



# OVERHEAD DISPLAY

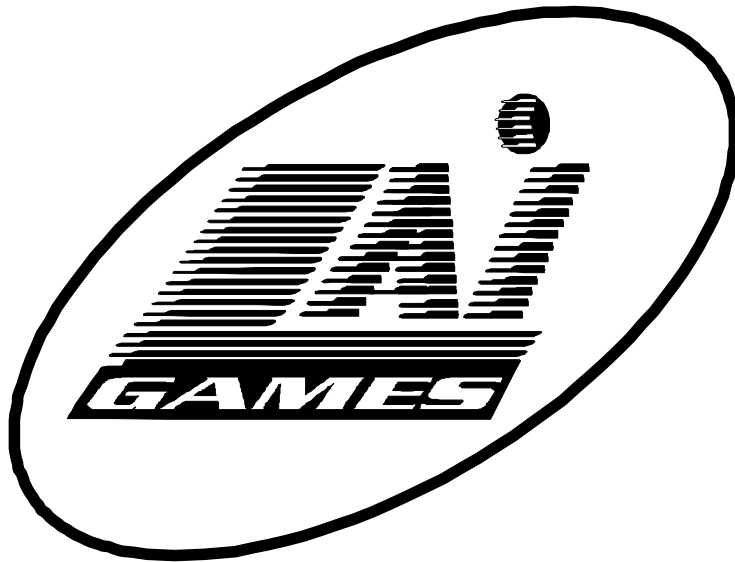
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## **LEISURE & ALLIED INDUSTRIES**

Correspondence regarding this machine should be addressed to your closest LAI Games Distributor, or Leisure and Allied Industries office. For a list of Leisure and Allied office contact details, refer to the back page of this manual.

Leisure & Allied Industries Branches are  
Located in  
Singapore - Australia - Philippines - Indonesia - New Zealand - USA

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# INTRODUCTION

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**CONGRATULATIONS!** on purchasing our Overhead Bonus Jackpot Display. This display is used in combination with 2 – 8 linked “*Slam ‘n’ Jam*” Basket Ball games. It has a ‘HIGH SCORE’ feature, which means when a player matches, or beats that score, they win the displayed bonus tickets in addition to their game tickets.

The display is fully adjustable with operator adjustable winning score that can automatically decrement if programmed. The bonus ticket amount is also programmable, and can increment automatically if required. For more information, refer to the Programmable Adjustment section of this manual.

## PACKAGING

### DELIVERY

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

### CONTENTS

- 4 x Long Replacement Allen Head Bolts for “*Slam ‘n’ Jam*” M/C Top M6 x 50mm with nyloc nut & flat washer
- 6 x Mounting Bolts M6 x 25mm flat & spring washer
- Power cable
- Test Switch Box & cable
- 1 x Link cable
- Operator’s manual

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# SPECIFICATIONS

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## DIMENSIONS

■ Width:	2250mm	(88.½")
■ Weight:	kg	(lb)
■ Height:	570mm	(22.½")
■ Height Inc. Bracket above machine:	640mm	(25.½")
■ Total Height Inc. Machines from ground:	2250mm	(88.½")
■ Length:	2400mm	(94.½")

## ELECTRIC SUPPLY

- The game has the option to operate on a 110V, 220V, 240V AC 50/60Hz mains electric supply.

**\* NOTE: BEWARE!!!** Before switching the machine on be sure to check that it has been set on the correct voltage for your area!! Refer to the mains voltage adjustment section of this manual. Page 31. 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

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## **CAUTION**

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### **DO NOT**

**Attempt** to test the *logic boards* (PCBs) with ordinary test equipment as this may result in damage to digital components.

### **DO NOT**

**Connect or disconnect** any of the logic boards' *integrated circuit modules* (ICs) while the power is **ON**.

- Mains AC power should always be turned OFF and the game unplugged, before replacing any parts.
- When unplugging the game from an electrical outlet, always grasp the plug, not the line cord.
- The Overhead Display should be grounded with a securely connected ground line.

### **DO NOT**

**Subject** the "*Overhead Bonus Jackpot Display*" to extreme temperature variations. Reliability of electrical components deteriorates rapidly over 60°C.

### **DO NOT**

**Expose** the game logic boards to U.V. radiation (eg. direct sunlight) as this could eventually corrupt the program.

### **DO NOT**

**Install** the Overhead Bonus Jackpot Display outdoors or in areas of high humidity, direct water contact, dust, high heat or extreme cold or in areas that would present an obstacle in case of an emergency, ie. near fire equipment or emergency exits, or an unstable surface or surface subject to floor or other vibration.

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IF A PC BOARD SHOULD NEED SERVICING, CONTACT YOUR NEAREST  
**LEISURE & ALLIED INDUSTRIES**  
OFFICE

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## HANDLING PRECAUTIONS

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When installing or inspecting the Overhead Bonus Jackpot Display, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.

- Be sure to turn the power OFF before working on the Display or machine.
- Make sure the power cord or the grounding wire is not exposed on the surface (floor, ground, etc.). Make sure that grounding connections are made safe.
- Do not use any fuse that does not meet specified rating.
- Make complete connections for the IC Board and other connectors. Insufficient insertion is very dangerous.
- The operating (ambient) temperature range is from 5°C to 40°C.
- Only qualified personnel to inspect or test the IC boards.
- Only use a logic tester for testing IC boards. The use of a continuity tester is not permitted. After confirming that there are no irregularities, turn the power ON.

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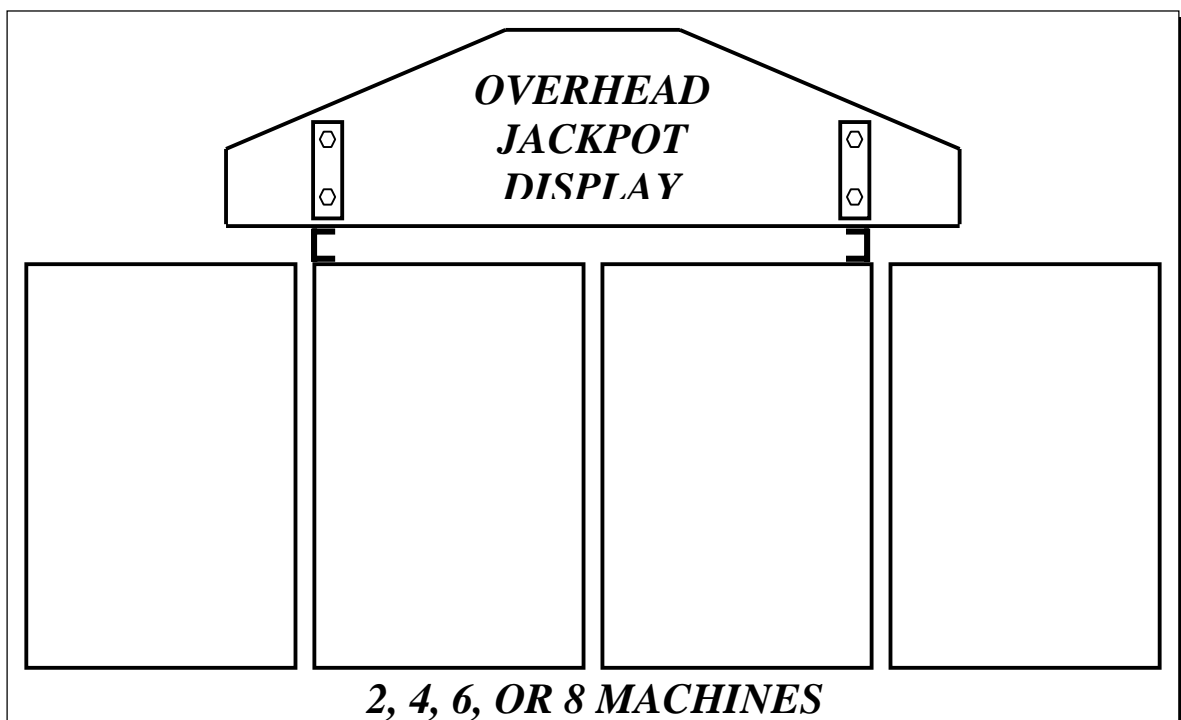
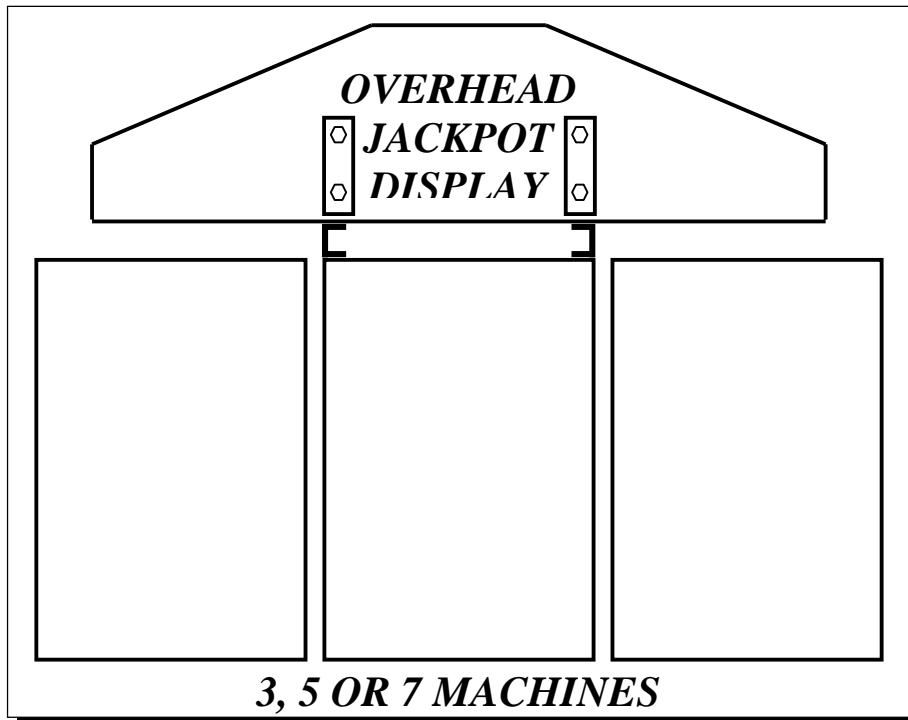
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## **FITTING THE OVERHEAD DISPLAY**

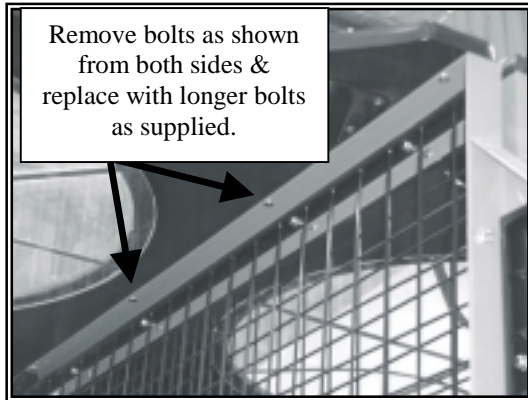
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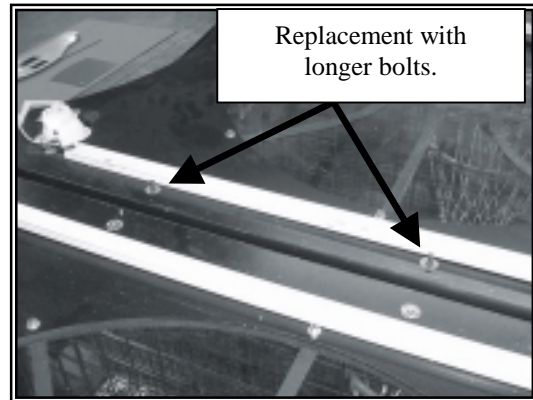
- The Overhead Display can be fitted in two positions, depending if it is fitted above an “even” number of machines, or an odd number of machines. The mounting brackets and the fitting of the brackets are the same for both an odd and even bank of machines. The difference is in the position where they are bolted onto the back of the display is different. Refer to diagrams below:



## STEP ONE: Removal and Exchange of Allen Head Bolts.



**FIGURE 1**



**FIGURE 2**

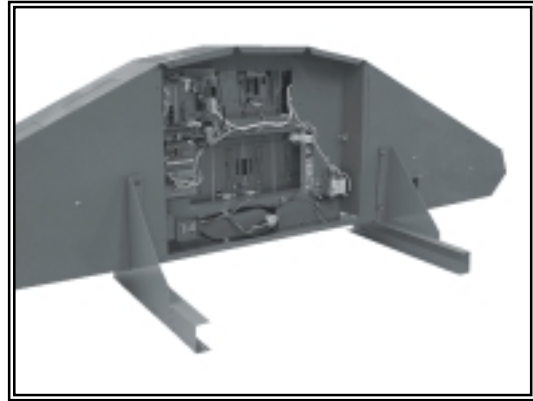
- Remove the 4 Allen head bolts from the Top Panel of the “Slam ‘n’ Jam” machine as per **Figure 1**. Replace these with the **four, 6mm x 40mm Allen head bolts** supplied as per **Figure 2**.

## STEP Two: Attachment of Brackets.

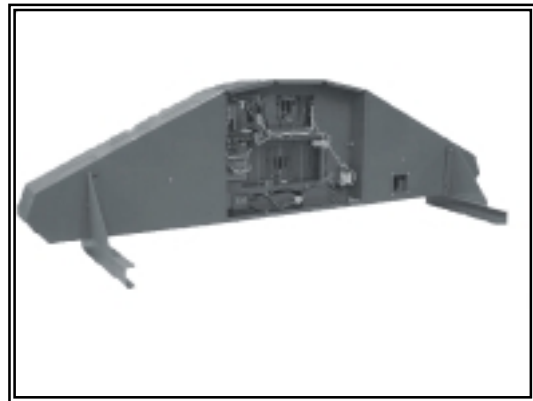
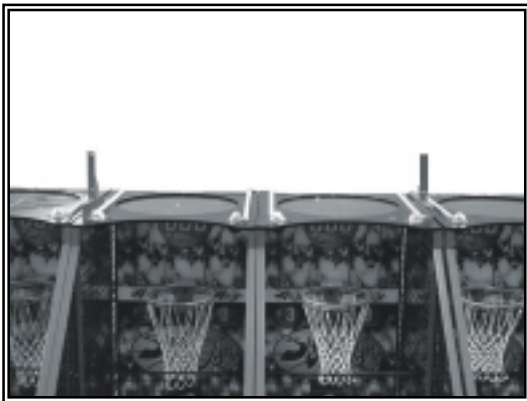


- Loosely bolt the two brackets in position on top of these longer bolts using the nuts and washers supplied as per the adjacent picture.

### **STEP Three: Positioning of Overhead Jackpot Display.**



#### ***POSITIONING FOR 3, 5 OR 7 MACHINES***



#### ***POSITIONING FOR 2, 4, 6, OR 8 MACHINES***

- Lift the overhead display into position and bolt up to the brackets using the **six, 6mm x 25mm bolts** and washers supplied. Two bolts at the back each side, and one bolt each side from underneath. When aligned and in position, tighten all the bolts.

### **STEP Four: Connection of Test Switch Box & Link Cables.**

- Screw the test switch box inside the machine for easy access. Feed the test switch box cable out through the back of the machine.
- Plug in the test switch box cable into the back of the overhead display.
- Plug in the linking cables. (Refer to linking games section of the manual Page 8).
- Switch on machines and program the desired settings. (Refer to Programmable Adjustments section of this manual Page 19).

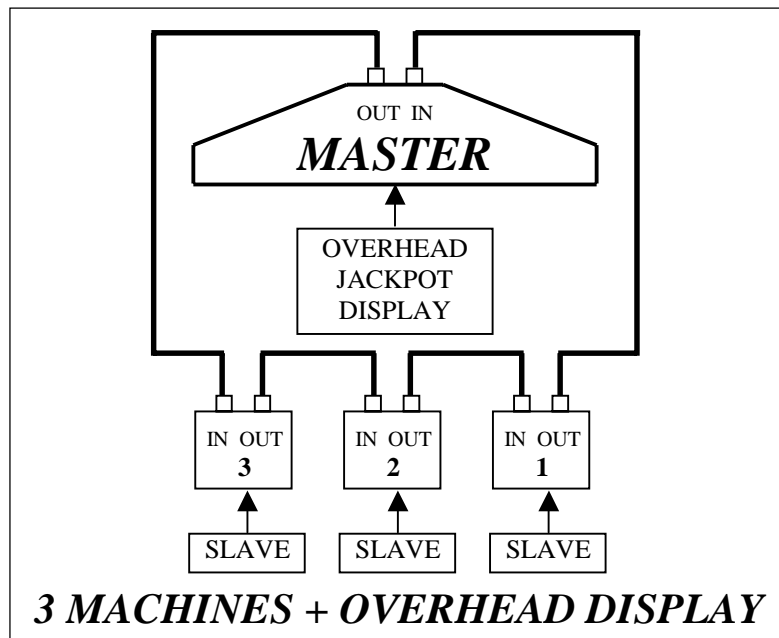
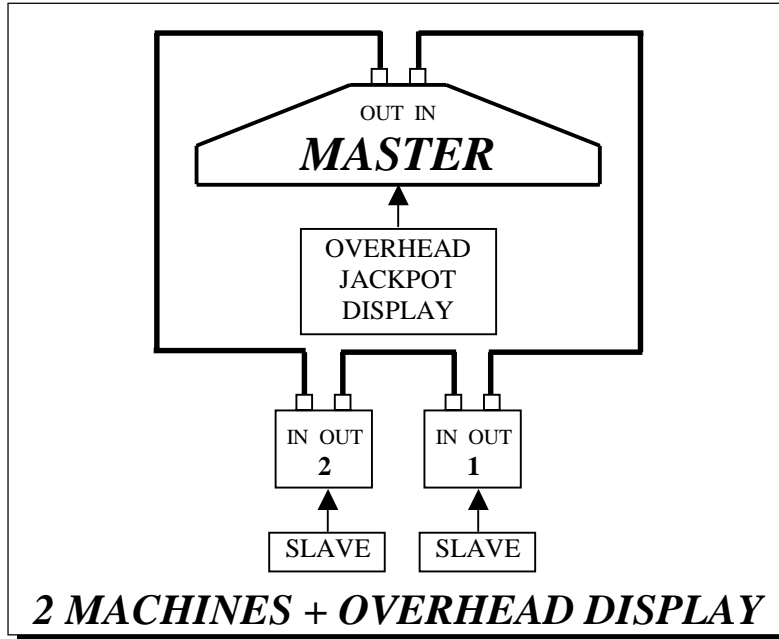
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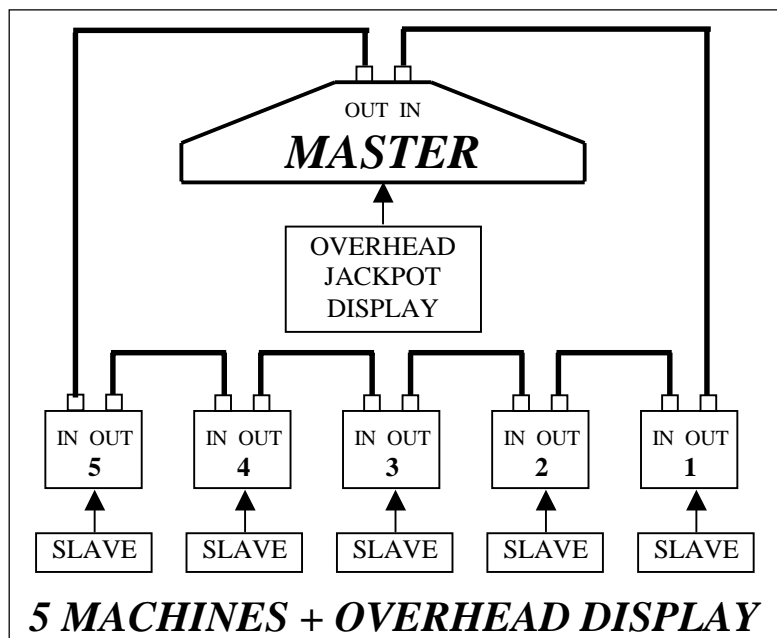
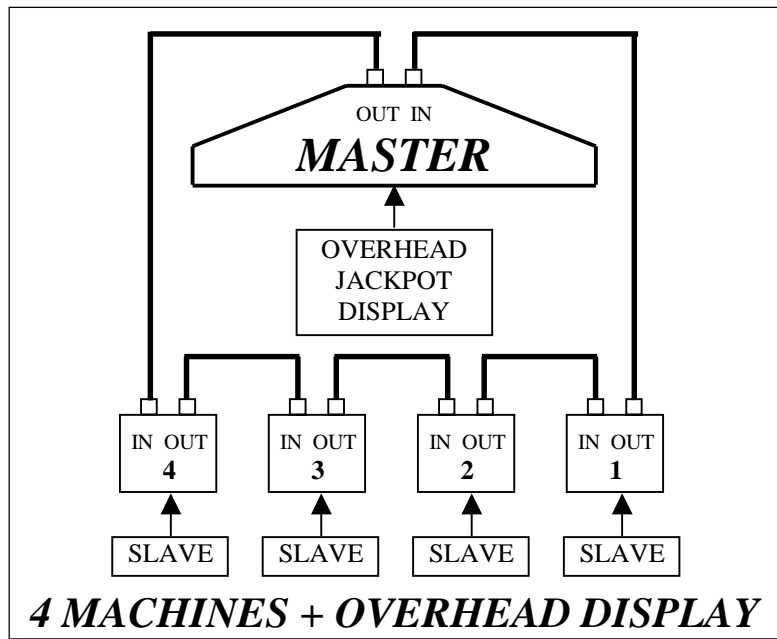
# LINKING THE OVERHEAD DISPLAY

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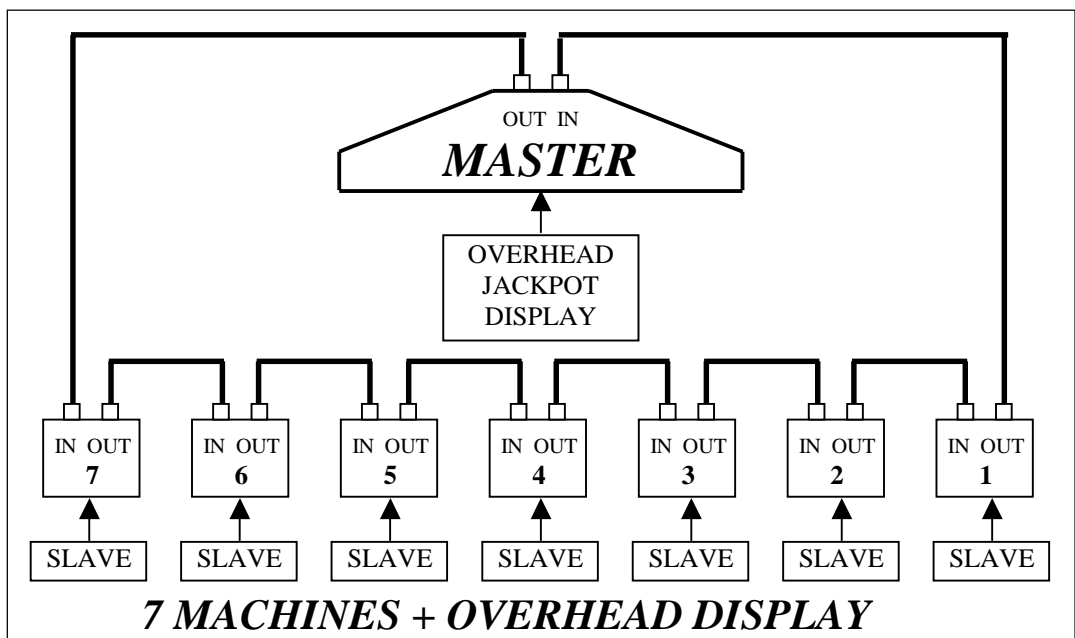
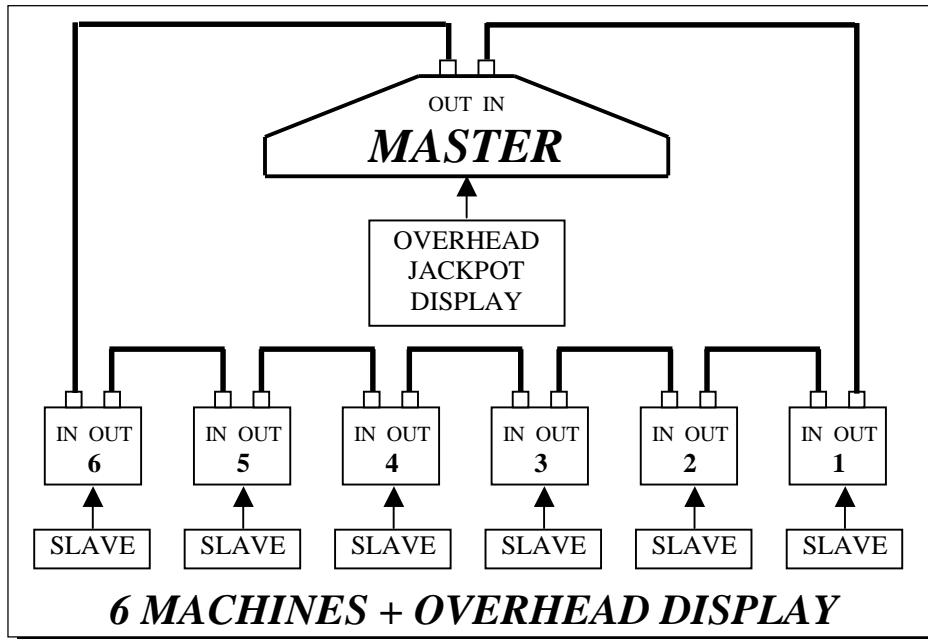
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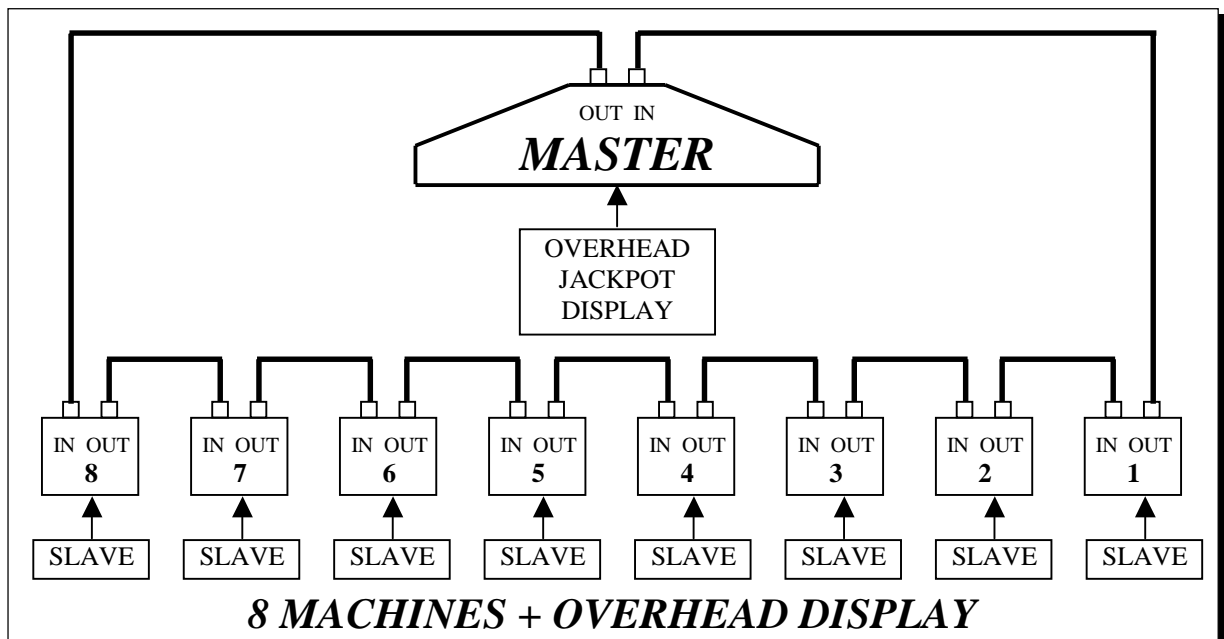
## LINKING THE OVERHEAD DISPLAY continued



## LINKING THE OVERHEAD DISPLAY continued



## LINKING THE OVERHEAD DISPLAY continued



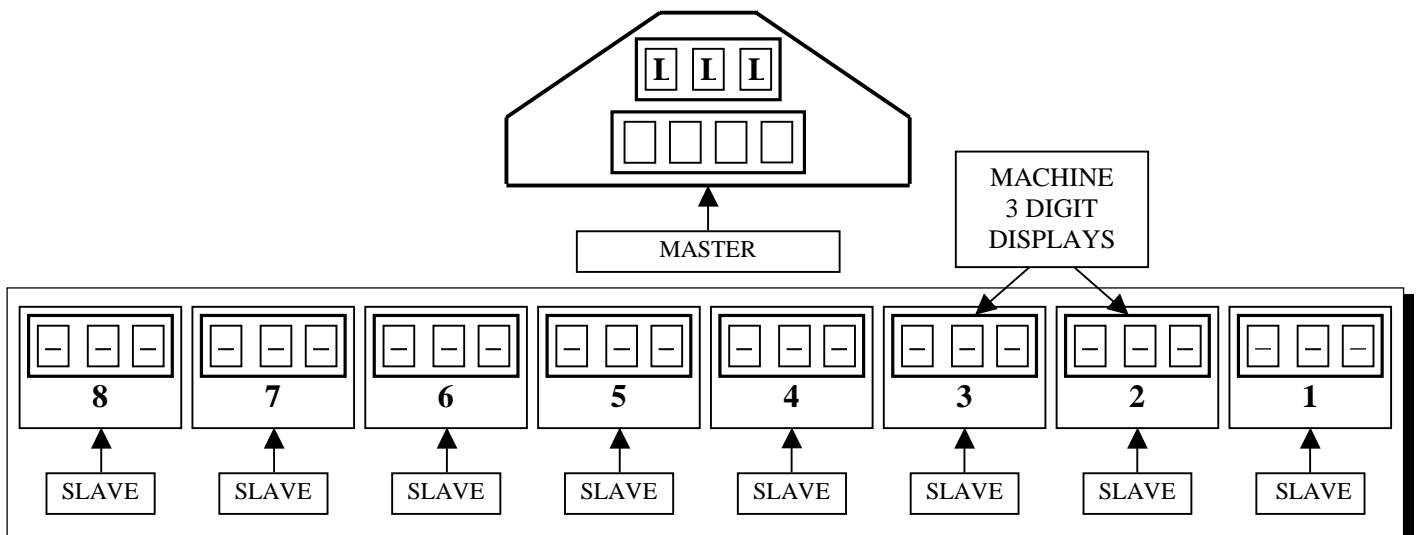
After cabling the machines as per diagrams, set all basketball game machines to “Slave” (Program Adjustment P 01 set to 2). For more information on linking refer to the “Slam ‘n’ Jam” Game Manual.

When an overhead display is fitted, it is automatically the “Master” and can not be changed, so therefore, all other machines must be slaves. After these settings are done, the machines should link when powered up. If you have any problems with linking, refer to “Troubleshooting the Link System” Page 13 of this manual.

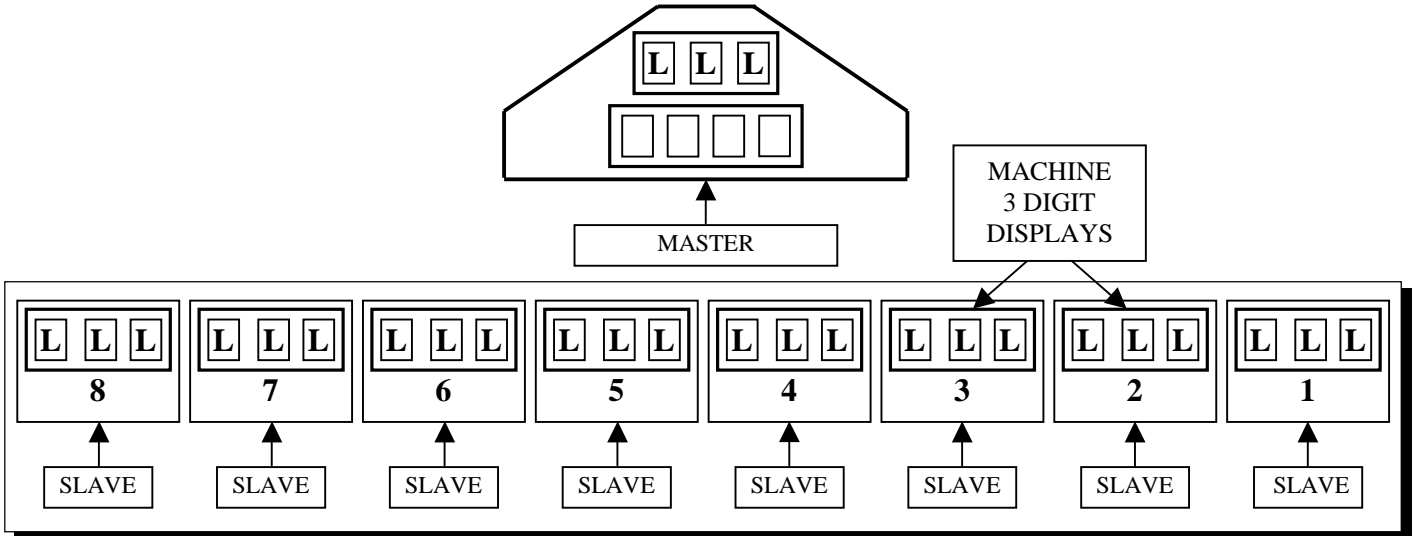
## GAME POWER UP SEQUENCE

Below is an example of the power up sequence for a bank of 8 machines with an overhead display unit fitted.

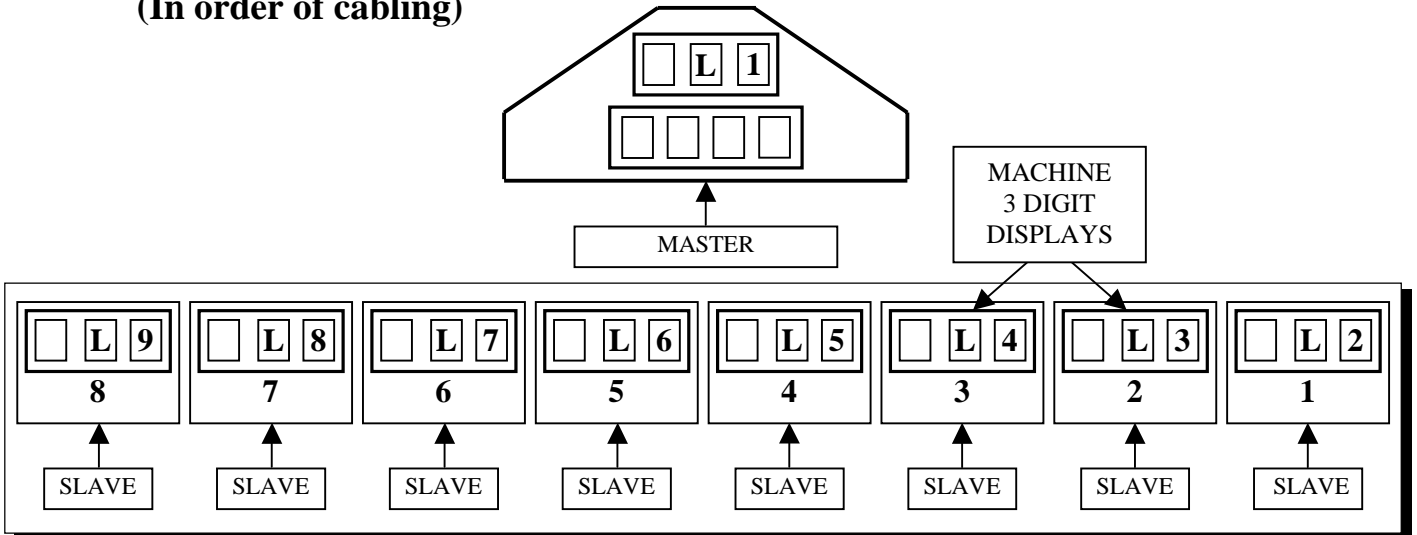
### POWER ALL GAMES ON



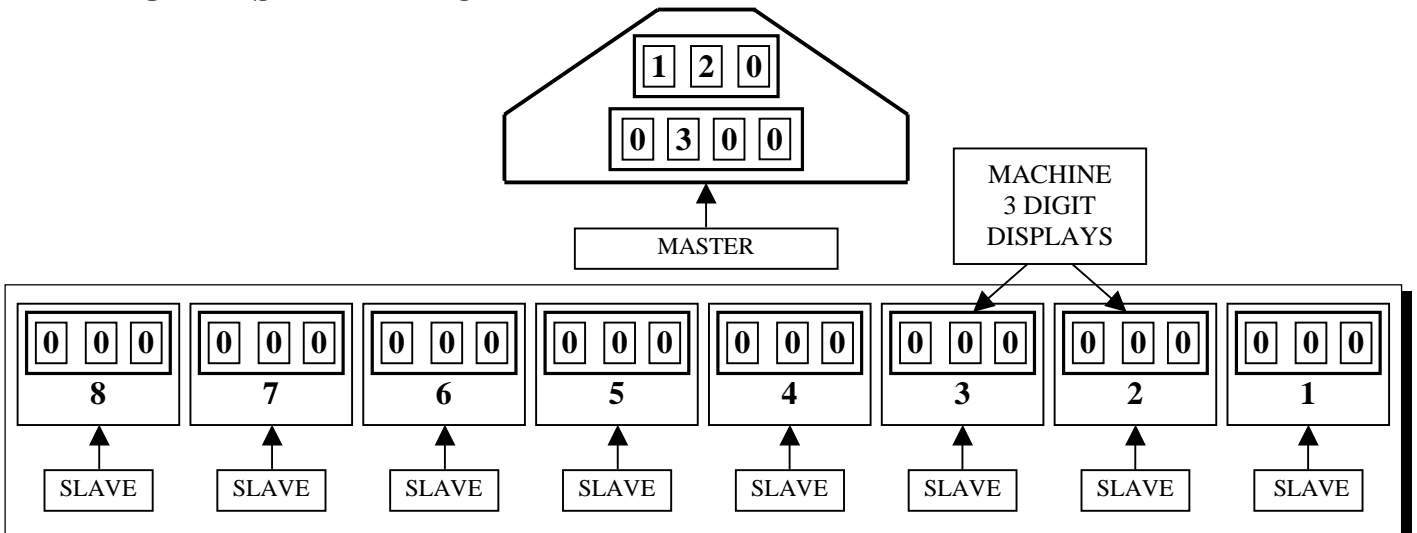
## OVERHEAD DISPLAY CHECKS FOR LINK OF ALL MACHINES



## OVERHEAD DISPLAY SETS GAME ID NUMBER (In order of cabling)



## GAMES READY TO PLAY



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# TROUBLESHOOTING THE LINK SYSTEM

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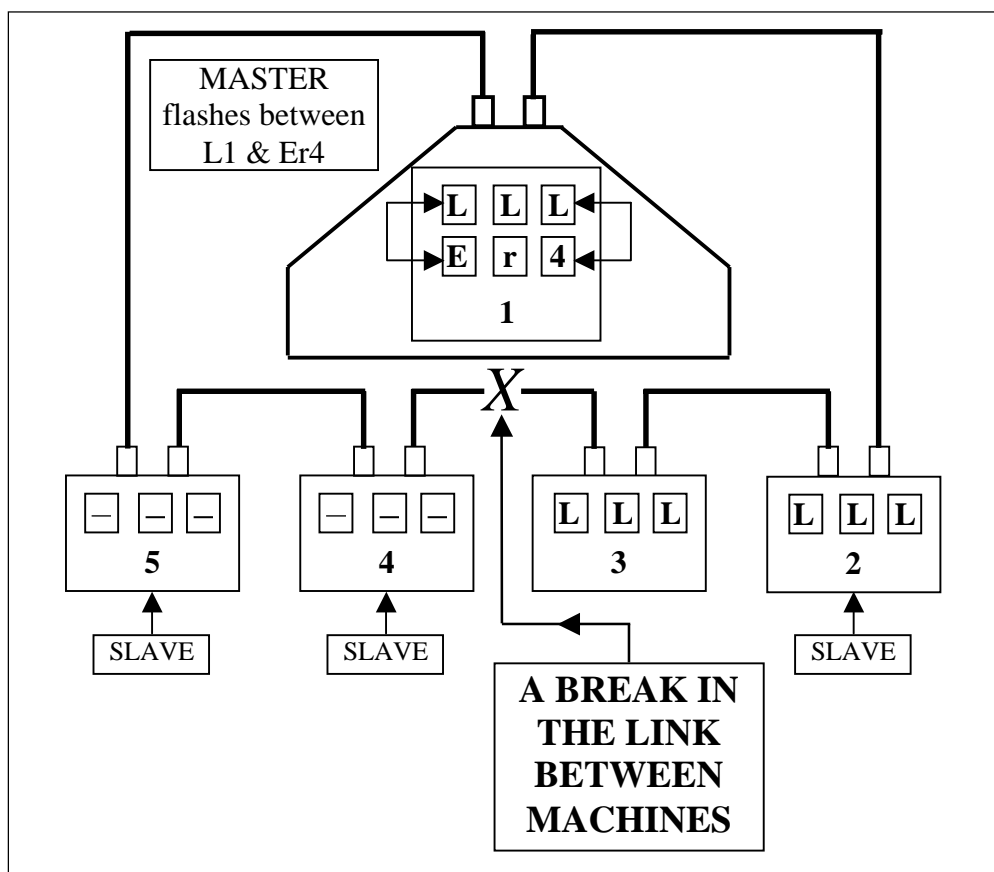
## COMMON PROBLEMS:

### WHEN GAMES WON'T LINK (ERROR Er4 is displayed on the overhead display)

- Check that all link cables are tightly connected and go correctly from **IN** of one machine to **OUT** of the next machine in a continuous loop. Refer to diagrams, Page 6 to 9.
- Check that there is only one 'MASTER MACHINE' (This is ALWAYS the Overhead Jackpot Display), and ALL the game machines are 'SLAVE MACHINES'. (Program adjustment P01).

\* **NOTE:** If, **Er4** is displayed on more than one machine it means that there is more than **ONE 'MASTER'** **Er4** error is only displayed on a master machine that is automatically the Overhead Jackpot display. Change any other games displaying Er4 to 'SLAVE'.

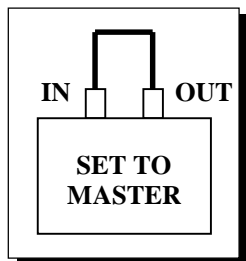
- By checking what the displays show on 'POWER UP'; can help diagnose where a break or bad connection in the link could be. Refer to diagram below:



- Check the link cables for continuity with a multi-meter if a cable problem is diagnosed.
- If there are still problems linking a large bank of machines, try linking the ‘**OVERHEAD JACKPOT DISPLAY**’ machine with just one machine at a time to check there is not an internal problem with any one machine. After linking two machines successfully, try introducing other machines one at a time.

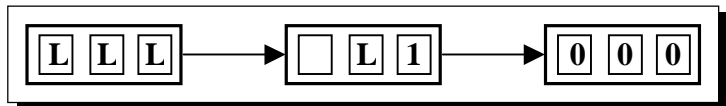
**\* NOTE:** If games will not link, the ‘**OVERHEAD JACKPOT DISPLAY**’ will try for approximately 60 seconds, and if unsuccessful, the games will power up as solo machines and the overhead jackpot display will not be active and continue to display Er4.

- A single machines internal linking hardware and cables can be checked by setting the single machine to ‘**MASTER**’ and looping the cable from **OUT** to **IN** as per the diagram below:



**\* REMEMBER \***  
After performing this test, don't forget to set the machine back to its correct P01 setting. ('**MASTER**' or '**SLAVE**')

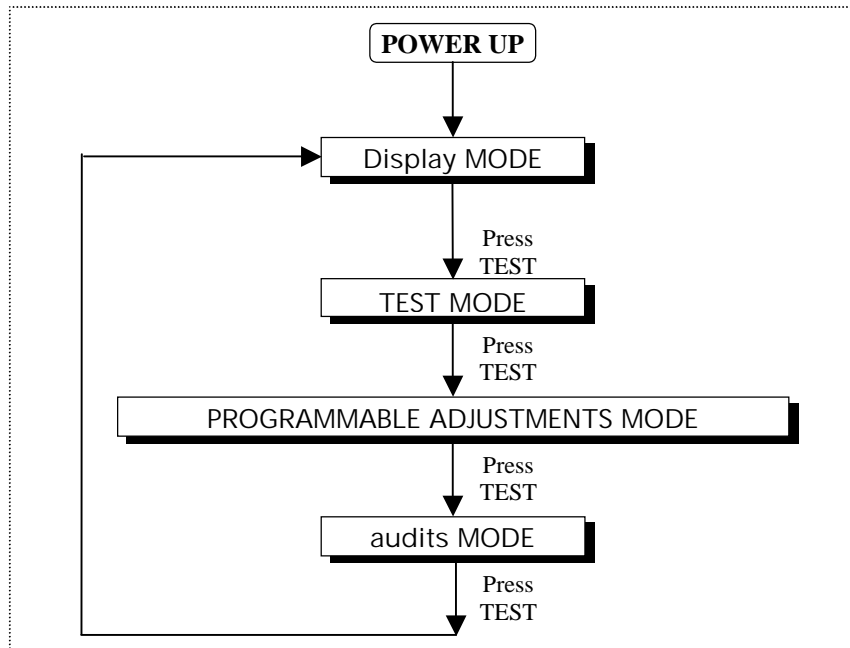
- Turn the single machine off and on and the 3 digit display should show the following sequence:



- If an Er4 error occurs, this would mean that the single link cable is faulty, or the internal machine hardware is faulty. (If the machine hardware is faulty, contact your nearest LAI Games Distributor).

# OPERATION

The *Overhead Jackpot Display* has four operational modes: Display mode, Test mode, Programmable Adjustments Mode and Audits Mode.

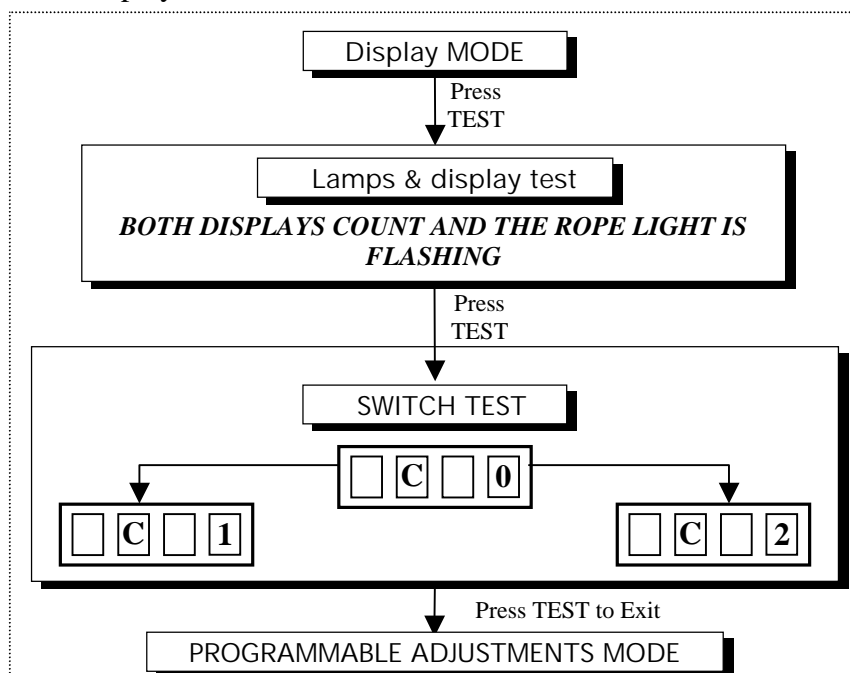


## DISPLAY MODE

- The *Overhead Jackpot Display* displays the score needed to win and the number of tickets that will be won.

## TEST MODE

- The *Test Mode* has two test configurations, allowing you to test the function of the Lamps and Displays, and the Test Switches.

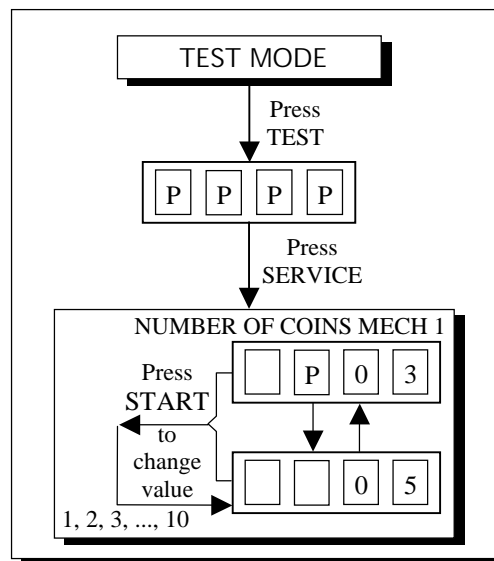


# PROGRAMMABLE ADJUSTMENTS MODE

## GAME ADJUSTMENTS

- ◆ The game has twenty-seven changeable Programmable Adjustments. **ALL** game settings are adjusted by the Overhead Jackpot Display. P01 is **NOT** adjustable, P02 to P15 are the Slam ‘n’ Jam game adjustments, and P16 to P27 are for adjusting the Jackpot Display features. When in Programmable Adjustment mode, the code number and value is displayed alternately during to adjustment program. The three-digit display is not used.

**Example:** displayed adjustment P 0 3 alternates with its value 0 5.  
Refer to the diagram below:



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

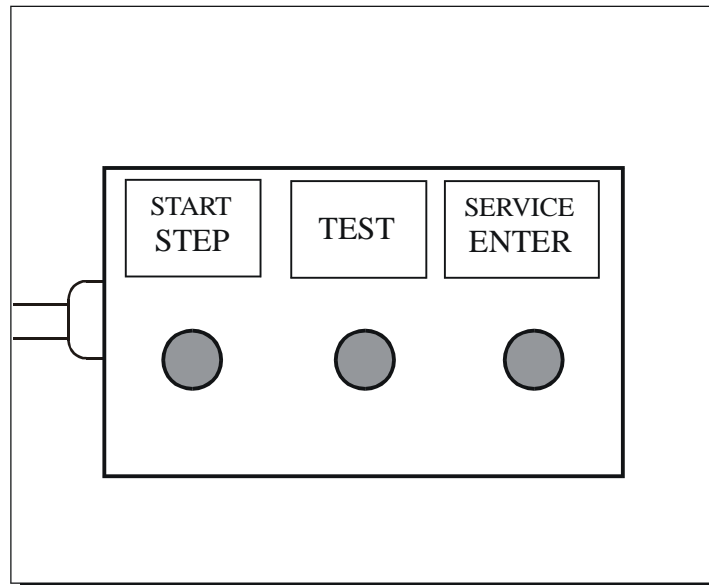
**\* NOTE:** **ALL** game settings and adjustments for all linked machines are performed using the programmable adjustments as listed below. The Overhead Jackpot Display is always the ‘**MASTER**’ and controls all other linked games.

**\* NOTE:** Programmable adjustments P02 – P15 are the adjustments for all linked games. These adjustments are controlled and downloaded by the Overhead Jackpot Display. No game adjustments can be made by the individual games.

Programmable adjustments P16 – P27 are solely for ‘fine tuning’ the operation of the Overhead Jackpot Display.

## ADJUSTMENT PROCEDURE

- The adjustments are made using the 'Test Switch Box' that is connected to the Overhead Jackpot Display via cable.



### *TEST SWITCH BOX*

- **ENTER** The Programmable Adjustments mode is entered from Switch test by pressing the Test button once. This will prompt the  code on the display indicating the program mode.
- **SELECT** The Service / Enter button is pressed to step through each of the adjustment configurations, starting from the  display, P01 being the first step, continuing through to P27, and then looping again from P01 to P27 until the mode is exited.
- **CHANGE** The Start / Step button is pressed to change the displayed value. The value can **ONLY** be stepped up by using the Start / Step button, but the value will loop back to its min value the next step after its max value.

\* **NOTE:** Certain program adjustments have a fast adjustment feature. By holding the Start / Step 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**

<b>CODE</b>	<b>PROGRAMMABLE ADJUSTMENTS</b>	<b>OPTIONAL VALUES</b>	<b>DEFAULT SETTINGS</b>	<b>FEATURES</b>
P01	1	1	1	Master Only (Not Adjustable)
P02	0 – 2	0, 1, 2	2	Link Winner Bonus Type
P03	1 – 10 credits (P02) 1 – 100 tickets (P02)	1, 2, 3...10 CR 1, 2, 3...100 TIC	5	Link Winner Bonus Amount
P04	1 – 10	1, 2, 3...10	01	Game Pricing No. Coins
P05	1 – 10	1, 2, 3...10	01	Game Pricing No. Credits
P06	1 – 100	1, 2, 3...100	06	Ticket Payout Points / Ticket
P07	45 – 90secs in 5 sec steps	45, 50...90	45	Game Time Adjustment
P08	ON [ 1 ] or OFF [ 0 ]	1 (on), 0 (off)	ON	Match Feature ON / OFF
P09	ON [ 1 ] or OFF [ 0 ]	1 (on), 0 (off)	ON	Attract Sound ON / OFF
P10	0 – 10	0, 1, 2...10	0	Mercy Tickets
P11	0 – 2	0, 1, 2	02	Ticket Payout Time
P12	ON [ 1 ] or OFF [ 0 ]	1 (on), 0 (off)	ON	Double Ticket Feature ON / OFF
P13	15 - 120mins in 15min steps	15, 30, 45...120	30	Double Tickets Wait Time Adjustment
P14	15 - 120mins in 15min steps	15, 30, 45...120	30	Double Tickets Random Start Time Adjustment
P15	1 – 5mins in 1 min steps	1, 2, 3...5	3	Double Tickets Lamp On Time
P16	10 – 500	10, 11, 12...500	120	Initial Jackpot Winning Score
P17	10 – 500	10, 11, 12...500	120	Current Jackpot Winning Score
P18	0 – 10	0, 1, 2, 3...10	1	Jackpot Score Fixed / Decrement
P19	1 – 100	1, 2, 3...100	20	Number of Games before Jackpot Score Decrements
P20	0 – 100	0, 1, 2, 3...100	50	Minimum Jackpot Score
P21	10 – 9990 in steps of 10	10, 20, 30,...9990	100	Initial Jackpot Tickets
P22	10 – 9990 in single steps	10, 11, 12...9990	100	Current Jackpot Tickets
P23	0 – 10	0, 1, 2, 3...10	1	Jackpot Tickets Fixed / Increment
P24	1 – 100	1, 2, 3...100	1	Number of Games before Jackpot Tickets Increment
P25	10 – 9990 in steps of 10	10, 20, 30,...9990	1000	Maximum Jackpot Tickets
P26	[ 1 ] auto payout [ 0 ] manual payout	1 (auto) 0 (manual)	1	Jackpot Ticket Payout Auto / Manual
P27	[ 1 ] store / [ 0 ] Reset	1 (store) 0 (reset)	1	Jackpot Values Stored or Reset after Power Off

**\* NOTE:** The default settings will give an average payout of 7 - 10 tickets per game.

## PROGRAMABLE ADJUSTMENTS DETAILED

### ■ P01 = GAME TYPE (not adjustable on Overhead Jackpot Display)

This setting is not adjustable on the overhead jackpot display. It is automatically the 'MASTER', and all of the games that it is linked to must be set to 'SLAVE'.

## GAME PLAY ADJUSTMENTS (P02 – P15)

### ■ P02 = LINK GAME WINNER BONUS TYPE (default 02) (Adjustable 0 – 2)

This game adjustment allows the operator to set what *type of bonus* the WINNING player of a linked game receives.

- \* **0 – “NO BONUS”**. If no bonus is selected, game program step P03 is skipped.
- \* **1 – “CREDITS”**. The Linked Game winner will win free credits (free game). The number of credits won is adjustable in programmable game adjustment P03.
- \* **2 – “TICKETS”**. The Linked Game winner will win extra tickets. The number of extra tickets won is adjustable in programmable game adjustment P03.

\* **NOTE:** The bonus tickets are **ADDITIONAL** to normal tickets won during the game. They are also additional to jackpot tickets, from the Overhead Jackpot Display.

### ■ P03 = LINK GAME WINNER BONUS AMOUNT (default 5) (Adjustable 1 – 10 Credits, or 1 – 100 Tickets[ Depending on P02 Setting ]).

This game adjustment allows the operator to set the *number of bonus credits or tickets* (depending on programmable game adjustment P02) that the winning player on a linked game receives. If P02 is set to tickets, this option is adjustable from 1 – 100 tickets. If P02 is set to credits, this option is adjustable from 1 – 10 credits.

### ■ P04 = NUMBER OF COINS PER CREDIT (default 01) (Adjustable 1 – 10)

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

### ■ P05 = NUMBER OF PLAYS PER CREDIT (default 01) (Adjustable 1 – 10)

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

- **P06 = NUMBER OF POINTS PER TICKETS** (default 06)  
(Adjustable 1 – 100)

This is the *number of points* the player needs to score to win one ticket.

- **P07 = GAME TIME** (default 45 Seconds)  
(Adjustable 45 – 90 seconds, in 5 - second steps)

This sets the *length of time* that each game plays for in seconds. The time does not include the starting intro and end of game feature. It is only “Game Play” time.

\* **NOTE:** The last 10 seconds of game play is “3 Point Score” (3 points for each score instead of 2 points). This is regardless of the game time setting.

- **P08 = MATCH FEATURE** (default 01)  
(Adjustable ON [ 1 ] or OFF [ 0 ])

This adjustment turns the *match feature* **ON** [ 01 ] or **OFF** [ 0 ]. The match feature, when set to ON [ 1 ], plays at the end of the game and is similar to pinball. When the game ends, the last digit of the player’s score remains on the three-digit display. The third digit of the three-digit display will then randomly tumble numbers until it stops. If the numbers match, the player wins a free game. During the match feature the “Match” lamp above the three digit display flashes on and off.

\* **NOTE:** Match wins are random, but on average are approximately 1 in 10 games.

- **P09 = ATTRACT MODE SOUND** (default 01)  
(Adjustable ON [ 1 ] or OFF [ 0 ])

This adjustment turns the *attract mode sound* **ON** [ 01 ] or **OFF** [ 0 ]. This is the sound and music that the game generates to attract customers when it is not being played. The music cycles approximately every 4 minutes.

- **P10 = MERCY TICKET** (default 0) (Adjustable 0 – 10)

This adjustment turns the *Mercy Ticket feature* **ON** [ 01 – 10 ] or **OFF** [ 0 ]. If it is set ON, it allows you to adjust the number of Mercy Tickets given. Mercy Tickets are tickets awarded to players that don’t have enough skill to score sufficient points to win a ticket during their game. This feature is good for rewarding very young children who may not be able to throw the ball well enough to win tickets. To turn the feature OFF, set it to [ 0 ]. Setting it from 1 – 10 sets the **NUMBER** of tickets paid out at the end of the game.

\* **NOTE:** Mercy Tickets are only paid if **NO** other tickets are won during the game. They are **NOT** additional tickets.

■ **P11 = THE TIME TICKETS ARE PAID OUT** (default 02)  
(Adjustable 0 – 2)

This allows the operator to adjust when the tickets that were won during the game are paid out to the customer.

THERE ARE THREE SETTINGS:

- \* (0) – The tickets are paid out *during* the game as they are won.
- \* (1) – The tickets are paid out at the *end* of the game.
- \* (2) – The tickets are paid out *after* the match feature.

(IF ACTIVE, REFER to PROGRAMMABLE GAME ADJUSTMENT P08)

■ **P12 = DOUBLE TICKET FEATURE** (default [ 01 ] )  
(Adjustable ON [ 1 ] or OFF [ 0 ])

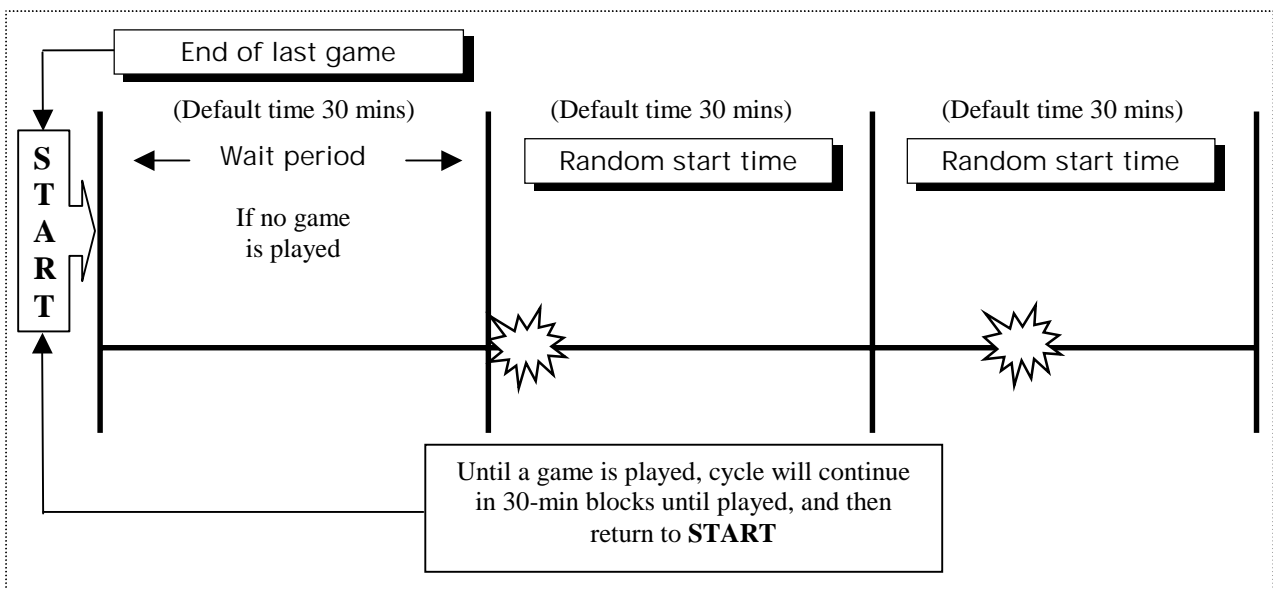
This option turns the *Double Ticket feature* **ON** or **OFF**. This feature is designed to encourage people to play the game when it has not been used for some time. If the game has been unattended for a certain length of time, (Operator Adjustment P13) the “Double Ticket” lamp on the front of the machine will randomly flash. If a customer inserts a coin during this period, the tickets that they would normally win on their game will be doubled.

\* **NOTE:** Only game tickets are doubled, **NOT** Link Winners Bonus Tickets **OR** Jackpot Tickets if an overhead jackpot display is fitted. If the Double Tickets feature is turned **OFF** [ 0 ], the program steps P13 – P15 will be skipped.

■ **P13 = DOUBLE TICKETS WAIT TIME** (default 30)  
(Adjustable 15 – 120 minutes, in 15 - minute steps)

This allows the operator to adjust the *time that the game waits* before the Double Ticket feature becomes active.

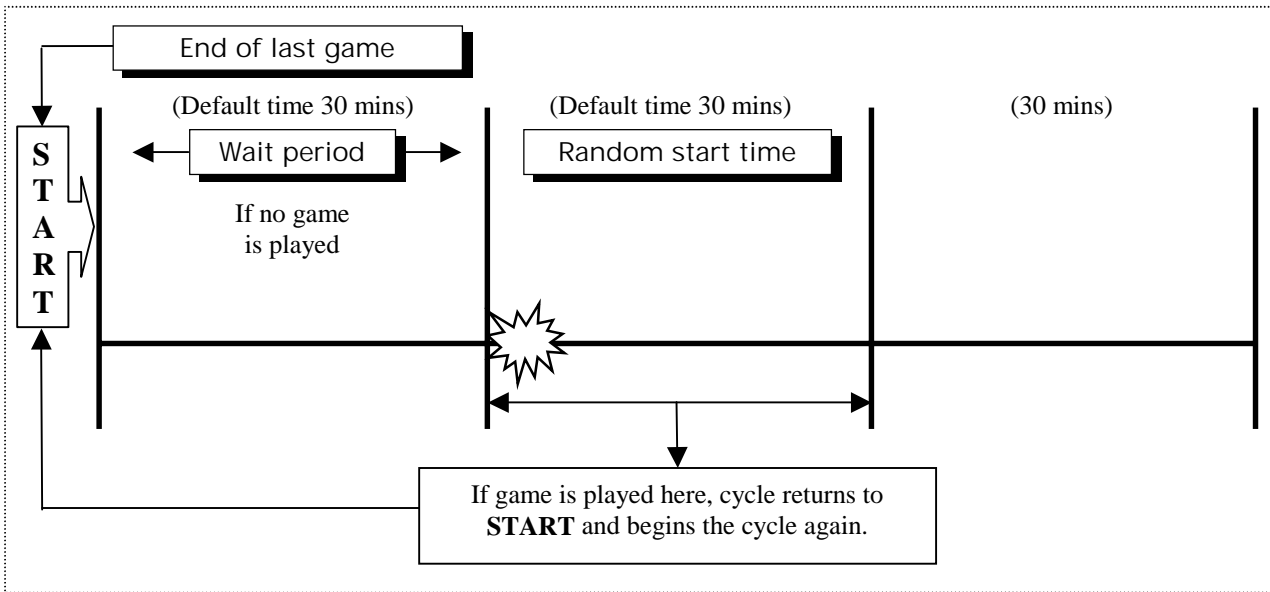
\* **NOTE:** The Double Tickets feature only becomes **ACTIVE** if **NO-ONE** has played the game.



■ **P14 = DOUBLE TICKETS RANDOM START TIME**

(Default 30) (Adjustable 15 – 120 minutes, in 15 - minute steps)

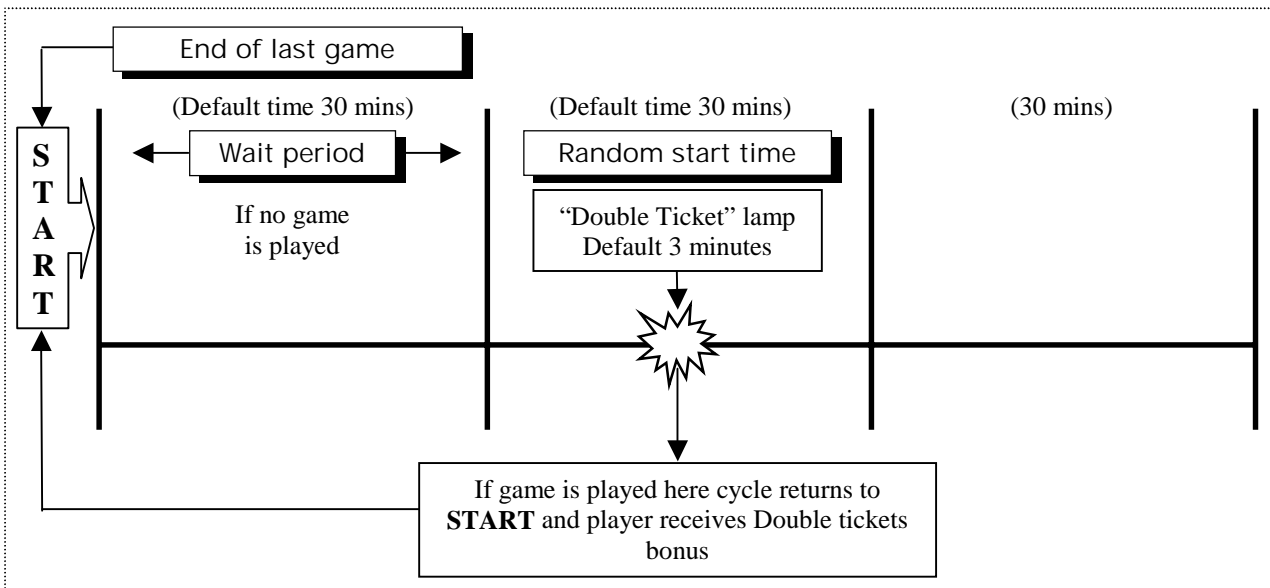
This allows the operator to adjust the time period, **AFTER** the wait time (Refer to programmable game adjustment P13) that the “Double Tickets” lamp will become active. The “Double Tickets” lamp will become active only **ONCE**, randomly during this period. This random start prevents people from timing the feature.



■ **P15 = DOUBLE TICKETS LAMP ON TIME** (default 3)

(Adjustable 1– 5 minutes, in 1 - minute steps)

This is the time period that the “Double Tickets” lamp *will flash for* when it becomes active.



## JACKPOT DISPLAY ADJUSTMENTS (P16 – P27)

### ■ P16 = INITIAL JACKPOT WINNING SCORE

(Default 120) (Adjustable 10 – 500)

This is the winning score that the jackpot reverts back to after a jackpot is won. If the jackpot is set to 'FIXED', this is the score the jackpot will remain at. (Refer to Programmable game adjustments P18 and P19).

### ■ P17 = CURRENT JACKPOT WINNING SCORE

(Default 120) (Adjustable 10 – 500)

This is the current Jackpot Winning Score, and can be adjusted up or down by the operator. Changing this score will not effect the setting of P18 and P19 (fixed or decrementing). After a jackpot is won, the jackpot score will revert to the "Initial Jackpot Winning Score" (Programmable game adjustment P16).

### ■ P18 = JACKPOT WINNING SCORE (Fixed / Decrement)

(Default 1) (Adjustable 0 – 10)

This adjustment allows the Jackpot Winning Score to be fixed [ 0 ] or to decrement [ 1 – 10 ]. If set to fixed [ 0 ], the jackpot score that is needed to win will remain constant and not change. By setting this adjustment from 1 – 10, the score will decrement by the set amount every so many games, depending on the settings of Programmable game adjustment P19.

**For example:** If P18 = 1 and P19 = 20, the jackpot score will reduce by 1 point every 20 games.

### ■ P19 = NUMBER OF GAMES BEFORE JACKPOT SCORE DECREMENTS (Default 20) (Adjustable 1 – 100)

This is the number of games that must be played before the Jackpot Winning Score decrements. Refer Programmable game adjustment P18.

### ■ P20 = MINIMUM JACKPOT SCORE (Default 50) (Adjustable 0 – 100)

This is the minimum score level that the jackpot can decrement to.

### ■ P21 = INITIAL JACKPOT TICKETS

(Default 100) (Adjustable 10 – 9990 in steps of 10)

This is the number of tickets the jackpot reverts back to after a jackpot is won. If the jackpot tickets' setting is fixed, this is the number of tickets the jackpot will remain at. (Refer to Programmable game adjustment P23 and P24).

### ■ P22 = CURRENT JACKPOT TICKETS

(Default 100) (Adjustable 10 – 9990 in single steps)

This is the current number of jackpot tickets and can be adjusted up or down by the operator. Changing this value will not effect the setting of Programmable game adjustments P23 and P24 (fixed or incrementing) and after a jackpot is won, the jackpot tickets will revert to the "initial Jackpot Tickets" setting (P21).

■ **P23 = JACKPOT TICKETS (Fixed / Incrementing)**

(Default 1) (Adjustable 0 – 10)

This adjustment allows the Jackpot Tickets to be fixed [ 0 ] or to increment (1 – 10). If set to fixed [ 0 ], the jackpot tickets will remain a fixed value and not change. By setting this adjustment from 1 – 10, the number of jackpot tickets will increment (increase itself) by the set amount every so many games, depending on the setting of P24.

**For example:** Programmable game adjustment P23 is set to [ 1 ], and Programmable game adjustment P24 is set to [ 1 ], the jackpot tickets will increase by 1 ticket every 1 game played. If Programmable game adjustment P23 is set to [ 5 ], and Programmable game adjustment P24 is set to [ 10 ], the jackpot tickets will increase by 5 tickets every 10 games played.

■ **P24 = NUMBER OF GAMES BEFORE JACKPOT TICKETS INCREMENT** (Default 1) (Adjustable 1 – 100)

This is the number of games that must be played before the jackpot tickets is incremented. (**Refer to Programmable game adjustment P23**).

**\* NOTE:** ‘FOR USA MODEL OVERHEAD JACKPOT DISPLAYS’ Programmable game adjustments P23 – P25 are not accessible on USA model displays as the Jackpot Ticket Value is fixed.

■ **P25 = MAXIMUM JACKPOT TICKETS**

(Default 1000) (Adjustable 10 – 9990 steps of 10)

This is the maximum number of tickets that the jackpot tickets can increment to.

■ **P26 = JACKPOT TICKETS PAYOUT (Auto / Manual)**

(Default 1) (Adjustable [ 1 ] Auto, [ 0 ] Manual)

This setting allows the jackpot to be automatically paid out by the winning machine [ 1 ], or the jackpot is held, and paid out manually by an attendant [ 0 ].

**\* NOTE:** When the setting is set to manual [ 0 ], the jackpot display will be flashing the winning ticket amount and the winning game will say “Please Call Attendant”. The attendant can pay the customer the winning tickets and reset the jackpot display by pressing the test button on the winning game once. If the attendant forgets the number of winning tickets, this can be confirmed using the Overhead Display audits (A5 “Last Jackpot Tickets Won”). **Refer to the audit section of this manual.**

■ **P27 = JACKPOT VALUES (Stored / Reset after Power Off)**

(Default 1) (Adjustable [ 1 ] Store or [ 0 ] Reset)

This setting allows the jackpot ticket and score values to be stored [ 1 ], or reset [ 0 ], when the power is turned off.

## AUDITS MODE

- By using the Audits Mode the operator can view statistics regarding the **OVERHEAD JACKPOT DISPLAY**. This enables the operator to make calculated adjustments and “Fine Tune” the machine to maximize earning potential.

\* **NOTE:** Each individual game also has its own Audits information. For more details on individual game Audits, please refer to the “*Slam ‘n’ Jam*” game manual.

- The Audits mode allows bookkeeping of the games processed since the last game audits reset. While in this mode, the game audits can also be reset to zero.
- **ENTER** The Audits mode is entered from Programmable Adjustments mode by pressing the Test button once. This will prompt the 

A	A	A	A
---	---	---	---

 code on the display, indicating the Audits mode.
- **SELECT** The Service / Enter button is pressed for advancing each step through the set of audits configurations, starting from the 

A	A	A	A
---	---	---	---

 display with A1 and ending with A6, and then looping again from A1 to A6 until the mode is exited.
- **RESET** Audits A01 – A03 can be reset during any of the ‘SIX’ audit configurations, by holding the Stop button for longer than 5 seconds.

The display will be cleared while still holding the button pressed and will return to the same audit step after releasing the button. The value of these audits will be reset to “000”.

- **EXIT** The Audits mode is exited into Display mode, by pressing the Test button once.

### **GAME AUDITS QUICK REFERENCE TABLE**

DISPLAY	CODE	GAME AUDITS				
<table border="1" style="display: inline-table;"><tr><td>A</td><td> </td><td>0</td><td>1</td></tr></table>	A		0	1	A01	Total Jackpot Wins
A		0	1			
<table border="1" style="display: inline-table;"><tr><td>A</td><td> </td><td>0</td><td>2</td></tr></table>	A		0	2	A02	Highest Jackpot Winning Score
A		0	2			
<table border="1" style="display: inline-table;"><tr><td>A</td><td> </td><td>0</td><td>3</td></tr></table>	A		0	3	A03	Highest Jackpot Tickets Won
A		0	3			
<table border="1" style="display: inline-table;"><tr><td>A</td><td> </td><td>0</td><td>4</td></tr></table>	A		0	4	A04	Last Jackpot Winning Score
A		0	4			
<table border="1" style="display: inline-table;"><tr><td>A</td><td> </td><td>0</td><td>5</td></tr></table>	A		0	5	A05	Last Jackpot Tickets Won
A		0	5			
<table border="1" style="display: inline-table;"><tr><td>A</td><td> </td><td>0</td><td>6</td></tr></table>	A		0	6	A06	No. of Games since Last Jackpot
A		0	6			

## GAME AUDITS DETAILED

### ■ A01 = TOTAL JACKPOT WINS

This Audit displays the total number of *Jackpot Wins* since the Audits were last cleared. The maximum-recorded amount is 9 9 9 9 .

### ■ A02 = HIGHEST JACKPOT WINNING SCORE

This Audit displays the *Highest Winning Jackpot score* recorded since the Audits were last cleared.

\* **NOTE:** If the total played games (A01) has reached 9 9 9 9 , this Audit will stop updating.

### ■ A03 = HIGHEST JACKPOT TICKETS WON

This Audit displays the *Highest number of Jackpot Tickets won* since the audits were last cleared.

\* **NOTE:** If the total played games (A01) has reached 9 9 9 9 , this Audit will stop updating.

### ■ A04 = LAST JACKPOT WINNING SCORE

This Audit displays the *Last Winning Jackpot Score* that was won

\* **NOTE:** This Audit is not cleared when the Audits are cleared.

### ■ A05 = LAST JACKPOT TICKETS WON

This Audit displays the *Number of Tickets* that were won on the last Jackpot.

\* **NOTE:** This Audit is not cleared when the Audits are cleared.

### ■ A06 = NUMBER OF GAMES SINCE LAST JACKPOT

This Audit displays the *Number of Games* since the last jackpot was won.

\* **NOTE:** This Audit is not cleared when the Audits are cleared.

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## ERRORS AND TROUBLESHOOTING

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- The Overhead Jackpot Display only has two errors, These are listed as follows:

CODE	ERROR DESCRIPTION	SOLUTION
<b>Er3</b>	EEPROM ERROR Problem with on-board EEPROM.	Send MCU PCB to the closest LAI office for repair.
<b>Er4</b>	LINK ERROR	Ref to Troubleshooting the Link System, Page 13 of this Manual.

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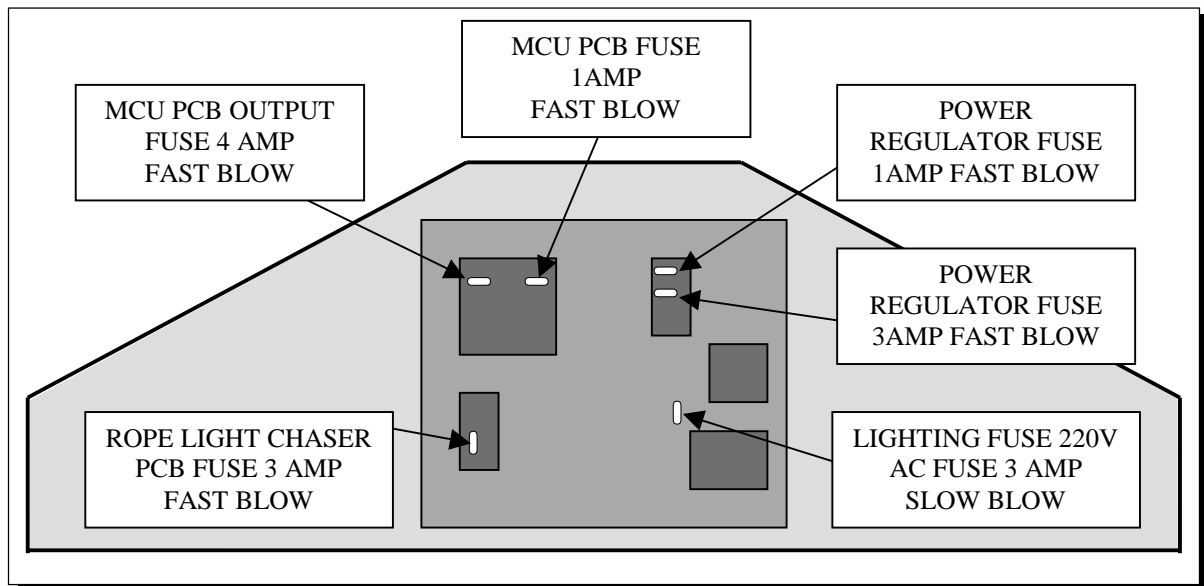
# FUSE LIST

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## *FUSES LOCATION DIAGRAM*

*As viewed from rear*



## FUSES DETAILED

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

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

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

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

### ■ LIGHTING FUSE (1 x 3 AMP Slow Blow).

This fuse is for protection of the 220 Volt output from the Lighting Transformer.

### ■ ROPE LIGHT CHASER PCB FUSE (1 x 3 AMP Fast Blow).

This fuse is for the decorative Rope light and is positioned on the Rope light chaser PCB.

### ■ POWER REGULATOR PCB (1 x 1 AMP Fast Blow).

This fuse is for protection of the 12V DC Supply to the PCB's.

### ■ POWER REGULATOR PCB (1 x 3 AMP Fast Blow).

This fuse is for the protection of the 24V DC Supply to the LED Display.

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

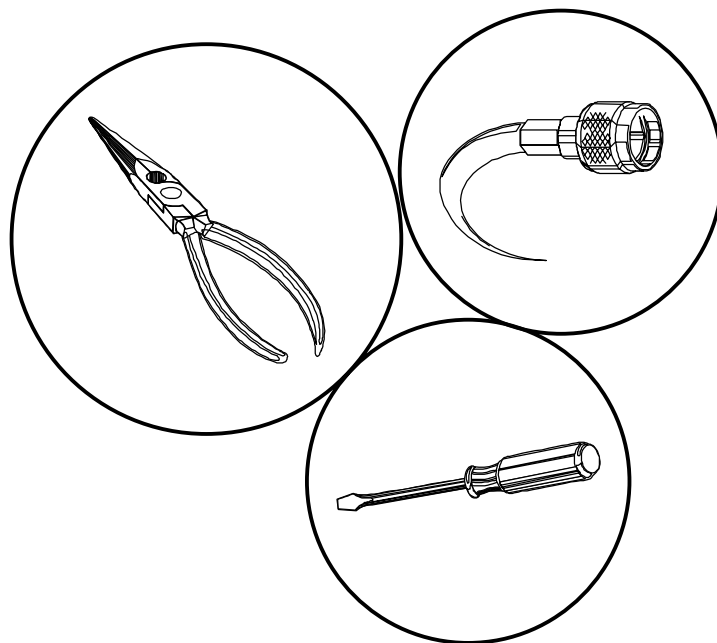
This fuse is for the main AC supply and is situated in the IEC mains input socket.

**\* NOTE:** The power cord must be removed before the fuse can be accessed.

# SECTION A

# SERVICE INSTRUCTIONS

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**Please read these instructions carefully before  
servicing this machine.**



# A

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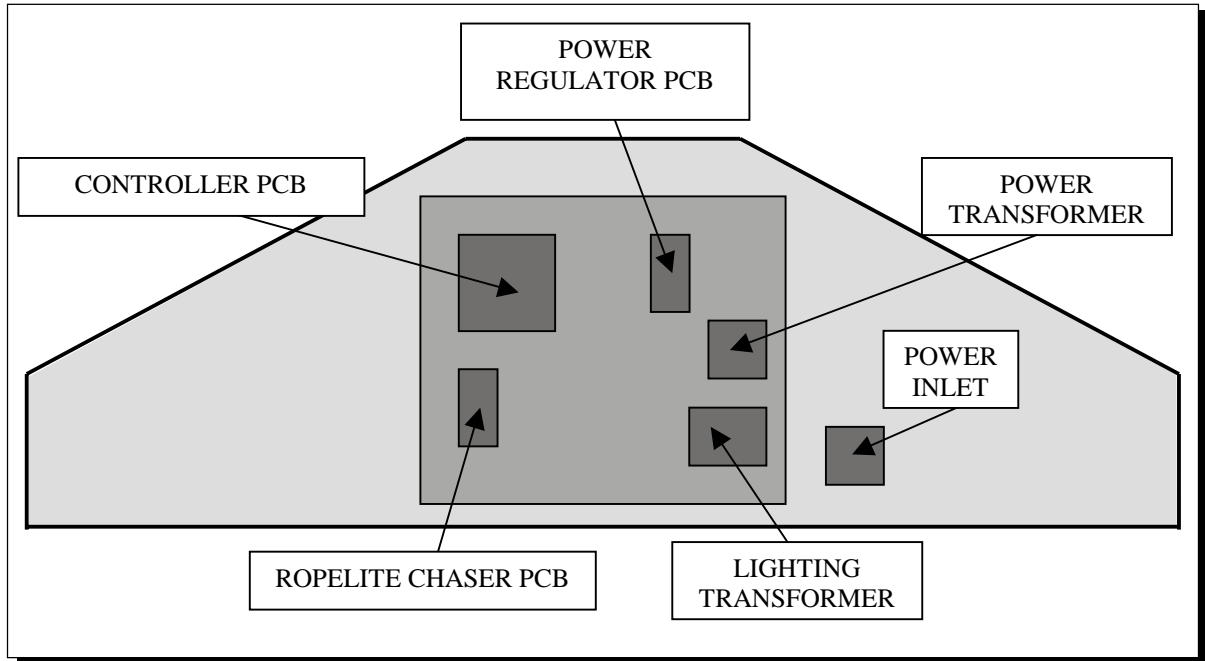
# LOCATION & ACCESSING PARTS

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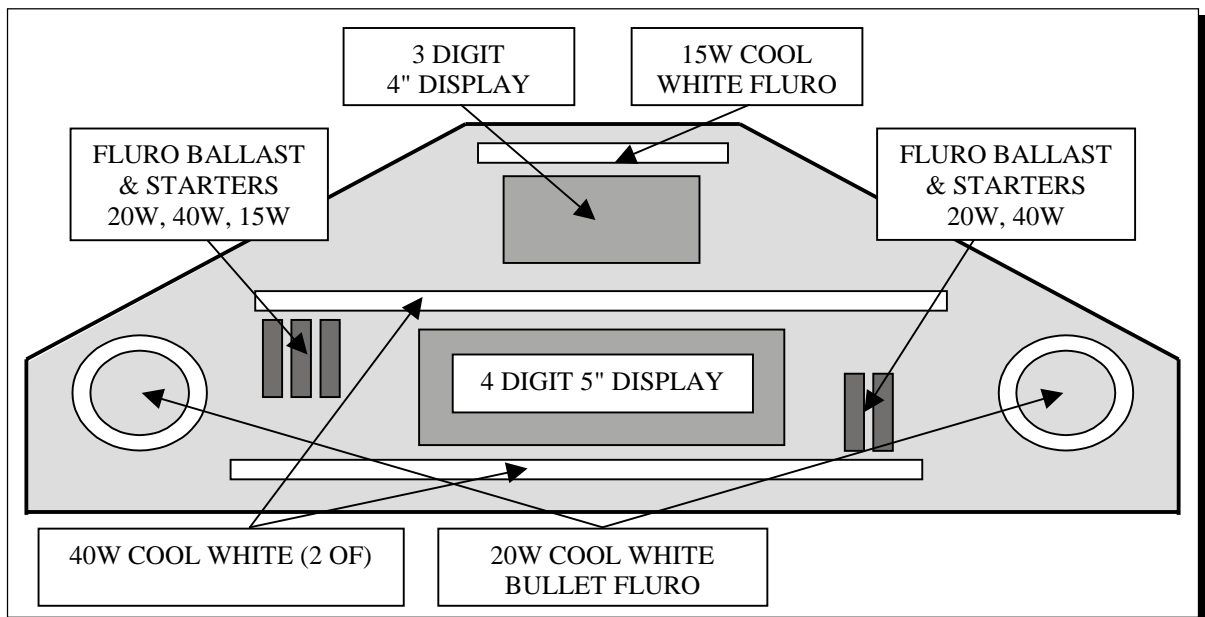
## *PARTS LOCATION DIAGRAM*

*As viewed from rear*



## *PARTS LOCATION DIAGRAM*

*As viewed from front*



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# MAINTAINENCE

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## CLEANING AND CHECK UP

\* **NOTE:** Do not use solvents on the Perspex Front, as it may affect the plastic.

### ■ EXTERIOR

Dust regularly 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 Perspex can be buffed out using car polish or cut and polish.

### ■ INTERIOR

**\* CAUTION! \***

*Make sure to turn power OFF or pull cord from outlet before cleaning the interior of the machine.*

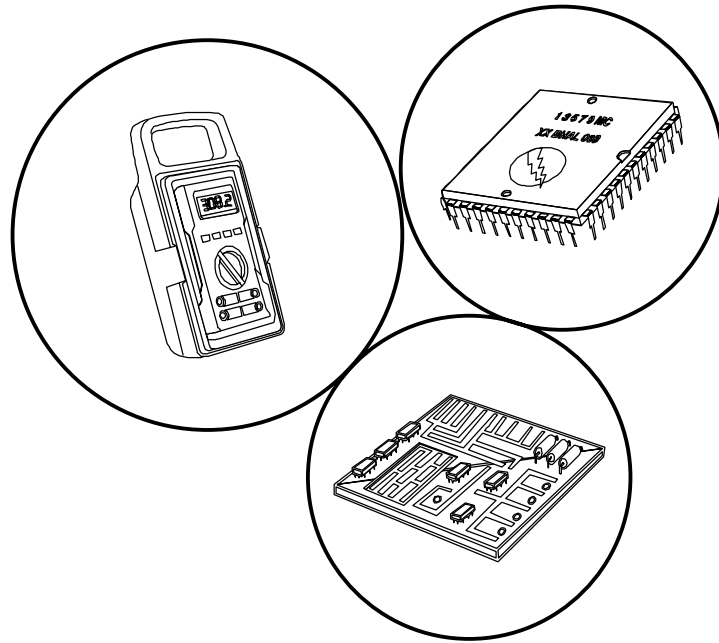
*After cleaning the cabinet interior, check all harness connectors and restore all loose or interrupted connections.*

- ◆ 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.

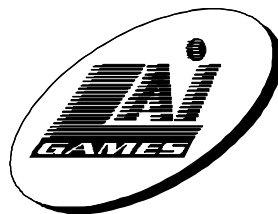
# SECTION B

## TECHNICAL DETAILS

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**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.**



# B

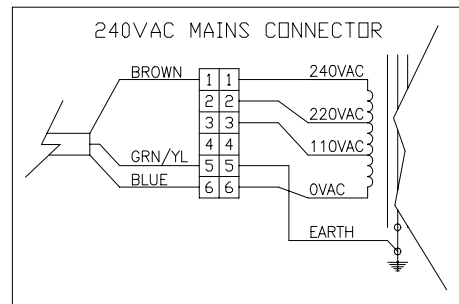
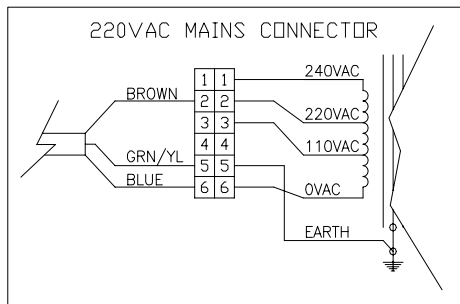
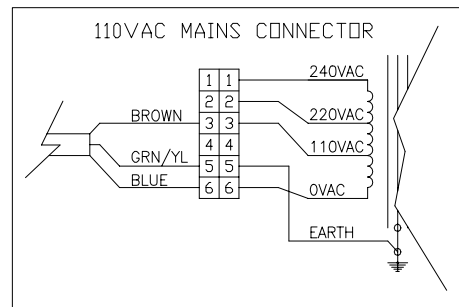
# MAINS VOLTAGE ADJUSTMENTS

## TRANSFORMER CONNECTOR

- Locate the 2 machine transformers, both positioned to the right hand side of the overhead display as viewed from the rear. If unsure of the location of either transformer, refer to Parts location diagram on page 27 of this manual.
- Change the position of the 'ACTIVE' or 'HOT WIRE' input, (marked brown on the diagram), to the position for the desired mains voltage. (See Diagram Below)

## 6 WAY CONNECTOR

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



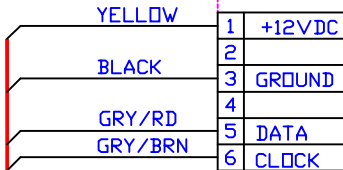
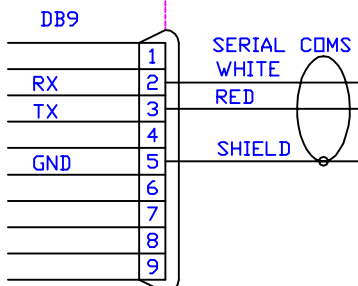
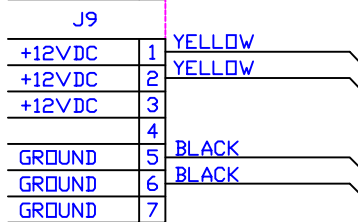
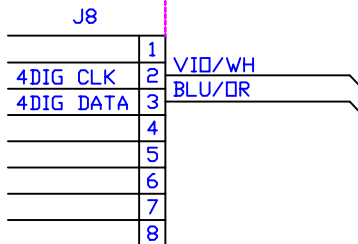
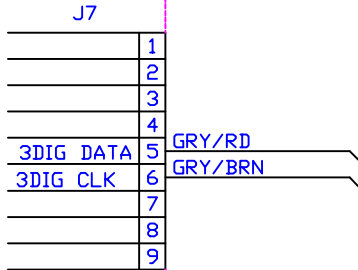
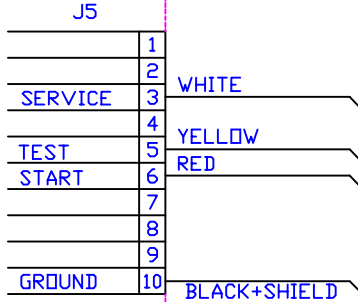
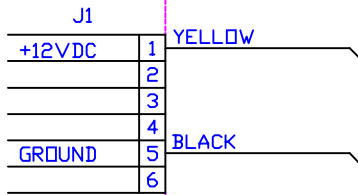
# OVERHEAD DISPLAY PARTS LIST

PRODUCT DESCRIPTION	PART NUMBER
<b>ARTWORK</b>	
Sticker Warning High Voltage	SP-AT0001
Sticker Service Panel Set	SP-AT0103
Label Aluminum (Serial No. Plate ML)	SP-AT0501
SNJ-OBD Front Perspex	SP-AT1650
Instruction Manual Book SNJ-OBD	SP-AT1651
<b>PCB ASSEMBLIES</b>	
PCB FB50 MCU Controller	SP-BA1603
PCB BA1606 12/24VDC Power Board	SP-BA1606
PCB FB62 4 Digit 7 Segment Display (5"High)	SP-BA1607
PCB FB63 3 Digit 7 Segment Display (4"High)	SP-BA1608
Rope Light Controller PCB	SP-EA0315
<b>ELECTRICAL / ELECTRONIC PARTS</b>	
IC MM 5451 Display Driver	SP-EE3551
IC CPU 89C52 With SNJ-OBD program V1.1 AUS	SP-EE5305
IC CPU 89C52 With SNJ-OBD program V2.0 USA	SP-EE5306
Slam 'N' Jam OBD Harness Assy	SP-EA3201
Switch Push on Mini Black	SP-EA0451
Switch Push on Mini Red	SP-EA0452
Terminal Screw Block 4 x Terminals	SP-EA0614
Transformer Multi Tap / 10 & 21VAC 3A	SP-EA0812
Transformer Multi Tap / 2 X 110VAC 3A	SP-EA0816
Lampu Neon 15W Cool White (Fluorescent Lamp)	SP-EA0205
Lampu Neon 20W Cool White (Fluorescent Lamp)	SP-EA0319
Lampu Neon 40W Cool White (Fluorescent Lamp)	SP-EA0207
Neon Starter Base (Fluorescent Lamp)	SP-EA0303
Neon Starter S-10 (Fluorescent Lamp)	SP-EA0304
Neon Lampu Base (Fluorescent Lamp)	SP-EA0306
Neon Ballast 220Volt 15W (Fluorescent Lamp)	SP-EA0307
Neon Ballast 220Volt 20W (Fluorescent Lamp)	SP-EA0320
Neon Ballast 220Volt 40W (Fluorescent Lamp)	SP-EA0318
Rope Light Solid Multi Colored 220V	SP-EA0214
Rope Light Terminator Connectors	SP-EA0314
Rope Light End Cap	SP-EA0316
Utilux Connector Female 3 Way	SP-EP0203
Utilux Connector Female 4 Way	SP-EP0204
Utilux Connector Female 6 Way	SP-EP0206
Utilux Connector Female 12 Way	SP-EP0209
Utilux Connector Male 3 Way	SP-EP0213
Utilux Connector Male 4 Way	SP-EP0214
Utilux Connector Male 6 Way	SP-EP0216
Utilux Connector Male 12 Way	SP-EP0219
JST Connector 2 Way	SP-EP0302

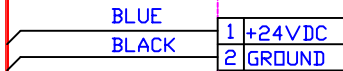
PRODUCT DESCRIPTION	PART NUMBER
<b><i>ELECTRICAL / ELECTRONIC PARTS Con't</i></b>	
JST Connector 3 Way	SP-EP0303
JST Connector 4 Way	SP-EP0304
JST Connector 6 Way	SP-EP0306
JST Connector 7 Way	SP-EP0307
JST Connector 8 Way	SP-EP0308
JST Connector 9 Way	SP-EP0309
JST Connector 10 Way	SP-EP0310
Terminal Quick Connect 6.8mm	SP-EA0611
Terminal JST Connector Pin	SP-EA0601
Terminal Utilux Connector Female No. ST 730206-3	SP-EA0615
Terminal Utilux Connector Male No. ST 750208-3	SP-EA0616
IEC type Noise Filter with Fuse and Switch	SP-EA0634
Binding Post	SP-EA1356
Sleeve Quick Connect 6.8mm	SP-EP0604
<b><i>HARDWARE ASSEMBLY</i></b>	
SNJ-OBD Main Housing Assy	SP-HA1670
SNJ-OBD Base Mounting Bracket Left	SP-HA1672
SNJ-OBD Base Mounting Bracket Right	SP-HA1673
SNJ-OBD Double Ballast Bracket	SP-HA1677
SNJ-OBD Triple Ballast Bracket	SP-HA1678
SNJ-OBD Lower Perspex Retaining Border	SP-HA1679
SNJ-OBD Power Input Box (12M)	SP-HA1681
SNJ-OBD Side Perspex Retaining Border	SP-HA1682
SNJ-OBD Top Perspex Retaining Border	SP-HA1685
SNJ-OBD Fluro 40W Retaining Clip	SP-HA1686
SNJ-OBD Uplink Plug Bracket	SP-HA1687
SNJ-OBD Fluro 20W Retaining Clip	SP-HA1691
SNJ-OBD Fluro 15W End Holder Bracket	SP-HA1692
SNJ-OBD Fluro 40W End Holder Bracket	SP-HA1693
SNJ-OBD Fluro 20W Holder Bracket	SP-HA1694
SNJ-OBD Test Switch Bracket	SP-HA1695
SNJ-OBD Back Cover Plate	SP-HA1696

TO POWER DISTRIBUTION  
(SEE SHEET 2)

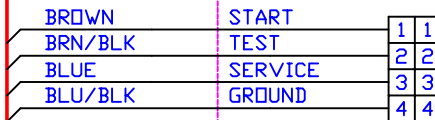
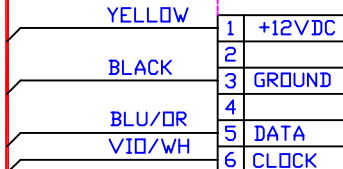
MAIN CONTROL BOARD



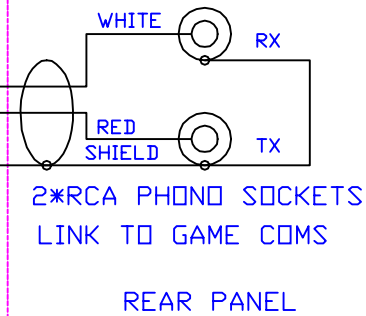
4INCH 3DIGIT DISPLAY



5INCH 4DIGIT DISPLAY



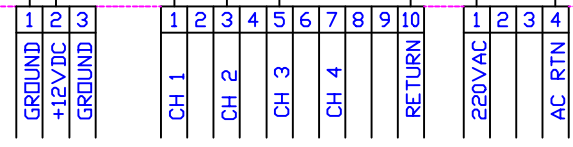
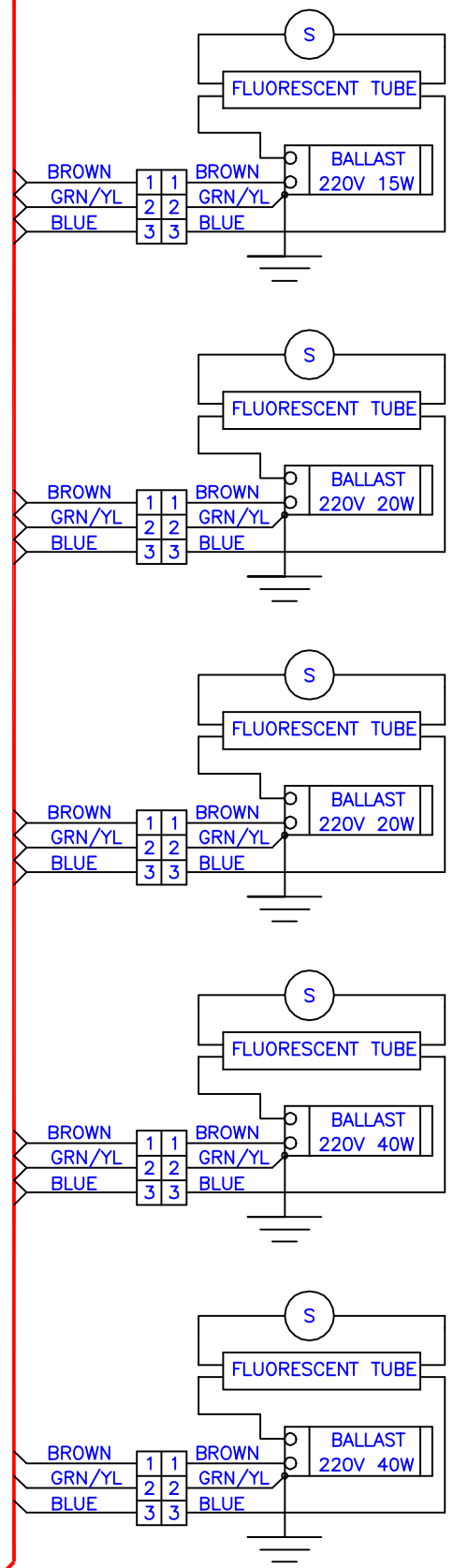
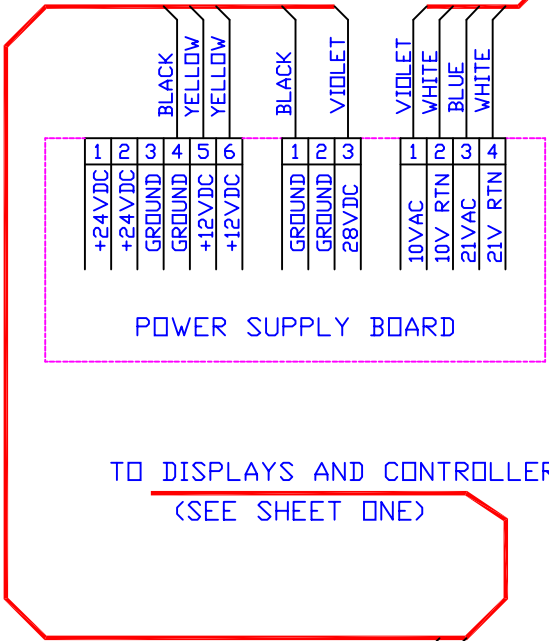
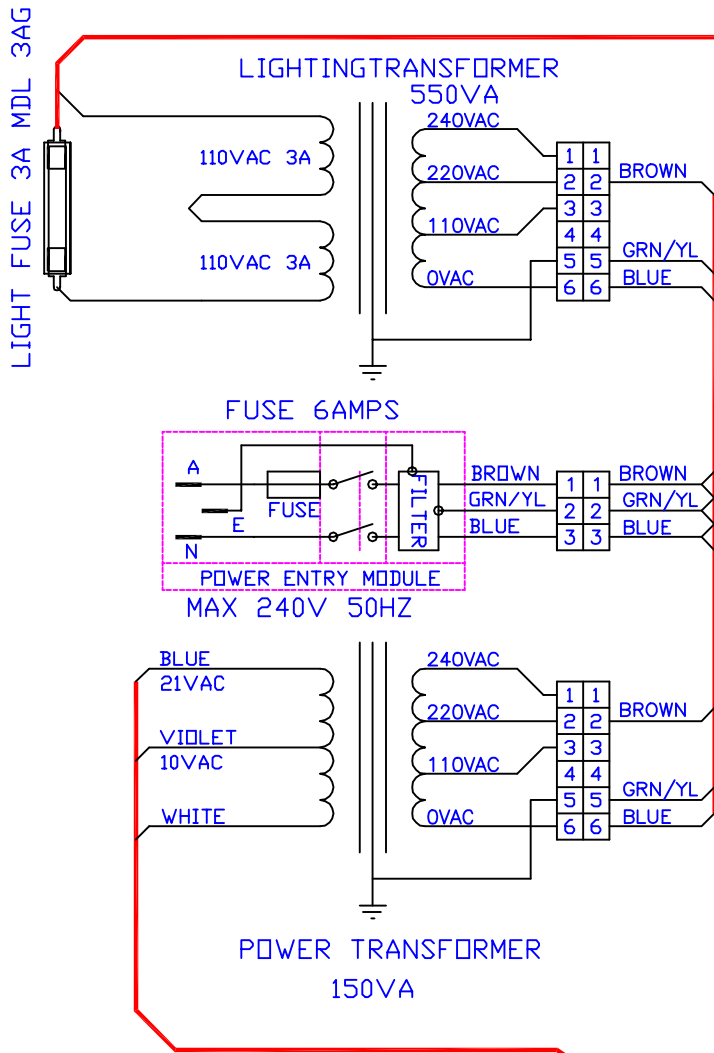
REMOTE CONTROL CONNECTION



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DO NOT SCALE

LAI Games	
PROJECT SLAM-N-JAM	
TITLE OVERHEAD BONUS DISPLAY (MAIN)	
FILE NAME SNJ-OB1 Main	
DRAWN BY W.A.HAY CHECKED BY	
DATE 20/04/00	DATE



LAI Games	
PROJECT SLAM-N-JAM	
TITLE OVERHEAD BONUS DISPLAY (Power)	
FILE NAME	SNJ-0BD Power
DRAWN BY	W.A.HAY
DATE	20/04/00
CHECKED BY	
DATE	

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# WARRANTY

LAI warrants its manufactured products (LAI Games) sold by them for a period of 3 months from the date of sale. LAI's 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 office from which the machine was purchased at the purchaser's expense.

- New Machines: 3 months (including labor and parts)
- New PCB's: 3 months (including labor and parts)
- New Monitors: 3 months (including labor and parts)
- New Power Supplies: 1 month (including labor and parts)
- Used Machines: 1 month (labor only excluding parts)

LAI 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. In the event of a component not being covered by warranty, LAI will only repair the faulty item(s) providing the purchaser agrees to pay the appropriate service rates as set out in our schedule of charges from time to time.

## **IF MAKING A WARRANTY CLAIM:**

- (a) A Copy of the sales invoice must accompany the claim.
  - (b) 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.
  - (d) Warranty claims made after the expiry of the warranty period will not be accepted regardless of whether the fault was reported during the warranty period or not.
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