OPERATOR and ASSEMBLY MANUAL

V 1.4.3

ISO 9001 CERTIFIED ORGANIZATION

ISO 9001: 2008 Cert No.17460

TABLE OF CONTENTS

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! *

*__Always__ turn **OFF** Mains AC power and unplugged the game, before opening or replacing any parts.*

__Always__ when unplugging the game from an electrical outlet, grasp the plug, not the line cord.

__Always__ connect the Game Cabinet to grounded electrical outlet with a securely connected ground line.

__Do Not__ install the Game Cabinet outdoors or in areas of high humidity, direct water contact, dust, high heat or extreme cold.

__Do Not__ install the Game Cabinet in areas that would present an obstacle in case of an emergency, ie. near fire equipment or emergency exits.

---

* CAUTION! *

__Always__ 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.

*__Do Not__ 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.

__Do Not__ Subject the game cabinet to extreme temperature variations. Reliability of electrical components deteriorates rapidly over 60 ^{o}C.

MACHINE INSTALLATION and INSPECTION

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

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

■ Be sure to turn the power **OFF** before working on the machine.

---

* WARNING! *

Always 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! *

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. 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 *"Feeding Time",* another exciting ball throwing game from LAI Games. *"Feeding Time"* features a remarkable game cabinet design with colorful graphics and five stunning animal head models on the playfield. This game offers a simple but exciting game play with the chance to collect double points each time you play. Undoubtedly, *"Feeding Time"* will make an exciting ticket redemption game 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 *"Feeding Time"* is a one player, ticket redemption game, where players attempt to throw as many balls as they can into the animals" mouth to collect points. The more points they collect, the more tickets they won.

PACKAGING

■ 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! ***
> ■ Feeding Time is shipped from the factory in separate parts and requires assembling. Please refer to the separate *Feeding Time Assembly Manual* for details.

CONTENTS

■ The "*Feeding Time*" cabinet
■ Keys: 2 x coin door keys
             2 x front door keys
             2 x ticket door keys
■ Operator"s manual
■ Assembly Manual
■ 300 Assorted color balls
■ IEC Power Cord   (In cash box)
■ Accessories   (In cash box)

SPECIFICATIONS

DIMENSIONS

- Weight: 203 kg   (447.5lb)
- Height: 2314mm   (91")
- Width: 864mm   (34")
- Length: 1855mm   (73")
- Power: Maximum   180 w – (220V @ 0.75A)(120V @ 1.5A)
            Average   100 w – (220V @ 0.45A)(120V @ 0.83A)

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! *

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

Please *Refer to the mains voltage adjustment section of this manual. 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
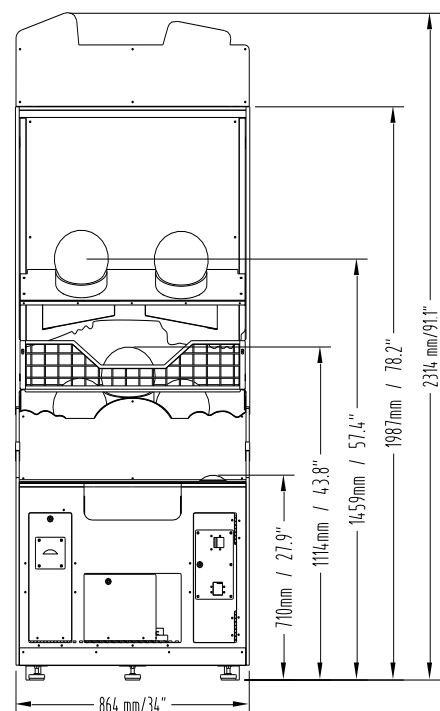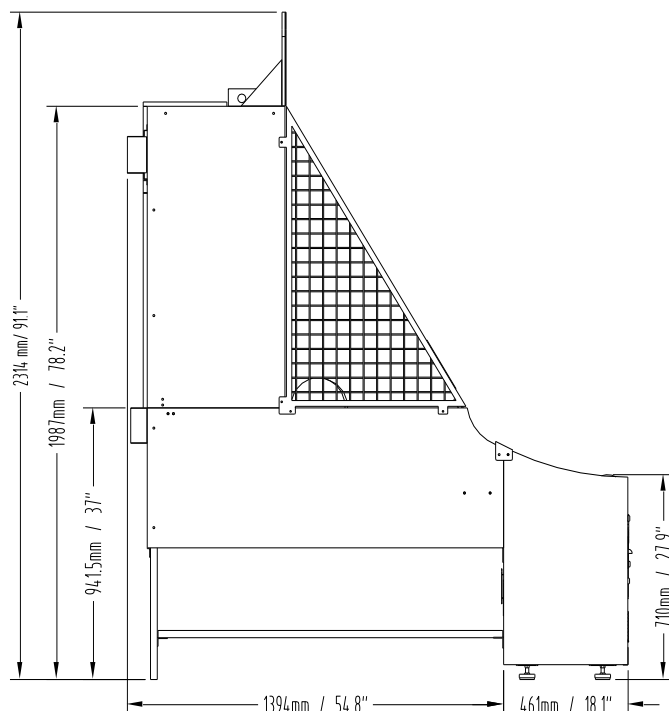
FEEDING TIME ASSEMBLY Quick Guide

<u>Do's</u> and <u>Don'ts</u> for Assembling *Feeding Time*

<u>Do</u> **read the** *Feeding Time* **assembly manual as it will help you in the correct step by step order of assembly.**

<u>Do</u> take note of what size bolts are used where when assembling *Feeding Time.*

<u>Do</u> **make sure that all cables are free to move and not pinched or jammed under the playfield or other parts when assembling** *Feeding Time***.**

<u>Do</u> **make sure that all earth point cables are connected when assembling both the Front Frames and Front Playfield Speaker Pods on** *Feeding Time.*

<u>Don't</u> **forget to remove the** *Feeding Time* **cables from inside the game cabinet before bolting the front playfield in place.**

<u>Don't</u> **forget after assembling** *Feeding Time* **to check and tighten all the bolts.**

<u>Don't</u> **forget to check the voltage setting of** *Feeding Time* **is set to the mains voltage for your country before applying power.**

<u>TIPS</u> **for Assembling** *Feeding Time*

o   We recommend using two people when assembling *Feeding Time*. While one person is able to do most of the assembly, using two people will be much easier. A stepladder will also be very handy during assembly.

o   We recommend that assembling *Feeding Time* is best done on a level and even surface. Adjust the rubber feet on the frames to align them for easier assembly.

o   We recommend when assembling *Feeding Time* not tightening all the bolts until all major parts are fitted. This will allow the easy alignment of holes as the frame is not held rigid.

---

* NOTE *
Feeding Time uses **metric** size Nuts & Bolts throughout its construction.

FEEDING TIME ASSEMBLY INSTRUCTIONS

■ The photograph below displays the parts and their names for you to refer to while assembling the "Feeding Time". This will assist you in locating the parts more easily.

FRONT CABINET
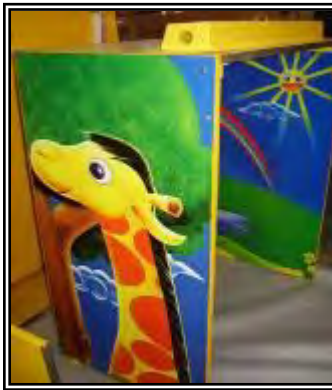
REAR CABINET

REAR CABINET LEGS & BRACES
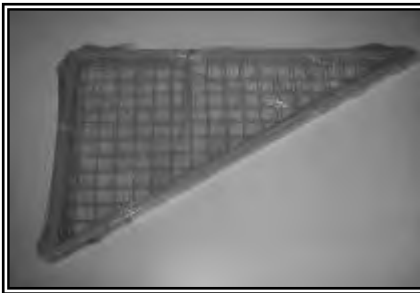
LEFT, RIGHT, FRONT barrier MESH, and top braces

TOP HEADER

MIDDLE CABINET

TOOLS REQUIRED FOR ASSEMBLY

- ♦ 1 x 4 mm Allen Key
- ♦ 1 x 3 mm Allen Key
- ♦ 1 x 150 mm Adjustable Spanner
- ♦ 1 x 13 mm Ring and Open end Spanner
- ♦ 1 x 10 mm Ring and Open end Spanner
- ♦ 1 x 8 mm Ring and Open end Spanner

One person is able to do most of the assembly, but using two people will be much easier. A stepladder/chair will also be very handy during assembly.

Unpack the machine and be sure to check that all parts are present. As a quick reference, refer to the parts displayed on the previous page.

STEP ONE: Attaching Rear Cabinet Legs.

- ■ Attach to the back of the Rear Cabinet the "H" Shaped Rear Feet Frame

- ■ Firmly bolt the Rear Feet frame onto the Rear Cabinet using the ***four Black M6 x 60mm Knockdown bolts, four spring & flat washers and four M6 nuts** supplied.

* Hardware found in Cashbox

STEP TWO: Attaching Front and Rear Cabinets.

> *** NOTE:** This job is easiest using two people. One on each side to move the Rear Cabinet into place.

- Position the Rear Cabinet into Place and rest on "L" Bracket attached to Front Cabinet

- Bolt the two Cabinets together from underneath using the ***two Silver M6 bolts, washers, spring washers and nuts** supplied.

- The ***Silver M6 Knockdown center bolt** is inserted from the topside inside the ball run

* Hardware found in Cashbox

STEP THREE: Fitting Top to Rear Cabinet and Edge Cover Plates
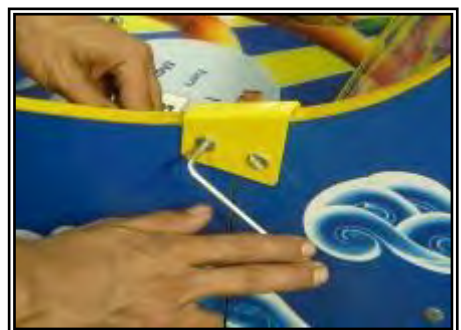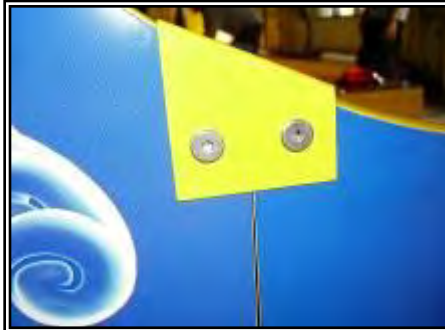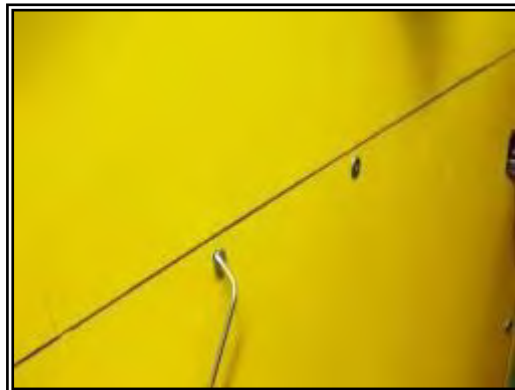
- Attach the three halves of the Cabinet Edge Cover Plates to the machine using the ***10 Silver M6 knockdown bolts and dome nuts** supplied.

> *** NOTE:** Place the "L" shaped bracket to the Outside Edge of the Cabinet to present a smooth edge.

* Hardware found in Cashbox

STEP FOUR: Ball Gate and Backboard Cabling.

■ From the Rear Cabinet are two cables, one six way Molex plug for the Ball Gate and one twelve way Molex plug for the Timing and Lights. Plug these into the two corresponding Molex socket connectors from the Front Cabinet.

■ Plug the fifteen way Molex plug running from the Back Board in to the fifteen way Molex from the Front Cabinet. Then push the connectors into the hole in the back of the Front Cabinet to protect them.

> *** NOTE:** Don't forget to connect the Single Green / Yellows EARTH wire from the Front Cabinet to the Back Board
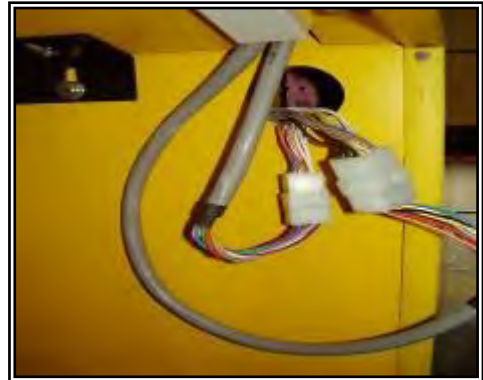
STEP FIVE: Attaching the Left & Right Side Mesh.
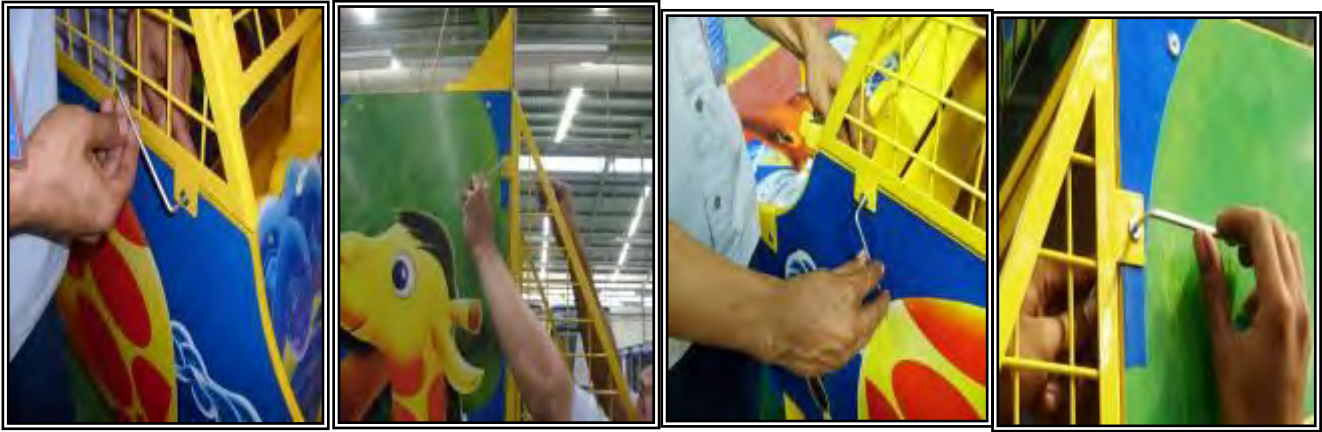
- Align the mounting tabs of the Left & Right Side Mesh with the holes in the Rear Cabinet and tighten firmly use the *** four Silver M6 Knockdown bolts, Washers and Dome Nuts** provided.

* Hardware found in Cashbox

STEP SIX: Assembly Front Playfield

- Fit the Front Playfield between the two side mesh and bolt in place using the ***four Silver M6 Allen Head bolt.**

* Hardware found in Cashbox

STEP SEVEN: Attaching Front Barrier Mesh (Optional).

(Front barrier mesh is an optional can be use to cover the ball from bouncing to the control panel or leave it open without front barrier mesh highly recommended).

■ Fit the Front Barrier Mesh between the two side mesh and bolt in place using the ***four Silver M6 x 15mm Allen Head bolt, Spring and Flat Washers**

* Hardware found in Cashbox
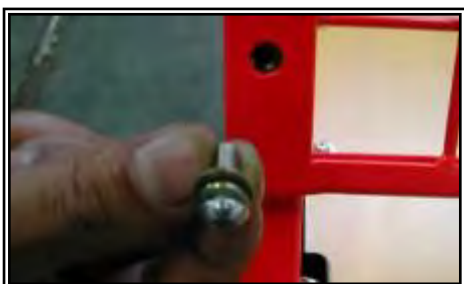
STEP EIGHT: Attaching the Backboard Cover.

* NOTE: It is faster with two people for this part of the assembly.

■ On Backboard Connect the 4 way molex connector for Header Lamp, also connect the 15 way molex connector.

■ Bolt the Backboard to the Rear Cabinet using the *** four M6 x 15 mm bolts** supplied

* Hardware found in Cashbox

STEP NINE: Attaching Top Header.

■ Fit the Top Header between two side mesh and bolt in place using the ***Eight Silver M6 x 15 mm Allen head bolt, flat Washers.**

- **Hardware found in Cashbox**

* NOTE: The Green / Yellow EARTH cable is attached to one of the Spotlight longer mounting screws using the extra nut provided.

ASSEMBLY IS NOW COMPLETED.
REFER TO FOLLOWING PAGE FOR PICTURE OF COMPLETED ASSEMBLY

NOTE!
BE SURE TO CHECK AND TIGHTEN ALL ASSEMBLY BOLTS!

HOW TO PLAY

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

■ Insert coin(s) for credit.

■ 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 animals" mouth in the amount of time given to collect points. Try to get the balls into the flashing animals" mouth to get double points. For each ball that went into an animal"s mouth, players will get 5 points. For each ball that went into a flashing animal"s mouth, 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 dependent on program settings P5.

---

* NOTE! *
Recommended: fit 12 balls per Game.

OPERATION

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

OPERATIONAL DIAGRAM

```
                          ┌─────────────┐
                          │  POWER UP   │
                          └─────────────┘
                                 │
        ┌────────────────────────┼────────────────────────────┐
        │                        ▼                             │
        │      ┌──────────────────┐     ┌──────────────────┐   │
        │      │  ATTRACT MODE    │────▶│   PLAY MODE      │   │
        │      └──────────────────┘     └──────────────────┘   │
        │               │                                      │
        │         PRESS TEST              * NOTE! *            │
        │               │              Entering test mode will │
        │               ▼              clear any stored credits │
        │      ┌──────────────────┐                            │
        │      │   TEST MODE      │                            │
        │      └──────────────────┘                            │
        │               │                                      │
        │         PRESS TEST                                   │
        │               ▼                                      │
        │  ┌────────────────────────────────────┐             │
        │  │ PROGRAMMABLE ADJUSTMENTS MODE       │             │
        │  └────────────────────────────────────┘             │
        │               │                                      │
        │         PRESS TEST                                   │
        │               ▼                                      │
        │      ┌──────────────────┐                            │
        │      │   AUDITS MODE    │                            │
        │      └──────────────────┘                            │
        │               │                                      │
        │         PRESS TEST                                   │
        │               ▼                                      │
        │   ┌─────────────────────┐                            │
        │   │ GAME HISTORY MODE   │                            │
        │   └─────────────────────┘                            │
        │               │                                      │
        └───────── PRESS TEST                                  │
```
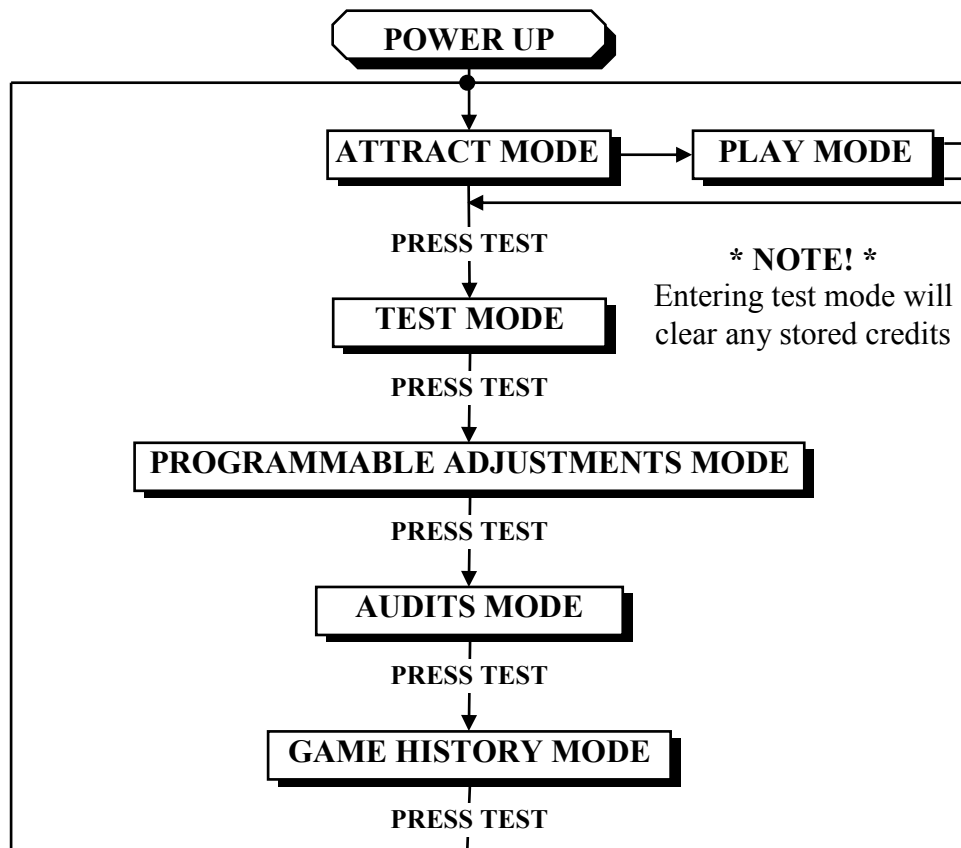
ATTRACT MODE

- 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.

PLAY MODE

- The Feeding Time 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, F r E 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 *Feeding Time* 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.

* 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

```
┌─────────────────────┐                    ┌─────────────────────┐
│   ATTRACT MODE      │────────────●───────│     PLAY MODE       │
└─────────────────────┘                    └─────────────────────┘
                          PRESS TEST
```

```
┌──────────────────────────────────────────────────────────────────┐
│ SOUND, LAMPS & DISPLAY TEST                                        │
│                                                   ┌──┐┌──┐┌──┐      │
│         The Display counts, all lamps flash,      │0 ││0 ││0 │      │
│              and Sound is played.                 └──┘└──┘└──┘      │
│                                                   ┌──┐┌──┐┌──┐      │
│                                                   │1 ││1 ││1 │      │
│                                                   └──┘└──┘└──┘      │
│                                                      ⋮             │
│                                                   ┌──┐┌──┐┌──┐      │
│                                                   │9 ││9 ││9 │      │
│                                                   └──┘└──┘└──┘      │
└──────────────────────────────────────────────────────────────────┘
                          PRESS TEST
```

```
┌──────────────────────────────────────────────────────────────────┐
│ SWITCH INPUT TEST            No INPUT is active                     │
│                              ┌──┬──┬──┐                             │
│                              │C │- │0 │                             │
│                              └──┴──┴──┘                             │
│   TICKET notch      SERVICE switch       Target 4 sensor   Target 5 sensor │
│    is active          is active            is active         is active     │
│   ┌──┬──┬──┐        ┌──┬──┬──┐    To    ┌──┬──┬──┐        ┌──┬──┬──┐ │
│   │C │- │1 │        │C │- │2 │ ──────── │C │- │9 │        │C │1 │0 │ │
│   └──┴──┴──┘        └──┴──┴──┘          └──┴──┴──┘        └──┴──┴──┘ │
└──────────────────────────────────────────────────────────────────┘
                          PRESS TEST
```

```
┌──────────────────────────────────────────────────────────────────┐
│ RUN TEST                                                           │
│ ┌──┬──┬──┐      PRESS      ┌──┬──┬──┐    PRESS      ┌──┬──┬──┐     │
│ │r │r │r │ ──▶ SERVICE ──▶ │r │0 │1 │   SERVICE ──▶ │r │0 │2 │     │
│ └──┴──┴──┘                 └──┴──┴──┘  REPEATEDLY    └──┴──┴──┘     │
│                                        To step from               │
│ BALL GATE TEST                         R01 to R02   Loops back     │
│ ■  R01 = Opening the gate                             to R01       │
│ ■  R02 = Closing the gate                                          │
└──────────────────────────────────────────────────────────────────┘
                          PRESS TEST
```

```
┌──────────────────────────────────────────────────────────────────┐
│              PROGRAMMABLE ADJUSTMENTS MODE                         │
└──────────────────────────────────────────────────────────────────┘
```

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 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, $\boxed{C}$-$\boxed{X}$ 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 C10 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 $\boxed{C}$-$\boxed{0}$ 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	PELICAN
C7	C - 7	Target 2 sensor is Active	GORILLA
C8	C - 8	Target 3 sensor is Active	HIPPO
C9	C - 9	Target 4 sensor is Active	WHALE
C10	C 1 0	Target 5 sensor is Active	CROCODILE

Normal condition for the game is $\boxed{C}$-$\boxed{0}$, 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**

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

Ticket Tensioning mechanism

Ticket release rod

---
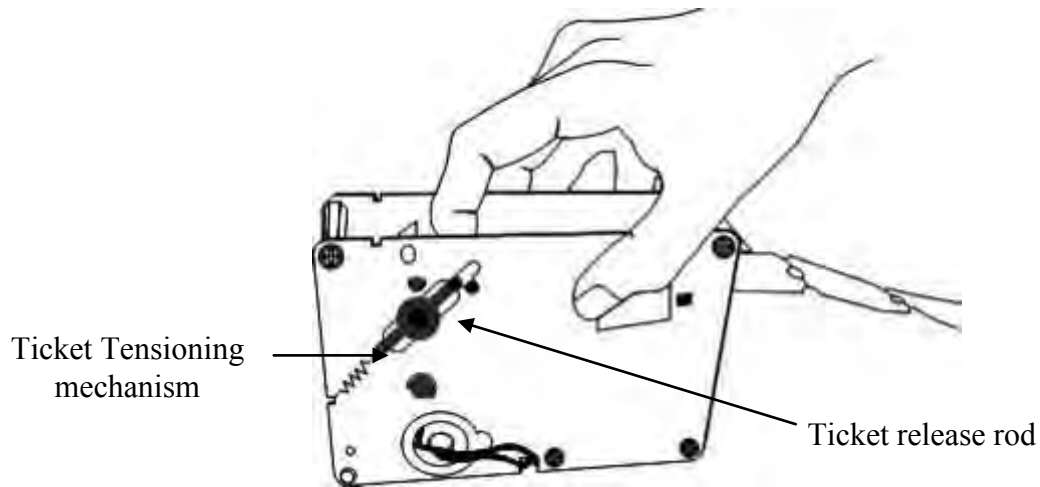
* **NOTE!** *
■ For more information on the servicing and testing the ticket please look at the Dispenser Reference guide.

■ **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, r r r 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 r 0 1, opening ball gate. The Service button is then pressed again to close the gate, showing r 0 2 on the 3-digit display.

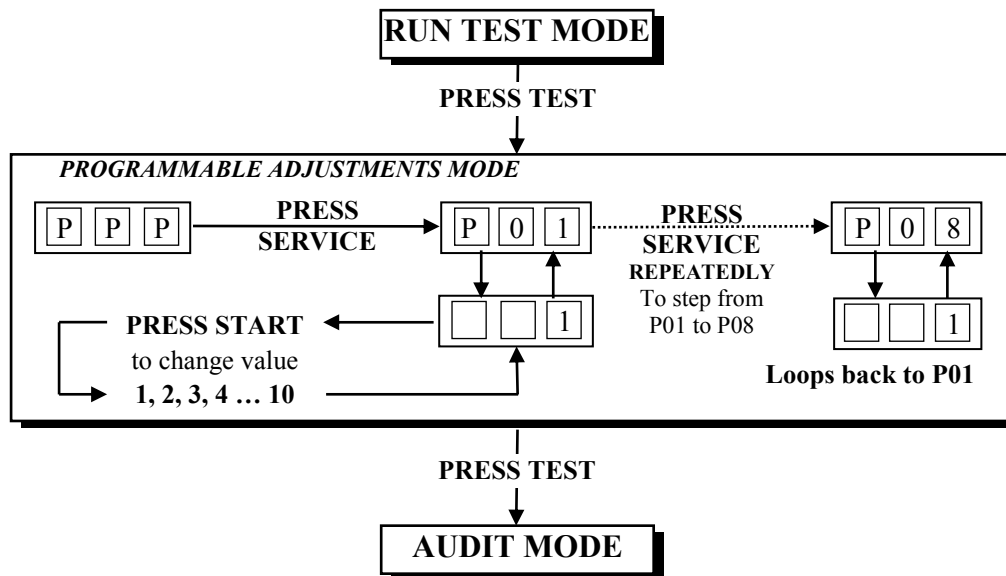■ **EXIT**   The Run Test is exited into Programmable Adjustments Mode by pressing the Test button once.

PROGRAMMABLE ADJUSTMENTS MODE

The Feeding Time 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 🅿🄾🄸 and its value of **1** as ☐☐🄸 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, 🅿🅿🅿 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 🅿🅿🅿 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 (V 1.4.3)

CODE	PROGRAMMABLE ADJUSTMENTS	OPTIONAL VALUES	DEFAULT SETTINGS	FEATURES
P01	1 – 10	1, 2, 3…10	1	Coin Slot 1 – Coins / Credit
P02	1 – 10	1, 2, 3…10	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 – 100	5, 6,7 …100	5	Number of Points / Ticket
P06	0 – 10	0, 1, 2 …10	4	Minimum Tickets payout
P07	OFF, P06 – 100	OFF, P06, …100	10	Maximum Tickets payout
P08	1 – 5	1, 2, 3…5	1	Flashing Target Reposition Time
P09	OFF – ON	OFF,ON	ON	Ticket Option
P10	0 – 5s	0,1,2,3…20 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.

■ **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 – 100)

This setting sets the *number of points* a player must collect to win ONE ticket. The adjustment values are from 5 to 100.

■ **P06 = MINIMUM TICKETS PAYOUT**
(Default 5) (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 10) (Adjustable OFF, P06 – 100)

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 target. The value of 1 is the longest (approx. 3 seconds), while 5 is the fastest (approx. 0.25 seconds). In the last ten seconds of a play, all five 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 – 20 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 20 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 Feeding Time has fifteen Audits that can be viewed in this mode. They are A01 to A15 and their codes and values are displayed alternatively during the Audit Mode.

Example: Code **A01** will be displayed as [A][ ][1] and a value of **421** as [4][2][1] on the 3-digit display.
Or it will display large values like **21589** as [-][2][1] and [5][8][9] on the 3-digit display.

AUDITS MODE DIAGRAM
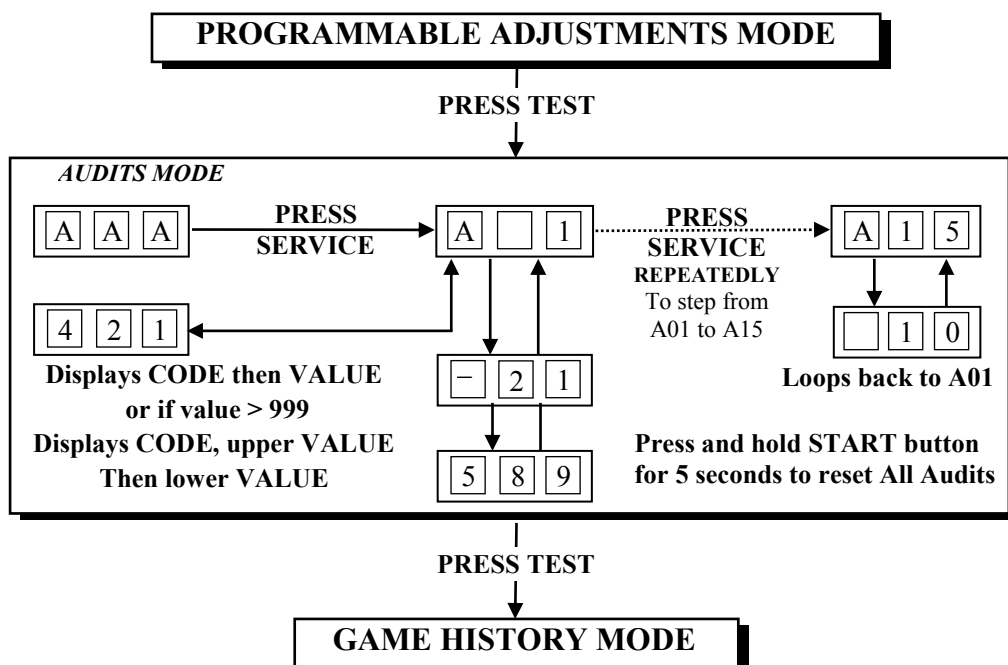
* NOTE! *

■ For Audit values that are greater than 4 digits the audits" values will be displayed in two steps.
■ The first number, which is displayed as [-][-][-][2], has leading dash symbols
■ The second value is displayed as [1][5][8][9], which has no dash symbols.
■ In this example the final value is 21,589.

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. Ⓐ Ⓐ Ⓐ 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 Ⓐ Ⓐ Ⓐ display, A01 being the first step, continuing through to A15, and then looping again from A01 to A15 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! *

■ **ALL** Audits will **STOP INCREMENTING** 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 Balls Exit Through Target 4 (Flashing)
A11	A 1 1	Total Number of Balls Exit Through Target 4 (Not Flashing)
A12	A 1 2	Total Number of Balls Exit Through Target 5 (Flashing)
A13	A 1 3	Total Number of Balls Exit Through Target 5 (Not Flashing)
A14	A 1 4	Total Number of Ball Gate Errors (Err4)
A15	A 1 5	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! *
- **ALL** Audits will **STOP INCREMENTING** 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 BALLS EXIT THROUGH TARGET 4 (FLASHING)**

This Audit displays the *total number of exiting balls passed through target 4* as the target flashed.

■ **A11 = TOTAL NUMBER OF BALLS EXIT THROUGH TARGET 4 (NOT FLASHING)**

This Audit displays the *total number of exiting balls passed through target 4* when the target is not flashing.

■ **A12 = TOTAL NUMBER OF BALLS EXIT THROUGH TARGET 5 (FLASHING)**

This Audit displays the *total number of exiting balls passed through target 5* as the target flashed.

■ **A13 = TOTAL NUMBER OF BALLS EXIT THROUGH TARGET 5 (NOT FLASHING)**

This Audit displays the *total number of exiting balls passed through target 5* when the target is not flashing.

■ **A14 = 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.

■ **A15 = 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! *
■ LAI Games Customer Support may request from the operator the values of these Manufacturers audits, to help with any service issues.

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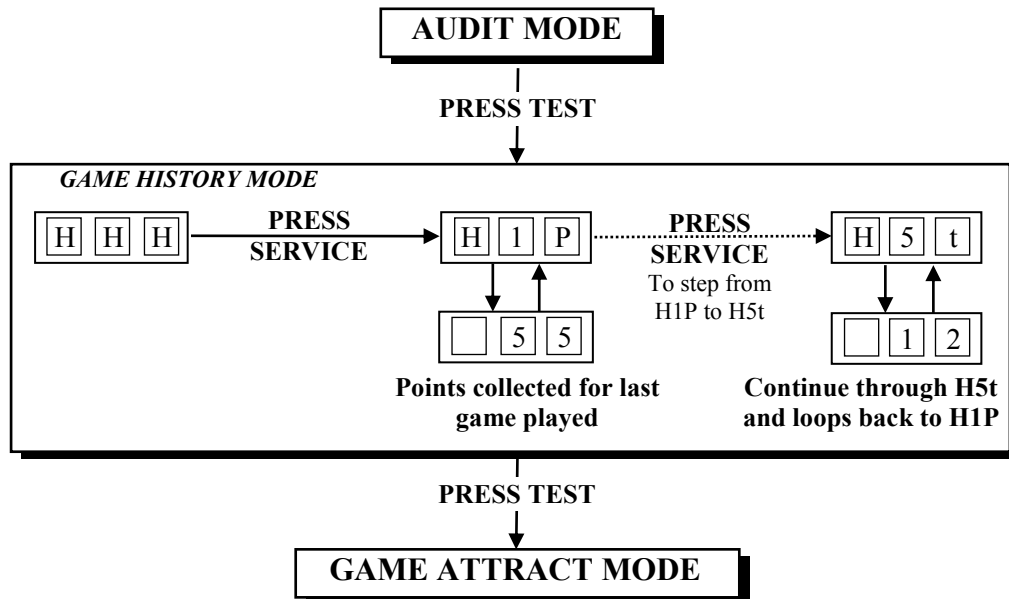
* NOTE! *
■ Score Histories will be erased if the game is switched off then on. Empty score histories show as ▭▭▭ on the 3-digit display

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. ⒣⒣⒣ 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 ⒣⒣⒣ 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	⒣①Ⓟ	Number of Points for Very Last Game Played
H1t	⒣①ⓣ	Number of Tickets for Very Last Game Played
H2P	⒣②Ⓟ	Number of Points for 2nd Last Game Played
H2t	⒣②ⓣ	Number of Tickets for 2nd Last Game Played
H3P	⒣③Ⓟ	Number of Points for 3rd Last Game Played
H3t	⒣③ⓣ	Number of Tickets for 3rd Last Game Played
H4P	⒣④Ⓟ	Number of Points for 4th Last Game Played
H4t	⒣④ⓣ	Number of Tickets for 4th Last Game Played
H5P	⒣⑤Ⓟ	Number of Points for 5th Last Game Played
H5t	⒣⑤ⓣ	Number of Tickets for 5th Last Game Played

ERRORS AND TROUBLESHOOTING

If the Game 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 $\boxed{E}\boxed{r}\boxed{X}$, 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 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).
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 micro-switch on the capsule dispenser, an active notch will be display as **C1.**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.

- **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 24C16 IC on the main MCU PCB). This could cause problems with the game audits and program settings. The first thing to do is trying to switch ON and OFF the machine in at least 2 cycles, if message still appear than replace the EEPROM IC Atmel 24C16 on the CPU PCB with the new EEPROM, If still Error massage, this could be a problems with the game audits and program. If this error occurs, send your main MCU PCB 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. 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 than 3 seconds. The sensor can be tested using the switch test. If the sensor is blocked **C6**, **C7**, **C8**, **C9**, or **C10** will be displayed in this test (depends on the target). Clear whatever 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! ***
> <u>*Always*</u> 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! ***
> <u>*Do Not*</u> use any fuse that does not meet the specified rating.

FUSE LOCATION DIAGRAM
All fuses are located in front cabinet

AC Driver
Fuses
5A QB M205

MCU Power
Fuse
1.5A QB M205

MCU Control
Fuses
5A QB M205

Main AC Supply
Fuse
6A QB M205
(Access is from
behind the front
cabinet)

Fluorescent
Fuses
5A QB 3AG
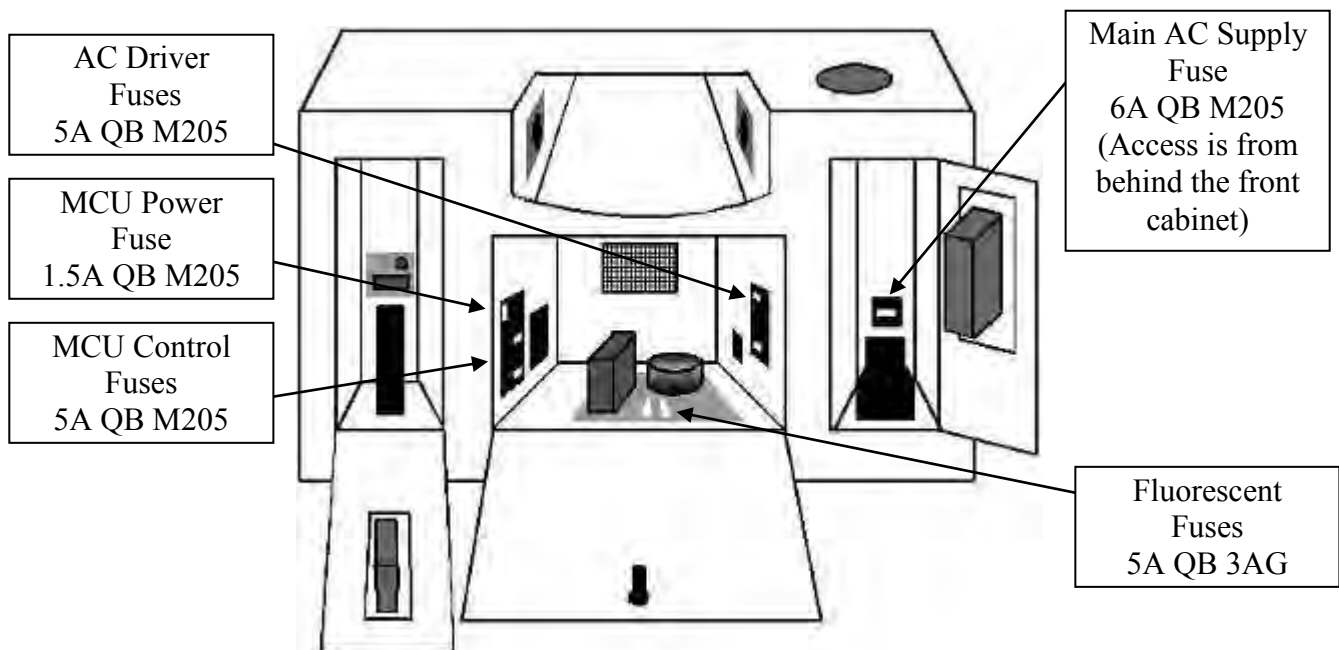
SECTION A: SERVICE INSTRUCTIONS
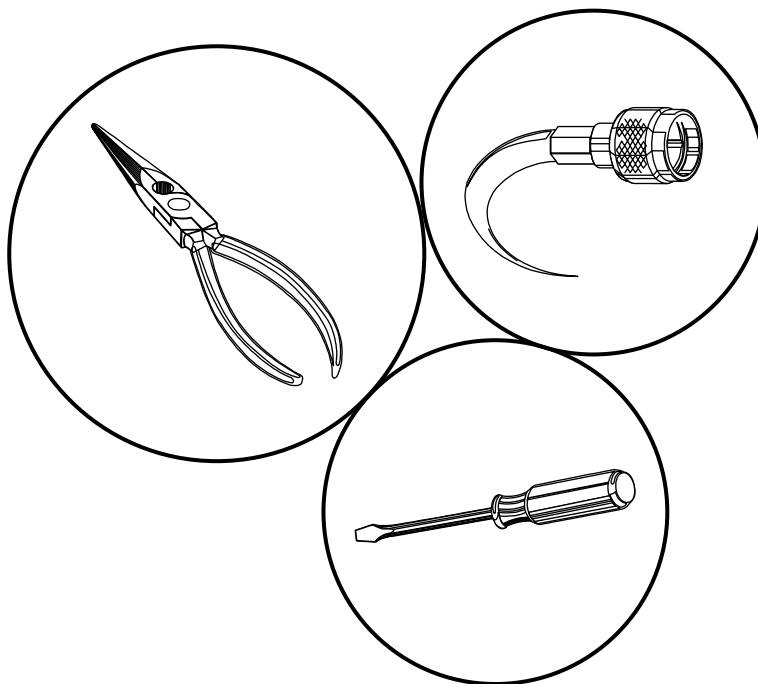
BE SURE TO READ THE FOLLOWING
Carefully before servicing this machine

A

LOCATING AND ACCESSING PARTS

PARTS LOCATION DIAGRAM
As viewed from front

Cabinet Header

3-Digit Display

Upper Ball Targets

Lower Ball Targets

Time Indicator

Speakers (2 units)

Ball Through

Sound CPU PCB

Main MCU PCB

Ticket Holder

Ticket Mechanism

Ticket Door

Playfield Display Lamps

Upper & Lower Playfields

Ball Gate (Inside)

Start Button

Power Inlet (IEC) (Access is from behind)

Coin Mechanism

Coin Door

Service Bracket/Cash Box Housing

16 Channel AC Driver PCB

Amplifier PCB

Downlight Transformer

+12VDC Power Supply

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 Right side of the front cabinet, when facing the machine. 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.

1. **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.

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

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

■ **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 of this manual.

> *** WARNING! ***
>
> <u>*Always*</u> *turn* **OFF** *Mains power and unplugged the game, before replacing any fuses*
> <u>*Always*</u> *use the correct rated fuse. Refer to 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 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 five target sensors are located on the playfield. Two target sensors are located on the underside of the upper playfield. The other three are located under the lower playfield.

LAMPS

***

* WARNING! *

*__Always__ turn **OFF** Mains power and unplugged the game, before replacing any lamps.*

__Always__ 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 bayonet 12VR10W. Each target has two target lamps. For target lamps in the upper playfield, access is from the underside of the playfield. Target lamps in the lower playfield are accessed by the removing of the lower 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**

<u>**Regularly**</u> 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**

<u>**Regularly**</u> 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.*

<u>**Regularly**</u> check that all the Display and Button Lamps are operating through the Sounds, Lamps and Display Test. Replace any globes that are not operational.

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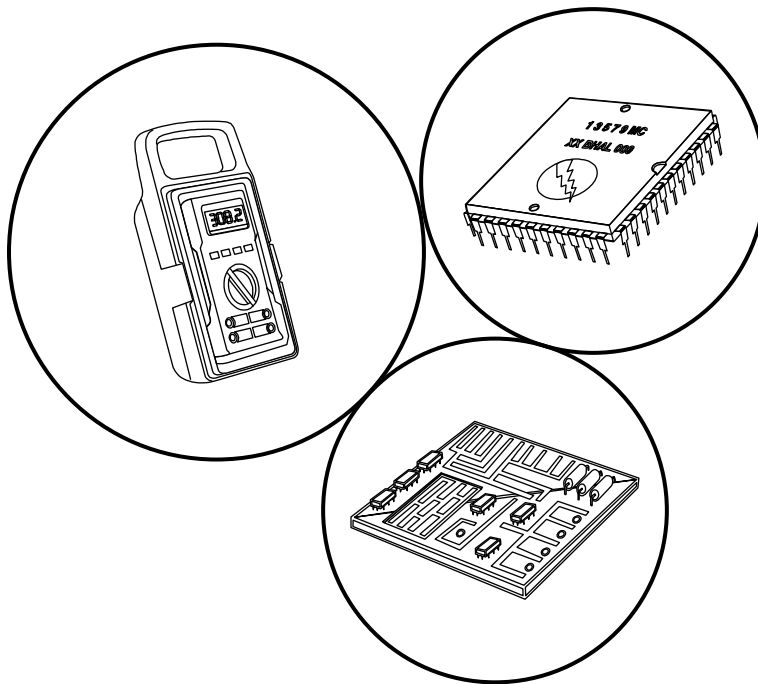
> ⚠ It is advised that anybody using SECTION B for repairing or modifying any of the components of the game should be a qualified technician, having at least basic knowledge of digital components, integrated circuits and electricity. ⚠

B

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)
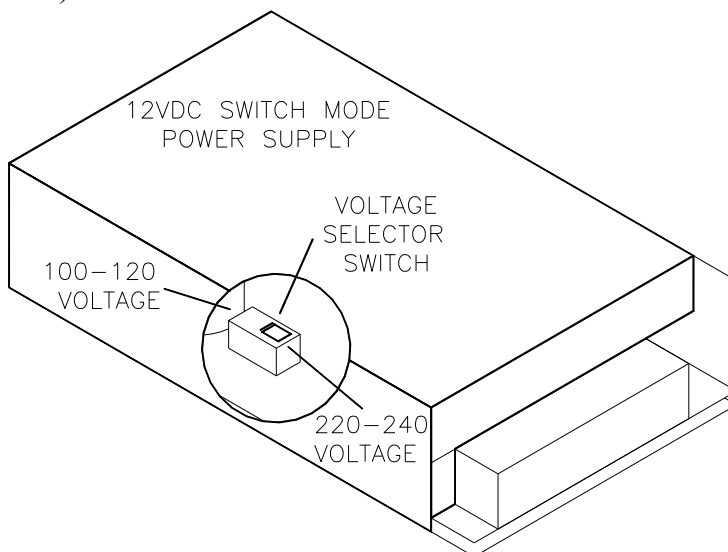
■ TRANSFORMER CONNECTORS

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 36 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**
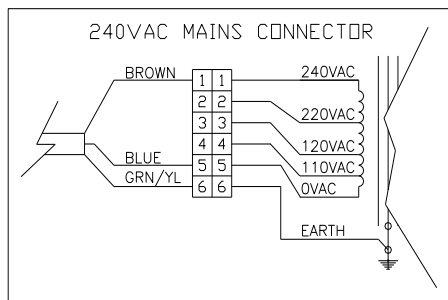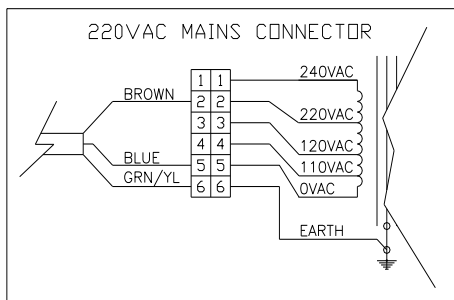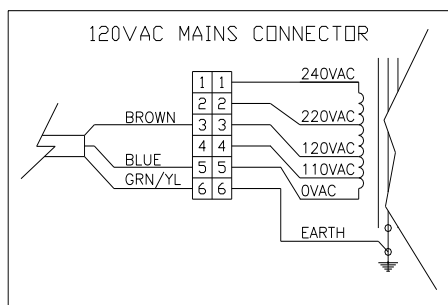
TICKET DISPENSER REFERENCE GUIDE

"Quick Release" Ticket Dispenser Manual
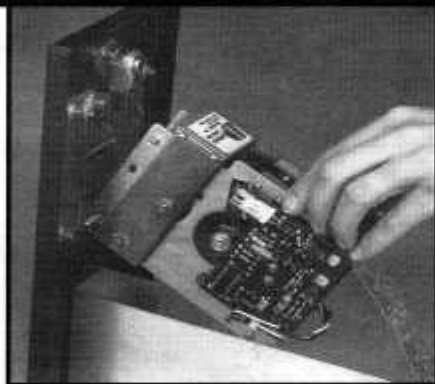
U.S. Patent 5833104
Additional Patents Pending

The "Quick Release" Ticket Dispenser

- Quick release face plate
- Bottom metal ticket guide
- Foolproof braking system
- Optical sensor dust cover
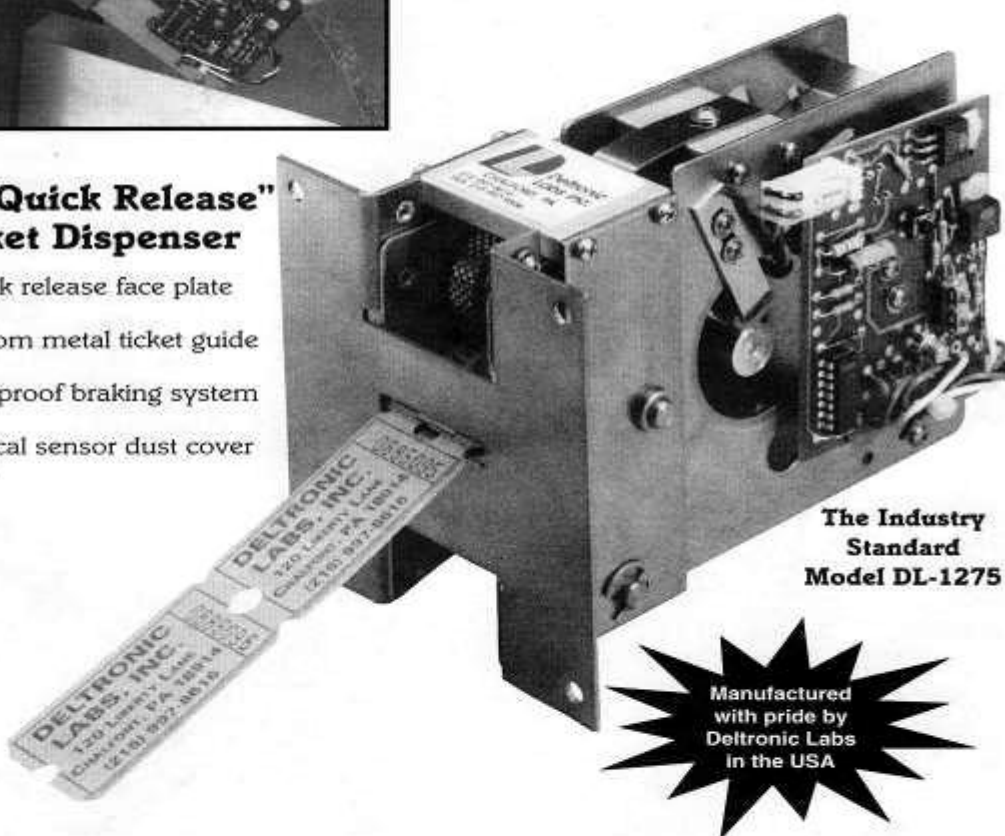
The Industry
Standard
Model DL-1275

Manufactured
with pride by
Deltronic Labs
in the USA

Another quality product from Deltronic Labs . . . the industry leader in ticket dispensers.

Deltronic Labs, Inc. 120 Liberty Lane, Chalfont, PA 18914
215-997-8616 • FAX# 215-997-9506 • Web Site: www.deltroniclabs.com

"Quick Release" Ticket Dispenser Features
All Models

1 Removable top metal ticket guide

9 Locating spring

8 Roller tension spring

Validation rollers emboss tickets

2 Bottom metal ticket guide

10 "Quick Release" Face Plate

6 Optical sensor w/dust cover **7**

3 Ticket advance switch

11 Ticket stop adjustment

4 Braking system

5 Brake bracket

Deltronic Labs, Inc. 120 Liberty Lane, Chalfont, PA 18914 • 215-997-8616 • FAX# 215-997-9506 • www.deltroniclabs.com

Page 44

Ticket Dispenser Assembly

Details of Parts

F/N	Qty	Deltronic Labs P/N	Name
11	1	SHFT-IDLRLR/TD/	IDL. ROLLER SHAFT
12	1	RM-SFTMTR/TD/	MOTOR PIVOT SHAFT
13	1	SPAC-PIVBLK/TD/4HOL	PIVOT BRACKET SPAC
14	1	RM-SPCPB/TD/	SPACER BLOCK
15	2	RM-RLRIDL/TD/VALD	IDLER ROLLER
16	1	RM-RLRDR/TD/VALD	DRIVE ROLLER
17	2	SPRG-TENSN/TD/	TENSION SPRING
18	2	RM-BKTPVT/TD	MTR PIVOT BKT.
19	1	RM-PANLFT/TD/NOPM	FRONT PANEL
20	1	RM-WHLBRK/TD/	BRAKE WHEEL
21	1	SPRG-LOCAT/TD/	LOCATING SPRING
22	1	RM-BKTBRK/TD/	BRAKE BRACKET
23	1	RM-BKTTUB/TD/3/8	URETHANE BRAKE
24	1	PCBD-1275/TD/ *	PC BOARD
25	1	RM MOTOR/TD/	MOTOR
26	2	RM-PLATFR/TD	FRAME PLATE
27	1	RM-CONN2P/TE/20G	2-PIN FEMALE CONN.
28	4	BRNG-F312/TT/BRASS	BUSHING
29	1	SPAC-PCBD/TD/	P.C. BOARD SPACER
30	1	SPAC/HEX/TD/1-1/4	HEX SPACER 1-1/4"
31	1	RM .1M/TT/50V	.1MFD 50V
32	1	SPAC-HEX/TD/1/4"	STAND OFF
33	1	GUID-BOTTOM/TD/MET	LOWER GUIDE MET.
34	4	RING-E25RT/TT/	RETAINING RING
35	1	GUID-TOP/TD/MET	TOP GUIDE METAL
36	2	PULY-SP212/TE/NYLN **	SPACER WASHER
37	2	SPRG FRONT/TD/	SPRING FRONT-PLATE
38	4	RM-PEMNUT/TD/FRPL	PEMNUT FRAME
39	2	RM-PEMNUT/TD/FRPN	PEMNUT FRONT
40	1	COVR-H21A/TD/OPTO	DUST COVER
41	1	CONN MOLEX/TD/4PM	4 WIRE MOLEX MA
42	1	RM-LABEL/TD/ALUM.	LABEL ALUMINUM
43		WIRE-REDBLK/TD/MOTOR	
44	2	SPAC-PIVBRK/TD/HEX***	SPACER 1/4" HEX

* Order by Model #

** Note: F/N #36 replaces .032 and .093 spacer washers.

*** Note: F/N #44 replaces large spacer block.
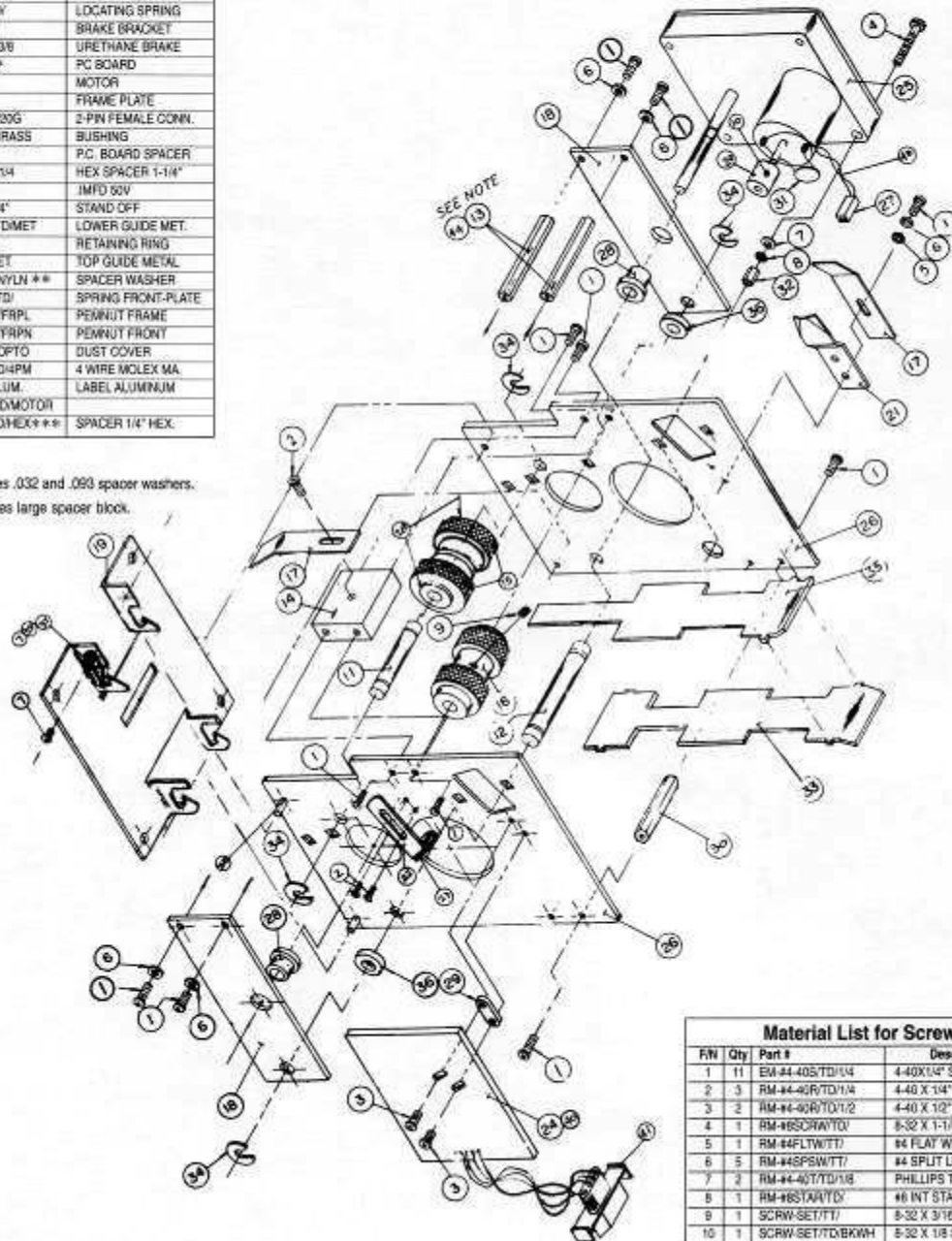
Material List for Screws

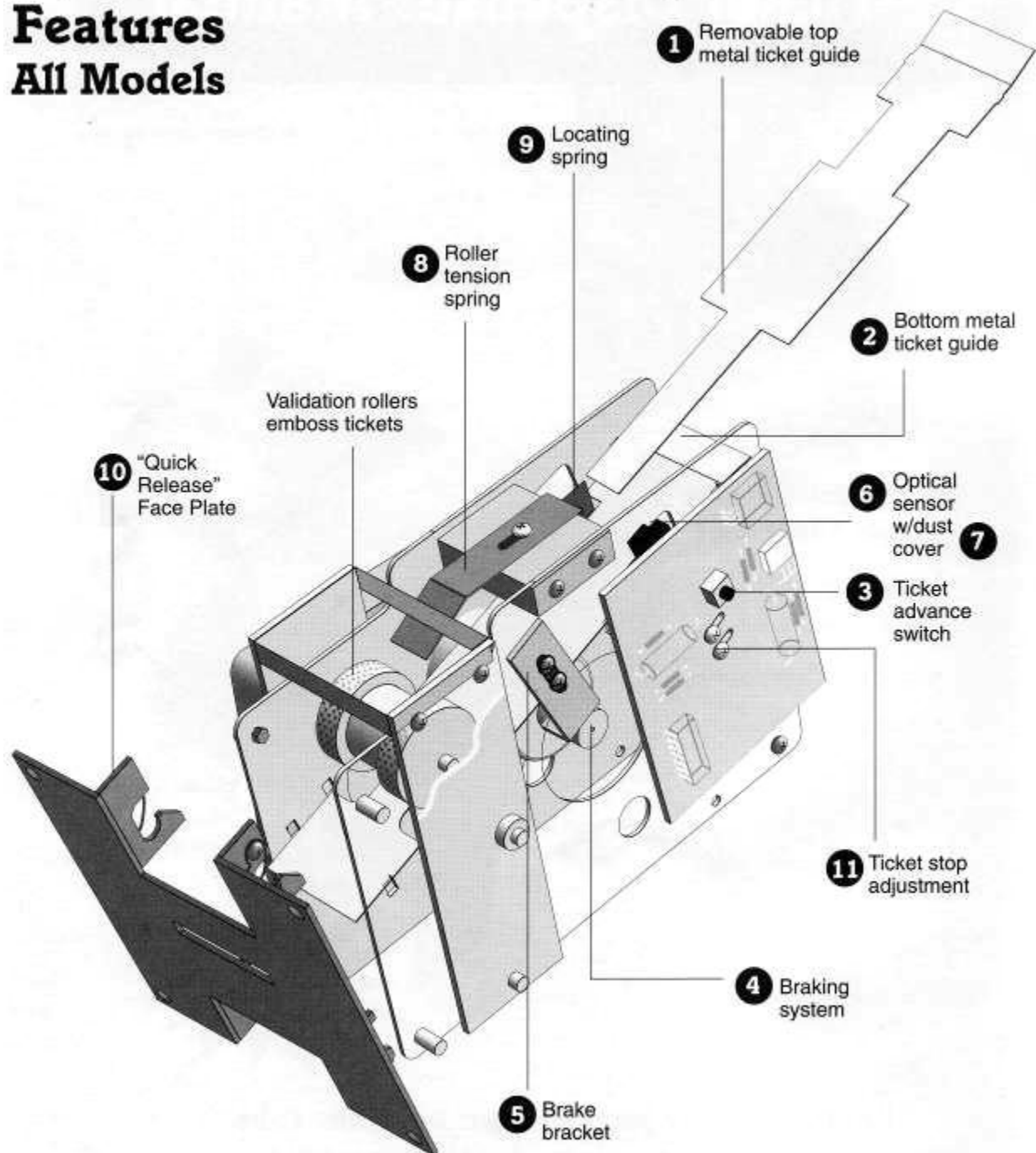| F/N	Qty	Part #	Description
1	11	RM-#4-405/TD/1/4	4-40X1/4" SCREW
2	3	RM-#4-406/TD/1/4	4-40 X 1/4" WASHER HEAD
3	2	RM-#4-406/TD/1/2	4-40 X 1/2" WASHER HEAD
4	1	RM-#6SCRW/TD/	8-32 X 1-1/4"
5	1	RM-#4FLTW/TD/	#4 FLAT WASHER
6	5	RM-#4SPSW/TT/	#4 SPLIT LOC. WASHER
7	2	RM-#4-40T/TD/1/8	PHILLIPS TRUSSHEAD
8	1	RM-#8STAR/TD/	#8 INT STAR WASHER
9	1	SCRW-SET/TT/	8-32 X 3/16" SET SCREW
10	1	SCRW-SET/TD/BKWH	8-32 X 1/8 SET SCREW

Deltronic Labs, Inc. 120 Liberty Lane, Chalfont, PA 18914 • 215-997-8616 • FAX# 215-997-9506 • www.deltroniclabs.com

Control Board Rev. 8
DL-1275 with 12V meter output

This dispenser is controlled by the game software. The game turns on the dispenser with a logic high signal and monitors a return notch signal from the ticket dispenser to turn it off. It will dispense as many tickets as games options allow.

NOTES

1. Resistor R9 and diode CR3 and the jumper going to pin 1 of the IC are changed for this revision. This was done to limit the current going thru the switch and then to pins 11 & 9 of the IC. Deltronic Labs still recommends that regulated supplies be used with units that used unregulated power supplies. Changes closely reflecting these changes were made in the the previous revision (Rev. 7).

2. Resistors R10, R15, and R25 were deleted from this schematic. The Rev. 7 schematic show these resistors, but they were never actually inserted on the board.

3. The unit as shipped from the factory (as per this schematic), will trigger the counter whenever tickets are dispensed normally, but NOT when doing so by pressing the switch. If desired, the unit can be changed so that tickets dispensed by pressing the switch are also counted. Do this by deleting diode CR5.

4. This unit can be made to conform to CE specifications by the addition of 4 components not shown here. If this is desired, please order the CE version, and the unit will be shipped with the necessary components.

5. This unit can be configured in a number of ways. Please check our "Full Options" schematic to see the different configurations. If this schematic is not included with your manual, contact us for a copy.

6. If tickets are highly translucent, the 1.2Kohm resistor (R3) can be lowered in value (eg. 2.2 Kohm). For more sensitive adjustment, the jumper V1 can be replaced with a 25K pot, and the 1.2 Kohm resistor (R3) changed to 1Kohm.

	MIN.	TYP.	MAX.
MOTOR SUPPLY - V --	11 V	12 V	13 V
I (START) ---	1.3 A	1.5 A	1.7 A
I (RUN) ----	.4A	.5A	.85 A
I (STANDBY) --			30 MA
MOTOR ENABLE ON - V --			12 V
	2.5 V		2.5 MA
MOTOR ENABLE OFF - V --			1.0 V
I --	250 uA		0 MA
TICKET NOTCH - I SINK --			50 MA
V PULL UP --			30 V

Red — 12 Vdc
White — Enable
Blue — Notch
Black — Ground

MOTOR ENABLE
MOTOR OFF / MOTOR ON / MOTOR OFF

TICKET NOTCH
(Open collector output)

Control Board
Models DL-4-S-S   DL-4-P-S

1. A, 74C14
2. D3, D7 & D8 are IN4001, others are IN457A or 914.
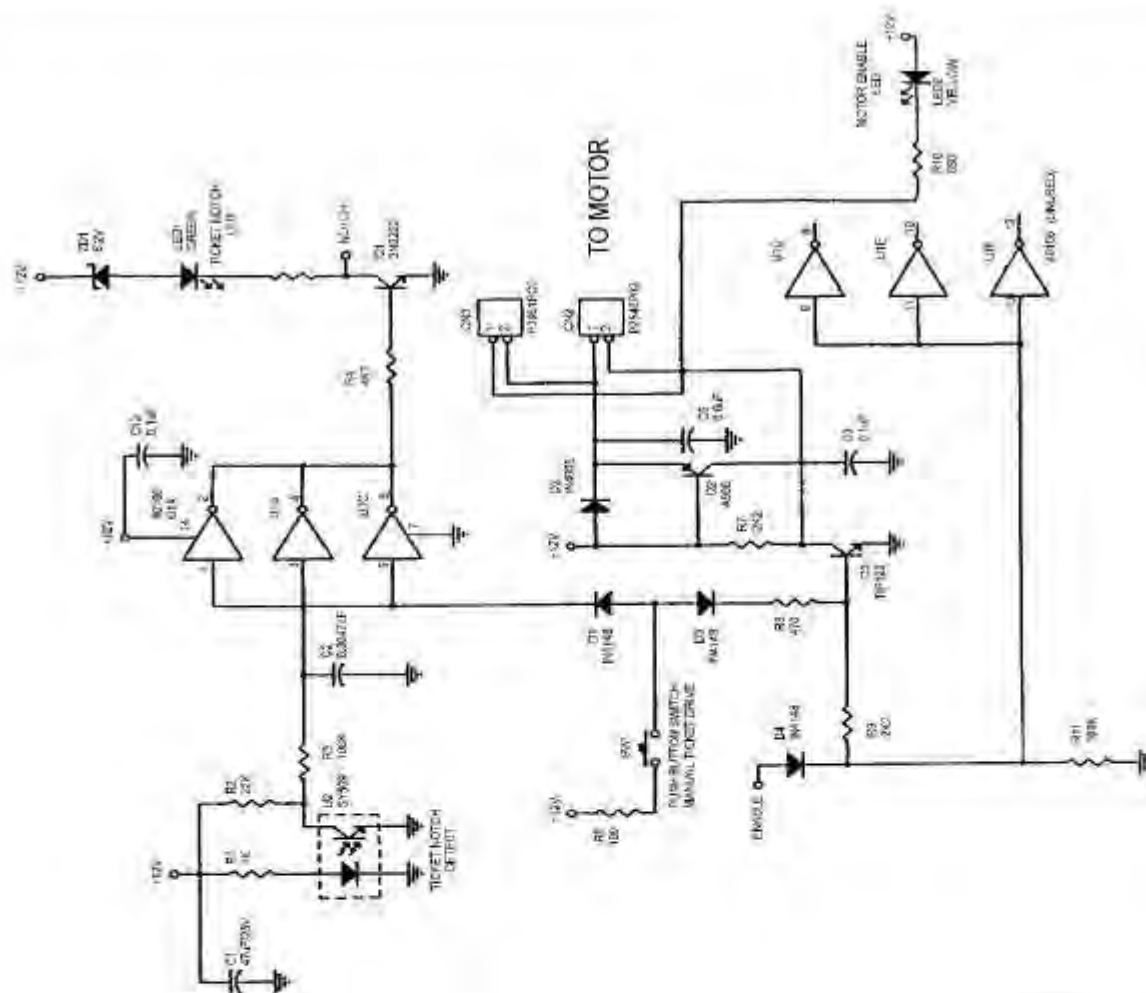
Model #DL-4-S-S, SW Input
Model #DL-4-P-S, Logic Input.

Note: With logic input components and dotted lines are omitted and Z1 is jumpered to Z2.

Note: Enable pulse may be positive or negative by having jumper on TM-4 in proper place.

TM-4 BOARD

Note: On PCB TM-4, Rev. 1 & 2, Q1 and Q2 transistors are D40K1or equivalent.

TO PWR. SUPPLY   +12 V. (RED)
GND. (BLK)

Model #DL-4-S-S
Model #DL-4-P-S

Deltronic Labs, Inc. 120 Liberty Lane, Chalfont, PA 18914 • 215-997-8616 • FAX# 215-997-9506 • www.deltroniclabs.com

TICKET DISPENSER
ENROPY TD-963C

DISPENSER PARTS DIAGRAM

TICKET DISPENSER EXPLODED DRAWING

Diagram is for reference only. Parts are not available
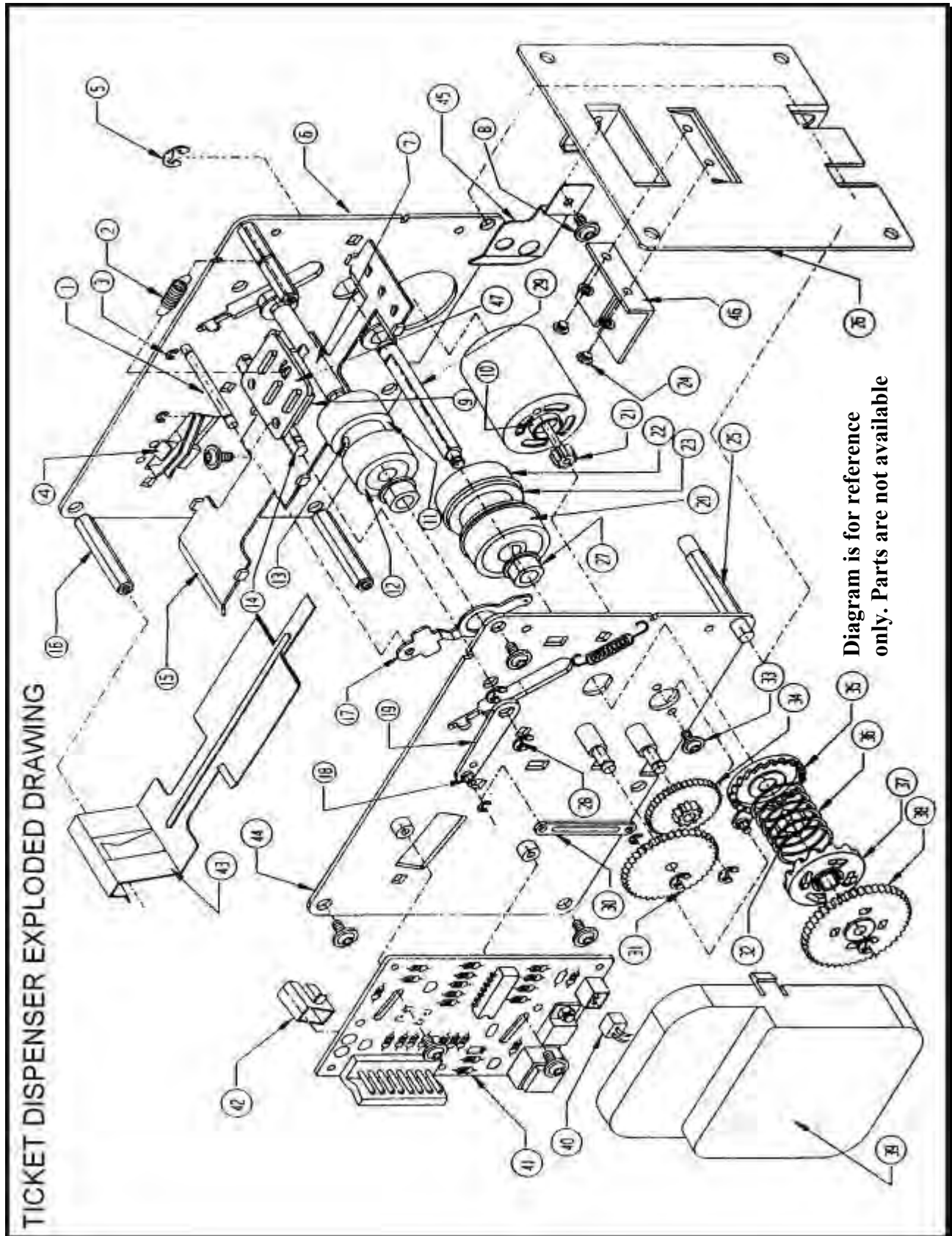
3 D EXPLODE PARTS

NO	CODE	DESCRIPTION	QTY
50	FT1-SA-014-R0	SIDE MESH	1R,1L
51	FT1-FM-027-R0	JOINT BRACKET INNER	1
52	FT1-FM-028-R0	JOINT BRACKET OUTER	1R,1L
53	FT1-FM-019-R1	SIDE BRACKET WITH STICKER	4
54	FT1-FM-020-R1	BUTTERFLY BRACKET WITH STICKER	4
55	FT1-SA-013-R0	STAND CABINET	1
56	FT1-FM-051-R0	STAND CABINET REINFORCE	1
57	HP0012	PLASTIC BALL DIA 65 mm	10
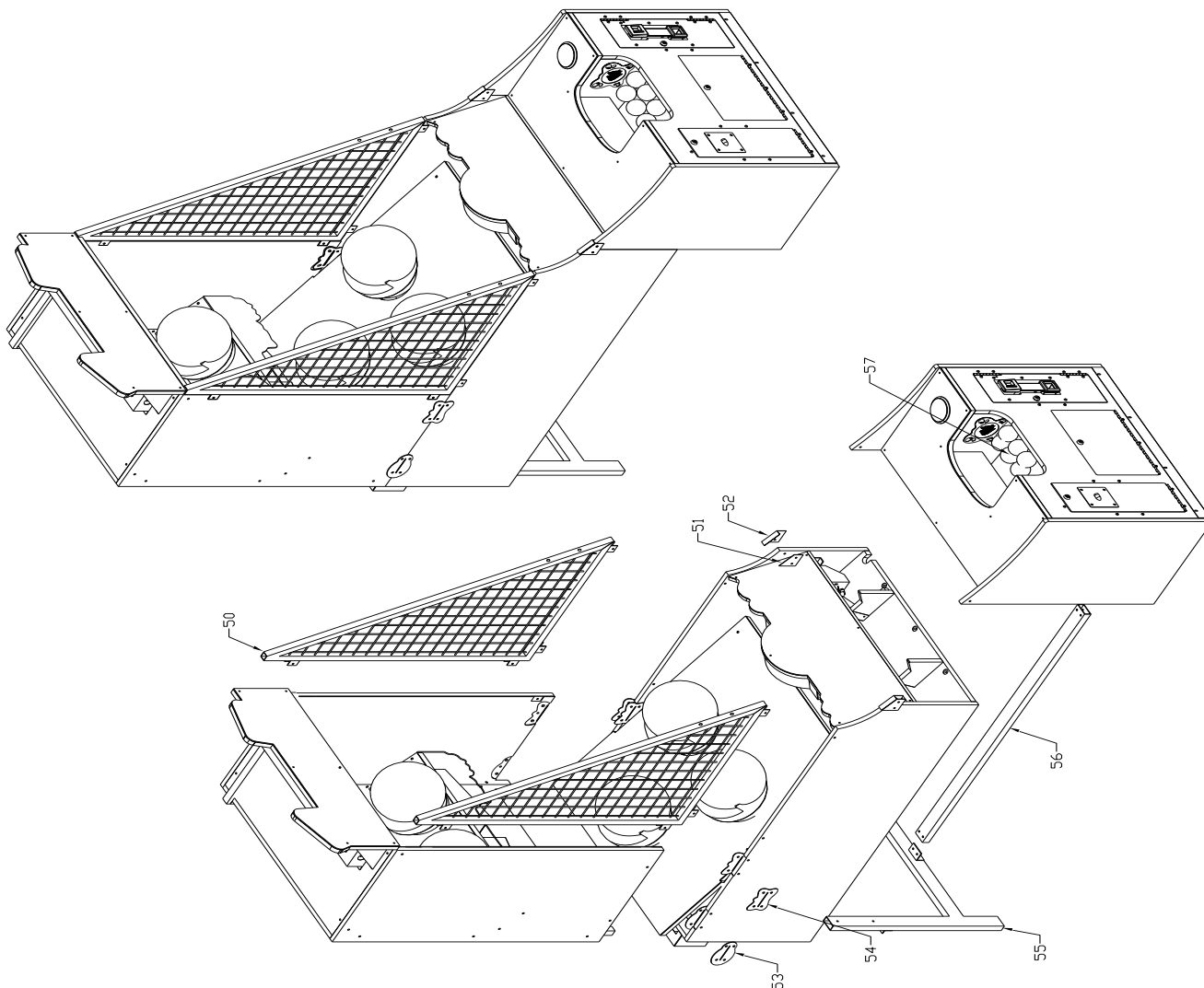
NO	CODE	DESCRIPTION	QTY
29	EA0523	SWITCH LARGE RED MEGA BUTTON	1
30	AT3419	ACRILLIC PANEL PLAYER INSTRUCTION	1
31	FT1-FW-008-R1	UPPER PANEL FRONT	1
32	FT A007	SPEAKER ASSEMBLY	2
32A	EA1201	SPEAKER 4" 8 Ohm 40W	2
32B	FT1-FM-30A-R1	SPEAKER COVER	2
32C	FT1-FM-30B-R1	SPEAKER GRILL	2
33	BAFB71	PCB FB71 16-WAY AC DRIVER	1
34	FT A008	CONDOOR ASSEMBLY	1
34A	FT1-FW-012-R0	CONDOOR PANEL	1
34B	FT1-M-001-R1	CONDOOR HINGE LOWER	1
34C	FT1-M-004-R1	CONDOOR HINGE UPPER	1
34D	FT1-FM-033-R0	CONDOOR PLATE	1
34E	HM0004	LOCK ANGLE	1
34F	HA0014	COIN MECHANISM HOLDER	1
35	FT A009	DOOR ACCES ASSEMBLY	1
35A	FT1-FW-011-R0	DOOR ACCES PANEL	1
35B	FT1-M-003-R1	DOOR ACCES HINGE	1
35C	HM0004	LOCK ANGLE	1
36	FT A010	POWER ASSEMBLY	1
36A	FT1-FW-013-R2	TICKET DOOR PANEL	1
36B	FT1-M-002-R1	TICKET DOOR HINGE	1
36C	FT1-FM-032-R1	TICKET PLATE	1
36D	HM0004	LOCK ANGLE	1
36E	EA1102	TICKET DISPENCER ENTROPY	1
37	FT1-FW-040-R0	KICK PLATE	1
38	FT1-FM-036-R0	TICKET HOLDER	1
39	FT E006	POWER ASSEMBLY	1
39A	EA0822	TRANSFOMER MULTI TAP / 2 x 11,5 x 15A	1
39B	EA1015	SWITCHING POWER SUPPLY 12V 12.5Amps	1
39C	EA0614	300 VAC / VDC TERMINAL BLOCK 4 Poles 44"	1
39D	EA0016	FUSE 3AG FAST BLOW 10A	2
39E	EA0042	FUSE BLOK FOR 1/4" Dia X1-1/4" L	2
39F	-	TRAFO BRACKET METAL ONLY	1
-	H001	POWER HARNESS	1
40	FT1-FM-029-R1	STICKER SIDE CABINET	1R,1L
40A	AT3424	STICKER LEFT SIDE C CABINET	1
40B	AT3425	STICKER RIGHT SIDE C CABINET	1
41	FT E007	DB BOX ASSEMBLY	1
-	FT E007a	DB BOX METAL ONLY	1
-	EA1356	BINDING POST	1
-	EA1358	SPLIT CORE EMI FILTER FOR CE MACHINE	1
-	EA0649	IEC TYPE NOISE EMI FILTER	1
-	FT H002	DB BOX HARNESS	1
-	EA0635	POWER LEAD MOLDED IEC TO 3 PIN USA	1
-	EA0636	POWER LEAD MOLDED IEC TO 2 PIN INDO	1
-	EA0637	POWER LEAD MOLDED IEC TO 3 PIN AU	1
-	EA0639	POWER LEAD MOLDED IEC TO 3 PIN UK	1
42	FT E008	SERVICE PANEL ASSEMBLY	1
42A	FT1-FM-042-R1	SERVICE PANEL METAL ONLY	1
42B	EA0519	SWITCH SMALL ROUND RED BUTTON	1
42C	EA0520	SWITCH SMALL ROUND GREEN BUTTON	1
42D	EA1252	COIN COUNTER 12V REAR MOUNTING	2
42E	EE0689	POTENSIO CARBON DUAL GANG 50kOhm	1
42F	EP0602	KNOB VOLUME	1
-	FT H003	SERVICE PANEL HARNESS	1
43	FT1-SA-002-R0	HOUSING CASHBOX	1
44	FT1-SA-001-R0	CASHBOX	1
45	HM0002	RUBBER MACHINE GLIDE	3
46	BAFB52C	PCB FB52C 16 Mhz Z80 SOUND BOARD	1
47	BA0029	PCB FB29 STEREO AUDIO AMPLIFIER	1
48	BAFB66A	PCB FB66A MPU CONTROLLER BBB	1
49	FT A012	FRONT PANEL LOWER WITH STICKER LH	1
49A	AT3426	STICKER BASE ARTWORK	1
-	FT H004	MAIN HARNESS FRONT PANEL	1

Page 51
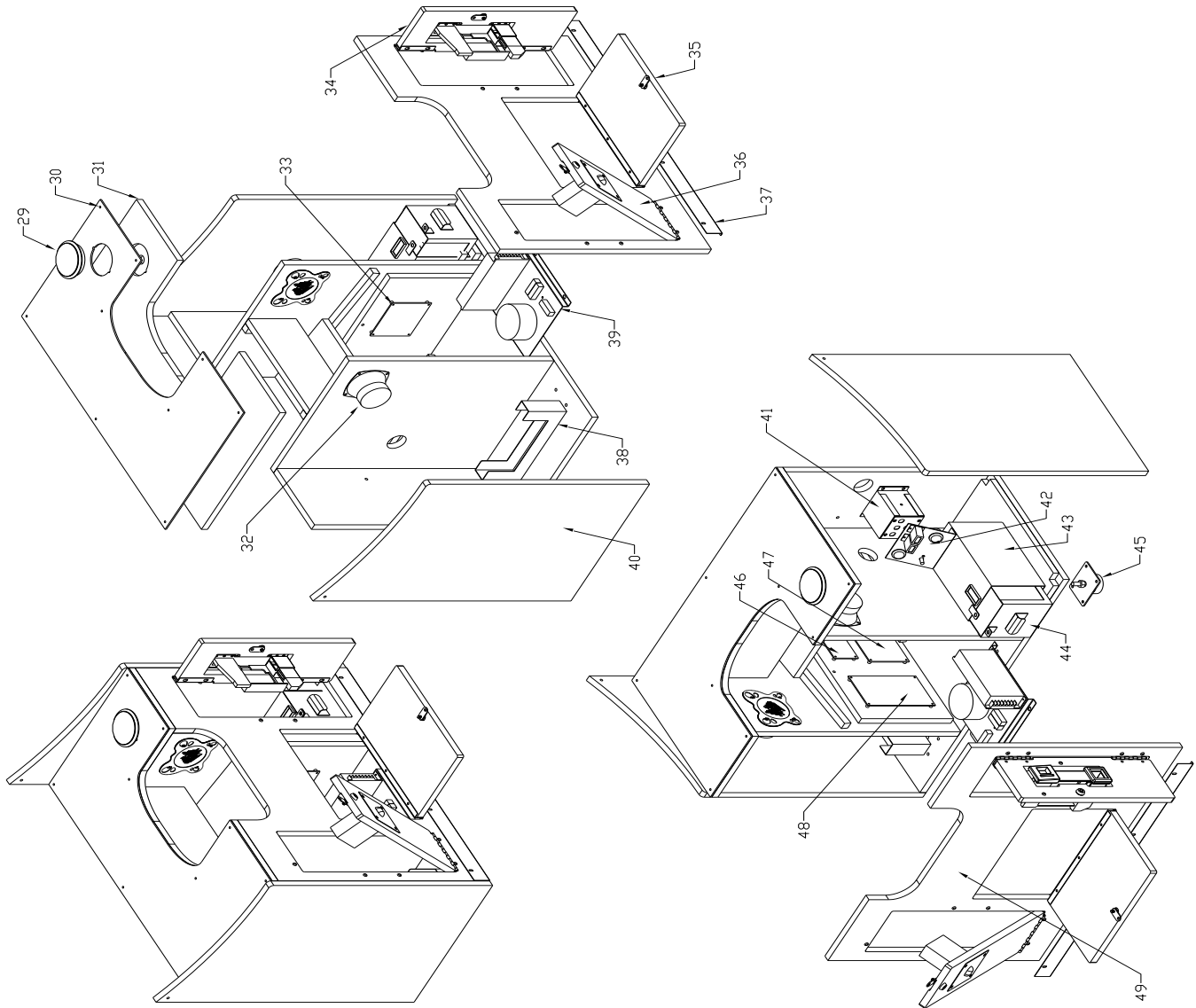
NO	CODE	DESCRIPTION	QTY
14	FT A003	LOWER TARGET ASSEMBLY	1
14A	HM2523	FIBER GLASS MOULDING "PAUS"	1
14B	HM2521	FIBER GLASS MOULDING "BUAYA"	1
14C	HM2522	FIBER GLASS MOULDING "KUDA NIL"	1
14D	FT1-FP-009-R1	ANIMAL BASE ACRILIC LOWER	1
14E	FT1-FW-019-R2	ANIMAL BASE PANEL LOWER	1
15	FT1-FM-029-R1	WIRE BOX COVER	2
16	EA0232	LAMP SC BAYONET GE 89 13v 0.58A WITH HOLDER	6
17	FT1-FM-025-R1	SUPPORT BASE BRACKET	2
18	-	DIRECTOR BOARD BRACKET	1R,1L
18A	FT1-FM-052-R2	DIRECTOR BOARD BRACKET SIDE	1
18B	FT1-FM-045-R2	DIRECTOR BOARD BRACKET MIDDLE	1
19	FT E004	SENSOR BRACKET ASSEMBLY	3
19A	FT1-FM-022-R1	SENSOR BRACKET LOWER	3
19B	BAFB84a-b	PCB FB84a-b SENSOR BALL Rev-1	3
20	FT1-FW-028-R1	BALL GATE COVER	1
21	FT1-FM-035-R0	TIMER BASE BRACKET	2
22	FT A005	BALL GATE ASSEMBLY	1
22A	FT1-FM-007-R0	FITTING RIGHT	1
22B	FT1-FM-009-R0	GATE BLOCK	1
22C	FT1-SA-008-R1	BALL GATE PLATE	1
22D	FT1-FP-007-R1	BALLGATE RUBBER	1
22E	FT1-FM-010-R1	RUBBER CLAMP	1
22F	FT1-FM-057-R0	MICRO SENSOR BRACKET	1
22G	FT A005a	BRACKET MOTOR ASSEMBLY	1
-	FT1-SA-006-R1	MOTOR HOLDER METAL ONLY	1
-	EA0405	SWITCH MICRO ROLLER OMRON P/N. V-156-1A5-15A	1
-	EA1158	MOTOR MODEL: B000 DC 12V 16 RPM	1
23	FT1-FM-012-R0	WIRING COVER FRONT	1
24	FT E005	FRONT DISPLAY ASSEMBLY	1
24A	FT1-SA-011-R0	BRACKET LIGHT METAL ONLY	1
24B	EA0222	LAMP WEDGE GE906 12v 8-10w	15
24C	EA0226	LAMP HOLDER WB 2300 CRIMP PIN	15
25	FT1-FW-018-R0	TIMER BASE PANEL	1
26	AT3418	ACRILLIC TIMER ARTWORK	1
27	FT1-FM-026-R1	ACRILLIC TIMER BRACKET	1
28	FT A005	SIDE PANEL BACK WITH STICKER	1
28A	AT3422	STICKER LEFT SIDE B PLAYFIELD	1
28B	AT3423	STICKER RIGHT SIDE B PLAYFIELD	1
-	FT H005	MAIN HARNESS BACK CABINET	1
29	FT1-FW-024-R1	BACK PANEL LOWER	1

19. FT E004 SENSOR BRACKET ASSEMBLY

22. FT A005 BALLGATE ASSEMBLY
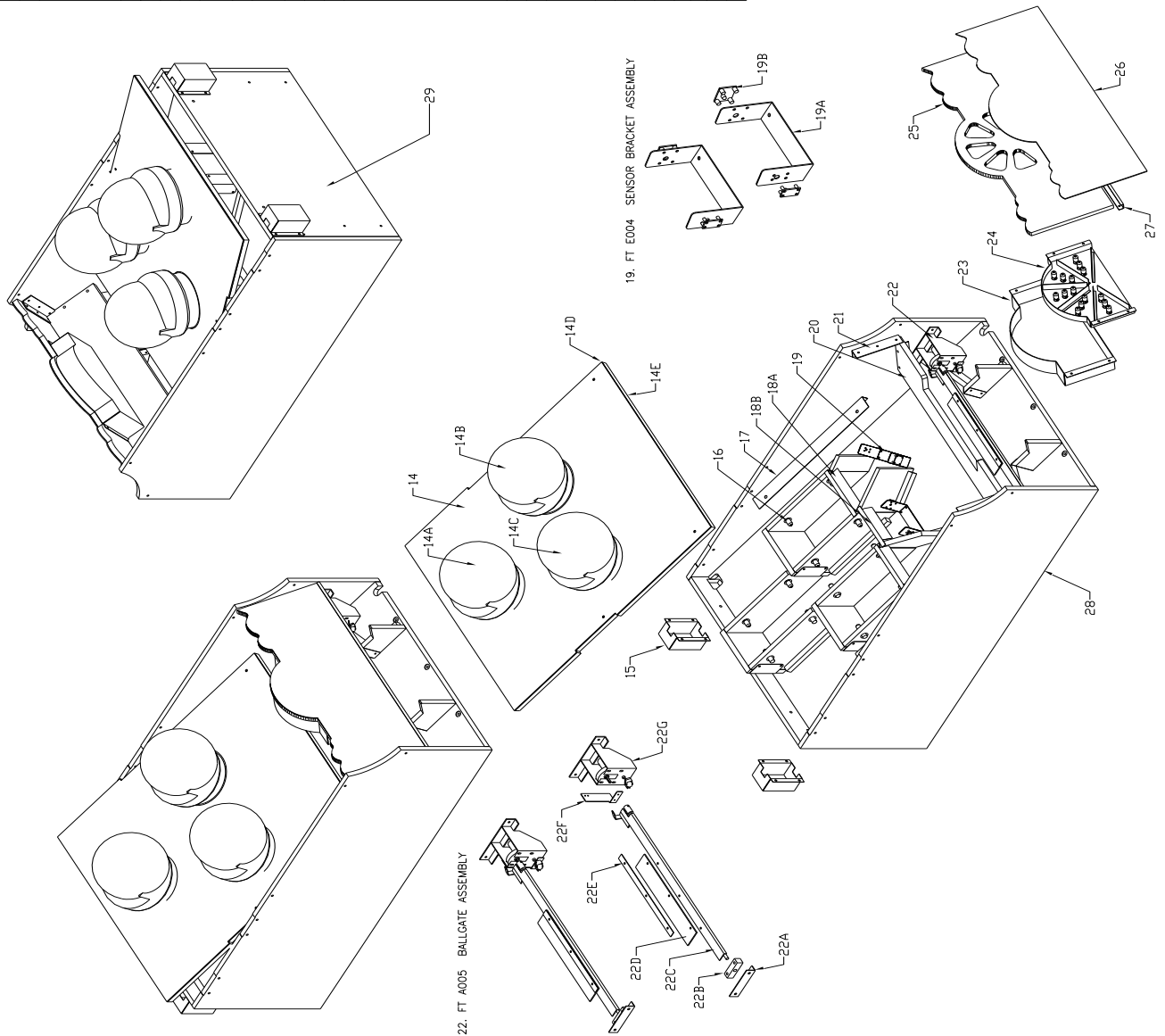
NO	CODE	DESCRIPTION	QTY
01	FT A001	HEADER ASSEMBLY FEEDING TIME	1
01A	AT3411	ACRILLIC HEADER	1
01B	FT1-FW-021-R0	HEADER PANEL	1
01C	FT1-FM-024-R0	HEADER BARCKET	1R,1L
02	FT E001	HEADER LIGHT ASSEMBLY	1
02A	FT1-SA-021-R3	TOP LIGHT COVER	1
02B	EA0206	LAMPU NEON 18W COOL WHITE	1
02C	EA0325	LAMPU NEON BALLAST CE 240Volt 15/18/20W	1
02D	EA0311	LAMPU STARTER BASE FSB-003 UL Listed	1
02E	EP0434	LAMP NEON END CAP HOLDER MODEL 713-HS	2
03	FT E002	DISPLAY ASSEMBLY	1
03A	BA1601	PCB FB45o 3 Digit 7 SEGMENT 4" DISPLAY	1
03B	FT1-FM-041-R1	DISPLAY BRACKET	1
04	HP0011	CABLE TRAY	1
05	FT1-FM-043-R1	SUPPORT BRACKET UPPER	2
06	FT A002	UPPER TARGET ASSEMBLY	1
06A	HM2524	FIBER GLASS MOULDING "GORILA"	1
06B	HM2525	FIBER GLASS MOULDING "PELICAN"	1
06C	FT1-FP-010-R1	ANIMAL BASE ACRILLIC UPPER	1
06D	FT1-FP-020-R3	ANIMAL BASE PANEL UPPER	1
--	EA0302	LAMP HOLDER SC BAYONET 14-152F	4
--	EA0232	LAMP SC BAYONET GE B9 (BA 15361B)13v 0.58A	4
07	AT3417	BACKGROUND ACRILLIC	1
08	FT E003	BALL BOX ASSEMBLY	1
08A	FT1-SA-046-R1	BALL BOX METAL ONLY	1R,1L
08B	FT1-FM-043-R1	SENSOR BRACKET UPPER	2
08C	BaFB84o-b	PCB FB84o-b SENSOR BALL	2
09	FT1-FM-016-R0	L FRAME CABINET	1R,1L
10	-	SIDE ACRILLIC	1R,1L
10A	AT3412	ACRILLIC INTERNAL ARTWORK LEFT	1
10B	AT3413	ACRILLIC INTERNAL ARTWORK RIGHT	1
11	FT A004	SIDE PANEL UPPER WITH STICKER	1R,1L
11A	AT3420	STICKER LEFT SIDE A TOP PANEL	1
11B	AT3421	STICKER RIGHT SIDE A TOP PANEL	1
12	AT3414	ACRILLIC INTERNAL ARTWORK MID BACKGROUND	1
13	FT1-SA-018-R1	BACKFRAME ASSY	1

06. FT A002 UPPER TARGET ASSEMBLY

08. FT E003 BALL BOX ASSEMBLY

Page 53

FEEDING TIME MAIN WIRING DIAGRAM
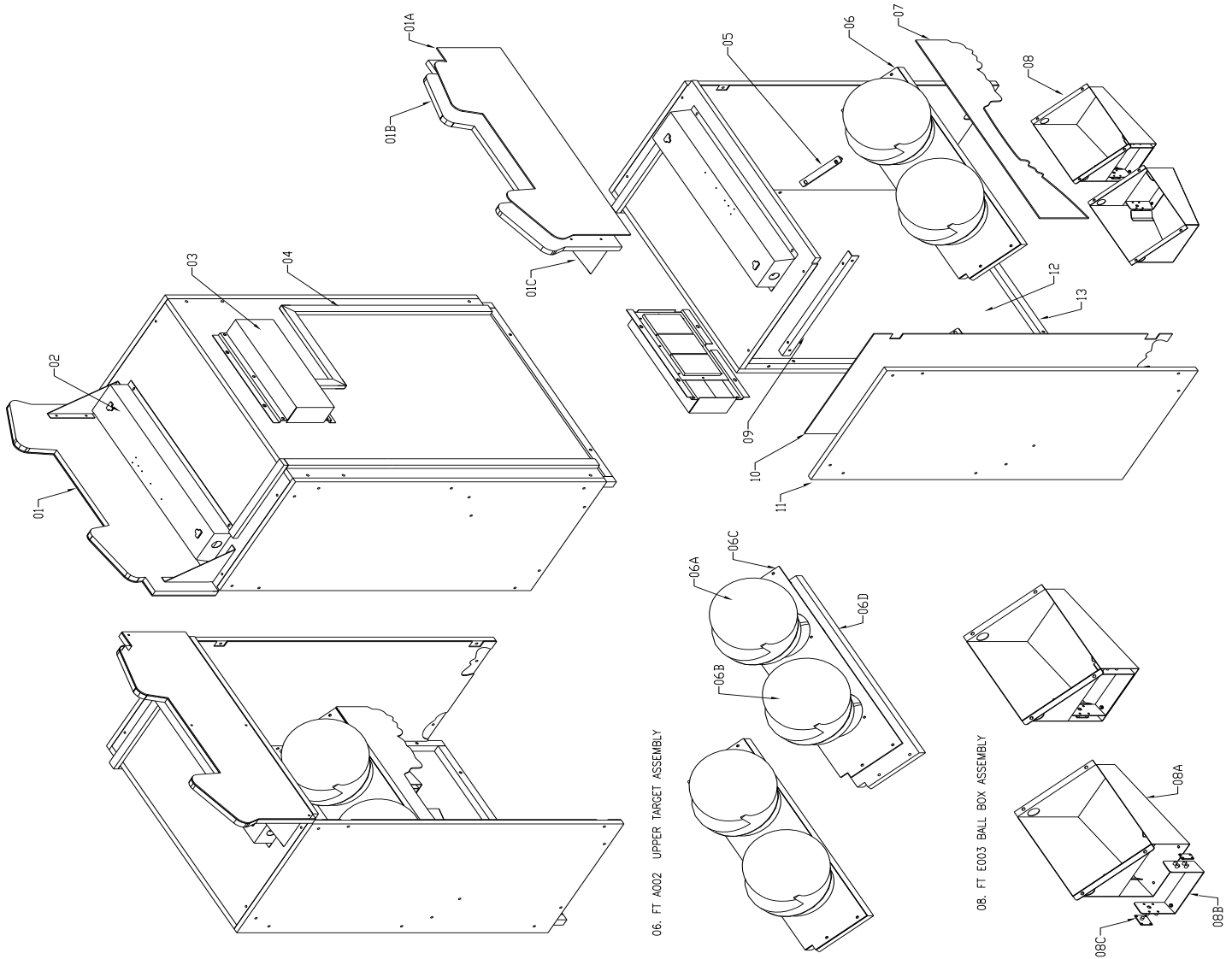
FEEDING TIME POWER WIRING DIAGRAM

DWG NO. FT1-EW-001-R0
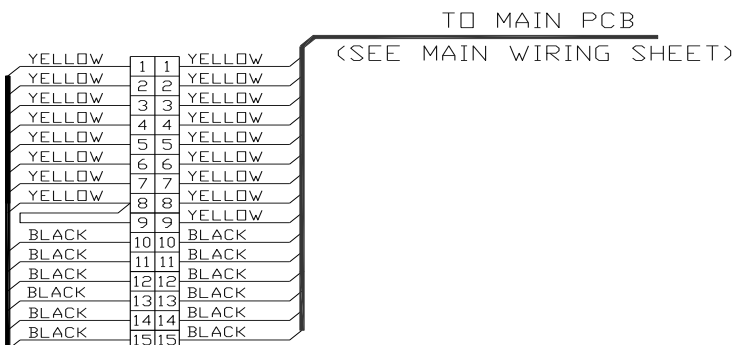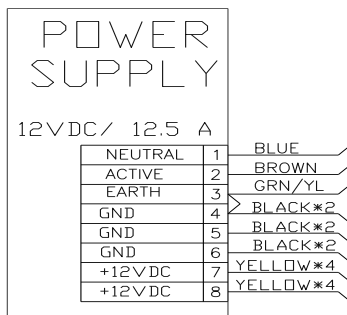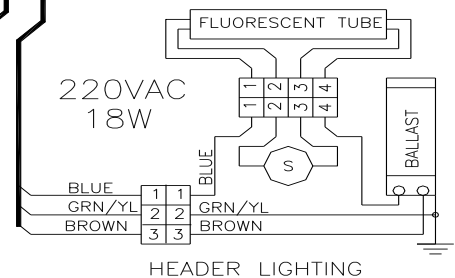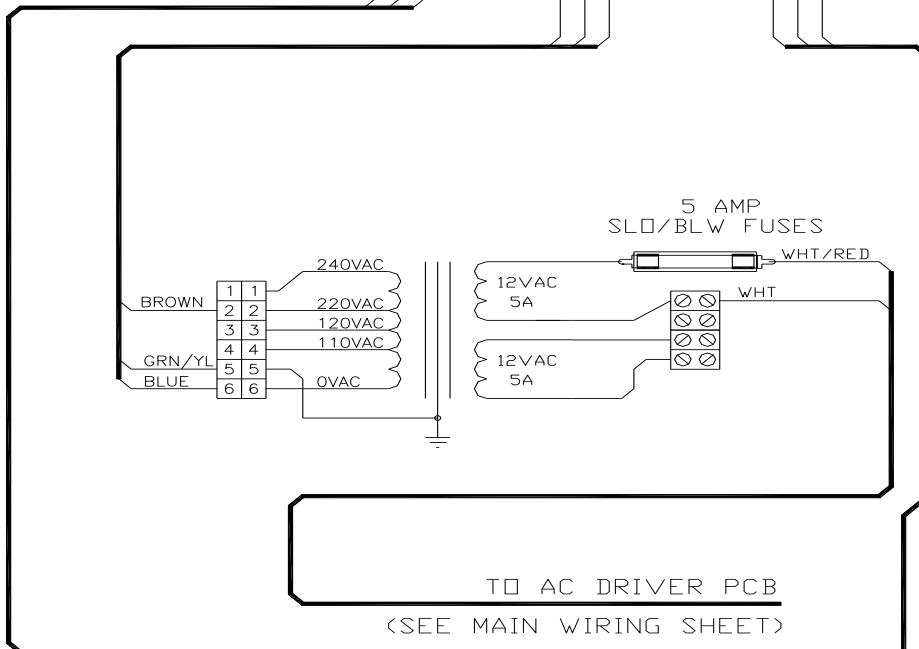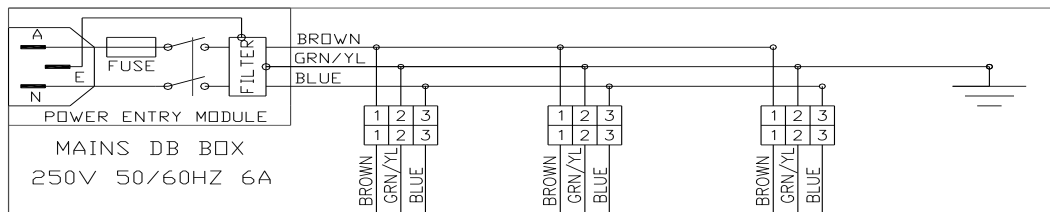
POWER ENTRY MODULE

MAINS DB BOX
250V 50/60HZ 6A

BROWN
GRN/YL
BLUE

FUSE
FILTER

A
E
N

5 AMP
SLO/BLW FUSES
WHT/RED

240VAC
220VAC
120VAC
110VAC
0VAC

BROWN

GRN/YL
BLUE

12VAC
5A

12VAC
5A

WHT

TO AC DRIVER PCB
(SEE MAIN WIRING SHEET)

FLUORESCENT TUBE

220VAC
18W

BALLAST

BLUE
GRN/YL
BROWN

BLUE
GRN/YL
BROWN

HEADER LIGHTING

POWER
SUPPLY

12VDC/ 12.5 A

NEUTRAL	1	BLUE
ACTIVE	2	BROWN
EARTH	3	GRN/YL
GND	4	BLACK*2
GND	5	BLACK*2
GND	6	BLACK*2
+12VDC	7	YELLOW*4
+12VDC	8	YELLOW*4

TO MAIN PCB
(SEE MAIN WIRING SHEET)

YELLOW
YELLOW
YELLOW
YELLOW
YELLOW
YELLOW
YELLOW
YELLOW
BLACK
BLACK
BLACK
BLACK
BLACK
BLACK

MATAHARI LEISURE
Project Name: Feeding Time
Tittle Name: Feeding Time Power Wiring

Designer	Checked	Approval
Najib	Najib	Jimmy
Date:02/02/06	Date:02/02/06	Date:02/02/06

Page 55

DISCLAIMER

OPERATOR WILL TAKE NOTE.

BY ACCEPTING DELIVERY OF AND PLACING THIS HARDWARE AND LICENSED SOFTWARE INTO OPERATION, OPERATOR REPRESENTS AND WARRANTS THAT IT WILL ONLY OPERATE THE HARDWARE AND LICENSED SOFTWARE PROVIDED BY LAI GAMES IN COMPLIANCE WITH THE REGULATORY REQUIREMENTS OF THE COUNTRY, STATE, AND/OR MUNICIPALITY IN WHICH THE HARDWARE AND LICENSED SOFTWARE ARE USED AND/OR OPERATED. LAI GAMES HAS PROVIDED THIS HARDWARE AND LICENSED THE SOFTWARE *ONLY* FOR LEGITIMATE AND LEGAL USE, AND ANY USE OF THE HARDWARE AND LICENSED SOFTWARE IN A MANNER THAT VIOLATES ANY LAWS OF THE COUNTRY, STATE, AND/OR MUNICIPALITY IN WHICH THE HARDWARE AND LICENSED SOFTWARE ARE USED AND/OR OPERATED IS WHOLLY UNAUTHORIZED AND SHALL BE AT OPERATOR"S SOLE AND COMPLETE RISK.

Operator assumes any and all risk and liability for any civil or criminal legal claims or causes of action arising from the unauthorized use and/or operation of the provided hardware and licensed software, such improper and unauthorized use specifically including, but not limited to:

(a) Operating or allowing the operation of the hardware and licensed software in a manner that violates the laws and regulations of the country, state, and/or municipality in which the hardware and licensed software are used or operated;

(b) Assembling or causing the assembly of the hardware in a manner not authorized by or disclosed in this manual;

(c) Any tampering with, changes to, or modifications of the licensed software that occur after the software leaves LAI GAMES" factory that is not made by authorized LAI GAMES personnel and that is directly or indirectly caused by Operator; and

(d) Any tampering with the computer chip/electronic programmable read only memory (EPROM) by or on behalf of Operator that directly or indirectly causes the tamper-indicating holographic seal on the computer chip/EPROM to be broken or damaged in any way.

LAI GAMES shall have no liability related to such improper and unauthorized use and/or operation of the hardware and licensed software, and Operator shall indemnify, defend, and hold LAI GAMES harmless for any claim or cause of action brought against LAI GAMES arising from Operator"s or Operator"s representative"s improper and unauthorized use and/or operation of the hardware and licensed software.

ANY IMPROPER AND UNAUTHORIZED USE SHALL COMPLETELY AND TOTALLY VOID ANY AND ALL WARRANTIES, BOTH EXPRESS AND IMPLIED, OF THE HARDWARE AND LICENSED SOFTWARE PROVIDED BY LAI GAMES.

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.