PRIZE WINS EASIER.

This error will only be displayed when entering test mode. It occurs when in automatic mode. The game has made the consolation prize wins difficulty the easiest possible and still can not achieve the desired consolation prize wins set in programmable adjustment P12. Try increasing the setting of P12 or increase the consolation prize range P06, if you want to keep the same consolation prize value.





# **SECTION A: SERVICE INSTRUCTIONS**











# **FUSE LOCATION DIAGRAM**

As viewed from rear







#### **FUSES DETAILED**

For location of Fuses, please refer to the diagram on page 26 of this manual.

#### ■ 32 CHANNEL AC DRIVER PCB FUSES (4 x 10 AMP Fast Blow).

These four fuses are for all the AC controlled lamps. These include the 60 lamps of the light chaser in the prize box and the two lamps in the push buttons on the control panel (Start/Stop button and Step button). The lamps are divided into 4 sections each controlled by one 10 AMP fuse.

#### ■ MCU CONTROLLER (GAME PCB) FUSE (1 x 1 AMP Fast Blow).

This fuse is for the supply to the MCU PCB. The MCU PCB also supplies the

power to the sound PCB.

# MCU CONTROLLER (GAME PCB) OUTPUT FUSE (1 x 4 AMP Fast Blow).

This fuse is for the controlled outputs from the MCU controller like meters etc.

#### ■ 16 CHANNEL DC DRIVER PCB FUSE (1 x 10 AMP Fast Blow).

This fuse is for the controlled outputs from the 16 channel DC driver PCB. These outputs are for the 8 prize arm motors and the 8 prize arm lamps.

#### ■ PRIZE ARM MOTORS FUSE (1 x 500 MA Fast Blow).

This fuse is for the eight prize arm motors and is located directly below the 16

channel DC driver PCB.

#### ■ WATCHDOG PCB (1 x 1.5 AMP Fast Blow).

This fuse is for the supply to the watchdog PCB.

#### ■ 12V AC SUPPLY (LAMPS) FUSES (4 x 10 AMP Slow Blow).

THESE 4 FUSES ARE FOR THE 12V AC SUPPLY FROM THE MAIN TRANSFORMER. THESE SUPPLIES ARE FOR THE AC CONTROLLED LAMPS.

#### ■ MAIN AC SUPPLY POWER FUSE (1 x 6 AMP Fast Blow).

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.







# **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 ADJUSTMENTS

#### TRANSFORMER CONNECTOR

- Locate the 2 machine transformers, one in the base of the cabinet, and the other above the 4-digit LED display on the left-hand side as viewed from the rear of the cabinet. If unsure of the location of either transformer, refer to Parts location diagram on page 28 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**

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







#### **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 front door. Use a thin blade screwdriver to move the selector switch to the desired mains voltage (See Diagram Below)







# **3 D Parts TIMEBUSTER**

Q	PART NO	DESCRIPTION	QTY
0	TB1-FM-51-R1	COIN DOOR HINGE	-
02	TB1 A008	COIN DOOR ASSY	-
03	TB1-SA-59-R0	CASH BOX	1
04	TB1-SA-60-R0	HOUSING CASHBOX	1
05	TB1 E008	SERVICE PANEL ASSEMBLY	-
	STC-FM-38-R0	COIN COUNTER BRACKET	-
	EA1252	COIN COUNTER 12V REAR MOUNTING	m
	EE0689 FDAGA2	POTENSIO CARBON WITH KNOB	
	-	HARNESS SERVICE PANEL	
90	TB1 A003	FRONT PANEL ASSEMBLY	
	STC-SA-01-R0	FRONT PANEL METAL ONLY	-
	STC-FP-06-R0	ACRILLIC CONTROL PANEL	-
	STC-FM-37-R0	SPEAKER GRILL	-
	EA0533	PUSH BUTTON BLUE	-
	EA0507	SWITCH RECT GREEN BUTTON WITH LAMP	-
	<u>к</u> Емо556	SWITCH RECT RED BUTTON WITH LAMP	-
	Ф. BA2601	PCB51 2cm 4 DIGIT DISPLAY	-
	AT3214	STICKER TIME BUSTER FRONT LOWER CABINET	-
	EA1201	SPEAKER 4" 8 OHM 40 W	2
01	TB1-FM-02-R0	PRIZE RECEIVAL BOX	-
8	1	PRIZE BOX ASSEMBLY	-
	E STC A004A	PRIZE BOX METAL ONLY	-
	. IT BA2602	PCB59a SB PRIZE SENSOR MASTER	-
	ART BA2603	PCB59b SB PRIZE SENSOR SLAVE	
\$	D. SIC A004B	PRIZE DOOR WITH SUICKER	
50	1B1-SA-09-R0	PRIZE CHUIE ASSEMBLY	-
9	TB1-FM-10-R0	PANEL LOWER RETAINER	-
=	TB1 A001	FRONT DOOR ASSEMBLY	-
12	TB1-FM-56-R0	FRONT DOOR HINGE	-
13	TB1 A007	SIDE SKIN ASSEMBLY	-
14	HM0016	CASTOR 2" SWIVEL	4
15	CD A001	CAPSULE DISPENCER ASSEMBLY	-
16	TB1 E007	POWER ASSEMBLY	-
17	TB1 E005	DB BOX ASSEMBLY	-
	STC E005A	DB BOX METAL ONLY	-
	EA1356	BINDING POST	-
	EA1358	SPLIT CORE EMI FILTER FOR CE MACHINE	-
	EA0649	IEC TYPE NOISE EMY FILTER	-
	EX HOOT	DB BOX HARNES	-
	EA0635	POWER LEAD MOLDED IEC TO 3 PIN USA	-
	EA0636	POWER LEAD MOLDED IEC TO 2 PIN INDO	
	CL EAU53/	POWER LEAU MOLDED IEC 10 3 PIN AU DOWER LEAD MOLDED IEC TO 3 DIN 11K	
18	TB1 A005	SIDE PANEL ASSY	1R.1L
	STC-FW-06-R0	SIDE PANEL	-
	H AT3211	STICKER TIME BUSTER SIDE R/L	-
19	TB1-FM-22-R0	MYLAR LOWER BRACKET	-
20	AT3213	ACRILLIC HEADER	-
21	TB1 E006	TOP LIGHT TIME BUSTER ASSY	-
	-> EA0206	LAMPU NEON 18W COOL WHITE	-
	EP0434	END CAP HOLDER WODEL 713 HS	0
	STC-FM-15-R0	TOP UL BRACKET	
52	TB1-FM-36-R0	MYLAR SIDE RETAINER	~
23	TB1-FM-35-R0	MYLAR DIVIDER	
24	TB1-SA-19-R0	MYLAR BACK COVER	-
25	TB1-FM-21-R0	MYLAR TOP RETAINER	-
26	BA2001	PCB 32 CHANNEL AC DRIVER	-
21	BA2057	PCB WATCHDOG	_ ,
80	FA0516	SWITCH TILT ASSEMBLY	-

























# TIMEBUSTER MAIN WIRING DIAGRAM







# TIMEBUSTER DISPLAY WIRING DIAGRAM







# TIMEBUSTER DC CONTROL WIRING DIAGRAM







# TIMEBUSTER POWER WIRING DIAGRAM







# TIMEBUSTER OPTIONAL 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.





# **INTERNATIONAL SALES & SERVICE**

Sales/Enquiries: Tech. Support: Website: <u>sales@laigames.com</u> <u>support@mleisure.co.id</u> <u>www.laigames.com</u>



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