OPERATOR'S MANUAL

Version 1.5.1

ISO 9001 CERTIFIED ORGANIZATION

ISO 9001: 2008 Cert No.17460

© *LAI GAMES*

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! *
Is an advisory text to hint at or help you understand more!

BE SURE TO READ THE FOLLOWING

---

* WARNING! *

Always *Turn **OFF** Mains AC power and unplug 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, i.e. near fire equipment or emergency exits.*

---

* CAUTION! *

Always *Use a Digital Multi meter, 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 *"CATCH N GRAB"*, be very careful of the following points 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.

■ 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. 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! On your purchase of *"Catch n Grab", it is* another great product from *LAI GAMES*.

With a bright and very attractive cabinet, "*Catch N Grab*" is an exciting innovative new style of game which uses a crane to vend prizes won and which would make a great addition to any location.

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

DESCRIPTION

■ The *"Catch n Grab"* is a game where players have to press the start/stop button to catch the falling blocks between the catching blocks. After each successful catch the player moves up a level and the game will get progressively harder. If the player reaches the top level they win and then the Claw is activated. The player then uses the Joystick to maneuver the Crane and drop the claw to "Grab"their prize. The claw remains active until a prize has been dropped into the vend area.

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.

CONTENTS

■ The "Catch N Grab" cabinet
■ Keys: 2 x front door keys
              2 x back door keys
■ Operator's manual
■ IEC Power Cord   (In cash box)
■ Parts & Accessories   (In cash box)

SPECIFICATIONS

DIMENSIONS

- Weight: 240 kg   (529lb)
- Height: 2132mm   (84")
- Width: 807mm   (31-3/4")
- Length: 1150mm   (45-1/4")
- Power: Maximum   (360 Watts)   (220V @ 1.6A)   (120V @ 3.3A)

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 5oC and 40oC.
- Ambient humidity: Low
- Ambient U.V. radiation: Very low
- Vibrations level: Low
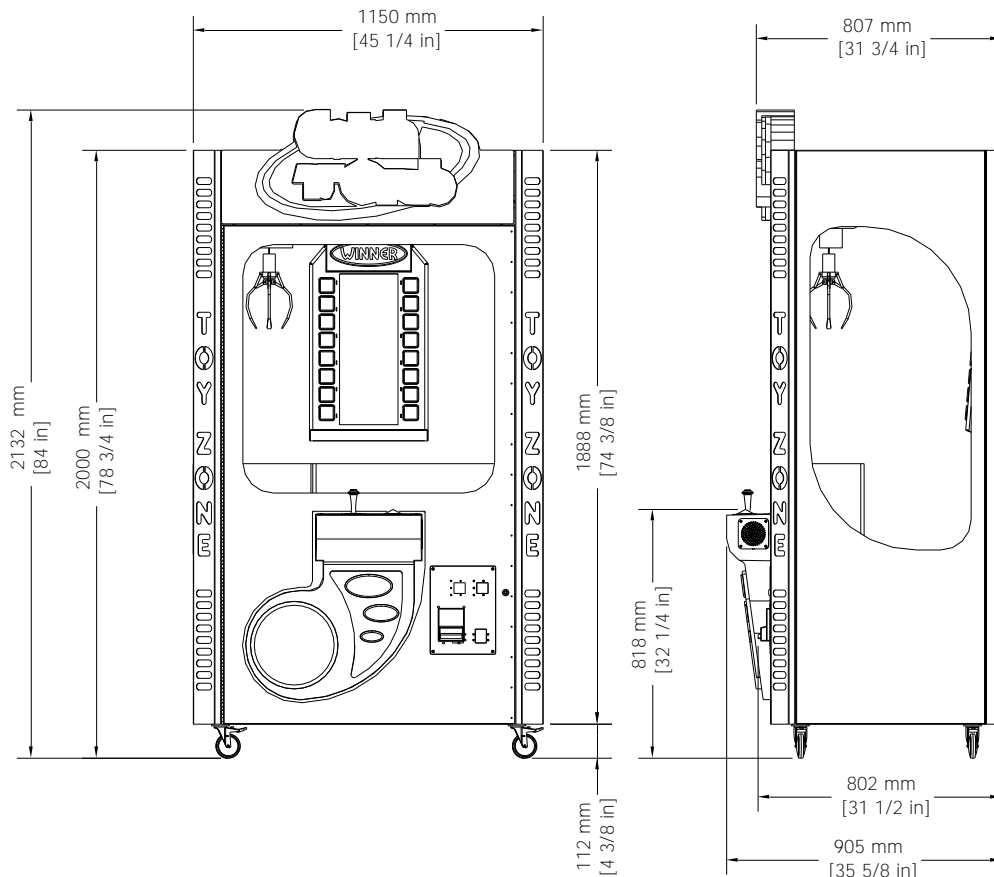
CASH BOX PARTS

This is the list of parts can be found inside the cash box when you received the game,

	Spare Rope for Claw
	M2.5 Allen Key
	Spare Fuses
	Spare M6 Screws
	8" Claw Kit

ASSEMBLY INSTRUCTIONS

(Step 1)

Unpack the machine
Dispose of packaging carefully
Keys are in the coin reject
Assembly instructions inside game
Manual inside game
Top Flash inside game
Control panel inside game if disassembled

(Step 2)

Open front door
Take out Top Header Panel
Take out control panel if disassembled
Remove protective cover from header lighting panel
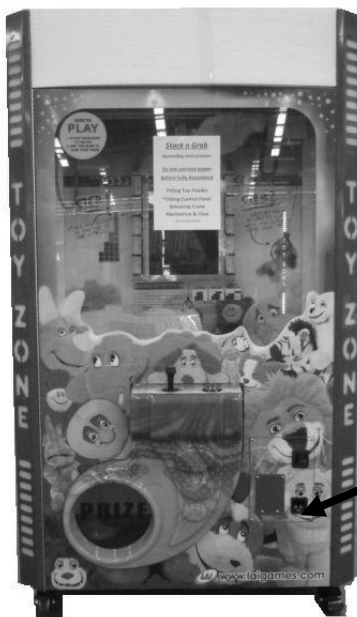
Keys

Top Header Lighting Panel

Control Panel

Top Header Panel

(Step 3)

Slots for the hooks
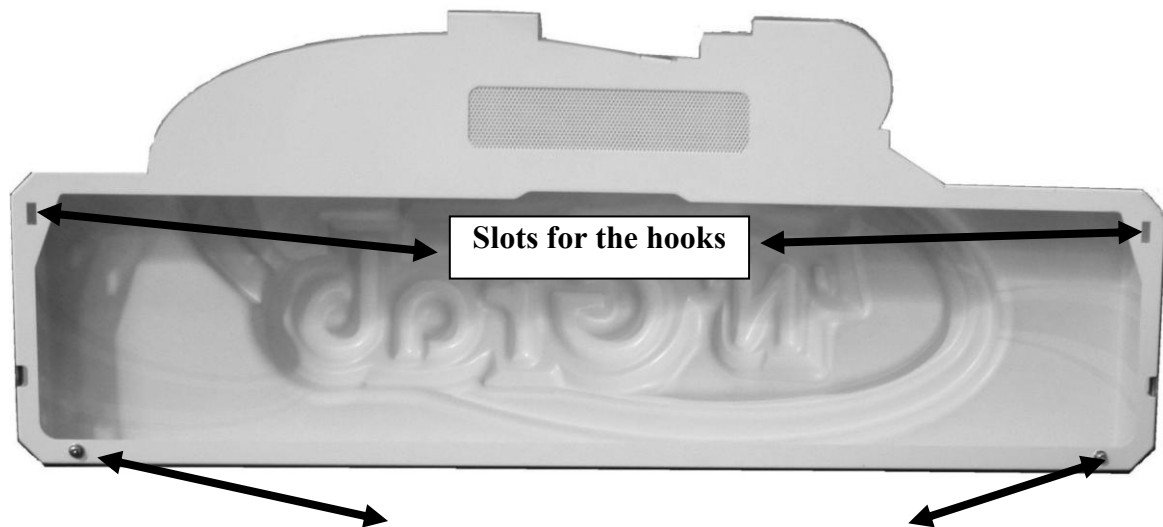
Remove the two screws from the top header panel and keep safe to replace. Look at the top header lighting panel and see two hooks for the header panel to hook onto and from the back two holes to replace the screws through to secure the header

Hooks

Holes for screws
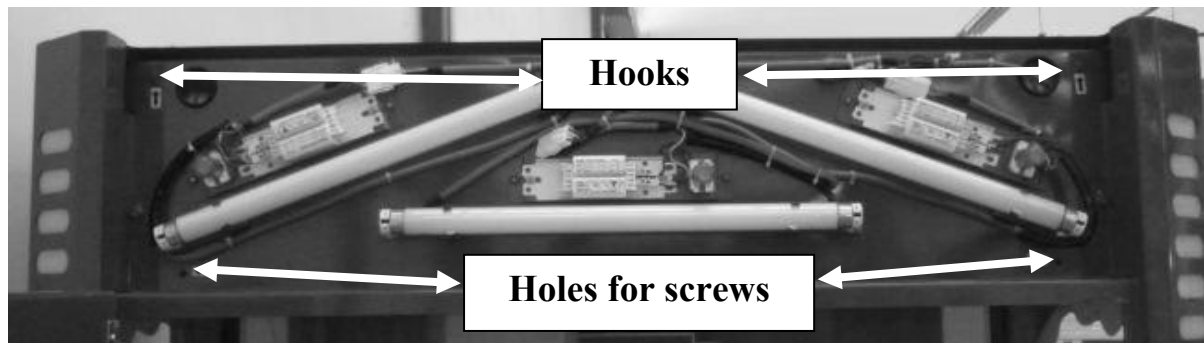
When Top Header Panel assembled

(Step 4)

Do Not Cut

WINNER
WIN LEVEL
STEP 1
STACK the BLOCKS
to the top to
STEP 2
WINNERS have
UNLIMITED turns
with the CLAW to
GRAB their PRIZE
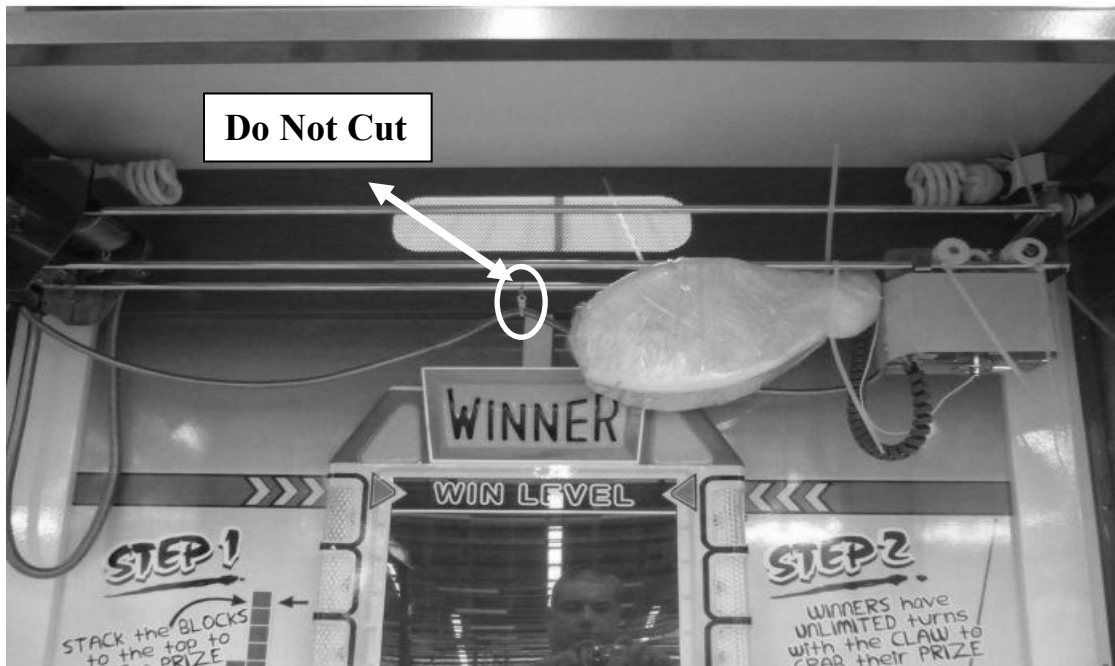
> **Remove the cable ties holding the crane and claw secure**
> **Do not cut the cable tie on the central cable ring support**
> **Use same method to secure for transporting the machine**

(Step 5)   **If control panel has been removed**

M5 Phillip head Screws
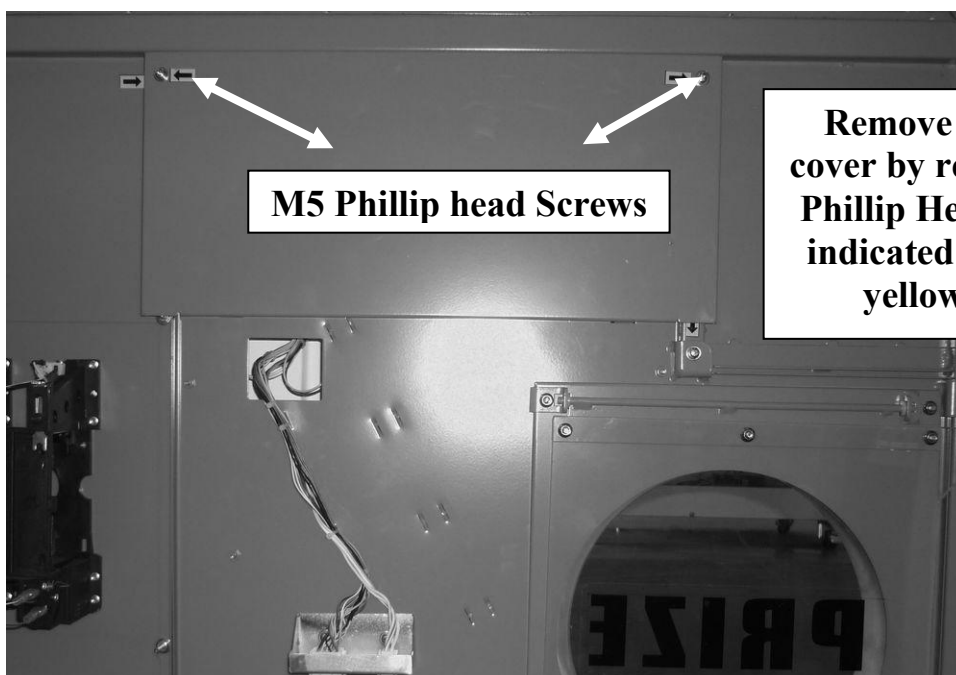
> **Remove the joystick panel**
> **cover by removing the two M5**
> **Phillip Head screws positions**
> **indicated with the black and**
> **yellow arrow stickers**

PRIZE

(Step 6)

M5 Counter sunk screws

Remove the six M5 counter sunk screws from the door which will be used to hold the control panel in position looks for the arrow stickers
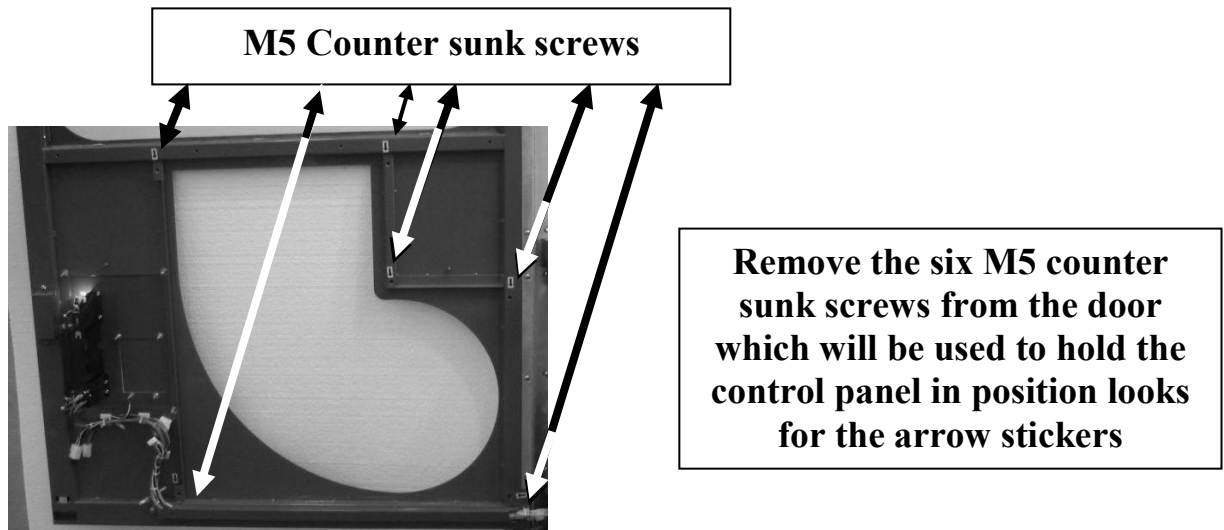
(Step 7)
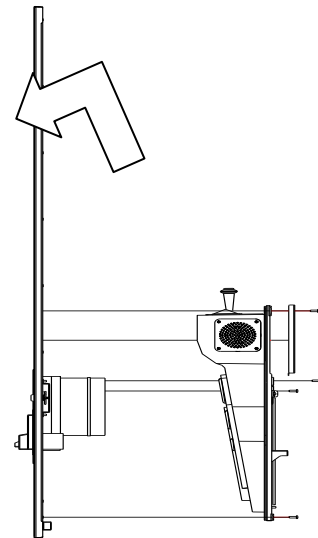
From the inside of the door fit the control panel by tilting the control panel so the joystick fits through the door.

Hold the control panel in position while you fasten the screws back in to secure the panel

<u>Note:</u>   **The position from the drawing above**

(Step 8)

M5 Phillip Head Screws
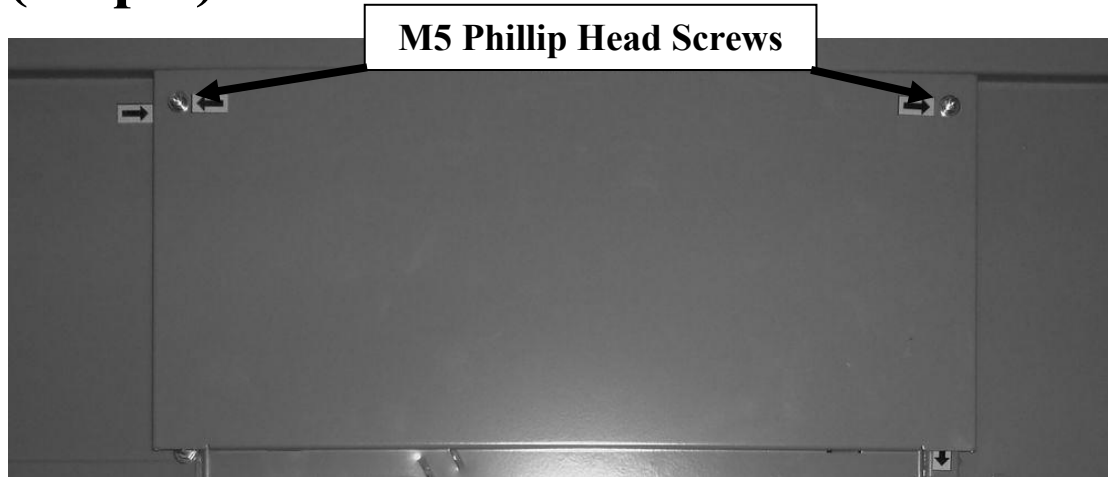
Replace the joystick cover using the two screws you have taken off earlier and replace back to the same position

(Step 9)

The door should now look like this and will require the two connectors fastened together
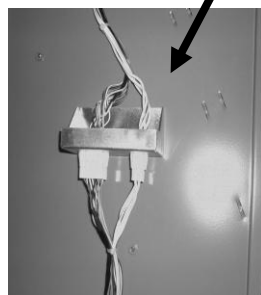
Clip the two connectors together as shown below

(Finished) Your machine should now be ready for connecting power and testing. Please check voltage is correct (marked on the back of the machine)

* NOTE! *
Make sure to have taken all cable ties off the crane gantry

1" CAPSULE DISPENSER (*Optional*)
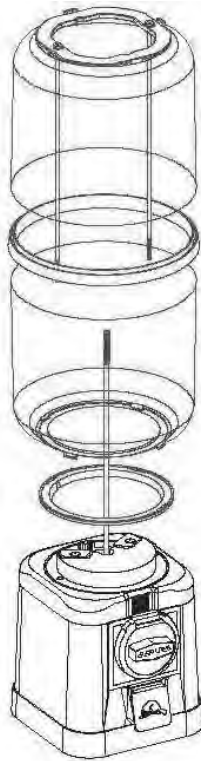
Capsule access door closed

Capsule access door opened
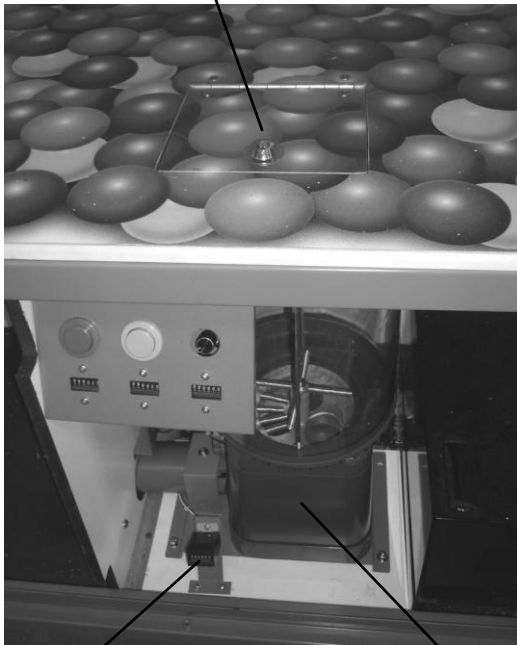
Capsule dispenser meter

1" Capsule dispenser

CAPSULE WIRING DIAGRAM (*Optional*)
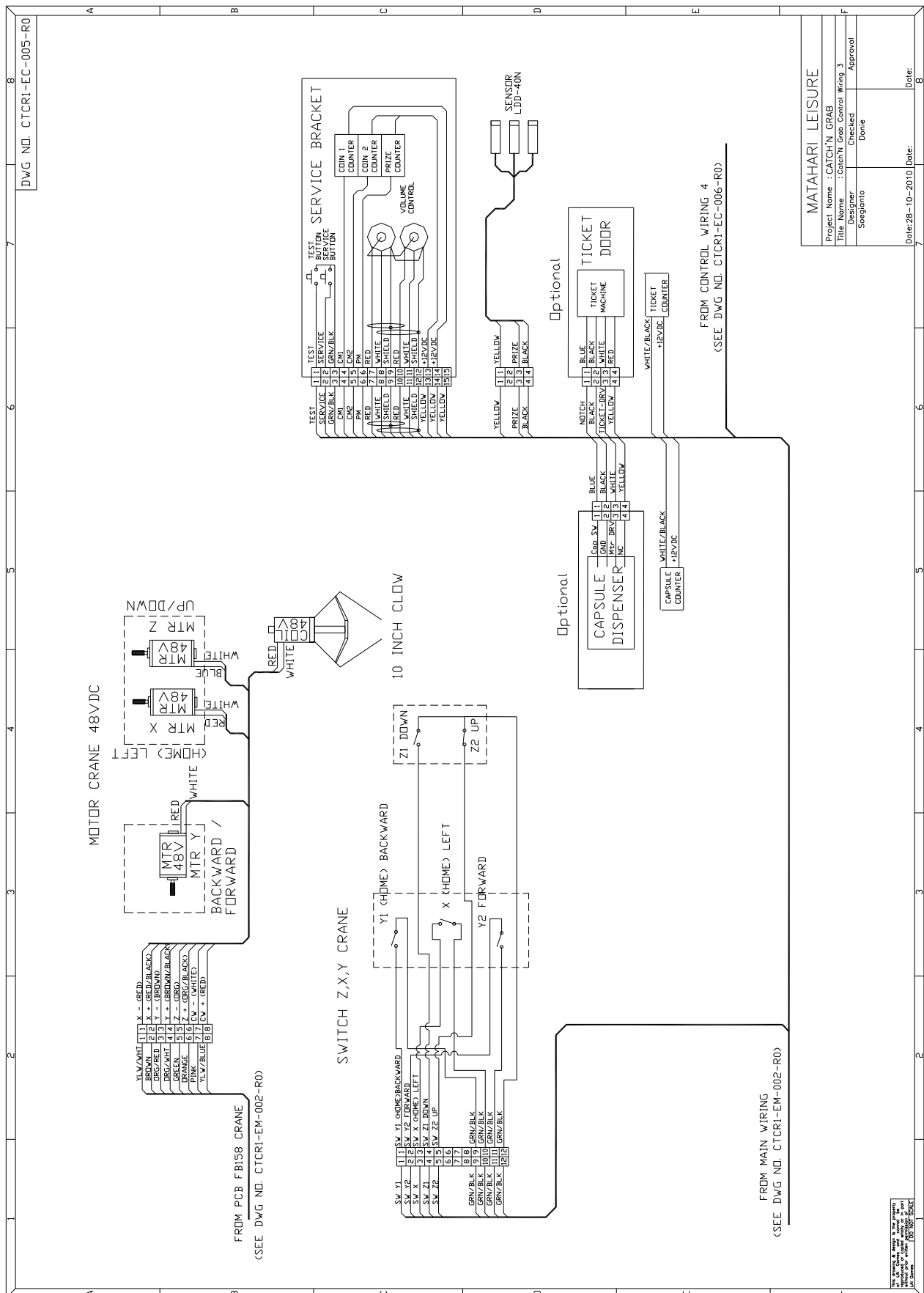
FILLING IN THE CAPSULES (*Optional*)

Filling the 1" Capsule Dispenser
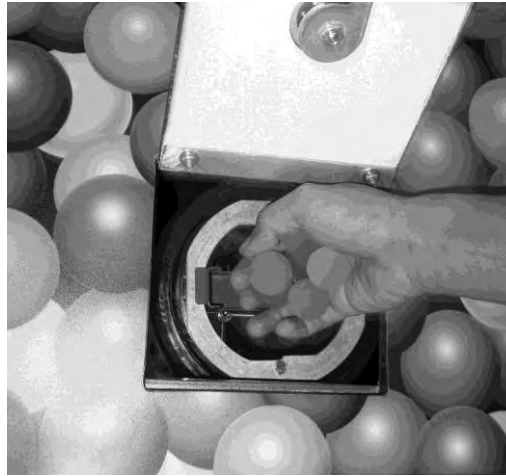
With the Capsule Access door opened fill in the 1" capsule into the capsule dispenser as required

Filling the Capsule display tube,

Capsule Display Tube

Capsule Display Tube

Use Phillip Head Screw to unscrew the top cover of the tube

Lift the cover
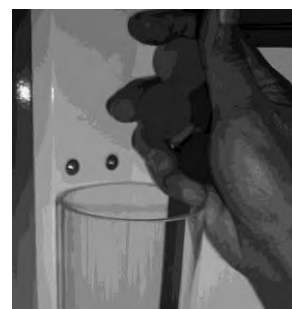
Fill in the capsule inside the tube and replace in reverse order

HOW TO PLAY

PLAYERS AIM TO CATCH A DROPPING BLOCKS TO WIN PRIZES

- Pay to Play.

- Press the Start/Stop button to start a game.

- Press the Start/Stop button to catch the Yellow falling blocks with the Blue catching blocks.

- The amount of falling and catching blocks will decreases as you move up the levels.

- Game ends any time the player fails to catch the failing blocks.

- Players win when the win level is reached.

- Players use the Joy stick to maneuver the crane and drop the claw to "Grab" their prize. The claw remains active until a prize has been dropped into the vend area.

PLAYER INSTRUCTIONS

1. Pay to Play
2. Press the Blue Button to Catch all falling Bar's to reach the WIN level
3. Use the Super strong Power Claw to pick your Prize (Guaranteed)

Note
- The Game gets progressively harder
- Careful! The Bar drops faster and the Catcher and Bar will get smaller the higher you go!

Bar   Good

Catcher

OPERATION

The "**Catch n Grab**" game has five operational modes: Attract mode, Play mode, Test mode, Programmable Adjustments Mode and Audits 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
        └────────────────────┘
```
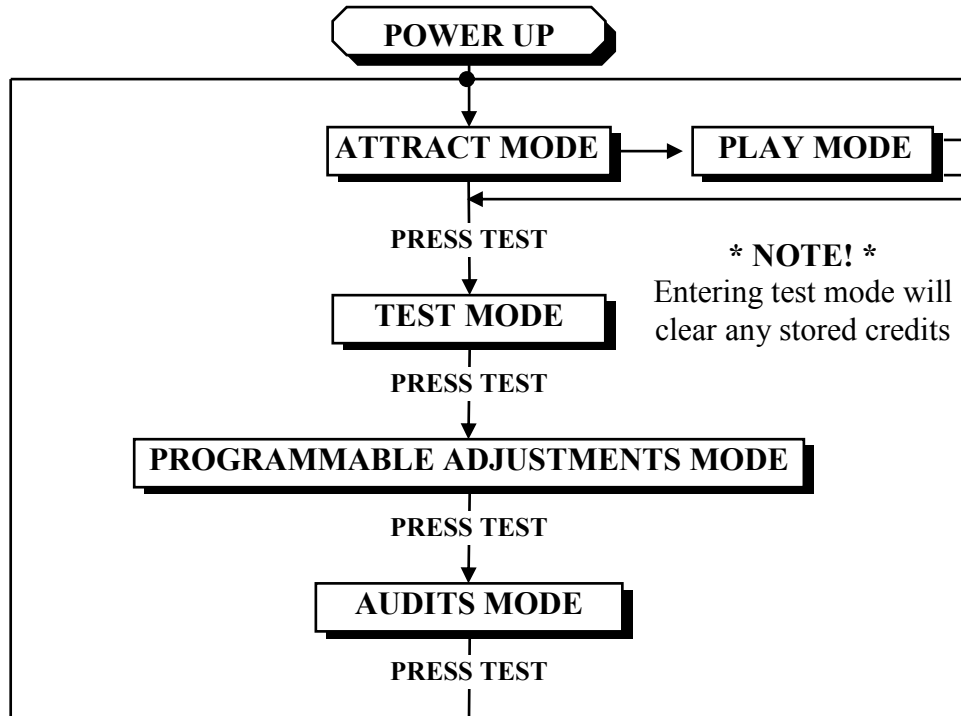
ATTRACT MODE

■ The Attract mode provides a light and sound display, while the game is not being played. This feature is to attract potential customers to play the game. The attract mode sound can be turned on and off
(Refer to programmable adjustment page of this manual).

PLAY MODE

■ The "**Catch N Grab**" 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, F̲r̲E̲E̲ 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, Prizes can be won as normal.

TEST MODE

The "**Catch n Grab**" Test mode has Three Test Configurations allowing you to explore the functioning of the Sound, Lights & Display and the Game Switches and to allow an operational test of the Crane Claw. (Refer to the Test Mode Diagram below).

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 bypassed 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
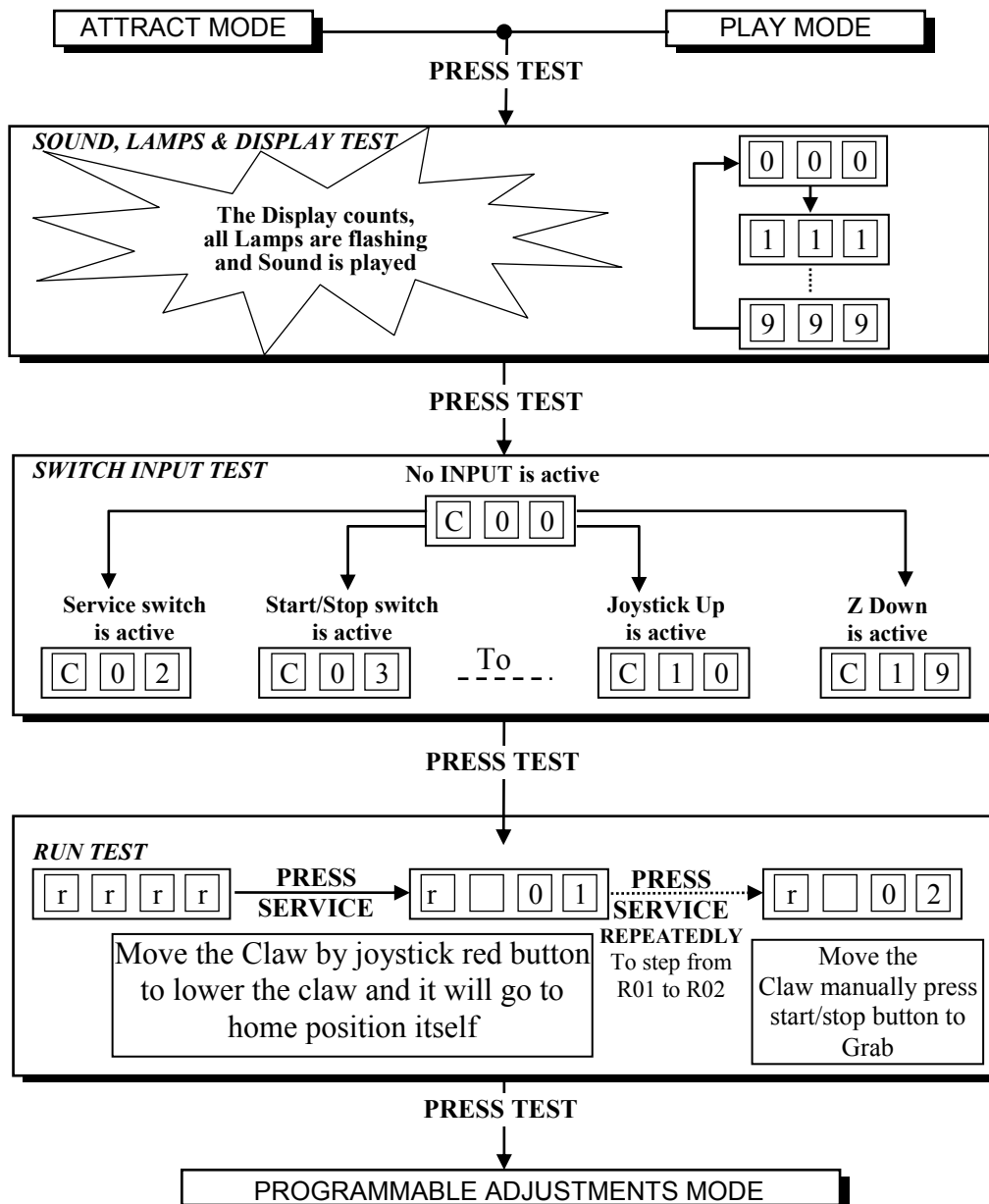
TESTING THE GAME SWITCHES

All game switches have a code from C1 to C19 as tabled below. By activating any of the switches, their code will be displayed on the 4-digit display. If there are no switches are active then C-01, C-15, C-16 and C-19 will be displayed.

CODE	DISPLAY	SWITCH FUNCTION
C-0	C - 0 0	No Input Active
C-1	C - - 1	Ticket/Capsule Active
C-2	C - - 2	Service Switch Active
C-3	C - - 3	Start/Stop Button Active
C-4	C - - 4	Coin 1 Switch Active
C-5	C - - 5	Coin 2 Switch Active
C-9	C - - 9	Prize Sensor Active
C-10	C - 1 0	Joystick Up Switch Active
C-11	C - 1 1	Joystick Down Switch Active
C-12	C - 1 2	Joystick Right Switch Active
C-13	C - 1 3	Joystick Left Active
C-14	C - 1 4	Joystick Button Switch Active
C-15	C - 1 5	Left Position Home Switch
C-16	C - 1 6	Forward Position Home Switch
C-17	C - 1 7	Backwards Position Switch
C-18	C - 1 8	Down Position Switch
C-19	C - 1 9	Up Position Home Switch

PROGRAMMABLE ADJUSTMENTS QUICK REFERENCE TABLE (V1.5.1)

CODE	PROGRAMMABLE ADJUSTMENTS	OPTIONAL VALUES	DEFAULT SETTINGS	FEATURES
P01	1 - 20	1,2,3,….20	**1**	Coin 1: Number of coins
P02	1 - 20	1,2,3,…..20	**1**	Coin 1: Number of credits
P03	ON or OFF	**ON or OFF**	**OFF**	Multiple Bonus stages from coin 1
P3-1	OFF - 99	OFF,1,2,3 - 99	**OFF**	Coin 1 required coins for 1st level bonus
P3-2	OFF - 99	OFF,1,2,3 - 99	**OFF**	Given Bonus Credits for 1st level bonus
P3-3	OFF - 99	OFF,1,2,3 - 99	**OFF**	Coin 1 required coins for 2nd level bonus
P3-4	OFF - 99	OFF,1,2,3 - 99	**OFF**	Given Bonus Credits on 2nd level bonus
P3-5	OFF - 99	OFF,1,2,3 - 99	**OFF**	Coin 1 required coins for 1st level bonus
P3-6	OFF - 99	OFF,1,2,3 - 99	**OFF**	Given Bonus Credits for 1st level bonus
P04	1 - 20	1, 2, 3…20	**1**	Coin 2: Number of coins
P05	1 - 20	1, 2, 3…20	**1**	Coin 2: Number of credits
P06	OFF or ON	ON or OFF	**OFF**	Multiple Bonus stages from coin 2
P6-1	OFF - 99	OFF,1,2,3 - 99	**OFF**	Coin 2 required coins for 1st level bonus
P6-2	OFF - 99	OFF,1,2,3 - 99	**OFF**	Given Bonus Credits for 1st level bonus
P6-3	OFF - 99	OFF,1,2,3 - 99	**OFF**	Coin 2 required coins for 2nd level bonus
P6-4	OFF - 99	OFF,1,2,3, - 99	**OFF**	Given Bonus Credits on 2nd level bonus
P6-5	OFF - 99	OFF,1,2,3 - 99	**OFF**	Coin 2 required coins for 1st level bonus
P6-6	OFF - 99	OFF,1,2,3 - 99	**OFF**	Given Bonus Credits for 1st level bonus
P07	ON or OFF	ON or OFF	**ON**	Attract sound
P08	1 – 6	1, 2, 3 .6	**3**	Game Difficulty Level
P09	1 - 200	1, 30,35 ..,200	**10**	Average Win per Game
P10	0,3 – 15	0,3, - 15	**3**	Prize selection timeout (minute)
P11	1…4	1,2,3,4	**1**	Error Message option
P12	0 – 20	0,1, …20	**0**	Number of Mercy
P13	1 – 2	1,2	**1**	Mercy Option
P14	ON or OFF	ON or OFF	**OFF**	Prizes in Free play
P15	ON or OFF	ON or OFF	**OFF**	Common Coin

PROGRAMMABLE ADJUSTMENTS DETAILED

■ P01 = COIN 1: NUMBER OF <u>COINS</u> PER CREDIT

(Default 01) (Adjustable 1 – 20)

This sets the number of coins that need to be inserted into coin mechanism 1, for each credit. It can be set between 1 to 20 coins for one credit. The default setting is "1".

■ P02 = COIN 1: NUMBER of <u>PLAYS</u> PER CREDIT

(Default 01) (Adjustable 1 – 20)

This sets the number of games for each credit inserted into coin mechanism 1. It can be set between 1 to 20 plays for each credit. The *default* setting is "1".

■ P03 = COIN 1: <u>ACTIVATE</u> MULTIPLE BONUS PRICING

(Default OFF) (Adjustable ON – OFF)

Note: Settings P 03 and P 03-1 thru to P03-6 are only used for the setting of Bonus credit levels e.g. $0.50c/1 play, $1/3plays, $2/7plays, $5/20 plays

This turns on the multiple bonus credit system and activates the settings for up to 3 bonus levels on coin mechanism 1. It can be set to ON or OFF. The *default* setting is "OFF" this mean the multiple bonuses is disabled, if the setting change to ON the multiple bonus setting will be active and open the next sub-menu **P03-1** and so on.

■ P03 - 1 = COIN 1: NUMBER of <u>COINS</u> REQUIRED TO REACH BONUS CREDIT LEVEL 1

(Default OFF) (Adjustable OFF – 99)

This sets the number of coins (or Bill Acceptor pulses) that need to be inserted into coin mechanism 1 to reach the bonus credit level 1. It can be set to either OFF for no bonus or 1 to 99 coins, (OFF=No bonus), the *default* setting is "OFF" this means that the **P03-2** will not open

Examples	(Base price $0.25c)	(Base Price $0.50c)	(Base Price $0.50c)	(Base Price $1.00)
P Setting Adjustment	1 *play* **$ 0.25c** 3 *plays* **$ 0.50c** 7 *plays* **$ 1.00** ($0.25c coins or DBA set on $0.25c pulses)	1 *play* **$ 0.50c** 3 *plays* **$ 1.00** 7 *plays* **$ 2.00** ($0.25c coins or DBA set on $0.25c pulses)	1 *play* **$ 0.50c** 3 *plays* **$ 1.00** 8 *plays* **$ 2.00** 22 *plays* **$ 5.00** ($0.25c coins or DBA set on $0.25c pulses)	1 *play* **$ 1.00** 3 *plays* **$ 2.00** 8 *plays* **$ 5.00** 18 *plays* **$ 10.00** ($0.25c coins or DBA set on $0.25c pulses)
P01 / P04	1	2	2	4
P02 / P05	1	1	1	1
P03 / P06	ON	ON	ON	ON
P3-1 / P6-1	2	4	4	8
P3-2 / P6-2	1	1	1	1
P3-3 / P6-3	4	8	8	20
P3-4 / P6-4	3	3	4	3
P3-5 / P6-5	OFF	OFF	20	40
P3-6 / P6-6	OFF	OFF	12	8

■ **P03 - 2 = COIN 1: NUMBER of <u>BONUS</u> CREDITS GIVEN AT BONUS LEVEL 1**

(Default OFF) (Adjustable OFF – 99)

This sets the number of bonus credits that are given when credit Level 1 is reached. It can be set to either OFF or between 1 to 99 bonus credits; the *default* setting is "OFF" this means that the **P03-3** will not open.

■ **P03 - 3= COIN 1: NUMBER of <u>COIN</u>S REQUIRED TO REACH BONUS CREDIT LEVEL 2**

(Default OFF) (Adjustable OFF – 99)

This sets the number of coins (or Bill Acceptor pulses) that is needed to be inserted into coin mechanism 1 to reach the bonus credit level 2. It can be set to OFF for no bonus or between 1 to 99 coins, but the setting value must be higher than setting value of **P03-1**, the *default* setting is "OFF" and if set to OFF this means that the **P03-4** will not open.

■ **P03 - 4 = COIN 1: NUMBER OF <u>BONUS</u> CREDITS GIVEN AT BONUS LEVEL 2**

(Default OFF) (Adjustable OFF – 99)

This sets the number of bonus credits that are given when credit Level 2 is reached. It can be set to either OFF or between 1 to 99 bonus credits; the *default* setting is "OFF" this means that the **P03-5** will not open.

■ **P03 - 5= COIN 1: NUMBER OF <u>COINS</u> REQUIRED TO REACH BONUS CREDIT LEVEL 3**

(Default OFF) (Adjustable OFF – 99)

This sets the number of coins (or Bill Acceptor pulses) that is needed to be inserted into coin mechanism 1 to reach the bonus credit level 3. It can be set to OFF for no bonus or between 1 to 99 coins, but the setting value must be higher than setting value of **P03-3**, the *default* setting is "OFF" and if set to OFF this mean that the **P03-6** will not open.

■ **P03 - 6 = COIN 1: NUMBER OF <u>BONUS</u> CREDITS GIVEN AT BONUS LEVEL 3**

(Default OFF) (Adjustable OFF – 99)

This sets the number of bonus credits that are given when credit Level 3 is reached. It can be set to either OFF or between 1 to 99 bonus credits; the *default* setting is "OFF"

■ **P04 = COIN 2: NUMBER OF <u>COINS</u> PER CREDIT**

(Default 01) (Adjustable 1 – 20)

This sets the number of coins that need to be inserted into coin mechanism 2, for each credit. It can be set between 1 to 20 coins for one credit. The default setting is "1".

■ **P05 = COIN 2: NUMBER of <u>PLAYS</u> PER CREDIT**

(Default 01) (Adjustable 1 – 20)

This sets the number of games for each credit inserted into coin mechanism 2. It can be set between 1 to 20 plays for each credit. The *default* setting is "1".

■ P06 = COIN 2: <u>ACTIVATE</u> MULTIPLE BONUS PRICING

(Default OFF) (Adjustable ON – OFF)

<u>Note: Settings P 06 and P 06-1 thru to P06-6 are only used for the setting of Bonus credit levels e.g. $0.50c/1 play, $1/3plays, $2/7plays, $5/20 plays</u>

This turns on the multiple bonus credit system and activates the settings for up to 3 bonus levels on coin mechanism 2. It can be set to ON or OFF. The *default* setting is "OFF" this mean the multiple bonuses is disabled, if the setting change to ON the multiple bonus setting will be active and open the next sub-menu **P03-1** and so on.

■ P06 - 1 = COIN 2: NUMBER of <u>COIN</u>S REQUIRED TO REACH BONUS CREDIT LEVEL 1

(Default OFF) (Adjustable OFF – 99)

This sets the number of coins (or Bill Acceptor pulses) that need to be inserted into coin mechanism 2 to reach the bonus credit level 1. It can be set to either OFF for no bonus or 1 to 99 coins, (OFF=No bonus), the *default* setting is "OFF" this means that the **P06-2** will not open

Examples	(Base price $0.25c)	(Base Price $0.50c)	(Base Price $0.50c)	(Base Price $1.00)
P Setting Adjustment	1 *play* **$ 0.25c** 3 *plays* **$ 0.50c** 7 *plays* **$ 1.00** ($0.25c coins or DBA set on $0.25c pulses)	1 *play* **$ 0.50c** 3 *plays* **$ 1.00** 7 *plays* **$ 2.00** ($0.25c coins or DBA set on $0.25c pulses)	1 *play* **$ 0.50c** 3 *plays* **$ 1.00** 8 *plays* **$ 2.00** 22 *plays* **$ 5.00** ($0.25c coins or DBA set on $0.25c pulses)	1 *play* **$ 1.00** 3 *plays* **$ 2.00** 8 *plays* **$ 5.00** 18 *plays* **$ 10.00** ($0.25c coins or DBA set on $0.25c pulses)
P01 / P04	1	2	2	4
P02 / P05	1	1	1	1
P03 / P06	ON	ON	ON	ON
P3-1 / P6-1	2	4	4	8
P3-2 / P6-2	1	1	1	1
P3-3 / P6-3	4	8	8	20
P3-4 / P6-4	3	3	4	3
P3-5 / P6-5	OFF	OFF	20	40
P3-6 / P6-6	OFF	OFF	12	8

■ P06 -2 = COIN 2: NUMBER of <u>BONUS</u> CREDITS GIVEN AT BONUS LEVEL 1

(Default OFF) (Adjustable OFF – 99)

This sets the number of bonus credits that are given when credit Level 1 is reached. It can be set to either OFF or between 1 to 99 bonus credits; the *default* setting is "OFF" this means that the **P06-3** will not open.

■ **P06 – 3= COIN 2: NUMBER of <u>COINS</u> REQUIRED TO REACH BONUS CREDIT LEVEL 2**

 (Default OFF) (Adjustable OFF – 99)

This sets the number of coins (or Bill Acceptor pulses) that is needed to be inserted into coin mechanism 2 to reach the bonus credit level 2. It can be set to OFF for no bonus or between 1 to 99 coins, but the setting value must be higher than setting value of **P06-1**, the *default* setting is "OFF" and if set to OFF this means that the **P06-4** will not open.

■ **P06 - 4 = COIN 2: NUMBER OF <u>BONUS</u> CREDITS GIVEN AT BONUS LEVEL 2**

(Default OFF) (Adjustable OFF – 99)

This sets the number of bonus credits that are given when credit Level 2 is reached. It can be set to either OFF or between 1 to 99 bonus credits; the *default* setting is "OFF" this means that the **P06-5** will not open.

■ **P06 – 5 = COIN 2: NUMBER OF <u>COINS</u> REQUIRED TO REACH BONUS CREDIT LEVEL 3**

(Default OFF) (Adjustable OFF – 99)

This sets the number of coins (or Bill Acceptor pulses) that is needed to be inserted into coin mechanism 2 to reach the bonus credit level 3. It can be set to OFF for no bonus or between 1 to 99 coins, but the setting value must be higher than setting value of **P06-3**, the *default* setting is "OFF" and if set to OFF this mean that the **P06-6** will not open.

■ **P06 -6 = COIN 2: NUMBER OF <u>BONUS</u> CREDITS GIVEN AT BONUS LEVEL 3**

(Default OFF) (Adjustable OFF – 99)

This sets the number of bonus credits that are given when credit Level 3 is reached. It can be set to either OFF or between 1 to 99 bonus credits; the *default* setting is "OFF"

■ **P07 = ATTRACT MODE SOUND**

(Default ON) (Adjustable ON or OFF)

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

■ **P08 = LED CUBE SPEED**

(Default 3) (Non Adjustable 1 - 6)

This option displays the current setting of the *Cube Speed.* It changes the speed of the cube block movement as the player increases in levels. A setting of [1] is the easiest up to [6], the hardest. The value can be change manually.

■ P09 = AVERAGE <u>GAMES</u> PER WIN (AGW)

(Default 10) (Adjustable 1 – 200)

This option is for adjusting the game payout and sets the *Average Games per Prize Won.* The game automatically adjusts the game difficulty to achieve a player win ratio that will average very close to the (AWG). Example an AWG setting 20 means on average a prize will be won for every 20 games played. The setting is adjustable from 1 to 200. With adjustment from 1-30 in steps of 1, from 30-200 in steps of 5. The *default* setting is 10, or one win every 10 Games which suitable for $4 Plush on $0.50 per play

■ P10 = Crane Time Out

(Default 3) (Adjustable 0, 3 – 15)

This adjustment sets the crane time out (in minutes) for a player to pick up a Toy/Prize after winning. Example when set to 3 means a winning player has 3 minutes to select and pick up a Toy/Prize. When the timeout has been reached, the game will go to Err4 (prize deployment Error) A setting of 0 means there is no time out.

Note: If the player fails to pick up a Toy/Prize two times in a row the crane will automatically run a self test by lowering the claw into the prize chute to make sure the prize sensor is working OK.

■ P11 = Error Message Option

(Default 1) (Adjustable 1 - 4)

This adjustment sets the way error messages are handled. The game can play a voice over for error, or display the error on the small 4 digit display.

Setting	Voice Over	4 Digit Display
1	Played	Displayed
2	Played	Error will display when test button is pressed and will try clear the error when the test button is pressed again
3	Not Played	Displayed
4	Not Played	Error will display when test button is pressed and will try clear the error when the test button is pressed again

■ P12 = 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.

■ P13 == MERCY SYSTEM MODE ADJUSTMENT

(Default 1) (Adjustable 1 – 2)

This option adjusts the way that mercy tickets or capsules paid out if the optional ticket or capsule dispenser is fitted. See **P12** for setting the number of mercy tickets or capsules that will be dispensed.

1. Mercy tickets / capsules are paid if no Major or Minor 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

■ **P14 = PRIZES IN FREE PLAY MODE**
(Default OFF) (Adjustable ON or OFF)

This setting controls whether or not the *game dispenses prizes* in free play mode. The options are **ON** or **OFF**.

■ **P15 = COMMON COIN SYSTEM**
(Default OFF) (Adjustable ON or OFF)

This setting controls whether a common coin system is active or not, when sets to OFF this means both coin inputs operate separately and different settings can be made for each coin input and both coin inputs act separately. When sets to ON this mean both coin inputs will act like one coin input (*Coin 1 counter only*). This can be used when a DBA (set on 4 pulses per $1) and a 25c coin mechanic is used

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 Catch N Grab has thirty two Audits that can be viewed in this mode. They are A01 to A32 and their codes and values are displayed alternatively during the Audit Mode.

Example: Code **A01** will be displayed as Ⓐ☐⓪① and a value of **421** as ☐④②① on the 4-digit display.
Or it will display large values like **21589** as ⊡⊡⊡② and ①⑤⑧⑨ on the 4-digit display.

AUDITS MODE DIAGRAM
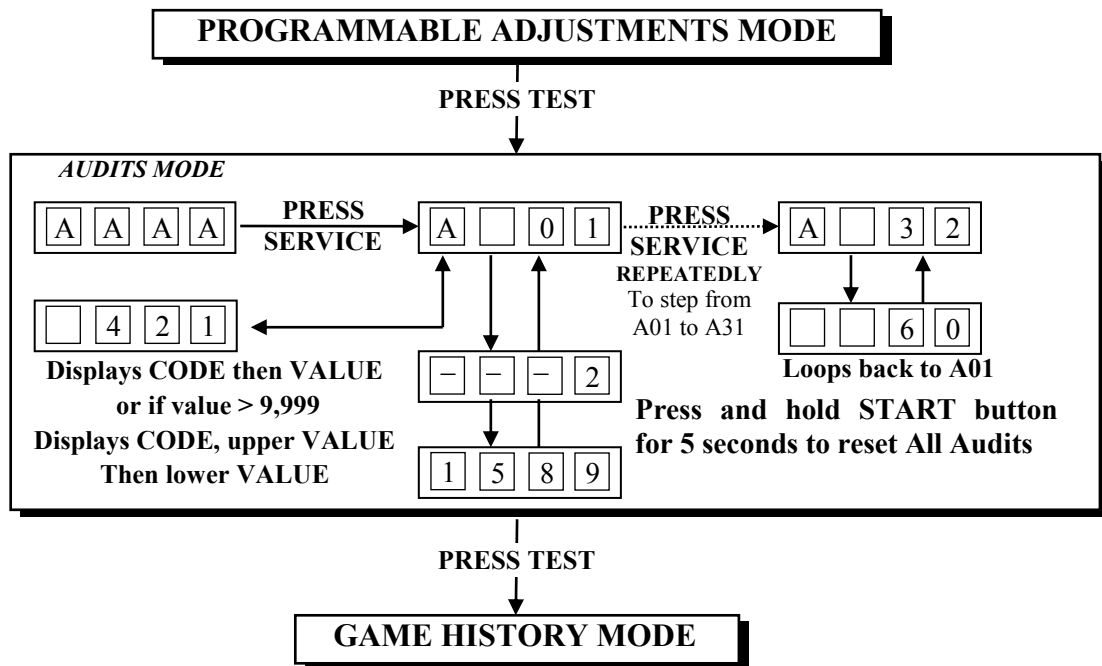
* NOTE! *
- For Audit values that are greater than 4 digits the audits" values will be displayed in two steps.
- The first number, which is displayed as ⊡⊡⊡②, has leading dash symbols
- The second value is displayed as ①⑤⑧⑨, which has no dash symbols.
- In this example the final value is 21,589

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 4-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 A32, and then looping again from A01 to A32 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 A-07, reaches 60,000.

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

AUDITS QUICK REFERENCE TABLE

CODE	DISPLAY	AUDIT FUNCTION
A01	A-01	Total Coin Mechanic 1
A02	A-02	Total Coin Mechanic 2
A03	A-03	Total Service Credit
A04	A-04	Total Major Prizes Won
A05	A-05	Total number of games played
A06	A-06	Average games per win
A07	A-07	Average Level reached per game
A08	A-08	Total number player reach level 1
A09	A-09	Total number player reach level 2
A10	A-10	Total number player reach level 3
A11	A-11	Total number player reach level 4
A12	A-12	Total number player reach level 5
A13	A-13	Total number player reach level 6
A14	A-14	Total number player reach level 7
A15	A-15	Total number player reach level 8
A16	A-16	Total number player reach level 9
A17	A-17	Total number player reach level 10
A18	A-18	Total Mercy (*Manufacture Audit*)
A19	A-19	Coin 1 Counter (*non-resettable*)
A20	A-20	Coin 2 Counter (*non-resettable*)
A21	A-21	Check Sum (*Non-resettable*)
A22	A-22	Level Counter For average Calculation (*Manufacture Audit*)
A23	A-23	Win Counter For average Calculation (*Manufacture Audit*)
A24	A-24	Total Game For average Calculation (*Manufacture Audit*)
A25	A-25	Average Check Sum (*Manufacture Audit*)
A26	A-26	Prize Counter (*Manufacture Audit*)
A27	A-27	Total Game Counter (*Manufacture Audit*)
A28	A-28	Check Sum Win (*Manufacture Audit*)
A29	A-29	Bucket 1 Counter (*Manufacture Audit*)
A30	A-30	Bucket 2 Counter (*Manufacture Audit*)
A31	A-31	Bucket 3 Counter (*Manufacture Audit*)
A32	A-32	Check Sum (*Manufacture Audit*)

AUDITS DETAILED

■ A01 = TOTAL COINS IN MECHANISM 1

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

■ A02 = TOTAL COINS IN MECHANISM 2

This Audit displays the *total number of coins* inserted into coin mechanism 2 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 PRIZES PAID OUT

This Audit displays the *total number of Prizes Won,* since the audits were last cleared.

■ A05 = TOTAL GAMES PLAYED

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

■ A06 = AVERAGE GAMES PER WIN (AGW)

This Audit displays the *total number of Average games per Win* since the audits were last cleared.

■ A07 = AVERAGE LEVEL PER GAME

This Audit displays the *total number of Average Levels reached per Game* since the audits were last cleared.

---

* NOTE! *
- ■ **ALL** Audits will **STOP INCREMENTING** when the "Total Number of Games Played", audit A-07, 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.

■ A08 to A17
TOTAL NUMBER OF GAMES ENDING on LEVELS 1 to 10

These Audits display the *total number of games ending on level* number 1 through to 10 on this machine since the audits were last cleared. Each level is a row of squares on the LED Playfield Display; row one starting at the bottom and with row ten at the top.

■ A18to A32 = MANUFACTURE AUDITS ONLY

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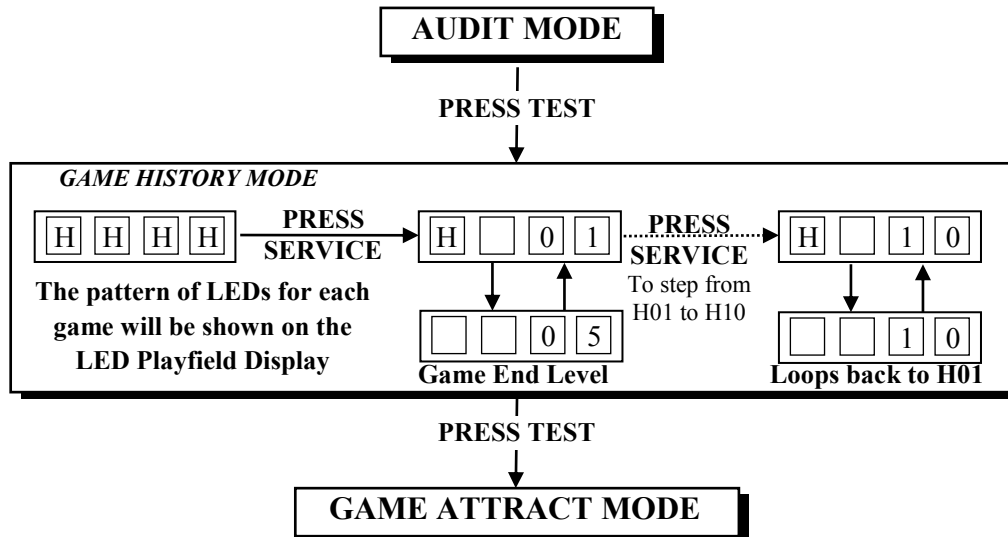
---

* 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 10 games played. This enables the operator to verify player's game results and verify the win / lose pattern on the LED Playfield Display.

GAME HISTORY MODE DIAGRAM

```
                    ┌──────────────────┐
                    │   AUDIT MODE     │
                    └──────────────────┘
                             │
                        PRESS TEST
                             │
                             ▼
┌──────────────────────────────────────────────────────────────────┐
│ GAME HISTORY MODE                                                  │
│                                                                    │
│  ┌─┐┌─┐┌─┐┌─┐    PRESS      ┌─┐┌─┐┌─┐┌─┐   PRESS      ┌─┐┌─┐┌─┐┌─┐ │
│  │H││H││H││H│  SERVICE      │H││ ││0││1│  SERVICE     │H││ ││1││0│ │
│  └─┘└─┘└─┘└─┘   ─────►       └─┘└─┘└─┘└─┘  ·········►   └─┘└─┘└─┘└─┘ │
│ The pattern of LEDs for each            To step from               │
│ game will be shown on the               H01 to H10                 │
│ LED Playfield Display        ┌─┐┌─┐┌─┐┌─┐            ┌─┐┌─┐┌─┐┌─┐   │
│                              │ ││ ││0││5│            │ ││ ││1││0│   │
│                              └─┘└─┘└─┘└─┘            └─┘└─┘└─┘└─┘   │
│                              Game End Level          Loops back to H01 │
└──────────────────────────────────────────────────────────────────┘
                             │
                        PRESS TEST
                             │
                             ▼
                    ┌──────────────────┐
                    │ GAME ATTRACT MODE│
                    └──────────────────┘
```

---

* NOTE! *
- Score Histories will be erased if the game is switched off then on. Empty score histories show as ⊟⊟⊟⊟ on the 4-digit display

---

GAME HISTORY QUICK REFERENCE TABLE

CODE	DISPLAY	HISTORY RESULTS
H01	H - 0 1	Level Ending & LED Pattern for Very Last Game Played
H02	H - 0 2	Level Ending & LED Pattern for 2nd Last Game Played
H03	H - 0 3	Level Ending & LED Pattern for 3rd Last Game Played
H04	H - 0 4	Level Ending & LED Pattern for 4th Last Game Played
H05	H - 0 5	Level Ending & LED Pattern for 5th Last Game Played
H06	H - 0 6	Level Ending & LED Pattern for 6th Last Game Played
H07	H - 0 7	Level Ending & LED Pattern for 7th Last Game Played
H08	H - 0 8	Level Ending & LED Pattern for 8th Last Game Played
H09	H - 0 9	Level Ending & LED Pattern for 9th Last Game Played
H10	H - 1 0	Level Ending & LED Pattern for 10th Last Game Played

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 4-digit display.

■ **SELECT** The green Service button is pressed for advancing each step through the set of Game Histories, starting from the ⊞⊞⊞⊞ display, H01 being the first step, continuing through to H10, and then looping again from H01 to H10 until the mode is exited.

■ **EXIT** The Game History mode is exited into Game Attract mode, by pressing the Test button once.

ERRORS AND TROUBLESHOOTING

If the Game microprocessor detects any problems with the operation of the game, an Error will be displayed on the 4-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 ErrX, where „X" is the error number. There are five error messages for *Catch N Grab*, listed as follows:

ERROR CODE QUICK REFERENCE TABLE

CODE	ERROR DESCRIPTION	SOLUTION
Err1	**TICKET/CAPSULE** No tickets/capsule, Jammed	Check the ticket/capsule Check the sensor/switch Check the Drive output to ticket/capsule
Err2	**START/STOP BUTTON** JAMMED, active for longer than 30 seconds	Check Button function using switch test Check the NO/NC connection
Err3	**EEPROM ERROR** Problem with on-board EEPROM	The main MCU is getting errors reading the EEPROM (24C16 IC on MCU).
Err4	**PRIZE DEPLOYMENT ERROR** Claw, Prize Sensor, Crane PCB or No toys problem this is hard Error *Test Mode can be access by pressing Test button.*	Check the Claw or Crane switches Check the prize sensor Check the Crane Control PCB Fill the cabinet with toys Check the Claw and Motor Fuses
Err5	**PRIZE SENSOR BLOCKED or PRIZE SENSOR FAULTY**	Clear the blockage from in front of the prize sensors Replace with new Sensor
Err7	**DISPLAY ERROR**	Check the Display wiring connection Check for any blown power Fuses Check or Re-seat the Socket IC
Err8	**THE CRANE HAS NOT RETURNED TO THE HOME POSTION or HOME POSITION SWITCH NOT WORKING**	Check the home position switch, make sure the connection is in proper condition Check the motor operation in the Crane Gantry

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. On Hard Error (Err4) Powering OFF and ON the game will clear the error.

■ **Err1 – TICKET/CAPSULE ERROR**

This error is usually displayed if the ticket /capsule does not function properly, or if tickets/capsules are jammed. Check the ticket/capsule is full and not empty, Check the ticket/capsule sensor/switch and make sure they are working properly, you can check with your hand to make sure the sensor/switch are working and switch connections always connected on the Normally Open and the Common contact of the switches. Use the switch test to help check the sensor/switch an active switch will display as C1. Use DMM to check the voltage drive from the main CPU output to the motor or ticket/capsule connector.

■ **Err2 – START/STOP BUTTON JAMMED**

This error is usually displayed if the Start/Stop button is active or jammed on for longer than 30 seconds. Check the mechanical operation of the Start/Stop button and also the micro switch. Lastly make sure the micro switch wiring is connected to the Normal Open and the Common contact of the micro switch. Use the Switch Test to help check the Stop/Start button, an active/pushed button will be display as C3.

■ **Err3 – EEPROM ERROR**

This Error means that the CPU cannot read the EEPROM, or is receiving errors during communication with the EEPROM (The 23C16 IC on the main MCU PCB). This could cause problems with the game audits and program settings. The first thing to do is try to switch the machine ON and OFF at least 2 cycles. If the message still appears then replace the EEPROM IC Atmel 24C16 on the CPU PCB with the new EEPROM, if there is still an error message, this could be a problem 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 – PRIZE DEPLOYMENT ERROR**

This Error is displayed when the Claw is faulty, the Prize Sensor is not functioning either during the start up test or in game play and/or there are no Toys inside the cabinet and the game times out. This is a hard Error and will stop the game operating but you can still access the test mode by pressing the test button twice for fault finding the problem.

Err4 can also occur when the claw rope winds around the pulley incorrectly and the claw is held up in the gantry. To clear this simply press and hold the Up switch inside the gantry for the claw to be released then redo the rope and wind it correctly.

■ **Err5 – PRIZE SENSOR BLOCKED or PRIZE SENSOR 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 for longer than 5 seconds. Clear the blockage in front of the sensor, re - adjust the sensor by turning the sensitivity screw in the sensor body if required.

■ **Err7 – DISPLAY ERROR**

This error occurs if the display has a problem and is not active or is freezing. Check the wiring connection, check and replace any blown fuses and lastly re-seat the socket IC and adjust the power supply for the 12 VDC line.

■ **Err8 – HOME SWITCH GANTRY ERROR**

This error occurs if the Gantry home position switch is not functioning or the crane gantry has not properly returned to the home position, (Front/left position). Check the switch condition and operation, the motor and the switch stopper and check the connection and the wiring to this switch.

FUSE INFORMATION

> *** WARNING! ***
> *Always* turn **OFF** *Mains power and unplugged the game, before replacing any fuses.*

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

- **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

- **3 LED PLAYFIELD DISPLAY CONTROLLER FUSES**
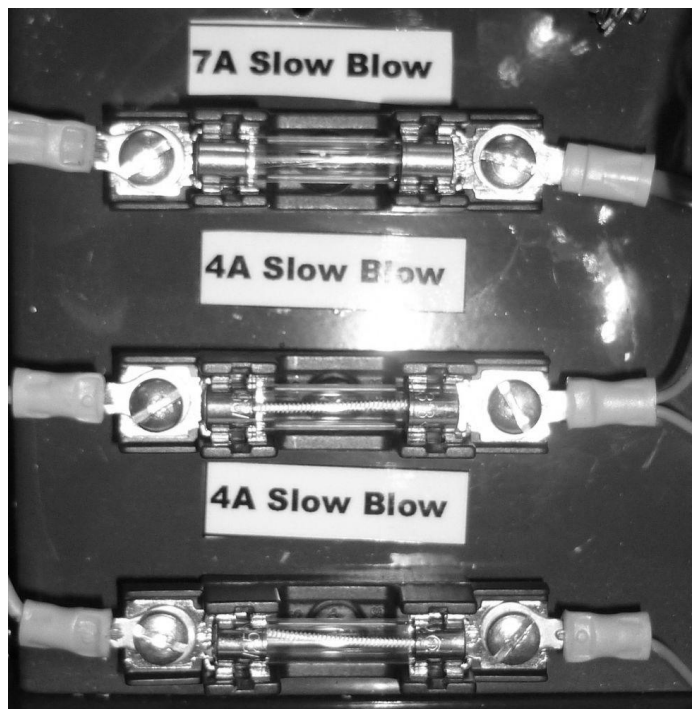 **(3 x 2.5 AMP FAST BLOW, M205 TYPE)**
  This fuse is for the +5VDC on the three LED Playfield Display PCBs

- **CLAW and MOTOR FUSES (2 x 4 AMP SLOW BLOW AND 7 AMP SLOW BLOW, 3AG TYPE)**
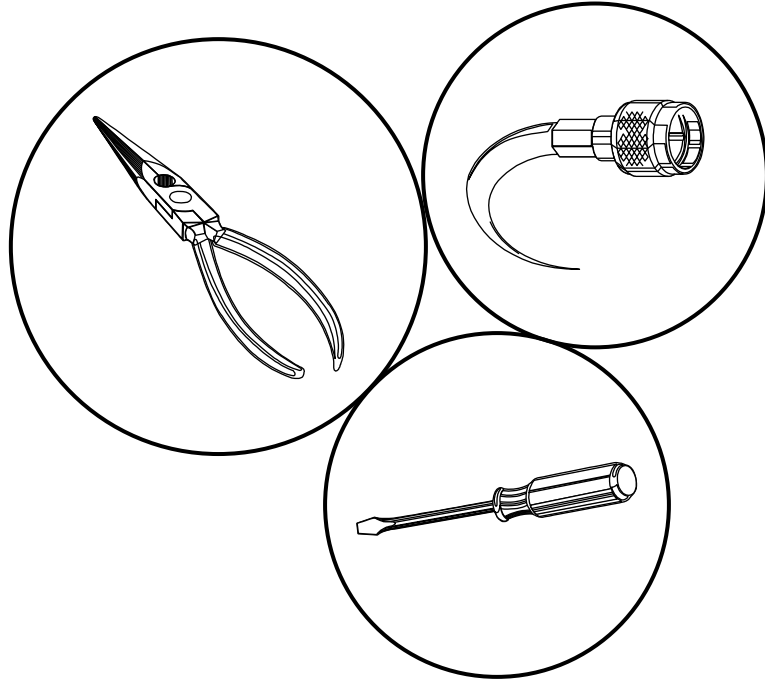 This fuse is for the Claw Coil 48 VDC 8 AMP maximum.

> *** CAUTION! ***
> *Do Not* Use any fuse that does not meet the specified rating.

SECTION A: SERVICE INSTRUCTIONS

> ⚠ *BE SURE TO READ THE FOLLOWING*
> *Carefully before servicing this machine* ⚠

LOCATING AND ACCESSING PARTS

PARTS LOCATION DIAGRAM

As viewed from front

Top Header

Playfield Display

LED Strip

Control Panel

Coin and DBA bracket

Prize Door

Cash Box

Prize Sensor behind the front door

As viewed from back

Service Door

DB Box
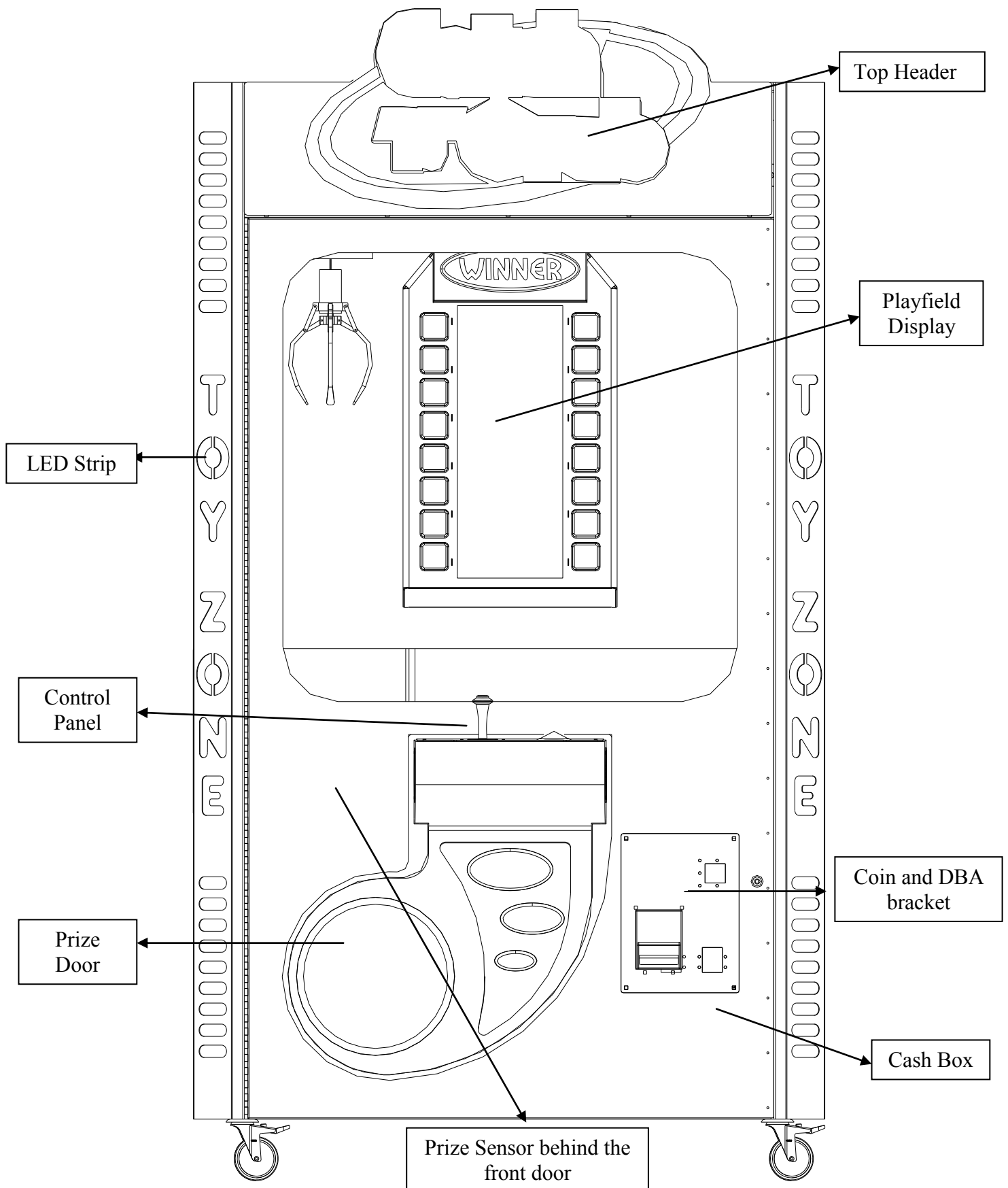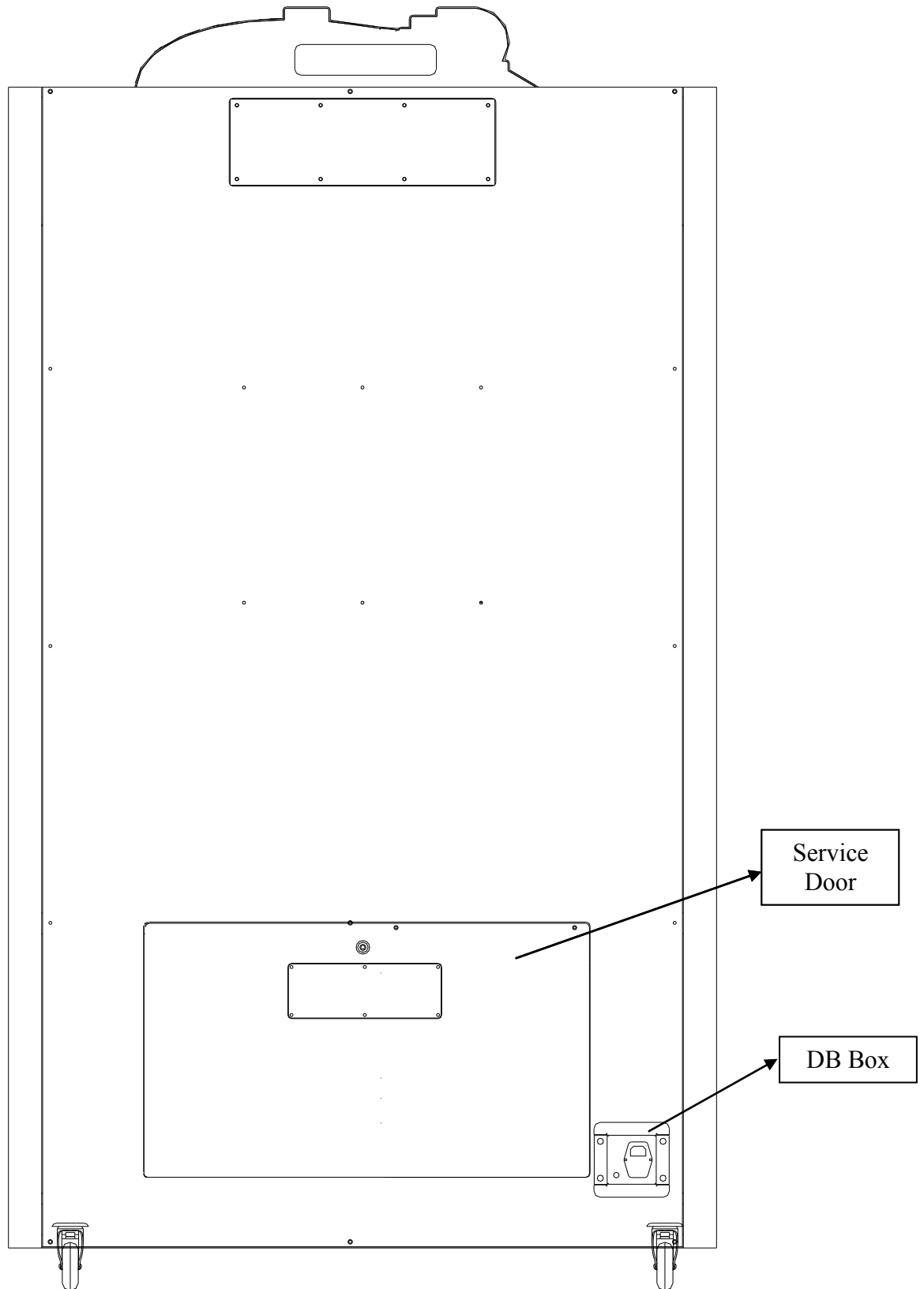
As viewed from back continued,
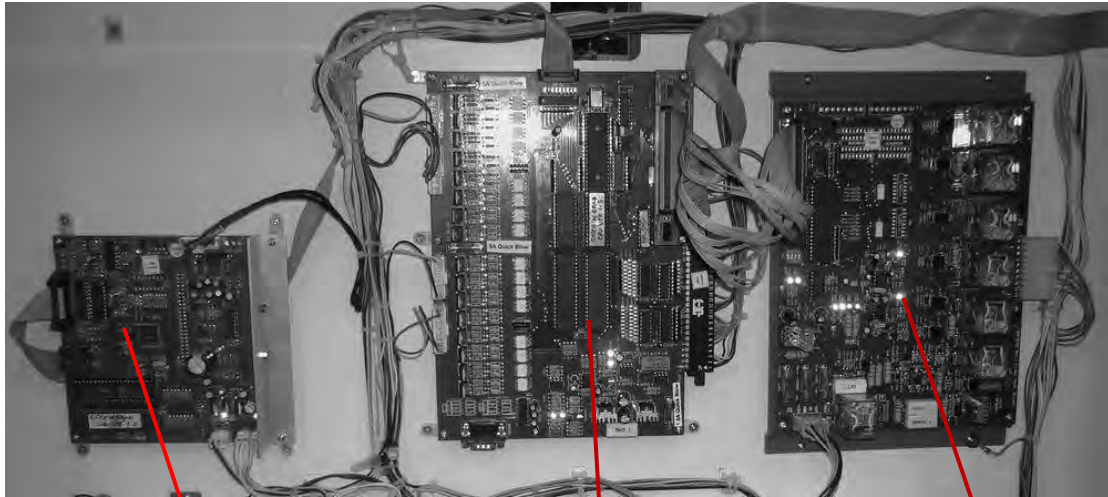
BAFB106 Sound ROM and
Amplifier PCB

BAFB66A Main CPU PCB

BAFB158 Claw Control PCB

10.000 µf/80 V
Capacitor

12 VDC PSU
EA1003

32 Amp
Bridge Diode
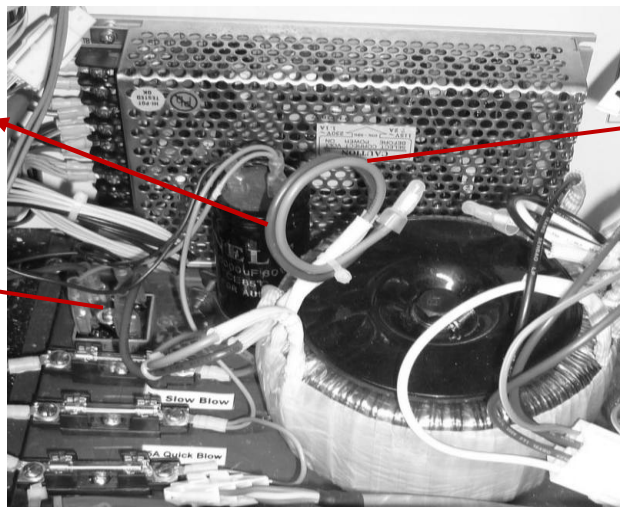
Prize Sensor

ROPE WINDING FOR THE CLAW

* NOTE! *
Rope length between notches is 1.40 meters maximum.

DISPLAY ACCESS,

Unscrew the 4 screws of the display to give access as shown above

PRIZE SENSOR

Prize Sensor LDD40N

Brown = 12 VDC
Blue = GND
Black = Output Logic

Sensitivity Adjustment

Output Adjustment NO / NC
(Standard NO)

PARTS DESCRIPTION

- **COIN MECHANISMS**

  The coin mechanisms can be accessed inside the Coin door to the right on the front of the machine cabinet.

- **CASH BOX**

  The cash box is located inside behind the coin door on the front of the machine cabinet.

- **SPEAKERS**

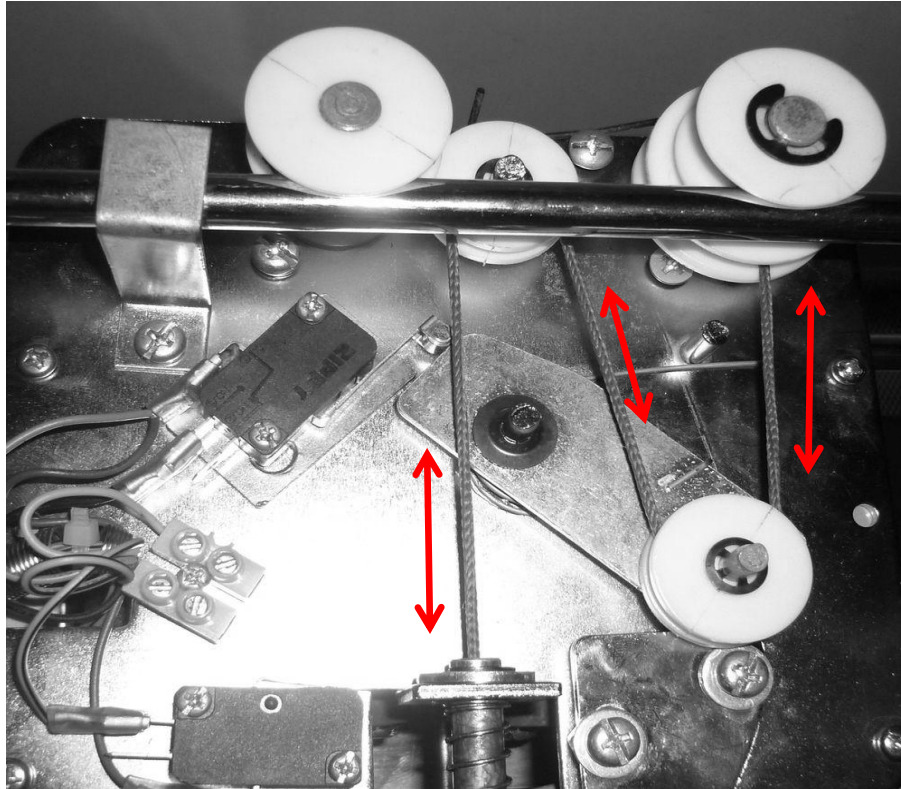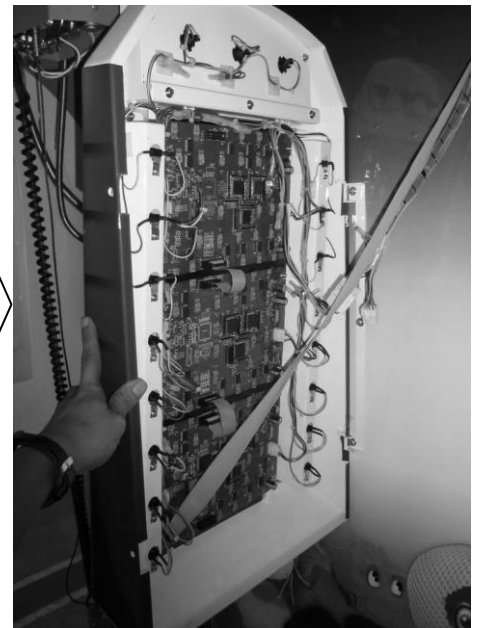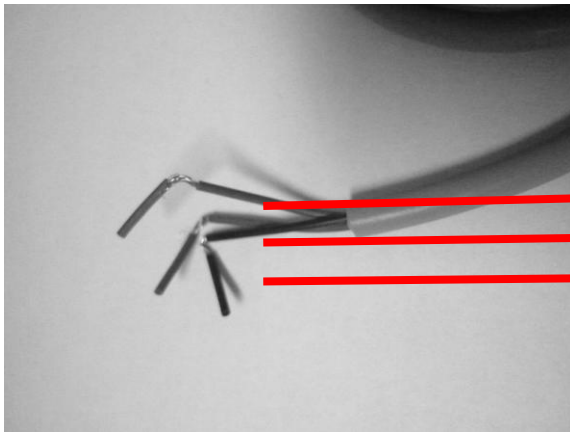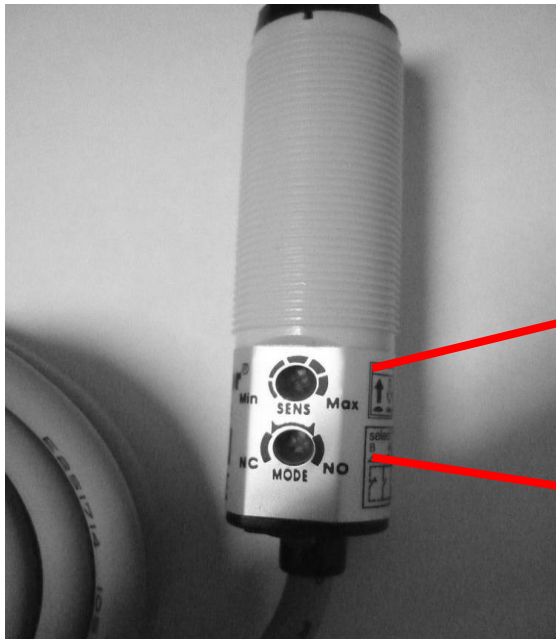 Two speakers are located to the front of the cabinet below the control panel. Access is through the back of front door by unscrewing the metal cover.

- **CONTROL PANEL**

  Control Panel located in the center of the machine cabinet. The control panel can be accessed through the front door from the back by unscrewing the metal bracket.

  START/STOP BUTTON: The Start button is the medium size Red round illuminated button. This button is used to start, stop in the game or lower the claw during a game and for test and program adjustments.

  JOYSTICK WITH BUTTON: The joystick is used for moving the claw and the red button on the joystick is used to lower the claw and grab the prize during a game and for test and program adjustments

- **SERVICE CONTROLS:**

  The Service panel is located above the cash box and is accessed through the front door.

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

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

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

CLAW ADJUSTMENT
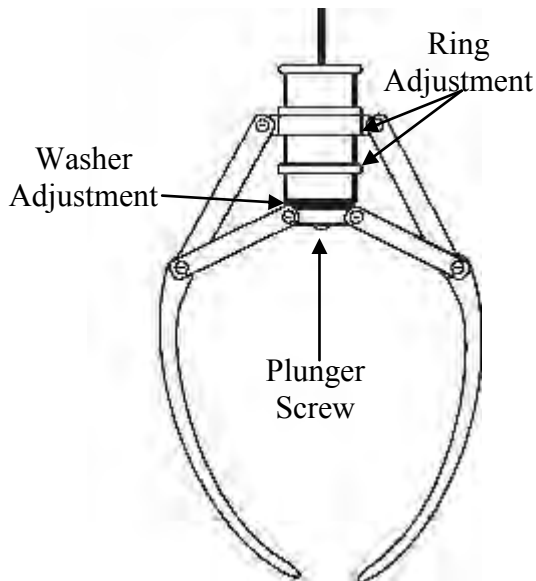
1. Mechanical Adjustments

▪ **Distance between claw arms in the closed position** is adjusted by moving the two rings up and down the body of the claw. Close the claw manually and loosen ring grub screws. Adjust the position of the rings for the desired claw arm distance and tighten ring grub screws.

▪ **Distance between claw arms in the Open position** is adjusted by moving the washer at the base of the plunger. Loosen plunger screw and rotate washer to allow the claw to open wide or narrow.

Big toys claw adjustment

80 mm
3.1"
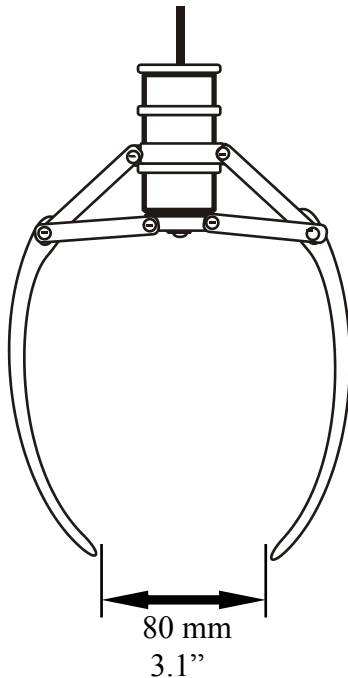
Smaller toys claw adjustment

50 mm
2"
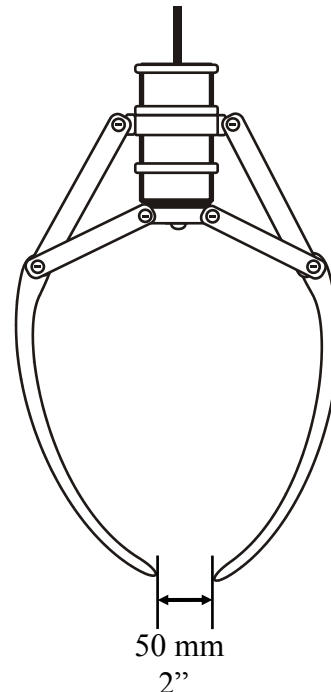
Note: The claw will get hot during normal game operations

<div style="border">

* CAUTION! *

<u>***Do not***</u> *touch the Power Coil during the operation it may be extremely hot*

</div>

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 LED or equivalent and can be accessed through the front door.

- **BUTTON LAMPS**
  The button lamps all are 12V/DC LED or equivalent and can be accessed through the front door.

- **HEADER LAMPS**
  There are standard FL fluorescent tubes fitted for the Header Display. Access is by the removing of the machine header cover and accessing the tube and ballast from the front.

- **CABINET LAMPS**
  There are four 20 watt Energy Safer bulbs in each top corner of the inside of the cabinet. Maximum four 25 watt Energy safer bulbs can be use inside the cabinet.

> ### * CAUTION! *
> *Always* replace the lamps with the same or equivalent size, wattage and voltage.

MAINTENANCE

CLEANING AND CHECK UP

EXTERIOR

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

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

> *** CAUTION! ***
> Do not use solvents on the panels as it may affect the artwork.

INTERIOR

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

> *** WARNING! ***
> Always turn OFF Mains power and unplugged the game, before cleaning the interior of the machine.
>
> Always after cleaning the cabinet interior, check all harness connectors and restore all loose or interrupted connections.

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

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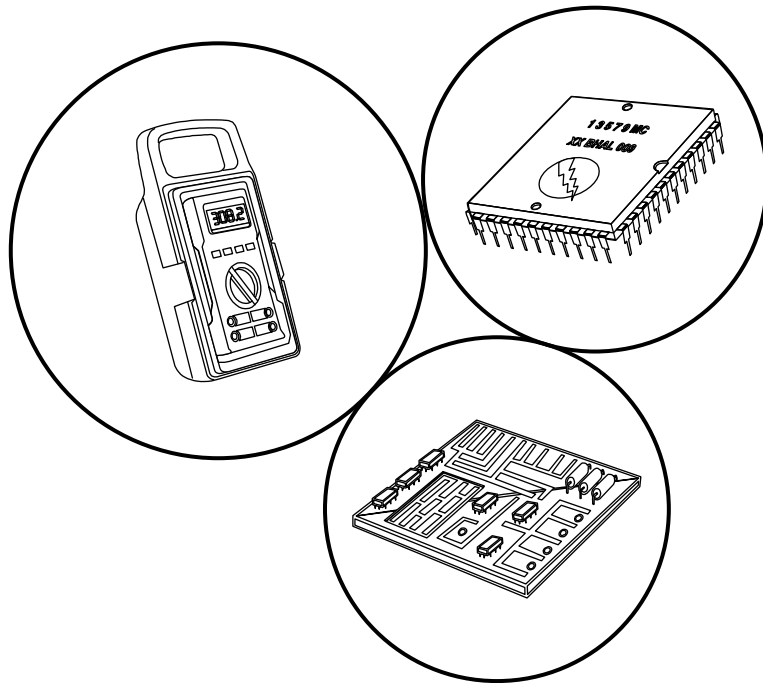
> It is advised that anybody using SECTION B for repairing or modifying any of the components of the game should be a qualified technician, having at least a basic knowledge of digital components, integrated circuits and electricity.

CONNECTION DETAIL

Main PCB 28 Way Edge Connector

Components Side	Solder side
GND 1	A GND
GND 2	B GND
+12VDC 3	C +12V
+12VDC 4	D +12V
- P1A7 5	E P1B7 Test button input
Z Down Switch 2 P1A6 6	F P1B6 Service button input
Z Up Switch 1 (home) P1A5 7	H P1B5 Start Button input
X Left Home Position switch P1A4 8	J P1B4 -
Right Joystick Input P1A3 9	K P1B3 Ticket notch input
Left Joystick Input P1A2 10	L P1B2 Coin 1 input
(Back)Up Joystick Input P1A1 11	M P1B1 Coin 2 input
(Front)Down Joystick Input P1A0 12	N P1B0 Display
(watch dog) P1C7 13	P P2C7 Output
Clock Display- P1C6 14	R P2C6 Output
- P1C5 15	S P2C5 Select button light
P1C4 16	T P2C4 Display, Display clock
Prize Sensor input P1C0 17	U P2C0 Output
Select Button input P1C1 18	V P2C1 Display 7 segment data
Y Backward Switch 1 (home) P1C2 19	W P2C2 Output
Y Forward Switch 2(NC) P1C3 20	X P2C3 Output
GND 21	Y GND
GND 22	Z GND

JST 7	JST 5
Light Winner 1 P2A0 1	1 P2B0 (PNP) Ticket Drive
Light level 2 P2A1 2	2 P2B1 Start Button Light Drive
Light level 3 P2A2 3	3 P2B2 Coin 1 Counter
Light level 4 P2A3 4	4 P2B3 Coin 2 Counter
Light level 5 P2A4 5	5 P2B4 Prize Counter Drive
Light Led Winner 6 P2A5 6	6 P2B5 Beacon /Led Light
Front Up Light 1 P2A6 7	7 P2B6 Crane Control
Front Down Light 2 P2A7 8	8 P2B7 Capsule Counter

Note: All switches that not write (NC) are NO (Normally Open).

FB158 PCB Relay Connector detail,

J2 (OUTPUT) 90 degree connector
Pin 11 = Left direction (X -)
Pin 12 = Right direction (X +)
Pin 13 = Backward direction (Y -)
Pin 14 = Forward Direction (Y +)
Pin 15 =
Pin 16 = Down Direction (Z -)
Pin 17 = Up Direction (Z +)
Pin 18 = Claw Active (CW +)
Pin 19 = Claw In active (CW -)
Pin 20 =
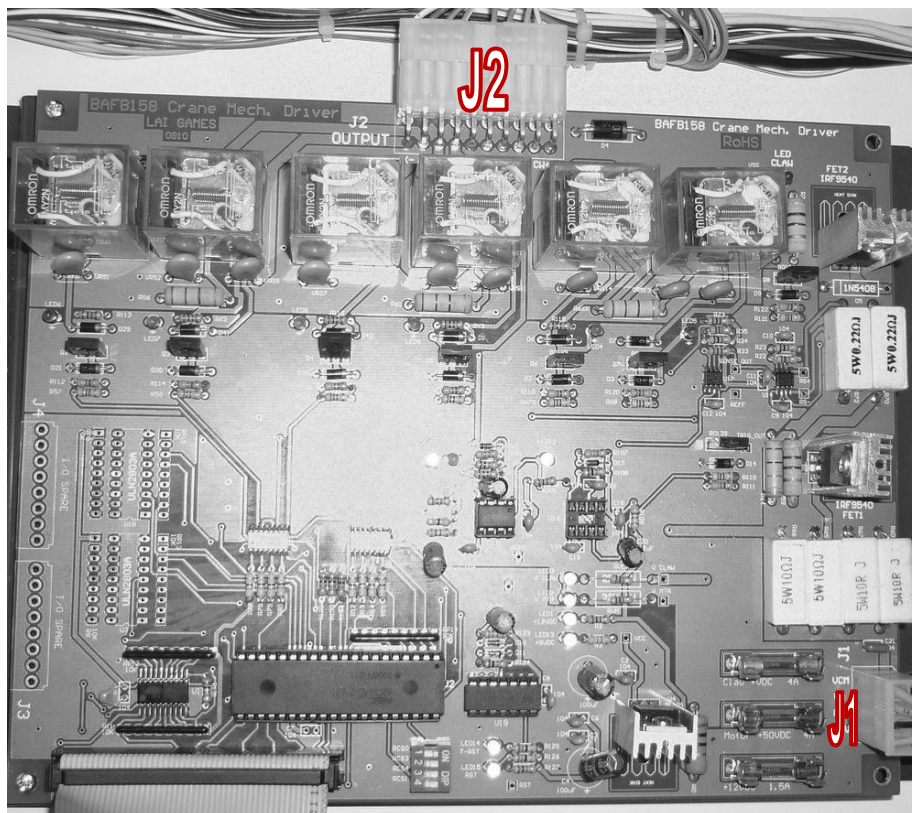
J1 (Power Connector)
Pin 1 = +12VDC
Pin 2 = GND
Pin 3 = +48VDC
Pin 4 = +48VDC
Pin 5 = GND 12V DC
Pin 6 = -
Pin 7 = -
Pin 8 = GND 48V DC

GANTRY EXPLODED VIEW

IDLE ROLLER

HEX NUT M5

SPRING WASHER M6

E CLIP

PH SCREW M5 X 25mm

DRIVE ROLLER

SET SCREW M4 X 6mm

MOTOR SUPPORT BRACKET

MOTORS 48VDC

MAIN PLATE

CLAW DOWN SWITCH

CLAW UP SWITCH

PH SCREW M3 X 16mm

DRIVE GEAR

BEARING SUPPORT BRACKET

DRIVE SHAFT BEARING

GUIDE WHEEL

PUSH CLIP 5mm

E CLIP

CLAW STRING SPOOL

IDLE ROLLER

CLAW DRIVE SHAFT

DRIVE ROLLER

MAIN DRIVE SHAFT

GUIDE WHEEL

CLAW CONTROL ARM

CONTROL ARM SPRING

STRING GUIDE SPRING

STRING GUIDE

E CLIP 8mm

LAI Games

PROJECT TOY ZONE

TITLE	GANTRY ASSEMBLY ASSEMBLY EXPLOSION		
FILE NAME	Gantry Assembly Explosion		
DRAWN BY	ARIF	CHECKED BY	
DATE	20/06/2010	DATE	

This drawing & design is the property of LAI Games and cannot be reproduced or copied wholly or in part without prior written permission of LAI Games   DO NOT SCALE

CRANE EXPLODED VIEW

LIMIT SWITCH

PH SCREW
M3 X 16mm

MAIN DRIVE SHAFT BEARING

BEARING SUPPORT BRACKET

MOTOR SUPPORT BRACKET

MOTOR
48VDC

MAIN PLATE

RIGHT HAND PLATE

RIGHT HAND
DRIVE SHAFT BEARING

E CLIP 8mm

IDLE WHEEL

DRIVE BELT

RAIL LOCK
BRACKET

SET SCREW
M4 X 6mm

HEX BOLT
M6 X 12mm

E CLIP 8mm

IDLE WHEEL

DRIVE BELT

PH SCREW
M5 X 25mm

DRIVE WHEEL

SET SCREW
M4 X 6mm

SPRING WASHER M5

HEX BOLT
M6 X 12mm

SPRING
WASHER M6

LIMIT SWITCH

DRIVE SHAFT

PH SCREW
M3 X 16mm

RAIL BARS

LIMIT SWITCH
SUPPORT BRACKET

PH SCREW
M3 X 6 mm

HEX NUT M6

DRIVE GEAR

PH SCREW
M3 X 6mm

LAI Games

PROJECT TOY ZONE

TITLE	CRANE ASSEMBLY EXPLOSION	
FILE NAME	CRANE ASSEMBLY EXPLOSION	
DRAWN BY	ARIF	CHECKED BY
DATE	20/06/2010	DATE

MAINS VOLTAGE ADJUSTMENT

■ POWER SUPPLY

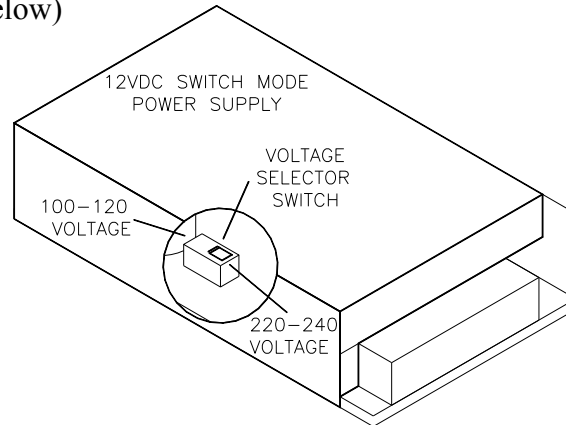The Switch Mode Power Supply has a switch to set the mains voltage range. It is located at the rear of the game cabinet, and is accessed via the Service door. Use a thin blade screwdriver to move the selector switch to the desired mains voltage (See Diagram Below)

■ 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 page of this manual.

6 WAY CONNECTOR PINOUT

PIN	FUNCTION
1	0 VAC
2	110 VAC
3	120 VAC
4	0 VAC
5	110 VAC
6	120 VAC
7	0 VAC
8	20 VAC
9	0 VAC
10	20 VAC
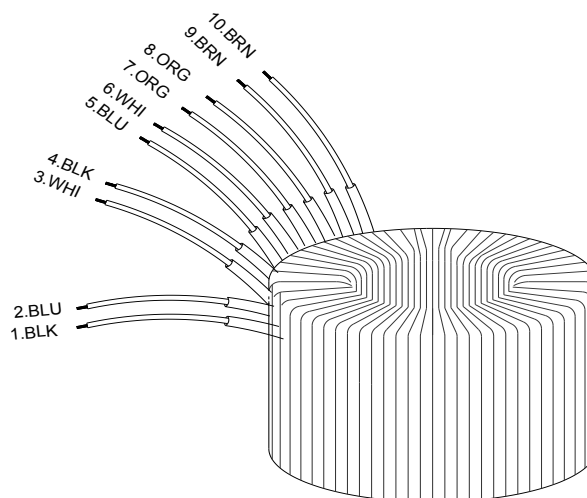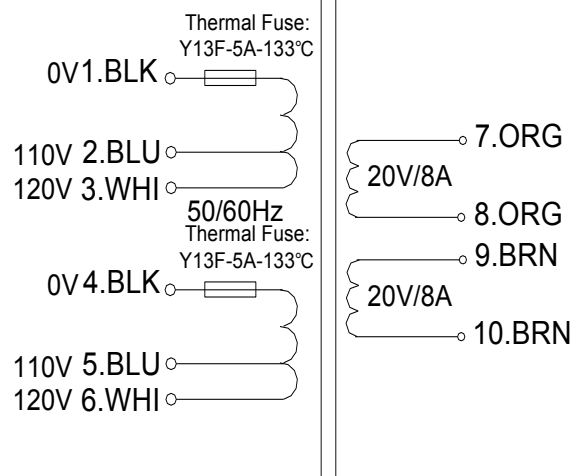
■ **FLUORESCENT TUBE BALLASTS AND STARTERS**

Locate the florescent tube ballasts and starters on the top of the cabinet behind the Header. If unsure of the location of any ballasts or starters, refer to Parts location diagram page of this manual. These have to be removed and replaced with an equivalent wattage at your local mains voltage level.
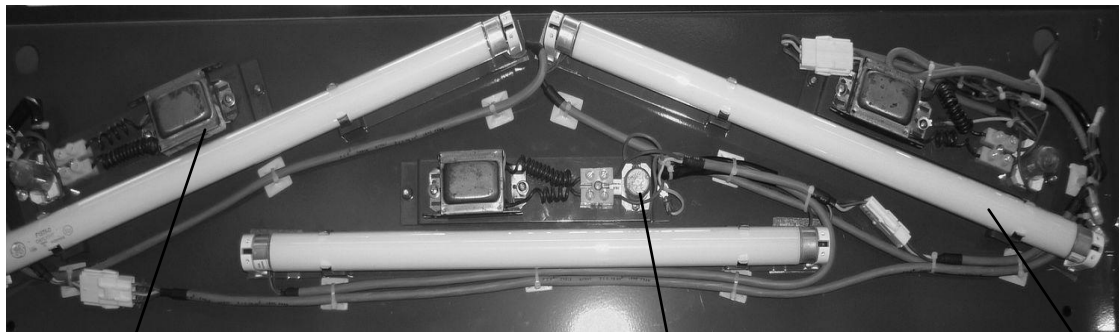
110 VAC Ballast

Ballast

Starter

18 Watt Fluorescent
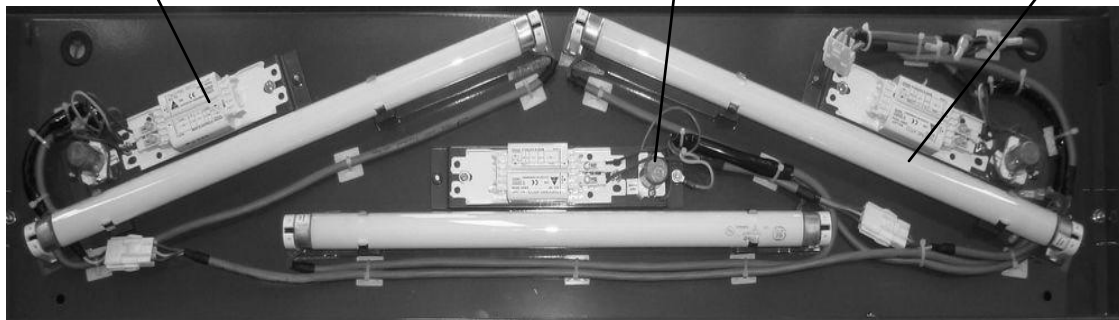
220 VAC Ballast

COIN OPTIONS REFERENCE GUIDE

Installed on the coin door is a 9 way Molex connector. This connector can be used for most electronic coin systems and electronic coin comparators.

Please see below picture to understand the connection setup,

The Coin harness supplied with the game,

End connection to coin will fit to NRI G13 and 2x Electronic Coin Comparator LAI GAMES standard). Other types of coin electronic harnessing can be supplied as requested, please contact your nearest LAI GAMES distributor.

CATCH 'N GRAB MAIN WIRING

CATCH N GRAB CONTROL WIRING

CATCH N GRAB CONTROL WIRING1

CATCH N GRAB CONTROL WIRING2

DWG NO. CTCR1-EC-005-R0

SERVICE BRACKET

SENSOR LDD-40N

TEST BUTTON
SERVICE BUTTON
COIN 1 COUNTER
COIN 2 COUNTER
PRIZE COUNTER
VOLUME CONTROL

TEST	1 1	TEST
SERVICE	2 2	SERVICE
GRN/BLK	3 3	GRN/BLK
CM1	4 4	CM1
CM2	5 5	CM2
PM	6 6	PM
RED	7 7	RED
WHITE	8 8	WHITE
SHIELD	9 9	SHIELD
RED	10 10	RED
WHITE	11 11	WHITE
SHIELD	12 12	SHIELD
YELLOW	13 13	+12VDC
YELLOW	14 14	YELLOW
YELLOW	5 5	+12VDC

Optional TICKET DOOR

FROM CONTROL WIRING 4
(SEE DWG NO. CTCR1-EC-006-R0)

YELLOW	1 1	YELLOW
PRIZE	2 2	PRIZE
BLACK	3 3	BLACK
	4 4	

TICKET MACHINE
TICKET COUNTER

NOTCH	1 1	BLUE
BLACK	2 2	BLACK
TICKET-DRV	3 3	WHITE
YELLOW	4 4	RED

WHITE/BLACK
+12VDC

CAPSULE COUNTER
WHITE/BLACK
+12VDC

Optional CAPSULE DISPENSER

Cap SW.	1 1	BLUE
GND	2 2	BLACK
Mtr DRV	3 3	WHITE
NC	4 4	YELLOW

MOTOR CRANE 48VDC

UP/DOWN MTR Z
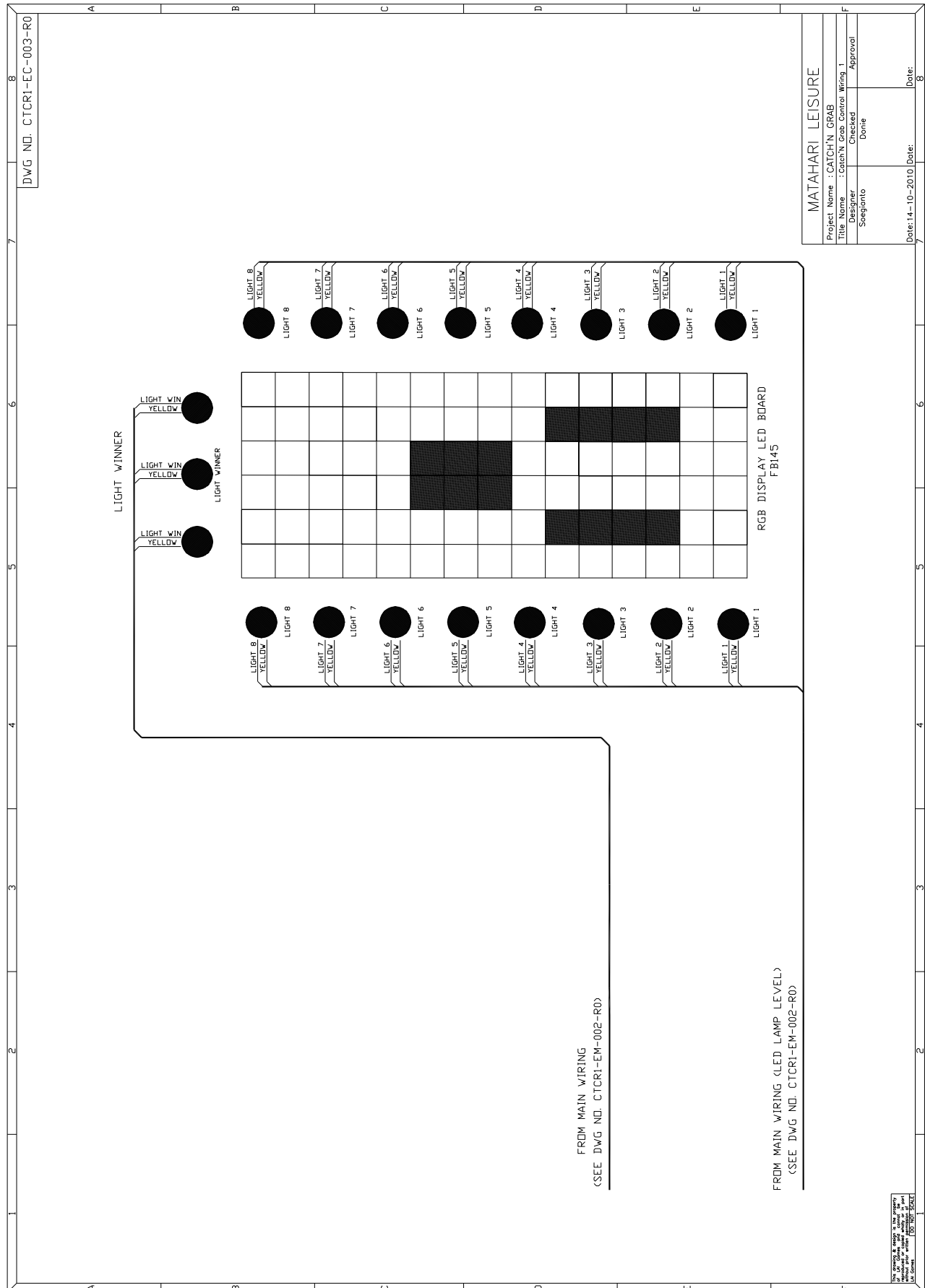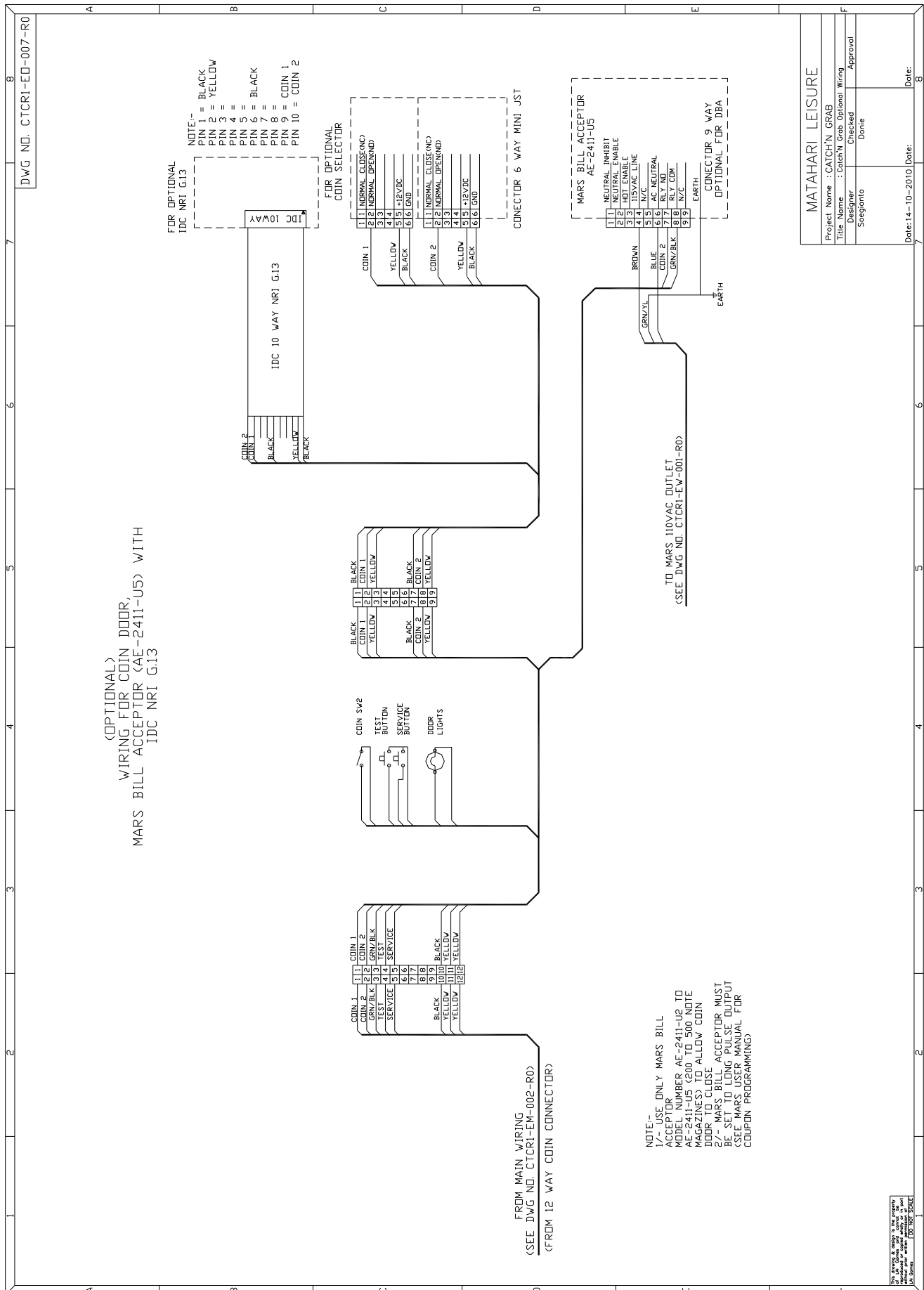MTR 48V WHITE BLUE
MTR X
MTR 48V WHITE RED
(HOME) LEFT

BACKWARD / FORWARD MTR Y
MTR 48V RED WHITE

48V CLOW
RED WHITE
10 INCH CLOW

SWITCH Z,X,Y CRANE

Y1 (HOME) BACKWARD
X (HOME) LEFT
Y2 FORWARD
Z1 DOWN
Z2 UP

FROM PCB FB158 CRANE
(SEE DWG NO. CTCR1-EM-002-R0)

YLW/WHT	1 1	X - (RED)
BROWN	2 2	X + (RED/BLACK)
ORG/RED	3 3	Y - (BROWN)
ORG/WHT	4 4	Y + (BROWN/BLACK)
GREEN	5 5	Z - (ORG)
ORANGE	6 6	Z + (ORG/BLACK)
PINK	7 7	CW - (WHITE)
YLW/BLUE	8 8	CW + (RED)

FROM MAIN WIRING
(SEE DWG NO. CTCR1-EM-002-R0)

SW Y1	1 1	SW Y1 (HOME)BACKWARD
SW Y2	2 2	SW Y2 FORWARD
SW X	3 3	SW X (HOME) LEFT
SW Z1	4 4	SW Z1 DOWN
SW Z2	5 5	SW Z2 UP
	6 6	
GRN/BLK	8 8	GRN/BLK
GRN/BLK	9 9	GRN/BLK
GRN/BLK	10 10	GRN/BLK
GRN/BLK	11 11	GRN/BLK
GRN/BLK	12 12	GRN/BLK

MATAHARI LEISURE

Project Name : CATCH'N GRAB
Title Name : Catch'N Grab Control Wiring 3

Designer	Checked	Approval
Soegianto	Donie	
Designer	Checked	Approval
	Donie	

Date:28-10-2010 Date:

This drawing & design is the property of LAI Games and cannot be used, reproduced or copied wholly or in part without prior written permission of LAI Games.
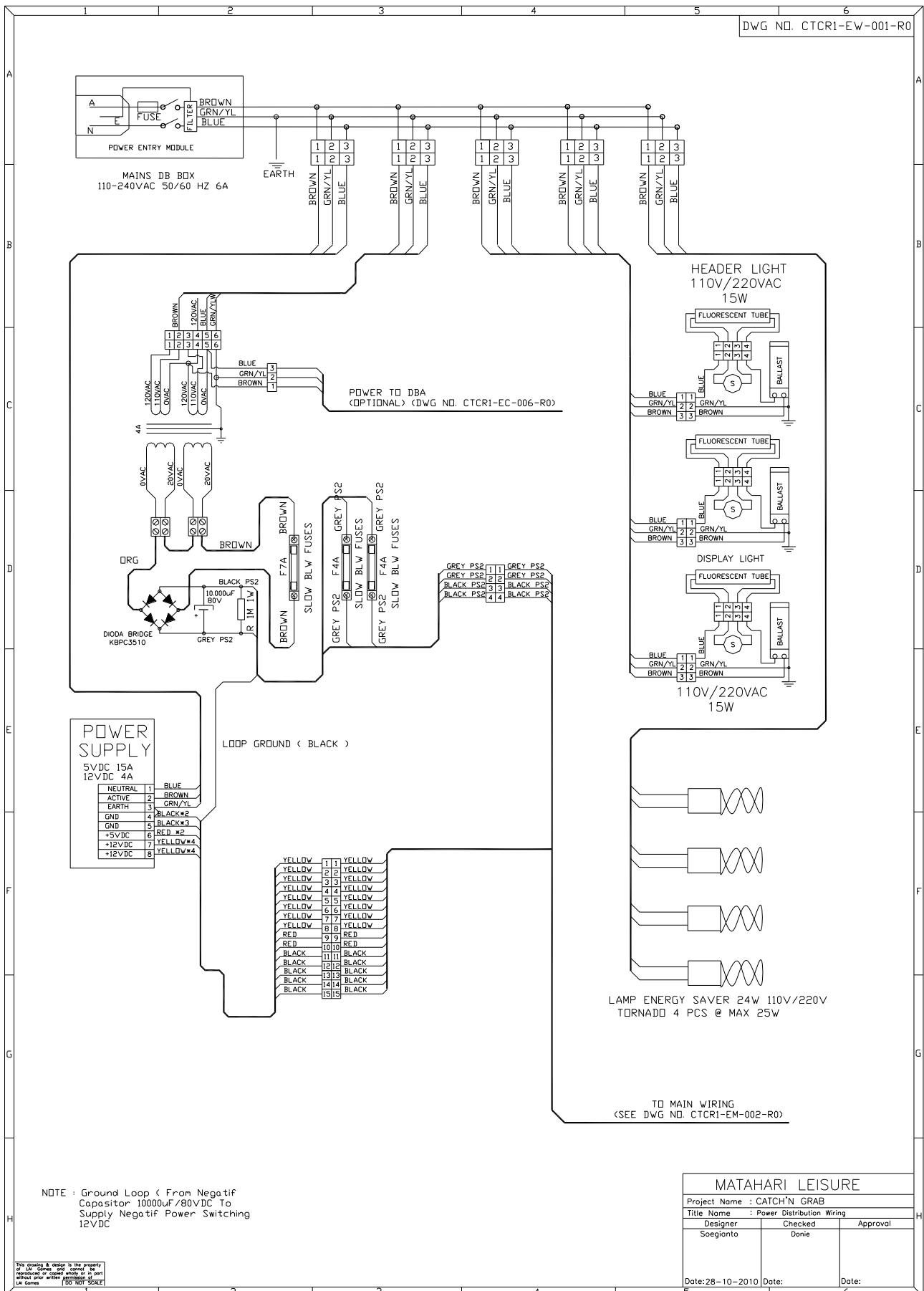
DO NOT SCALE

CATCH N GRAB OPTIONAL WIRING

CATCH N GRAB POWER WIRING

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.