# OPERATORS MANUAL 

Version 10

## HYPERshoot

Firmware Version 5.00.000


## PLEASE NOTE



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

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## SAFETY PRECAUTIONS

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

WARNING: Disregarding this text could result in serious injury.

CAUTION: Disregarding this text could result in damage to the machine.

NOTE:
An advisory text to hint or help understand.

## PLEASE READ THE FOLLOWING

WARNING: Always turn OFF Mains AC power and unplug the game before opening or replacing any parts.

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

Always connect the Game Cabinet to a 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 Multimeter, logic tester or oscilloscope for testing integrated circuit (IC) logic PC boards. The use of a continuity tester is not permitted.

Do Not connect or disconnect any of the integrated circuit (IC) logic PC boards while the power is ON.

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

Do Not subject the game cabinet to extreme temperature variations.
Reliability of electrical components deteriorates rapidly over $60^{\circ} \mathrm{C}$.

## MACHINE INSTALLATION AND INSPECTION

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

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

WARNING: Always turn OFF mains power before removing safety covers and refit all safety covers when work is completed.

- Make sure the power cord is not exposed on the surface (floor, ground, etc.) where people walk.
- Check that the rubber glide feet levellers are set correctly on the floor so that the game cabinet is level and stable.
- Always make complete connections for the integrated circuit (IC) logic PC Boards and other connectors. Insufficient insertion can damage the electrical components.
- 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 HYPERshoot by LAI Games. 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

HYPERshoot reinvents arcade basketball to offer an innovative and rewarding game experience for players of all skill levels. Players can choose either a single player game or to play in linked mode with one to seven other players (one player per HYPERshoot unit).

## PACKAGING

## CONTENTS

- HYPERshoot unit
- Operator Manual
- $3 \times$ Coin door keys
- 7 x Basketball
- $1 \times$ Power cord
- $1 \times$ Hand pump
- $2 \times \mathrm{M} 5$ Allen bolts
- 2 x M5 Lock washer
- $2 \times \mathrm{M} 5$ Flat washer
- $2 \times$ Flange nuts
- $1 \times 2.5 \mathrm{~mm}$ Allen Key
- $1 \times 3 \mathrm{~mm}$ Allen key
- $1 \times 17 \mathrm{~mm}$ Wrench
- $1 \times 6.3 \mathrm{~A}$ fuse
- $1 \times$ Link cable
- $1 \times$ Programming harness
- $1 \times$ Optional NRI coin mech harness


## SPECIFICATIONS

## DIMENSIONS

- Weight: 400 kg (881.85lb) (excluding packaging)
- Weight: 470 kg (1036.17lb) (including packaging)
- Height: 2942mm (115.8") (excluding marquee)
- Height: 3495 mm (137.6") (including marquee)
- Width: 1087 mm (42.8")
- Length: 3189mm (125.6")
- Power: Maximum 600W


## ELECTRIC SUPPLY

The game can operate on a universal mains input voltage between $85-265 \mathrm{VAC} 47-63 \mathrm{~Hz}$ single phase. The supply must be a three wire grounded supply.
An adjustment screw is available for fine-tuning the output voltage.

## LOCATION REQUIREMENTS

- Ambient temperature:

5C-40C

- Ambient humidity:
- Ambient U.V. radiation:
- Vibrations level:

Low
Very low
Low


## PACKAGING DETAILED



## ASSEMBLY

## PARTS DETAILED



## ASSEMBLY STEPS

1. Remove $8 \times \mathrm{M} 10$ hex bolts on the backboard and unmount it.
2. Remove $2 \times \mathrm{M} 10$ hex bolts from the support brackets on either side of the cabinet ( $4 \times \mathrm{M} 10$ bolts total) and put them aside for use in step 4.

3. Lift the rear chaser light section and place it on the front guide pin and rear platform.

4. Lock the rear chaser light section in place using the $4 \times \mathrm{M} 10$ hex bolts ( 2 x bolts per side) from step 1.
5. Replace the backboard, and secure it using the same 8 M 10 hex bolts that were removed in step 1.

6. Lift the front chaser light section and place it on the front guide pines and rear guide pins.

7. Lock the front chaser lights section in place using $2 \times \mathrm{M} 10$ hex bolt per side ( $4 \times$ bolts total.)

8. Slide the front cabinet out from underneath the main cabinet and unpack it.
9. Unlock the caster wheels on the main cabinet and remove it from the pallet.

10. Plug in all 10 connectors along the left side for the chase lights, and 2 connectors at the front for the sensors.

CAUTION: DO NOT step on the ball gate. This can result in damage to the mechanism.

11. Locate the hoop component and insert the connector through the access hole.
12. Lock it in place using $4 \times \mathrm{M} 10$ hex bolts as shown below.

13. Install the cable tie holder and hoop harness as shown below.
14. Plug the connectors at the left and right sides in.

15. Locate and remove the 6 screws shown below.
16. Install the connector brackets at locations 1, 2 and 3. Location 1 and 3 use the same bracket.
17. Use the screws from step 15 to lock the brackets in place.
18. Repeat steps 15 to 17 on the opposite side of the cabinet.


If you have a marquee to install, please continue to step 19 below. If you are not installing a marquee, please skip ahead to step 26.
19. Position the two cabinets next to each other and place the bracket in between, aligning the screw to the bracket keyholes.
20. Loosen, but do not remove, all 4 screws, then push the two cabinets together.
21. Slide the bracket down, and lock it in place with the screws, tightening 2 screws on one side first, then the 2 screws on the other side.

22. Remove $2 \times \mathrm{M} 10$ hex bolts at the top of the backboard, and install with the bracket shown.
23. Install another bracket below the rear frame with $2 \times \mathrm{M} 6$ hex bolts and nuts.

24. Position the marquee at the top, between the two units.
25. Locate the mounting brackets shown, and lock the marquee in place using $4 \times \mathrm{M} 5$ locknuts.

26. Remove $6 \times \mathrm{M} 10$ screws from the rear of front cabinet.
27. Align the front cabinet to the rear main cabinet, and lock in place using the screws removed in the previous step.

28. Plug in all 10 connectors shown below.

29. Power up the game and ensure that all lights and sensors are functioning correctly.
30. Install $2 x$ side inner covers (packed separately).

31. Install 2 x bottom connector covers (packaged separately) using 4 xM 4 screws.

32. Remove the $4 \times M 5$ hex bolts shown.
33. Install the acrylic shield in place at the front of the cabinet using the bolts removed in the


## GAMEPLAY AND MODES

## OBJECTIVE

The primary objective in HYPERshoot is to score as many points as possible, by shooting hoops quickly and accurately. Shooting consecutive hoops quickly will increase the basket level, from a minimum of one to a maximum of five. The basket level reflects how many points the player earns for each hoop. If the player is too slow, or misses, the basket level will drop back to one.

## HOW TO PLAY

## SINGLE PLAYER GAME

- Pay to play
- Select single player game
- Shoot hoops
- Game time runs out
- Tickets are vended based on player score


## LINKED PLAY

- Pay to play
- Select linked game
- Five second countdown for other players to join begins
- One to seven other players join
- All linked players shoot hoops at the same time
- Game time runs out
- Winner is awarded a bonus
- Tickets are vended based on player score


## ATTRACT MODE

Attract mode provides a visual and audio display while the game is not being played.

## PLAY MODE

HYPERshoot has two play modes. The standard Coin Play mode, where a coin or coins are inserted, or Free Play mode, where no coins are necessary.

## COIN PLAY

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.

## FREE PLAY

Free play can be set in one of three ways:

- Entering the operator menu by pressing the red TEST button, then entering the game settings. From here, enter free play settings and turn free play mode on.
- For a single free game, just press the green SERVICE button once.
- Push and hold the green SERVICE button for 5 seconds. This is a temporary free mode, and the game will return to normal when reset.


## OPERATION

## P SETTINGS

1. Coin 1 Coins per Credit Default 1, Adjustable 1-20

Sets the number of coins that need to be inserted in exchange for each game credit.
2. Coin 1 Games per Credit Default 1, Adjustable 1-20

Sets the number of games granted for each credit.
3. Coin 1 Multi Bonus Credits Default Off, Adjustable On / Off

Turn on the first stage of bonus credits for coin mech 1 . Turning this setting on will activate settings 3-1 to 3-6.
3.1. Coin 1, Stage 1, Number of Coins Default Off, Adjustable Off / 1-99

This sets the number of coins that need to be inserted into coin mechanism 1 to reach the bonus credit stage 1.
This setting is only active if setting 3 is ON.
3.2. Coin 1, Stage 1, Number of Bonus Credits Default Off, Adjustable Off / 1-99

This sets the number of bonus credits that are given when credit stage 1 is reached. This is the number of bonus credits given, on top of what has been paid for. This setting is only active if setting 3 is ON .
3.3. Coin 1, Stage 2, Number of Coins Default Off, Adjustable Off / 1-99

This sets the number of coins that need to be inserted into coin mechanism 1 to reach the bonus credit stage 2.
This setting is only active if 3-1 and 3-2 are active.

### 3.4. Coin 1, Stage 2, Number of Bonus Credits Default Off, Adjustable Off / 1-99

This sets the number of bonus credits that are given when credit stage 2 is reached. This is the number of bonus credits given, on top of what has been paid for. This setting is only active if 3-1 and 3-2 are active.
3.5. Coin 1, Stage 3, Number of Coins Default Off, Adjustable Off / 1-99

This sets the number of coins that need to be inserted into coin mechanism 1 to reach the bonus credit stage 3.
This setting is only active if 3-3 and 3-4 are active.
3.6. Coin 1, Stage 3, Number of Bonus Credits Default Off, Adjustable Off / 1-99

This sets the number of bonus credits that are given when credit stage 3 is reached. This is the number of bonus credits given, on top of what has been paid for. This setting is only active if 3-3 and 3-4 are active.
4. Coin 2 Coins per Credit Default 1, Adjustable 1-20 Sets the number of coins in coin mech 2 input that need to be inserted in exchange for each game credit.
5. Coin 2 Games per Credit Default 1, Adjustable 1-20

Sets the number of games granted for each credit from coin mech 2 input.
6. Coin $\mathbf{2}$ Multi Bonus Credits Default Off, Adjustable On / Off

Turn on the first stage of bonus credits for coin mech 2 . Turning this setting on, will activate settings 6-1 to 6-6.
6.1. Coin 2, Stage 1, Number of Coins Default Off, Adjustable Off / 1-99

This sets the number of coins that need to be inserted into coin mechanism 2 to reach the bonus credit stage 1.
This setting is only active if setting 6 is ON.

### 6.2. Coin 2, Stage 1, Number of Bonus Credits Default Off, Adjustable Off / 1-99

This sets the number of bonus credits that are given when credit stage 1 is reached. This is the number of bonus credits given, on top of what has been paid for. This setting is only active if setting 6 is ON .

### 6.3. Coin 2, Stage 2, Number of Coins Default Off, Adjustable Off / 1-99

This sets the number of coins that need to be inserted into coin mechanism 2 to reach the bonus credit stage 2.
This setting is only active if 6-1 and 6-2 are active.
6.4. Coin 2, Stage 2, Number of Bonus Credits Default Off, Adjustable Off / 1-99

This sets the number of bonus credits that are given when credit stage 2 is reached.
This is the number of bonus credits given, on top of what has been paid for.
This setting is only active if 6-1 and 6-2 are active
6.5. Coin 2, Stage 3, Number of Coins Default Off, Adjustable Off / 1-99

This sets the number of coins that need to be inserted into coin mechanism 2 to reach the bonus credit stage 3.
This setting is only active if 6-3 and 6-4 are active.
6.6. Coin 2, Stage 3, Number of Bonus Credits Default Off, Adjustable Off / 1-99

This sets the number of bonus credits that are given when credit stage 3 is reached. This is the number of bonus credits given, on top of what has been paid for. This setting is only active if P6-3 and P6-4 are active.
7. Common Coin Default Off, Adjustable On / Off

If the setting is ON , coin 1 and coin 2 contribute to the same coin pool. If the setting is off, they are counted separately.
This setting is only active is P17, Card System, is set to off.
8. Attract Sound Default 3 minutes, Adjustable Off, $2 \mathrm{~m}, 3 \mathrm{~m}, 4 \mathrm{~m}, 5 \mathrm{~m}, 10 \mathrm{~m}, 30 \mathrm{~m}$ Controls the delay between the attract mode audio loop repeating.
9. Error Message Alert Default Display \& Audio, Adjustable Display \& Audio, Audio Only, Display Only, Off
Controls how the game indicates an error has occurred. Errors can be shown on the display and/or with an error voice message that is played through the speakers, or hidden completely.
10. Free Mode Default Off, Adjustable On / Off

Sets if the game requires a credit to start playing. If set to on, the game can be played for free.
11. Prize Type Default Ticket, Adjustable Off / Ticket / Coupon

Defines the type of prize given to the player. This only affects how the jackpot number and tickets owing number is displayed.
If set to "Off" then no prize is paid out and P15 is hidden.
If set to "Tickets" then prize numbers shown on displays are the same as the number of tickets dispensed from the mech.
If set to "Coupons" (1 ticket = 2 coupons), then prize numbers displayed to the player double the number of tickets dispensed from the mech.
12. Number of Score Points per Ticket Default 5, Adjustable Disabled, 0.5-10

Hidden if P 11 is set to off. Sets how many score points are required to dispense 1 ticket from the mech.
If set to "Disabled," no tickets will be dispensed.
13. Number of Maximum Tickets Default 50, Adjustable 1-1000

Sets the maximum number of tickets allowed to be dispensed based on the game score.
14. Number of Mercy Tickets Default 5, Adjustable 1-500

Sets the amount of tickets to be dispensed per player after gameplay if the player score does not reach the level of setting 12.
15. Mercy Payout Default Off, Adjustable Off / On Credit / On Start / After Game

Hidden if P11 is set to Off. Sets when Mercy tickets will be paid out.
If set to "Off", no mercy tickets are awarded.
If set to "On Credit," the Number of Mercy Tickets (P14) quantity will be dispensed when the game is credited. Tickets are in addition to tickets awarded at the end of the game. "On Credit" mercy tickets are not awarded from any Bonus Credits that are won (refer to game setting "Bonus Type").
If set to "On Start," the Number of Mercy Tickets will be dispensed when the game play starts. Tickets are in addition to tickets awarded at the end of the game.
If set to "After Game," the Number of Mercy Tickets will be dispensed when the game has completed, only if the players score does not reach the level of Number of Score Points Per Ticket (P12).
16. High Score Default 0, Adjustable 0-999

The current value of the high score.
17. Reset High Score Default Never, Adjustable Power On / never

Set if the high score is reset to 0 every time the game is powered on, or never.
18. Card System Default On, Adjustable On / Off

Activate or deactivate the card system on the machine.
19. Game Time Default 30, Adjustable 20-99

Sets how long a game lasts. Adjustable in 5 second increments.
20. Bonus Type Default Off, Adjustable /Off / Credit / Ticket

Sets what bonus is awarded to the winner of a linked game. If "Link Address" is set to None, then this Bonus Type value is also set to None and hidden from view.
If set to award a bonus, then the following rules are applied:
If multiple players tie for first place, then they all receive the same bonus.
The winning score must be greater than 0 .
21. Bonus Ticket / Bonus Credit Default Tickets - 50, Credits - 1, Adjustable Tickets 1-5000, Credits 1
Sets the quantity of bonus items awarded, depending on the value of the "Bonus Type" setting. If "Bonus Type" is set to None, this setting is hidden.
If "Bonus Tickets" is set to Tickets, then this setting displays "Bonus Tickets" and will pay out the set number of tickets.
If "Bonus Type" is set to Credit, then this setting displays "Bonus Credit" and will allow a single credit to be paid out.
22. Link Address Default None, Adjustable None / Master / Slave 1-7

If set to none, linking is turned off. If linking is on, there can be only one master machine. Other connected games must be set to a unique slave number between one and seven.
23. Choose Color Default Peri Purple, Adjustable Atomic Tangerine / Hot Rod Red / Hot Pink / Peri Purple / Deep Purple / Electric Blue / Baby Blue / Shamrock Green / Cyber Green / Unmellow Yellow Set the color of the cabinet lighting.

## 24. Total Cabinets Default 2, Adjustable 2-8

Sets how many cabinets are connected in the current linked network.
25. Link Countdown Timeout Default 15, Adjustable 5-15

Sets how many seconds the game will wait while prompting for players to join a linked game.
26. Shot Clock Position Default Back Panel, Adjustable back panel / front panel

Sets where the shot clock is displayed. This is used for different cabinet versions.

## AUDITS

1. Total Coins 1

Shows the number of coins inserted on COIN1 input.
2. Total Coins 2

Shows the number of coins inserted on COIN2 input.
3. Total Service Credits

Shows the number of times the service button was used to issue 1 credit to the game.
4. Bonus Count

Shows the number of times the game bonus was paid out. See game setting "Bonus Type" for more information.
5. Total Games Played

Shows the number of games successfully completed.
6. Average Tickets Per Game

Calculation result of Total Tickets / Total Games Played
7. Average Score Per Game

Shows the average score based on every game played
8. Number of Solo Games

Number of single player games played
9. Number of 2 Player Games

Number of Linked two player games played

## 10. Number of 3 Player Games

Number of Linked three player games played

## 11. Number of 4 Player Games

Number of Linked four player games played
12. Number of 5 Player Games

Number of Linked five player games played
13. Number of 6 Player Games

Number of Linked six player games played
14. Number of 7 Player Games

Number of Linked seven player games played
15. Number of 8 Player Games

Number of Linked eight player games played

## 16. Average Points Per Basket

Average number of points scored per basket, based on all games played

## 17. Average Shots Per Game

Average number of shots per game (front sensor)
18. Average Sunk Per Game

Average number of baskets sunk per game (rear sensor)
19. Basket Sink Percentage

Percentage of shots that went through the basket

## 20. Av Number of 1pt Baskets

Average number of 1 point baskets per game

## 21. Av Number of 2pt Baskets

Average number of 2 point baskets per game

## 22. Av Number of 3pt Baskets

Average number of 3 point baskets per game

## 23. Av Number of 4pt Baskets

Average number of 4 point baskets per game

## 24. Av Number of 5pt Baskets

Average number of 5 point baskets per game

## 25. Perc. Reach 2pts

Percentage of players to sink at least one 2 point basket

## 26. Perc. Reach 3pts

Percentage of players to sink at least one 3 point basket
27. Perc. Reach 4pts

Percentage of players to sink at least one 4 point basket
28. Perc. Reach 5pts

Percentage of players to sink at least one 5 point basket
29. Chksum

Manufacturers audit for error detection

## INPUT AND OUTPUT TESTS

## OUTPUT TESTS

1. All Outputs

Runs the seven segment displays, cabinet LEDs and the high score light.
2. Seven Segment

Counts all seven segment displays from 0-9.
3. Lights

Runs all lights individually. Chase lighting 1 - 10, hoop, backboard, right rear base, left rear base, front base, then the player panel.
4. Sounds

Play all sounds in sequence.
5. Max Load

Runs all outputs at the same time at maximum power. Seven segments are set to 8888, audio plays, all motors run and all lights turn on.

## INPUT TESTS

The display will read ON or OFF to indicate if the currently selected input is active or not.

- Up Button
- Down Button
- Test / Enter Button
- Service / Back Button
- Utility Button
- Single Player Button
- Link Button
- Coin 1
- Coin 2
- Front Sensor
- Rear Sensor
- Close Gate Sensor
- Open Gate Sensor


## RUN TESTS

1. Ticket Mech

Dispense a single ticket from the ticket mech
2. Ball Gate Motor

Run the ball gate motor

## GAME HISTORY

This menu lists the data on the last 10 game plays. Each entry lists three pieces of data:

- H - The entry number, from 1 - 10
- S - The game score
- GT - The game type, either single or linked.


## VERSION

View the current firmware version number.

## ERRORS

| Name | Cause | Solution |
| :---: | :---: | :---: |
| Error ticket | The game has run out of tickets or if there is a jam on ticket mech 1 | Refill the ticket mechs and ensure there is no jam. Clear the error by viewing it in the errors menu and pressing the right button. The game will automatically pay out remaining tickets if there is activity on the ticket sensor. |
| Single button error | The single player button has been pressed for a long period of time. | Check the button switch to see if it is jammed and clear the jam. |
| Link button error | The linked game button has been pressed for a long period of time. | Check the button switch to see if it is jammed and clear the jam. |
| Utility button error | The utility button has been pressed for a long period of time. | Check the button switch to see if it is jammed and clear the jam. |
| Up button error | The up button has been pressed for a long period of time. | Check the button switch to see if it is jammed and clear the jam. |
| Down button error | The down button has been pressed for a long period of time. | Check the button switch to see if it is jammed and clear the jam. |
| Right button error | The right button has been pressed for a long period of time. | Release the right button to clear the error. |
| Error History | The CPU cannot read or write to its on-board EEPROM history data or is receiving errors during communication with the EEPROM. | Clear the error by viewing it in the errors menu and pressing the right button. <br> If the error still occurs, the IC is faulty and needs to be replaced. |


| Ball Gate Error | Ball gate sensors are not <br> reading expected values. | Check the ball gate sensors are <br> operating correctly and are not <br> jammed. <br> Use the run tests menu to ensure <br> that the ball gate motor is running <br> correctly. |
| :--- | :--- | :--- |
| Error EEP NJ | The CPU cannot read or write <br> Only applicable to NJ <br> software on-board EEPROM New | Jersey data or is receiving <br> errors during communication <br> with the EEPROM. | | Clear the error by viewing it in the |
| :--- |
| errors menu and pressing the right |
| button. |
| If the error still occurs, the IC is faulty |
| and needs to be replaced. |

## HARD ERRORS

This category of errors is used to identify specific errors serious enough that gameplay must be stopped, either to prevent damage to the machine or because it would result in a negative gameplay experience for the player.

| Name | Cause | Solution |
| :--- | :--- | :--- |
| Coin 1 error | The coin sensor has been <br> pressed for a long period of <br> time. | Release the coin sensor to clear the <br> error. |
| Coin 2 error | The coin sensor has been <br> pressed for a long period of <br> time. | Release the coin sensor to clear the <br> error. |
| Error Front Sensor | The front sensor has been <br> reported as active for too long | Check that the sensor is connected <br> Correctly. |
| Iriggered when throwing ball. |  |  |
| If the problem persists, you may need |  |  |
| to recalibrate the sensor. Instructions |  |  |
| for this can be found in the operator |  |  |
| manual. |  |  |


| Error Rear Sensor | $\begin{array}{l}\text { The rear sensor has been } \\ \text { reported as active for too long }\end{array}$ | $\begin{array}{l}\text { Check that the sensor is not dirty or } \\ \text { blocked by anything. } \\ \text { Use the operator menu input tests to } \\ \text { lheck that the Rear Sensor input is } \\ \text { triggered when throwing a ball. } \\ \text { Check that the sensor is connected } \\ \text { correctly. } \\ \text { If the problem persists, you may need } \\ \text { to recalibrate the sensor. Instructions } \\ \text { for this can be found in the operator } \\ \text { manual. }\end{array}$ |
| :--- | :--- | :--- |
|  | $\begin{array}{l}\text { The CPU cannot read or write } \\ \text { to its on-board EEPROM } \\ \text { unresettable audits, or is } \\ \text { receiving errors during } \\ \text { communication with the } \\ \text { EEPROM. }\end{array}$ | $\begin{array}{l}\text { Set all audits to default by viewing } \\ \text { the error in the errors menu and } \\ \text { pressing the right button. } \\ \text { If the error still occurs, the IC is faulty } \\ \text { and needs to be replaced. }\end{array}$ |
|  | $\begin{array}{l}\text { The CPU cannot read or write } \\ \text { to its on-board EEPROM } \\ \text { resettable audits, or is } \\ \text { receiving errors during } \\ \text { communication with the } \\ \text { EEPROM. }\end{array}$ | $\begin{array}{l}\text { Set all audits to default by viewing } \\ \text { the error in the errors menu and } \\ \text { pressing the right button. } \\ \text { Set resettable audits back to default }\end{array}$ |
| by going into the audits menu and |  |  |\(\left.\} \begin{array}{l}press and hold the right button. If the <br>

error still occurs, the IC is faulty and <br>
needs to be replaced.\end{array}\right\}\)

## TROUBLESHOOTING

## SENSOR CALIBRATION

The front throw and basket sensors are calibrated by the manufacturer but can be recalibrated if the game isn't functioning as expected. Using differently colored or dirty basketballs may effect the calibration.

## FRONT THROW SENSOR

The front throw sensor detects when a ball is thrown. One receiver PCB contains 8 receive sensors connected to 1 adjustment trimpot. Each receive sensor has an indicator LED which turns ON when the sensor is clear and turns OFF when the sensor is blocked.
Calibration involves adjusting trimpots until all indicator LEDs operate correctly:

1. Ensure the game is powered on and the FB213A PCBs powered
2. Increase the sensitivity of the sensors via the trimpots until the PCBs 8 sensor indicator LEDs turn on - this indicates that the sensors are able to detect each other
3. Block each sensor individually and check that the indicator LED turns OFF. If it does not turn off, decrease the sensitivity via the trimpot until it does
4. Unblock the sensor and ensure the indicator LED turns ON
5. Repeat for all 8 sensor indicator LEDs per PCB


## BASKET SENSOR

The basket sensor calibration ensures it properly detects any balls that pass through the basket. Incorrect calibration will result in the ball not being detected when passing through the basket or the ball being incorrectly detected when outside the basket. The sensor can be adjusted to increase and decrease the sensitivity, until the balls are detected correctly.
Two sensors need calibrating in the same manner:

1. Turn the adjustment screw all the way in one direction using a small fine flat screwdriver, taking care not to use too much force. The adjustment screw is accessible from behind the cabinet.

2. Adjust the calibration screw while passing a ball through the basket, taking note that the situations below are met. The red LED turns on when the ball is detected.

- Ensure that the ball is not detected when the ball is at the below three positions outside the basket. Move the ball up and down outside the basket and ensure the sensor LED never turns on. If the LED does turn on, decrease the sensitivity of the sensor.

- Ensure that the ball is detected when the ball is at the below four positions inside the basket. Move the ball up and down through the basket and ensure the sensor LED turns ON with each pass of the ball. If the LED does not turn on, increase the sensitivity of the sensor.

- Continue to tweak the sensitivity of the sensors, testing the ball in the above positions.


## BACKBOARD DISPLAY

## SHOWING INVALID INFORMATION

If the backboard display is showing unclear or invalid information, it's possible that p setting 23 , Shot Clock Position, has been set incorrectly.

1. Establish if your shot clock value is displayed on the backboard or on a front panel.
2. Enter the operator menu.
3. Enter the p settings menu.
4. Go to setting number 23 , and ensure that it is set correctly based on your cabinets configuration.

## SECTION A: SERVICE INSTRUCTIONS

NOTE: $\quad$ Be sure to read the following carefully before servicing the machine.

## LOCATING AND ACCESSING PARTS

The following pictures identify the location of the main serviceable items.

## CABINET FRONT



1. Backboard
2. Chase lighting
3. Player panel
4. Stop bar
5. Service door
6. Ticket door
7. Coin door
8. Ball gate
9. Front throw sensors

## BACKBOARD



1. Shot clock display
2. Points per basket display
3. Basket sensors

## PLAYER PANEL



1. Score display
2. Link player count display
3. Link player button
4. Credit display
5. Singly player button
6. Speakers
7. High score lamp

## CABINET INNER



1. Amplifier
2. Power inlet
3. Subwoofer
4. Power supply
5. Operator panel
6. FB216 Game IO PCB
7. FB215 PWM Driver PCB
8. FB106 Sound PCB

## OPERATOR PANEL / SERVICE CONTROLS



1. Up button
2. Back / service button
3. Down button
4. Volume control
5. Coin 1 counter
6. Count 2 counter
7. Test / enter button
8. Ticket counter
9. UCL connector
10. Utility button

## BALL GATE



1. Open switch
2. Closed switch

## LINK CONNECTORS

Up to 8 HYPERshoot games can be linked together for competitive play. Daisy-chain the games together by connecting the supplied Link Cable to the IN and OUT connectors on each machine. Games on the end positions of the link only need a single cable connection.

Position of the link "Master" is not critical, it can be at any position in the network as long as only a single master exists in the network.


## PARTS DESCRIPTION

## CHASE LIGHTS

Chase lights consist of 10 rings containing RGB LEDs with each ring under firmware control. During game play they will show a lighting animation which appears to follow the ball as it is thrown through the air.

## BASKET SENSOR

The basket consists of RGB LED strip under firmware control, and 2 proximity sensors used to detect the ball. Both sensors are used to detect the ball as it passes through the basket.

## FRONT THROW SENSOR

The front throw sensor is required for normal game play and scoring. The sensor consists of the FB213A and FB213B pair. An IR-beam ladder detects when a ball passes by and this in turn is used to trigger the chase light animation.
The front throw sensor requires calibration after installation to detect a ball throw. The FB213B is an adjustable IR receiver PCB. One receiver PCB contains 8 receive sensors connected to 1 adjustment trimpot. Each receive sensor has an indicator LED which turns ON when the sensor is clear and turns OFF when the sensor is blocked.

## BALL GATE

The ball gate consists of a geared motor which raises and lowers a "gate" to hold the balls. The motor stops when it hits switches at the extent of travel.
Ensure the switches are intact and make contact with the gate lift arm.

## BACKBOARD DISPLAYS

FB63 7-Segment Display PCBs are used to display the game time remaining, and the current points per basket. Access is from the rear of the game.

## LED LIGHTING/FB215

16 independent LED lighting channels are used in HYPERshoot. Each channel is fused and driven by the FB215 PCB.

Channels 1-10 are used on the chase lights
Channel 11 is the basket
Channel 12 is the backboard
Channel 13,14 is the rear lower floor lighting.
Channel 15 is the player panel and ball stopper
Channel 16 is the front floor lighting.
FB215 is controlled by the FB216 Game Control Board.

## PLAYER PANEL

Access to the panel components is by removing the front face of the player panel. The player panel consists of the edge mounted LED lighting, speaker system (midrange, tweeter, crossover), display PCBs and player buttons.

## SPEAKERS

Two component speakers are wired to the left and right outputs from the amplifier. Each speaker pair consists of a crossover, midrange speaker and tweeter speaker.

## AMPLIFIER/FB106/SUBWOOFER

The FB106 is the sound driver board containing the sound files. The volume can be adjusted by the potentiometer located on the operator panel.
An extra amplifier is included to drive a subwoofer. The adjustment knobs on this amplifier have been set by the manufacturer and should be left in default positions.

## OPERATOR PANEL COUNTERS

Counters will increment for each coin inserted and each ticket paid out. Counters are under firmware control and are not directly connected to the mechanisms.

## OPERATOR PANEL BUTTONS

Press the green SERVICE/BACK button to issue a service credit from attract mode. Press and hold the green SERVICE/BACK button to enter temporary Free Mode, this will remain in place until machine power is reset.
Press the red TEST/ENTER button to enter the operator menu from attract mode.
When in the operator menu, use four up/down/left/right buttons to navigate through the menu.

## OPERATOR PANEL VOLUME KNOB

Use to adjust the speaker's sound level.

## GAME BOARD - FB216

The FB216 is the main control board for the game. It contains the application firmware and output drivers to read sensor inputs and control the lighting, displays and audio. It has five fuses, the ratings of which can be seen in the image below:


## COIN MECHANISM / BILL ACCEPTOR / CARD SYSTEM

Credits can be inserted via a coin mech, bill acceptor and/or card system connection. All interfaces are located inside the front coin door.

## TICKET MECHS

Tickets won are paid out on the ticket mech. A ticket error will occur when a ticket cannot be dispensed due to a jam or empty dispenser.

## POWER INLET/MAINS SWITCH

The power inlet is a standard IEC inlet socket with a mains power switch, located at the rear of the machine. There is a main power fuse internal in this IEC socket. The fuse should be a M205, 250VAC, 6 A .

WARNING: ALWAYS turn OFF mains power and unplug the game before replacing any fuses.
ALWAYS use the correctly rated fuse.

POWER SUPPLY
The entire machine is powered by a single 600W 12 V power supply. AC input is universal 85-265VAC $47-63 \mathrm{~Hz}$.

## LAMPS

WARNING: Always turn OFF mains power and unplug the game, before replacing any lamps.
Always replace the lamps with the same or equivalent size, wattage and voltage.

All button lamps are 12VDC T10 LED or equivalent.
All remaining lighting is RGB LED strip. Contact your nearest LAI Games office for replacement LED strip to ensure color is matched.

## MAINTENANCE

## EXTERIOR

- Regularly dust and clean the external cabinet areas as required, using a soft water-damp cloth and mild soap.
- Clear any dust from play area coming from the balls.
- Check for blown bulbs and replace as required.
- Check all LED strips are functioning and repair as required.
- Check the front throw sensor operation over its entire height by passing a ball through it during the Input Test menu or during game play. Calibrate if necessary.
- Check both basket sensors detect balls in the basket and reject balls outside the basket. Calibrate if necessary.
- Clean the balls and ensure they are fully inflated.
- Check all lighting covers for cracks and replace when necessary.
- Check the basket, ball gate and playfield hardware is firmly secured and tighten fasteners where required.


## INTERIOR

- Regularly dust and vacuum the interior of the cabinet, taking care to remove any objects that may have fallen.
- Check and tighten all fixing hardware and fasteners as required.
- Check all harnessing is intact and repair if necessary.


## FB216 UPDATE PROCEDURE

## TOOLS REQUIRED

- $1 \times$ USB - TTL Serial Adapter with Connector Harness
- $1 \times$ PC or Laptop with USB Port running a Windows OS (will be connected to game during the update, so must be portable)
- $1 \times$ Computer Program FLASHER-STM32
- $1 \times$ HEX File (containing PCB update)


## PC SETUP

## FLASHER-STM32

1. The program FLASHER-STM32 needs to be downloaded and installed on the PC
2. Visit www.st.com
3. In the search bar at the top of the page, search for FLASHER-STM32
4. Select the suggested result from the Products category

5. Alternatively, in the navigation menu on the left, select:
6. Tools \& Software
7. Software Development Tools
8. Product Tree (on the right)
9. STM32 Software Development Tools
10. Scroll down, and select FLASHER-STM32 from the list
11. Scroll to the bottom of the product page, and select the "Get Software" button
12. You will need to enter your name and email address to confirm the download
13. Once the software is downloaded, install it on the PC

## PROCEDURE

1. Switch off the game that is being updated
2. Access the required service area and locate the PCB (refer to Locating and Accessing parts Cabinet Inner for assistance in locating FB216)
3. Place the PC near the PCB, and connect them using the USB - TTL serial adapter cable, from the USB port on the PCB, to the J5 programming port on the PCB

4. Power on the game
5. In the start menu, navigate to STMicroelectronics > FlashLoader, and run the Demonstrator GUI application

6. For the Port Name setting, open the drop-down menu and select the only COM port available (COM number is automatic and can vary). If you're unable to proceed to the next step when pressing next, restart the PC and try again.

7. Leave the rest of the settings at their default value, and select Next
8. The next screen should show the "Target is readable" message

9. Press Next
10. Ensure that the target field correctly reads "STM32F4_05_07_15_17_1024K"


## 11. Press Next

12. Select "Download to device" on the left
13. Click the "..." button on the right hand side of the window, and navigate to and select the HEX file
14. Select "Global Erase"
15. Select the "Verify after download" checkbox

16. Press Next
17. Above the progress bar, the text will progress from "Downloading," to "Verifying," to "Success"


Verifying
Verifying downloaded data 49\%

## Success

Download operation finished successfully
18. Once the progress bar is green and states "Download operation completed successfully," press Close to finish
19. Turn off the game
20. Remove the USB - TTL adapter cable from the PCB
21. Turn on the game
22. Enter the operator menu
23. There may be an error present after the update - clear the error in the operator menu
24. Check the firmware version to verify that the update was completed successfully

## TROUBLESHOOTING

## NO COM PORT SELECTABLE FROM DROP DOWN

If you're up to step 6, and there are no options to select a port from the drop-down menu, the PC is not able to communicate with the PCB

1. Ensure the game is powered on, and the PCB has power - verify that the heartbeat LED (shown below) is flashing to ensure that the PCB has power

2. Check that the cable is securely inserted into the USB port on the PC and the J5 port on the PCB
3. Restart the game while the cable is connected and the Demonstrator App is running
4. Restart the Demonstrator App while the cable is connected and the game is switched on
5. If none of these steps solve the issue, the cable may be faulty


## SECTION B: TECHNICAL DETAILS

WARNING: Always turn OFF mains power and unplug the game before cleaning the interior of the machine.

WARNING: 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.

## POWER SUPPLY

The universal AC input power supplies generates 12 VDC for the entire machine.
The power supply output voltage should be 12VDC. It can be adjusted when necessary by turning the blue adjustment trimpot with a small Philips screwdriver.


## COIN OPTIONS REFERENCE GUIDE

By default, the coin door contains a micro switch connected to the COIN2 input for crediting the machine.
A 9 way Molex connector has been installed on the coin door which can be optionally used to make adaptors for most electronic coin systems and comparators.
The following picture illustrates the connector pinout.


Shell part number: Molex 03-09-1092
Pins: Molex 02-09-1119 (loose)
Molex 02-09-1117 (chain)

PIN1 = GND
PIN2 = COIN1 input
PIN3 = 12VDC
PIN7 = GND
PIN8 = COIN2 input
PIN9 = 12VDC

Contact your nearest LAI Games distributor for harnessing to suit different coin comparators and bill acceptors.

## UNIVERSAL CARD LINK CONNECTION

A 9 pin Universal Card Link connector exists on the operator panel inside the coin door.


Mating shell part number: Molex 9-pin housing: 03-09-2092
Pins part number: Wire Gauge and Terminals: 02-09-2103 (14-20 gauge wire) or 02-09-2118 (18-22 gauge wire)

Pin 1. +12 v - Supply to Card System.
Pin 2. Coin 1-input to the game PCB.
Pin 3. Coin 2-input to the game PCB.
Pin 4. Coin meter 1- is connected to the coin meter 1 output from the game PCB and can be used by card systems for monitoring purposes.
Pin 5. Coin meter 2- is connected to the coin meter 2 outputs from the game PCB and can be used by card systems for monitoring purposes.

Pin 6. Ticket Meter- is connected to the Ticket 1 Meter output from the game PCB and can be used by card systems for monitoring purposes.

## Pin 7. Empty

Pin 8. Empty
Pin 9. Ground- is connected to the common Ground connection, the same ground as the Game PCB.

## TICKET MECHANISMS

A ticket mech can be fitted inside the ticket doors. Connections are available through a standard 4 way Molex receptacle. Deltronic DL-1275 mechs are installed by default.


Shell part number: Molex 03-09-1042
Pins: Molex 02-09-1119 (loose)
Molex 02-09-1117 (chain)

PIN1 $=\mathrm{NOTCH}$
PIN2 = GND
PIN3 = DRIVE
PIN7 $=12 \mathrm{VDC}$

CONNECTORS
6 WAY JST - BIDIRECTIONAL MOTOR

| PIN | CPU PIN | FUNCTION NAME | DESCRIPTION |
| :--- | :--- | :--- | :--- |
| 1 |  | Unused |  |
| 2 |  | Unused |  |
| 3 |  | Unused |  |
| 4 |  | Unused |  |
| 5 |  | Unused |  |
| 6 |  | Unused |  |
|  |  |  |  |

7 WAY JST - USER BUTTON

| PIN | CPU PIN | FUNCTION NAME | DESCRIPTION |
| :--- | :--- | :--- | :--- |
| 1 | - | 12VDC | Button lamp power |
| 2 | - | GND | Logic ground for button switches (switch COMMON) |
| 3 | PE10 | BTN1_SW | Button 1 switch (switch NO) |
| 4 | PE12 | BTN2_SW | Button 2 switch (switch NO) |
| 5 | PD1 | BTN1_LAMP | Low-side driver for button 1 lamp |
| 6 | PD2 | BTN2_LAMP | Low-side driver for button 2 lamp |
| 7 | - | GND | Unused ground |

8WAY FEMALE HEADER - DEBUG

| PIN | CPU PIN | FUNCTION NAME | DESCRIPTION |
| :--- | :--- | :--- | :--- |
| 1 | PAO | DEBUG TXD | Transmit debugging data from CPU |
| 2 | - | $3.3 V$ | $3.3 V$ power out |
| 3 | - | $3.3 V$ | $3.3 V$ power out |
| 4 | PD7 | DEBUG_RST | GP Output from CPU to reset debug module |
| 5 | PD6 | DEBUG_GPO | GP Output from CPU to assist debug module |
| 6 | - | $3.3 V$ | $3.3 V$ power out |
| 7 | - | GND | Power ground |
| 8 | PC11 | DEBUG RXD | Receive debug data to CPU |

6 WAY MINI-JST - BALL DISPENSER CONNECTION

| PIN | CPU PIN | FUNCTION NAME | DESCRIPTION |
| :--- | :--- | :--- | :--- |
| 1 | - | 12VDC | Solenoid power |
| 2 | PD3 |  | Solenoid activation (pull to ground) |
| 3 | - | 12VDC | Power |
| 4 | PE11 |  |  |
| 5 | - | GND | Ground |
| 6 | PC1 |  |  |

WIRING DIAGRAMS
(Next Page)




PLAYER PANEL









## BALL GATE

## TICKET DISPENSER








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2 Design Date: 13 -04-2016 Esigneer: SOMA OMA 3

## MECHANICAL ILLUSTRATIONS

## MAIN CABINET

| PARTS LIST |  |  |  |
| :---: | :--- | :--- | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | ASSY Front Enclosure | HSH-ASSY-001-R9 | 1 |
| 2 | ASSY Rear Enclosure | HSH-ASSY-002-R6 | 1 |



## FRONT ENCLOSURE

| PARTS LIST |  |  |  |
| :---: | :---: | :---: | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | WELDAssy Enclosure Frame | HSH-SA-001-R3 | 1 |
| 2 | Assyparts_FrontEncl_FrontPanel | HSH-ASSY-015-R3 | 1 |
| 3 | AssyPart_Service Panel | HSH-ASSY-008-R0 | 1 |
| 4 | AssyPart_Cash_Box_Housing | HSH-ASSY-007-R1 | 1 |
| 5 | ASSY_Front LED Cover | HSH-ASSY-010-R4 | 1 |
| 6 | ASSY_DisplayPanel | HSH-ASSY-014-R3 | 1 |
| 7 | AssyParts_Sub_Woofer | HSH-ASSY-016-R1 | 1 |
| 8 | AssyParts_DB_Box | HSH-ASSY-018-R1 | 1 |
| 9 | AssyParts_Main PCB Boards | HSH-ASSY-020-R0 | 1 |
| 10 | AssyParts_Power Supply | HSH-ASSY-022-R0 | 1 |
| 11 | Assypart_LED_Base_Bracket1 | HSH-ASSY-026-R1 | 1 |
| 12 | Assyparts_LED_Base_Bracket2 | HSH-ASSY-027-R0 | 2 |
| 13 | AssyParts_Conenctor Panel-RH | HSH-ASSY-032-RH-R0 | 1 |
| 14 | AssyParts_Conenctor Panel-LH | HSH-ASSY-032-LH-R0 | 1 |
| 15 | RearFrame_Panel | HSH-SA-05-R1 | 1 |
| 16 | FrontEnclosure-SideFrame_InnerFiller_LH | HSH-FM-031-LH-R2 | 1 |
| 17 | FrontEnclosure-SideFrame_InnerFiller_RH | HSH-FM-031-RH-R2 | 1 |
| 18 | FrontEnclosure-EQP_Mounting_Bracket | HSH-FM-040-R4 | 1 |
| 19 | MDF_FrontMetal_Trim | HSH-FM-047-RO | 1 |
| 20 | Serial Number Plate | HSH-FM-042-RO | 1 |
| 21 | Power supply cover PVC | HSH-FP-020-R0 | 1 |
| 22 | MDF_Panel_Bed_12mm_FrontEnclosure | HSH-FW-002-R1 | 1 |
| 23 | List sticker 1 | HSH-FM-101-RO | 1 |
| 24 | TICKET HOLDER | HSH-FM-044-R1 | 1 |
| 25 | Castor Wheel 3" (Swivel without Brake) VC PU | HM0092 | 4 |



## REAR ENCLOSURE 1

| PARTS LIST |  |  |  |
| :---: | :--- | :--- | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | ASSY Rear Enclosure step2 | ASSY-002.B-R5 | 1 |
| 2 | ASSY_ChaserModule_Front | HSH-ASSY-003-R3 | 1 |
| 3 | ASSY_ChaserModule_Rear | HSH-ASSY-004-R4 | 1 |
| 4 | Chaser Intermid Connect-1 | HSH-FM-064-R1 | 4 |
| 5 | Chaser Intermid Connect-2 | HSH-FM-065-R1 | 2 |



## REAR ENCLOSURE 2 AND 3

| PARTS LIST |  |  |  |
| :---: | :---: | :---: | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | AssyParts_SidePanel_Frame_LH | HSH-ASSY-017-LH-R3 | 1 |
| 2 | AssyParts_SidePanel_Frame_RH | HSH-ASSY-017-RH-R3 | 1 |
| 3 | WeldAssy_RearPanel_Frame | HSH-SA-16-R12 | 1 |
| 4 | WeldAssy_FrontPanel_Frame | HSH-SA-15-R2 | 1 |
| 5 | MDF_Panel_Bed_12mm | HSH-FW-004-R1 | 1 |
| 6 | Frame_Bottom_Support_Bracket-2 | HSH-FM-057-R1 | 2 |
| 7 | Rear Trunk Cover | HSH-FM-074-R1 | 2 |
| 8 | AssyPart_leg_Support | HSH-ASSY-028-R1 | 1 |
| 9 | Castor Wheel 3" (Swivel with Brake) VC PU | HM0091 | 4 |
| 10 | T edge LED strip mounting | HSH-FP-039-R0 | 2 |


| PARTS LLST |  |  |  |
| :---: | :--- | :--- | :---: |
| ITEM | DESCRIPTIO | PART NUMBER | QTY |
| 1 | ASSY Rear Enclosure step1 | HSH-ASSY-002.A-R3 | 1 |
| 2 | ASSyParts_Bball_BallGate_Update | ASSY-025-R3 | 1 |
| 3 | List sticker 1 | HSH-FM-101-R0 | 2 |
| 4 | List sticker 2 | HSH-FM-102-R0 | 2 |
| 5 | BallGate Protection Bracket | HSH-FM-082-R0 | 1 |
| 6 | Bottom Connector Cover_LH | HSH-FM-075-LH-R1 | 1 |
| 7 | Bottom Connector Cover_RH | HSH-FM-075-RH-R1 | 1 |



## CHASER MODULE FRONT AND REAR

| PARTS LIST |  |  |  |
| :---: | :---: | :---: | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | AssyPart__Chaserlight_fRONT | HSH-ASSY-019-FR-R2 | 1 |
| 2 | AssyPart__Chaserlight_MID 1 | HSH-ASSY-019-MID1-R2 | 4 |
| 3 | AssyPart_ChaserlightMID 2 | HSH-ASSY-019-MID2-R1 | 1 |
| 4 | WeldAssy_FrontChaser_MTG_Plate_LH | HSH-SA-018LH-FR-R2 | 1 |
| 5 | WeldAssy_FrontChaser_MTG_Plate_RH | HSH-SA-018RH-FR-R2 | 1 |
| 6 | AssyPart_Side Sensor Bracket_LH | HSH-ASSY-030-LH-R1 | 1 |
| 7 | AssyPart_Side Sensor Bracket_RH | HSH-ASSY-030-RH-R1 | 1 |
| 8 | Acrylic Shield_Clear_6mm | HSH-PP-001-R0 | 1 |
| 9 | Acrylic_Front Join_Bracket_1 | HSH-FM-062-R1 | 6 |
| 10 | Acrylic_Front Join_Bracket_2 | HSH-FM-063-R1 | 2 |
| 11 | Button Head Socket Bolt M10x20 | HF0846 | 4 |
| 12 | Lock Washer M10-Stainless | HF1079A | 4 |
| 13 | Flat Washer M10 - Stainless | HF1069A | 4 |


| L |
| :--- |


| PARTS LIST |  |  |  |
| :---: | :---: | :---: | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | AssyPart_Backboard | HSH-ASSY-029-R4 | 1 |
| 2 | AssyParts_Chaserlight_MID 1 | HSH-ASSY-019-MID1-R2 | 3 |
| 3 | AssyParts_Chaserlight_REAR | HSH-ASSY-019-REAR-R1 | 1 |
| 4 | WeldAssy_RearChaser_MTG_Plate_LH | HSH-SA-18LH-REAR-R2 | 1 |
| 5 | WeldAssy_RearChaser_MTG_Plate_RH | HSH-SA-18RH-REAR-R2 | 1 |
| 6 | Acrylic_Rear Join_Bracket_1 | HSH-FM-066-R1 | 4 |
| 7 | Acrylic_Rear Join_Bracket_2 | HSH-PM-067-R1 | 2 |
| 8 | Button Head Socket Bolt M10x20 | HF0846 | 4 |
| 9 | Lock Washer M10-Stainless | HF1079A | 4 |
| 10 | Flat Washer M10 - Stainless | HF1069A | 4 |
| 1 | Plastic Cable trunking 1 | HSH-FP-037-R0 | 2 |
| 12 | Plastic Cable trunking 2 | HSH-FP-038-R0 | 2 |
| 13 | Acrylic_Rear Join_Bracket_3 | HSH-FM-068-R1 | 2 |

## FRONT ACCESS PANEL AND COIN DOOR



## CASH BOX HOUSING AND OPERATOR PANEL

| PARTS LIST |  |  |  |
| :---: | :--- | :--- | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | Cash box base_Mounting_Bracket | HSH-FM-O39-R0 | 1 |
| 2 | WeldASsy_CashBox_Housing | HSH-SA-08-R0 | 1 |
| 3 | WeldAssy_CashBox_Housing_Cover | HSH-SA-07-R1 | 1 |
| 4 | Cash Box Slide Strip | HSH-FP-010-R0 | 1 |



| PARTS LIST |  |  |  |
| :---: | :--- | :--- | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | WeldAssy-Service Panel Bracket | HSH-SA-06-RO | 1 |
| 2 | Switch Button Triangle CW-408 Blue | EA0588 | 2 |
| 3 | Switch Button Triangle CW-408 Green | EA0590 | 1 |
| 4 | Switch Button Triangle CW-408 Red | EA0589 | 1 |
| 5 | Round button White + Led Light Colour White (GNT) | EA0352 | 1 |
| 6 | Coin Counter 12VDC P/N : COA126 | EA1263 | 3 |
| 7 | VOLUME_KNOB | EP0602 | 1 |
| 8 | Potensiometer | EE 0688 | 1 |



TICKET DOOR, FRONT LED COVER AND DISPLAY FRONT


## DISPLAY BOARD AND DISPLAY PANEL



## AMPLIFIER BRACKET, FRONT ENCLOSURE PANEL AND SUBWOOFER BOX


(1)

| PARTS LSTT |  |  |  |
| :---: | :--- | :--- | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | AssyPart_Amplifier Bracket | HSH-ASSY-013-R0 | 1 |
| 2 | SubWoofer Mounting_Bracket | HSH-FM-048-R1 | 1 |
| 3 | Woofer_Box_SA | HSH-SA-028-R1 | 1 |
| 4 | WOOFER 6" | EA1203 | 1 |



## RIGHT AND LEFT SIDE PANEL FRAME



## MAIN PCB BOARD AND DB BOX

| PARTS LIST |  |  |  |
| :---: | :--- | :--- | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | PCB_Base Board | HSH-FW-001-RO | 1 |
| 2 | PCB FB216 Game Board | BAFB216 | 1 |
| 3 | FB215 PWM Driver | BAFB215 | 1 |
| 4 | PCBFB106 Sound Amplifier | BAFB106 | 1 |
| 5 | FB221 Remote Volume Control PCB | BAFB221 | 1 |



## FRONT AND REAR CHASER LIGHTS



## MID 1 AND 2 CHASER LIGHTS

| PARTS LIST |  |  |  |
| :---: | :---: | :---: | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | WeldAssy_ChaserLight_Bracket_MID 1 | HSH-SA-019-MID 1-R1 | 1 |
| 2 | Acrylic_Corner_Connect_1 | HSH-FM-060-R1 | 6 |
| 3 | Acrylic_Corner_Connect_2 | HSH-FM-061-R1 | 2 |
| 4 | Chaselight_Acrlic_1 | HSH-PP-011-R0 | 1 |
| 5 | Chaselight_Acrylic_2 | HSH-FP-012-R0 | 2 |
| 6 | Chaselight_Acrylic_3_LH | HSH-PP-013-LL-R0 | 2 |
| 7 | Chaselight_Acrlic_3_RH | HSH-PP-013-RH-RO | 2 |
| 8 | Chaselight_Acrylic_4_LH | HSH-PP-014-LH-R0 | 1 |
| 9 | Chaselight_Acrylic_4_RH | HSH-FP-014-RH-RO | 1 |
| 10 | Connector Housing YLR-06V | EP0726: YLR-06V | 1 |

(2)


## BACKBOARD, HOOP AND BACKBOARD HOUSING



## BASKETBALL GATE AND POWER SUPPLY



## LEG SUPPORT, LED BASE BRACKET 1 AND 2



| PARTS LIST |  |  |  |
| :---: | :--- | :--- | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | FrontEnclosure-LED_Base_Bracket1 | HSH-FM-045-R1 | 1 |
| 2 | LED Base Cover1 | HSH-FP-016-R0 | 1 |
| 3 | LED_BaSE1 | LED_BaSE1 | 1 |


| PARTS LIST |  |  |  |
| :---: | :--- | :--- | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | FrontEnclosure-LED_Base_Bracket2 | HSH-FM-046-R0 | 1 |
| 2 | LED Base Cover2 | HSH-PP-017-R0 | 1 |
| 3 | LED_BaSE2 | LED_BaSE2 | 1 |



## TICKET HOLDER, SIDE SENSOR BRACKET RIGHT AND LEFT

| PARTS LIST |  |  |  |
| :---: | :--- | :--- | :---: |
| ITEM | DESCRIPTION | PART NUMBER | QTY |
| 1 | Side Sensor Bracket_LH | HSH-FM-071-LH-R1 | 1 |
| 2 | Side Sensor Transmitter_Cover | HSH-FM-072-R1 | 1 |
| 3 | PCB FB213B IR Transmiter | BAFB213B | 2 |
| 4 | Front_Sensor_Spacer | HSH-FW-010-R0 | 2 |



## MARQUEE BASE AND DISPLAY



## FULL MARQUEE ASSEMBLY



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