



OWNERS AND SERVICE MANUAL

INNOVATIVE CONCEPTS IN ENTERTAINMENT INC.



Table of Content

Getting started

Installing the marquee top	4
Cabinet Access	5
AC Power Connections	
Meter Location	6
Loading Tickets	
Changing the volume	
Program Options	7

Diagnostic - Repair - Trouble Shooting

Computer Access and Recovery	12
Power supply replacement	13
Monitor Controls	
I/O board removal	14
Marquee illumination	15
Outside illumination	
Acorn Hit board Dipswitches	
Cover Top removal	16
Marquee Assembly removal	17
Acorn Blue LED strip Replacement	18
42" LCD main display replacement	
Cabinet Cooling Fan replacement	19

Assemblies

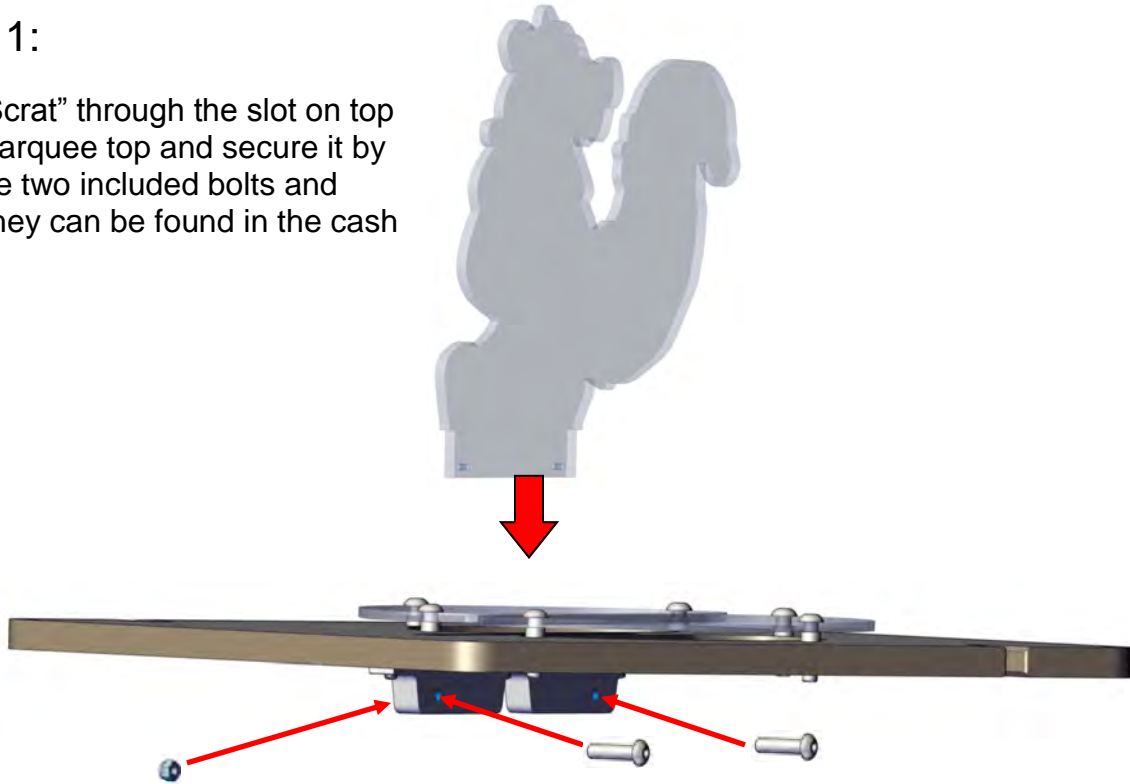
Acorn	20
Cabinet	22
Spare list	23
Warranty	24

Rev B - 12/22/2011

Marquee Top Assembly

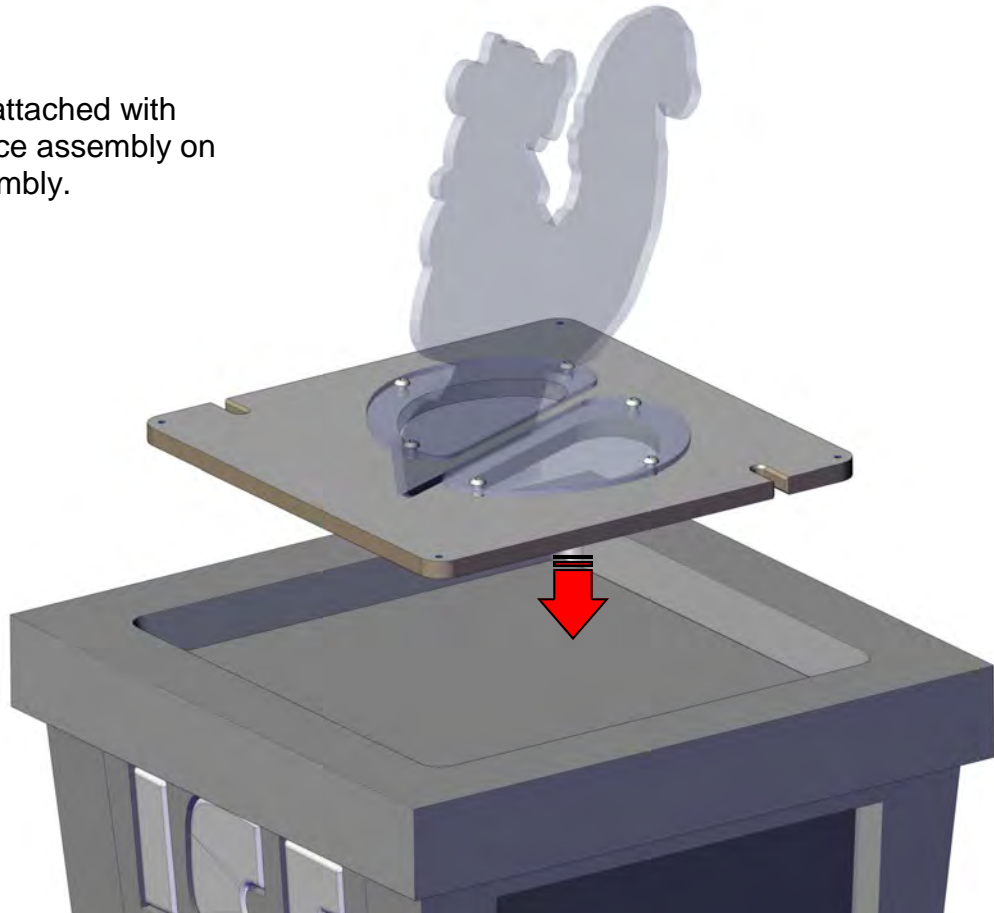
STEP 1:

Insert "Scrat" through the slot on top of the marquee top and secure it by using the two included bolts and nuts. They can be found in the cash box.



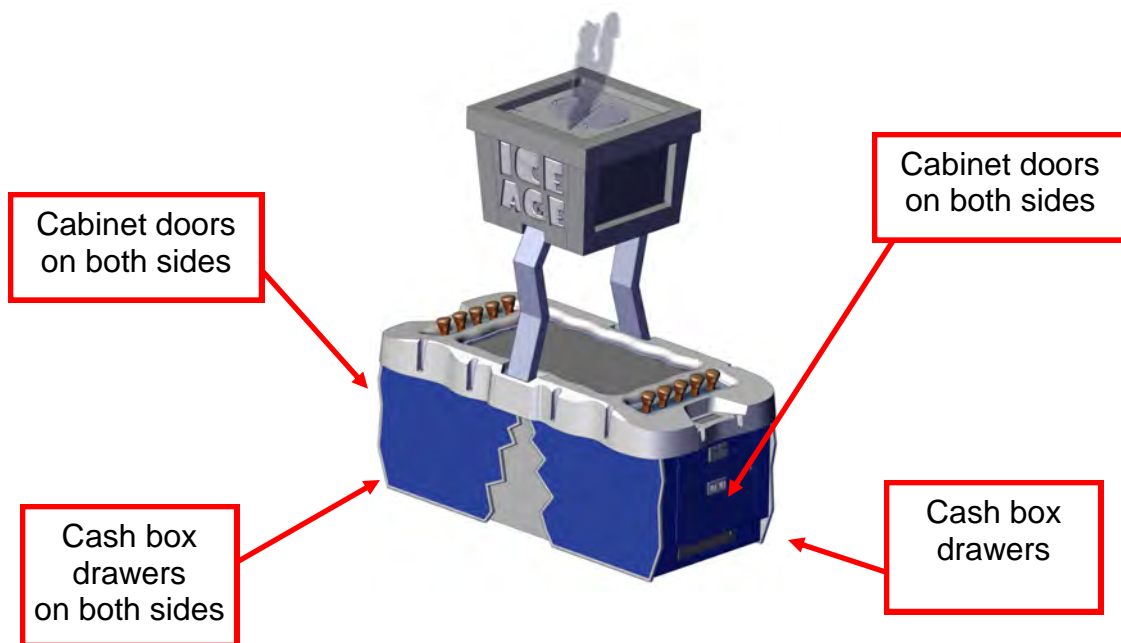
STEP 2:

The marquee top is attached with Hook and Loop. Place assembly on top of marquee assembly.



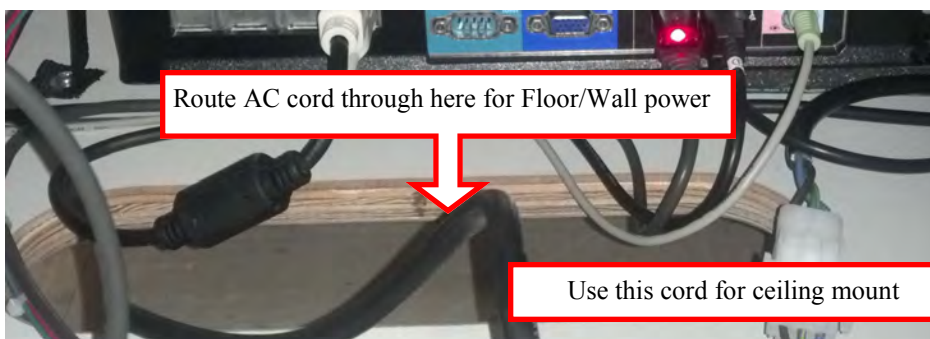
Cabinet Access

There are two cabinet doors located on either side of the game. This allows access to the game's electronics, coin mechanisms, and setup control buttons.

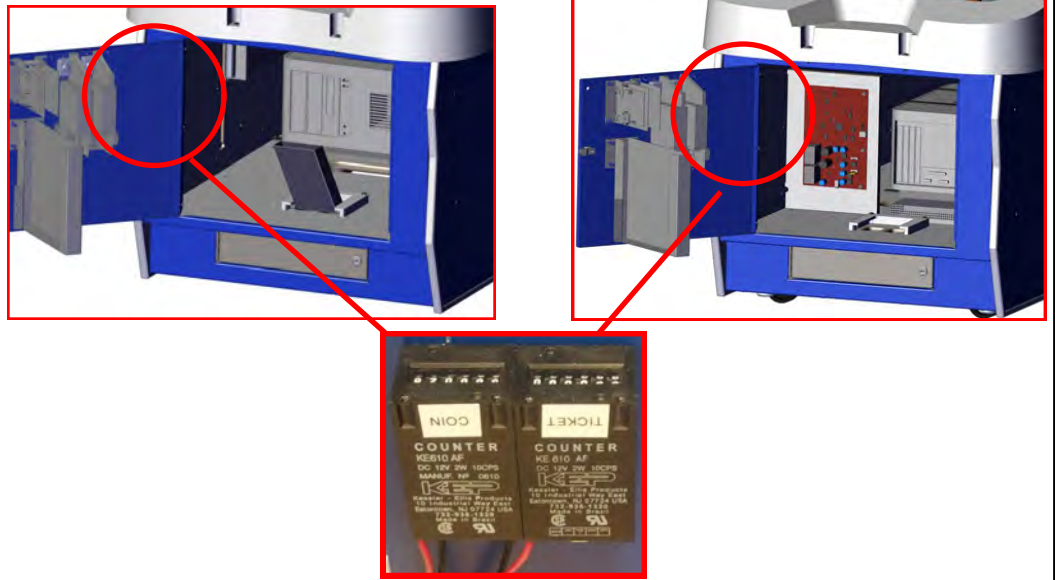


AC Power connections

Located inside the cabinet on one side is the AC power switch and two different options for incoming AC power cords. If your AC power receptacles are located in the ceiling use the AC power cord pre-mounted in the game. You will have to remove the marquee top to route the power cord to your AC receptacle. See section "Marquee illumination access". If your AC outlet is located on the floor or wall, use the provide AC cord found in your parts box and route it through the floor opening shown below.

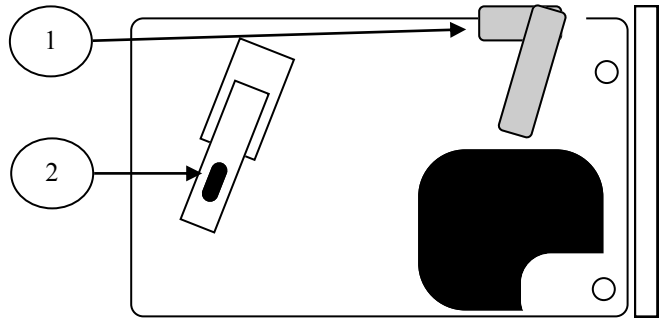


Meter Locations



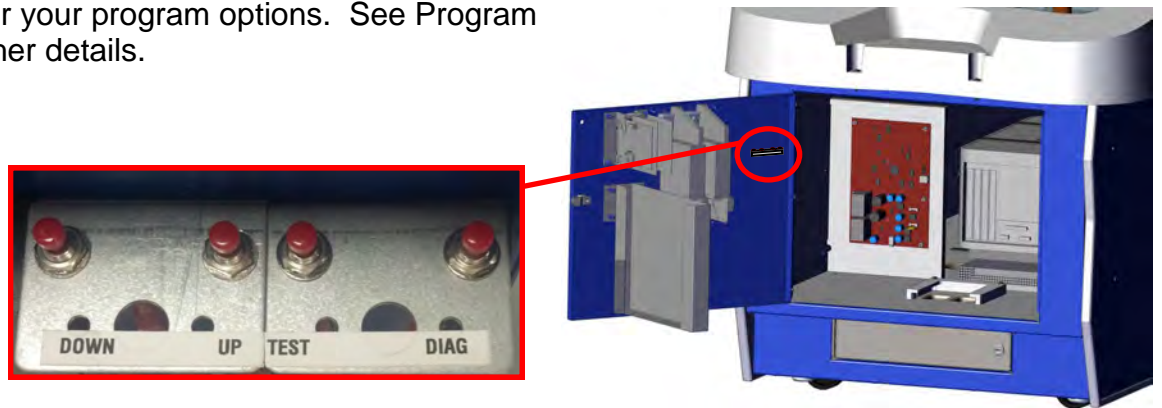
Loading Tickets

To load tickets, loosen the side bracket (labeled 2 below) so that you can move the bracket up or down. Moving the bracket up will decrease the width of a ticket and moving the bracket down will increase the ticket width. Tighten when adjusted for your ticket width. Now slide the ticket through the two guide plates until they reach the rollers. Lift the top level (labeled 1) up to disengage the rollers so that a ticket can be pushed through. Press the ticket advance button located on the backside of the dispenser to test the ticket function.



Volume and Diagnostics buttons

During game mode the Up and Down buttons will increase and lower the volume. The test button will issue a credit without adding a number to the coin meter. Pressing the "Diag" button will allow you to enter your program options. See Program options for further details.



Program Options

Version 01.17.00 STD

ICE AGE VERSION 01.15.00 STD

Main Menu

Exit
Operator Adjustments
General Audits
Reset Menu
System Information Menu
System Tests menu
View Log

MAIN MENU:

Press the “diag” button shown on page 5 to enter the main menu. Use the up and down buttons to scroll through the menus or options. Press the “diag” button to select a option or menu.

Operator adjustments lets you configure your game.

General audits give important information about your game statistics.

Reset menu will set things back to factory default.

System information will give you version information.

System tests lets you test various items of your game.

View log will show you any errors your game has encountered.

ICE AGE VERSION 01.15.00 STD

Operator Adjustments

EXIT
Game Adjustments
Ticket Mech Adjustment
Coin Adjustments
Player Cost and Payout
Volume

OPERATOR ADJUSTMENTS:

Game adjustments allows you to change how the game plays and what type of prize you win to play.

Ticket mech adjustment will allow you to enable or disable the ticket mech and set double tickets.

Coin adjustment allows you to change your currency and currency values.

Player cost and payout menu allows you to change the game cost along with how the game pays out.

The *volume menu* allows you to adjust the games volume and set the attract audio levels.

Program Options

Version 01.17.00 STD

ICE AGE VERSION 01.17.00 STD

Game Adjustments

EXIT	
Countdown Timer	10
Player 1 hit threshold	10
Player 2 Hit Threshold	10
Prize Type	Tickets
Enable Lamp Animation	On
Display Character Values	Off
Reduced Characters	On
Acorn Orientation	version 2

GAME ADJUSTMENTS:

Countdown timer adjusts how long you have to hit a acorn before the game decides to hit one for you.

Player 1 and 2 Hit Threshold settings adjust the sensitivity of the I/O boards. These values should only be changed by advisement from ICE service department.

Prize type allows you to select what you are paying the player, either tickets, coupons, or nothing.

Enable Lamp Animation allows you to either enable or disable the flashing lights.

Display Character Values allows you to either show what each character is worth or not. We recommend not showing the values of the characters.

Reduced Characters creates less obstacles for the players to hit.

Acorn Orientation determines which acorn assembly is used in this game. This is set at the factory and should not be changed.

ICE AGE VERSION 01.17.00 STD

Ticket Mech Adjustments

EXIT	
Ticket Output	On
Ticket divisor	1

Ticket Mech Adjustments:

Ticket Output will enable or disable the ticket dispenser.

Ticket Divisor will divide the amount of tickets owed by this value.

Program Options

Version 01.17.00 STD

ICE AGE VERSION 01.17.00 STD

Coin Adjustments

EXIT	
FREEPLAY	Off
CURRENCY TYPE	Dollar
Coin 1 value	.25
Coin 2 value	.25
Coin 3 value or dbv pulse	.25

Coin Adjustments:

Free Play when enabled it will allow the players to play with no money.

Currency Type allows you to change what is displayed as currency accepted to start a game. This can be set to tokens or card swipe if no money is used.

Coin 1,2,3 values allow you to configure what each pulse is worth to the game.

See our recommended setup examples for further details.

ICE AGE VERSION 01.17.00 STD

Player cost and payout

EXIT	
Game Start cost	.50
Hits per game	5
Row 1 value	1
Row 2 value	1
Ring ticket value	4
Wall block value 1	3
Wall block value 2	2
Wall block value 3	1
Bonus value	500
Target payout pct.	0.40
Ticket value	0.010

Player Cost and Payout:

Game Start Cost allows you to set the price of play.

Hits per game option tells the game how many times you let the player hit the acorns per game.

Row 1 value is how many tickets/coupons you win for that row. See bottom screen shot for location.

Row 2 value is how many ticket/coupons you win for that row. See bottom screen shot for location.

Ring Ticket Value is how many tickets you win when you hit the outer ring. See bottom screen shot for location.

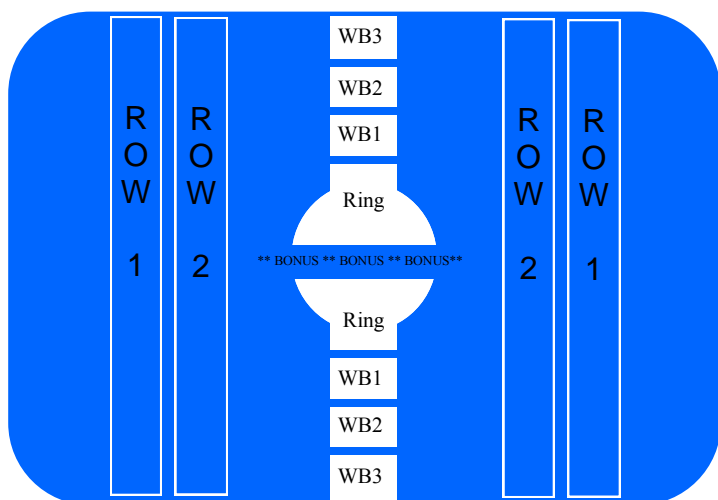
Wall block values 1 through 3 is how many tickets/coupons you win when you hit the outer walls. They are labeled WB1—3 on bottom screen shot for location.

Bonus value is how many tickets you win when you hit the center of the ring. See bottom screen shot for location.

Target payout pct is the percentage you wish to pay back to the player.

Ticket value determines the value of your tickets/coupons.

See our recommended setup examples for further details.



Program Options

Version 01.17.00 STD

ICE AGE VERSION 01.17.00 STD

Volume

EXIT
Game Volume 24
Attract volume 24
Minimum Volume 4
Attract sounds Occasional

Volume Adjustments:

Game volume adjusts only the volume during game play.

Attract volume adjusts only the volume during attract screens.

Minimum Volume sets the lowest you can adjust your volume level to.

Attract Sounds allows the game to either make sounds when not being played, play sounds all the time, or be quiet until coined up.

ICE AGE VERSION 01.17.00 STD

General Audits

EXIT
Game Audits
Acorn audits
Ticket Audits
System Audits
Coin Audits

General Audits:

Game audits shows what targets the players have hit during play.

Acorn Audits shows how many times each acorn has been hit.

Ticket Audits gives you the average tickets per hit, per game, and current payout percentage it has paid out. It also shows how many tickets still owed.

System Audits shows if any errors had occurred.

Coin Audits shows information on coin inputs.

ICE AGE VERSION 01.17.00 STD

Reset Menu

EXIT
Reset Game Audits
RESET CREDITS
RESET COIN COUNTERS
RESET ADJUSTMENTS
RESET TICKET
FACTORY RESET

Reset Menu:

Reset Game Audits resets game hit totals.

Reset Credits zeros out all credits owed.

Reset Coin Counters zeros out all recorded coins.

Reset Adjustments resets all game adjustments made.

Reset Ticket resets all tickets owed.

Factory Reset restores game to factory defaults

Program Options

Version 01.17.00 STD

ICE AGE VERSION 01.17.00 STD

System Information menu

EXIT
Version list
Dipswitch settings

System Information Menu:

Version List displays the version numbers of the drivers used for this version of the game.

Dipswitch is not used for this game.

ICE AGE VERSION 01.17.00 STD

System Tests menu

EXIT
HITPAD TEST
SWITCH TEST
SCREEN TESTS
SOUND TEST
FILE TEST
COIN METER 1 TEST
COIN METER 2 TEST
TICKET METER 1 TEST
TICKET METER 2 TEST
TICKET DISPENSER TEST 1
TICKET DISPENSER TEST 2
WATCHDOG TEST

System Tests Menu:

Hitpad test allows you to confirm the functions of your Acorns.

Switch test allows you to confirm the functions of your switches.

Screen tests will produce screen patterns to check the functions of your monitors.

Sound test verifies your computer and amplifier for sound.

File test will verify your game is free of file corruption.

Coin meter 1 and 2 tests will advance the meters by 1 pulse to test their functions.

Ticket dispenser tests 1 and 2 will dispense 1 ticket to ensure the function of your ticket mechs.

Watchdog test will reset your computer testing the function of the watchdog board. Its function is to reset the computer if it happens to “lock up” or “freeze”.

ICE AGE VERSION 01.17.00 STD

View log

EXIT
WELCOME TO ICE AGE
Received message from...

View Log:

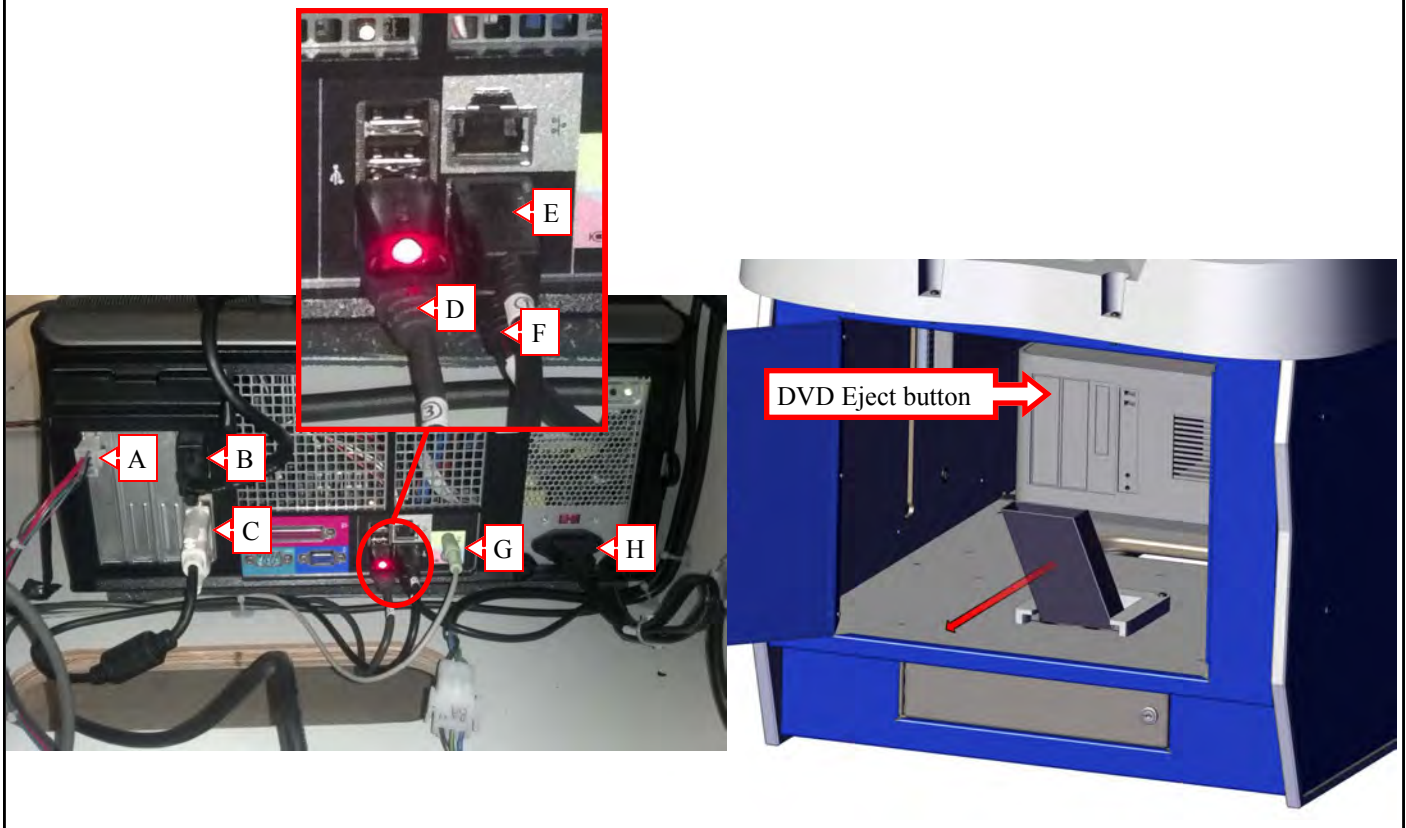
The purpose of this log is to show the communication between the PC and the games' different hardware and is used in the process of troubleshooting.

Computer Front Access - Hard drive recover procedure

In the event that the computer's hard drive becomes corrupt you can simply run the restore disk included with your game. Open the cabinet door from which you turned the cabinet's AC power on. Even though the computer's DVD drive is in a horizontal position the computer doesn't have to be removed in order to perform the restore process. With the cabinet's AC turned on, press the eject button located on the DVD drive. Place the DVD with the label facing towards the left (or to the top of the computer case itself). Push gently on the DVD drive tray and the DVD tray will close. Press and hold the PC's power button until the PC turns off. Press the power button again to turn the PC back on. The restore process is automatic and will begin on its own. When the restore disk is finished, it will eject the disk and inform you to cycle power.

To remove the computer, you will first need to access the other side in order to unplug the cables that connect to the computer. Disconnect all connections shown below labeled A through H. D,E,F are USB connections and have can be plugged into any USB port available in any order. B is the video for the marquee monitors. C is for the main monitor. G is for sound and H is for power. A connects to your I/O board for power and watchdog feature.

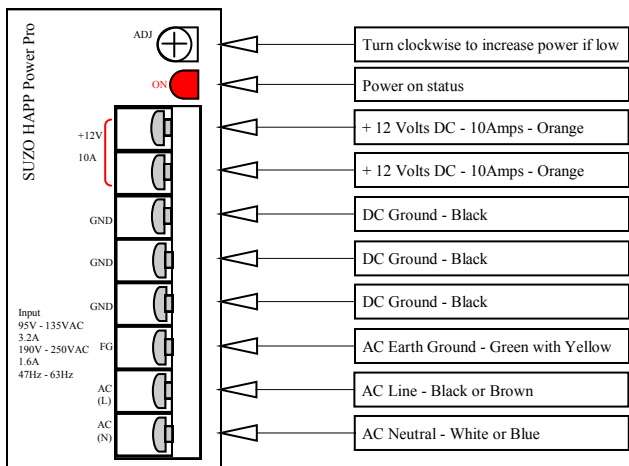
Remove the coin chute by sliding the coin out as shown below in the direction of the arrow. Release the straps that hold the computer to the cabinet. To do so, press the tabs located on the side of the strap to unbuckle them. The pc can now slide out the side that you removed the coin funnel from.



TROUBLESHOOTING

Power supply

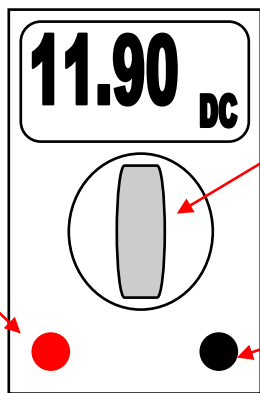
The power supply used for cabinet power is a IA2010. It has only +12 volts of DC power at 10 Amps.



Checking DC Voltages

+12 Volt Test with Volt meter set to DC voltage.
Voltage range can be plus or minus 5%.

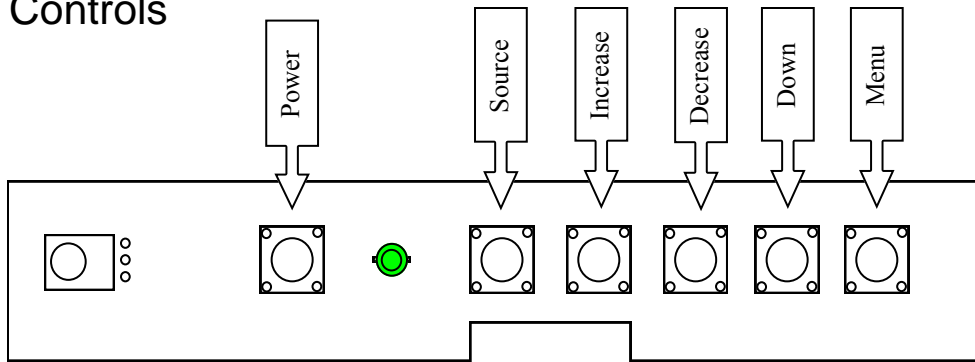
Positive Probe:
Connect to +12V on power supply
(orange wire to power supply)



Turn to DC voltage check

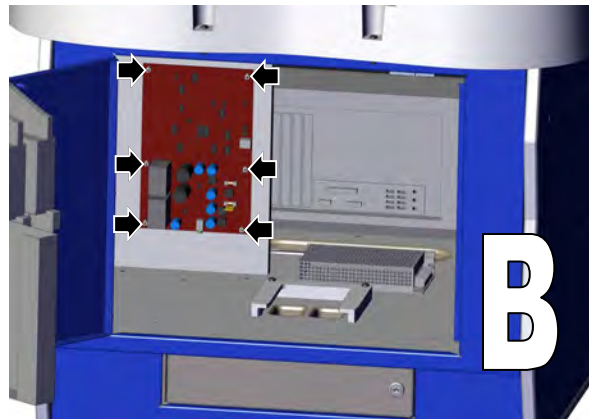
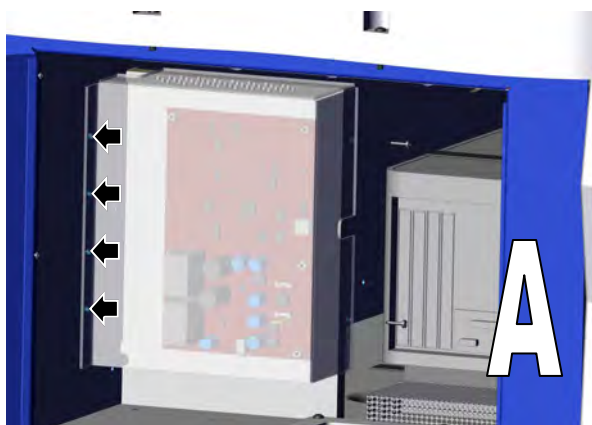
Ground Probe:
Connect to GND on power supply
(Black wire to power supply)

Main Monitor: Controls

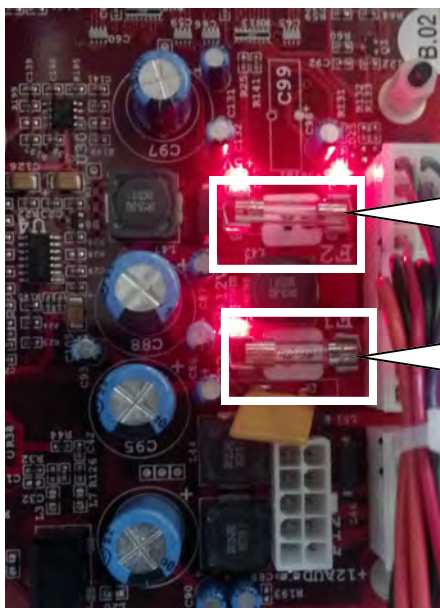


Game I/O removal

In the event you need to replace the I/O board, open the side of the cabinet where the I/O board is mounted. Remove the four screws holding the plastic cover over the I/O board. See Picture A below. Disconnect all harnessing to the I/O board. Remove the 6 plastic standoffs that hold the I/O board. See picture B below. Assembly in reverse.



Normal operation of the I/O board should show three LED's on. This indicates that the Fuses are good and no faults are presenting in the +12 and +5 volt lines. If a LED is not on and you have checked for the proper operation of the +12 volt main power supply found on page 13, check F1 and F2 fuses. F1 fuse should be a 7Amp fast blow while F2 fuse should be a 3 amp fast blow fuse. You will have to remove the plastic shield in order to test the fuses. If the fuses are found to be open, locate the short or failed device before replacing the fuse. Check all wiring for any that could be pinched, cut, or broken.



F2 : 3 AMP

F1 : 7 AMP

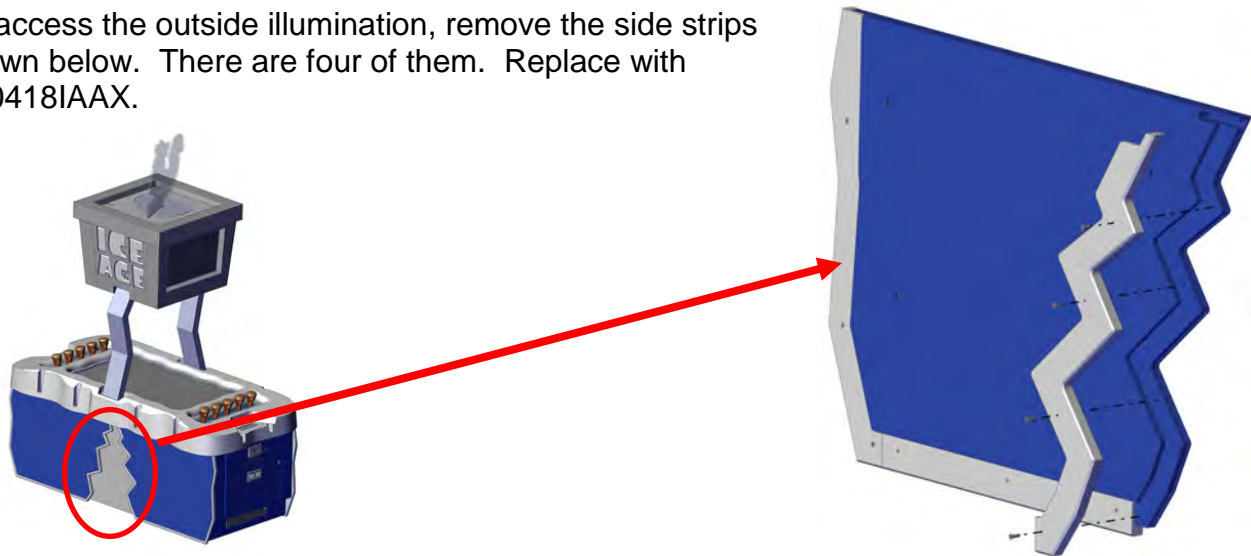
Marquee illumination: bulb replacement

The upper marquee is illuminated by 6 curly bulbs. Remove the top marquee cover by lifting up the top marquee cover. Replace the defective bulb and reattach the marquee cover.



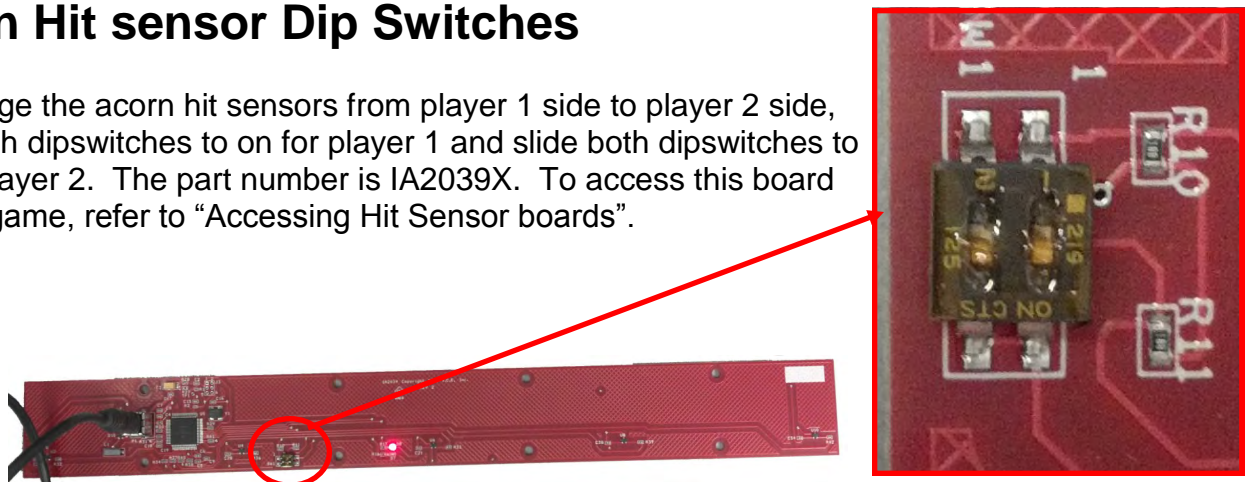
Outside Cabinet illumination: LED Strip replacement

To access the outside illumination, remove the side strips shown below. There are four of them. Replace with E00418IAAX.



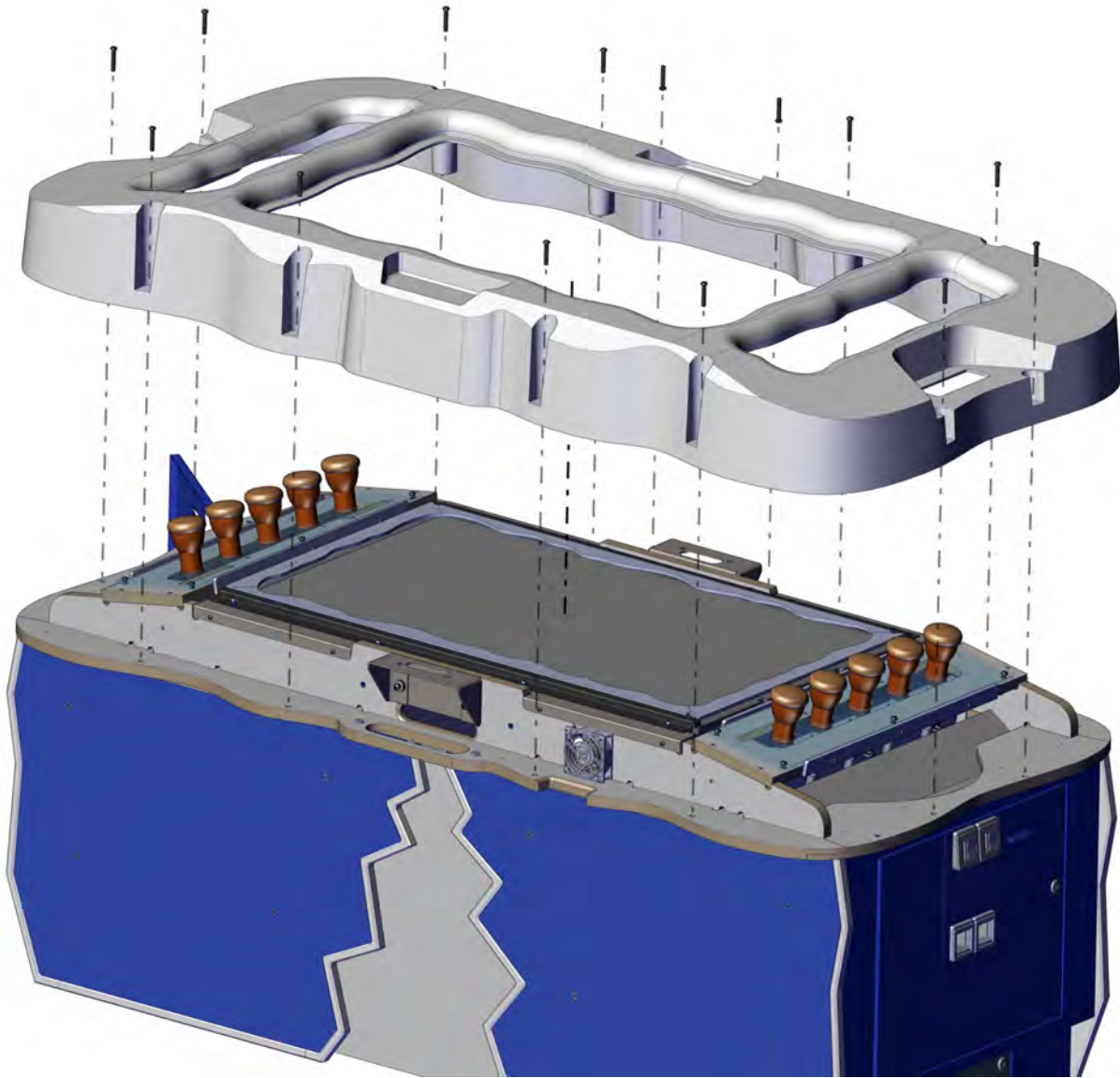
Acorn Hit sensor Dip Switches

To change the acorn hit sensors from player 1 side to player 2 side, slide both dipswitches to on for player 1 and slide both dipswitches to off for player 2. The part number is IA2039X. To access this board in your game, refer to "Accessing Hit Sensor boards".



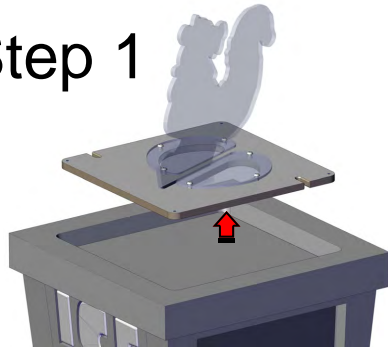
Cover top removal

To access the Acorn assemblies, Cabinet fans, or replace the main monitor, remove the screws shown below and carefully lift the plastic cover off the top of the cabinet. You will have to remove the top Marquee assembly first. Refer to the section “Marquee Assembly Removal” for further details.

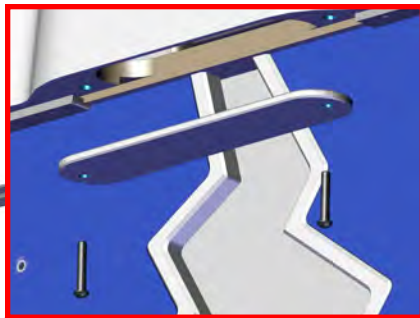


Marquee Assembly Removal

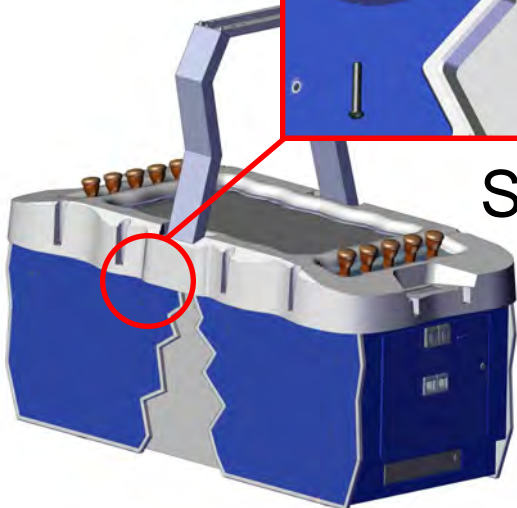
Step 1



Step 2



Step 3



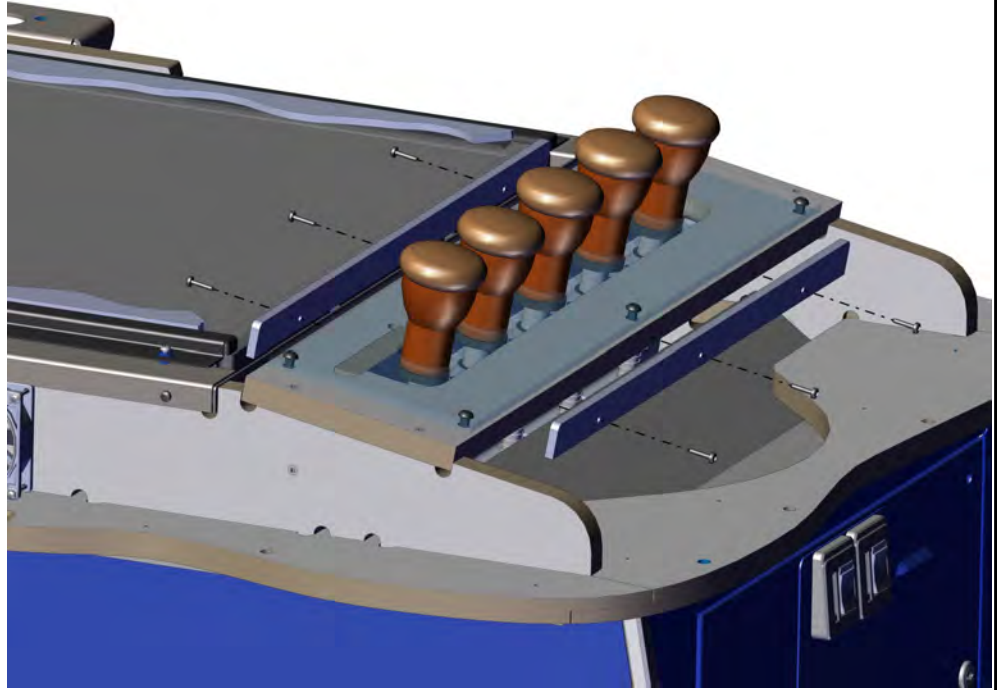
Step 4



Acorn Blue LED Strip replacement

To access the Acorn LED strips you will need to first refer to the section on how to remove marquee assembly and then refer to the section on how to remove the top cover.

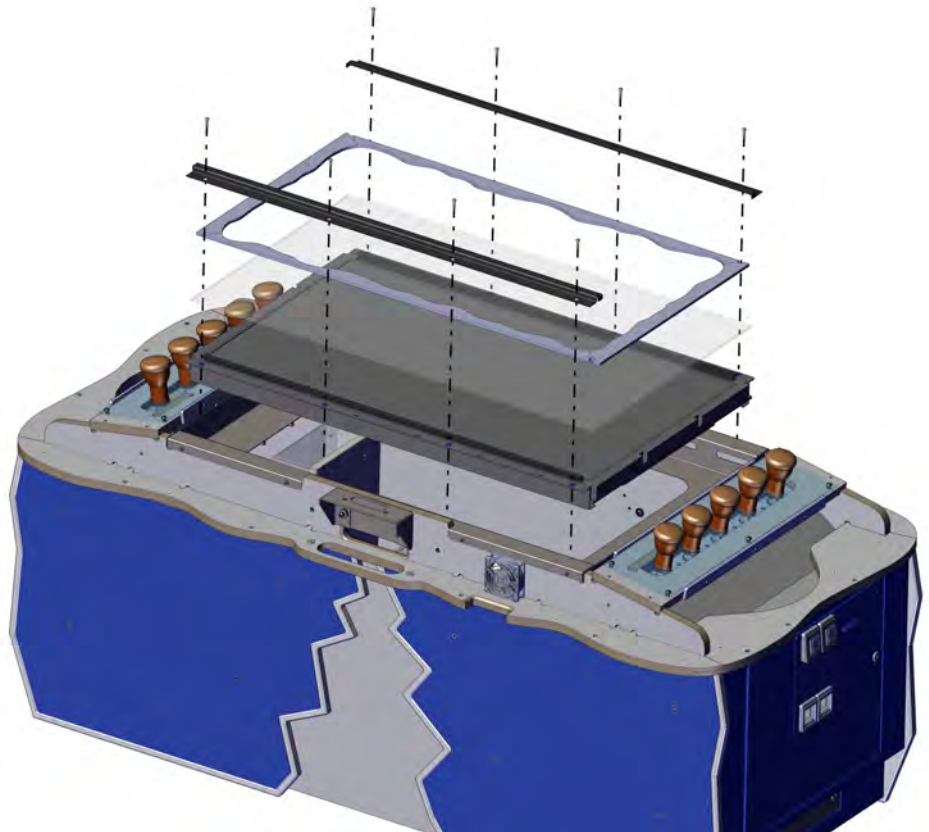
Once removed, refer to the picture to remove the LED strips. Replace with part number E00414IAX.



42" LCD Main Display replacement

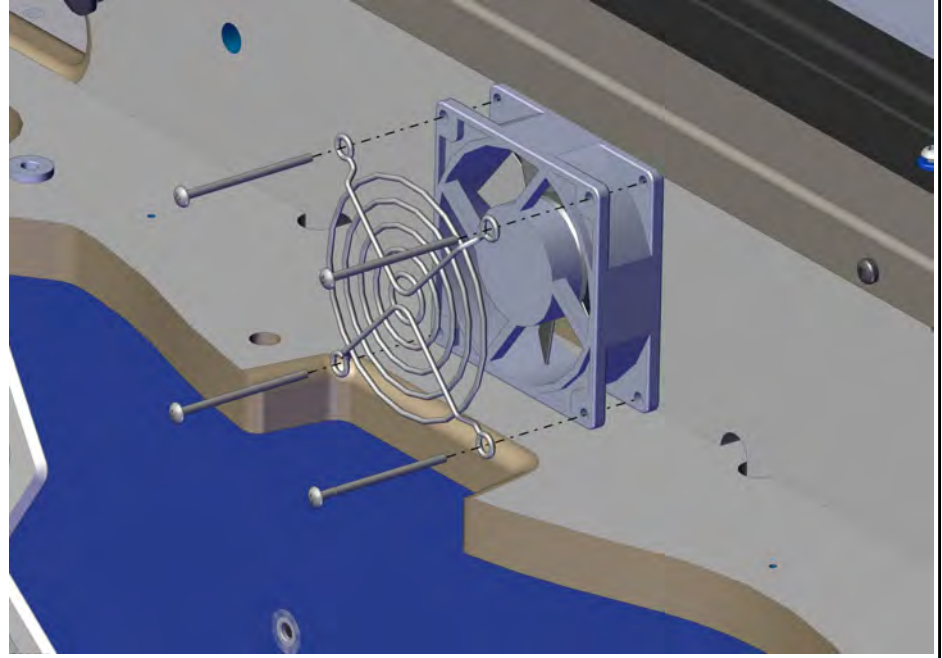
To remove the monitor you will need to first refer to the section on how to remove marquee assembly and then refer to the section on how to remove the top cover.

Once removed, refer to the picture to remove the monitor. Replace with part number MON42LCD.



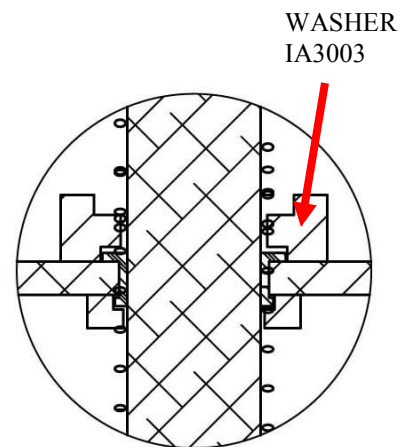
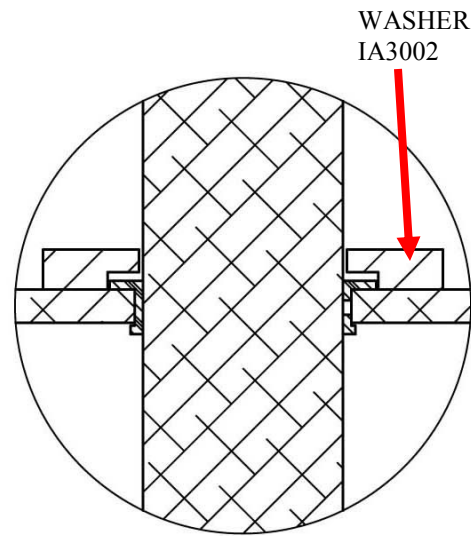
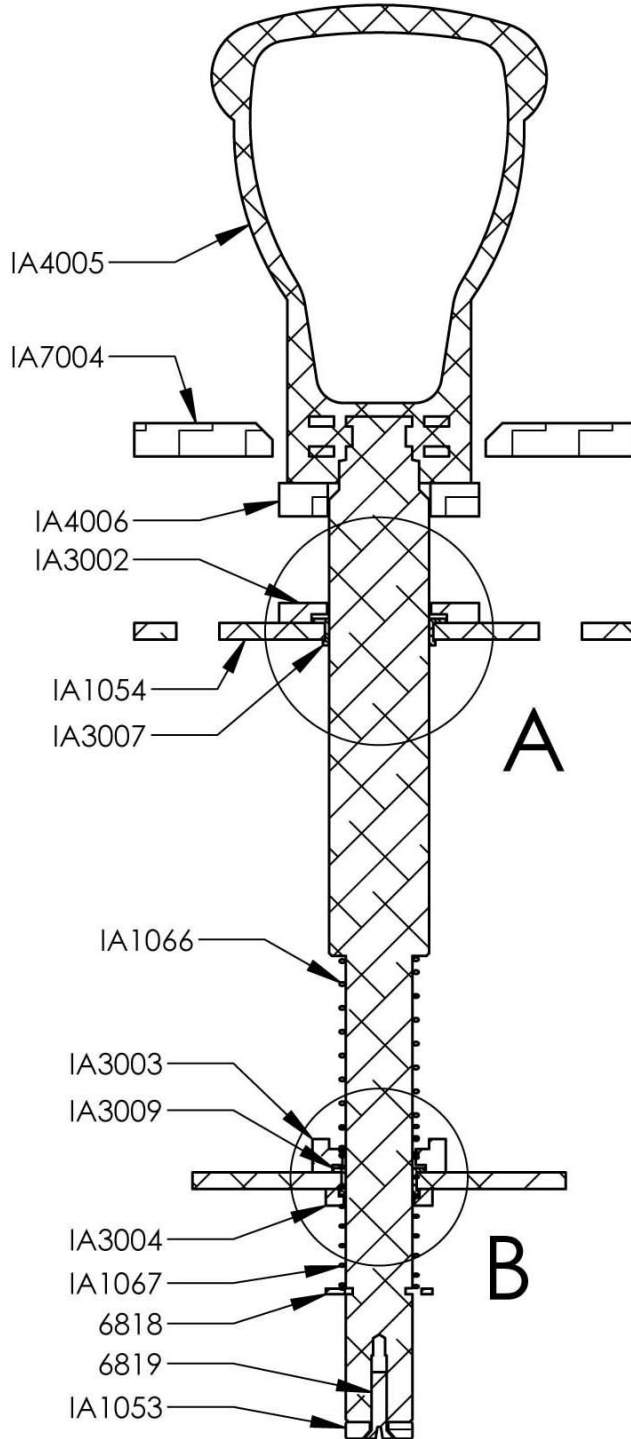
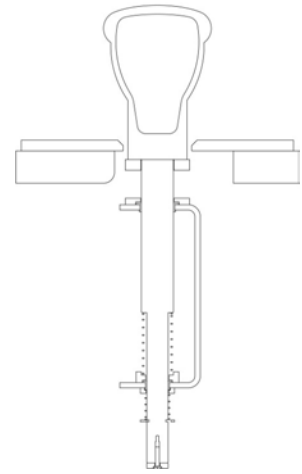
Cabinet Cooling Fans replacement

To replace the cooling fans you will need to first refer to the section on how to remove marquee assembly and then refer to the section on how to remove the top cover. Once removed, refer to the picture to remove the Fan Assembly. There is one on each side. Replace with part number IA2364X.

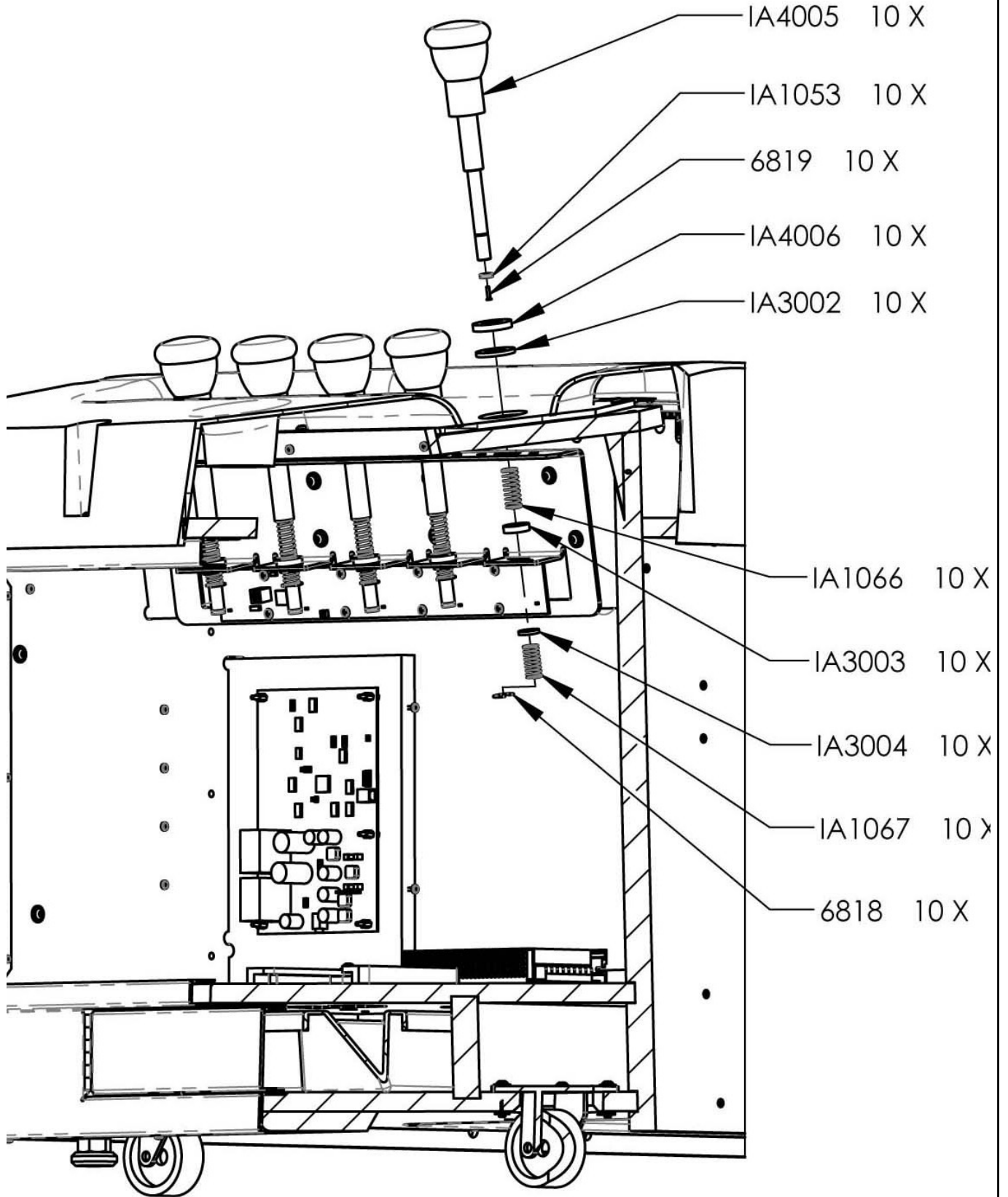


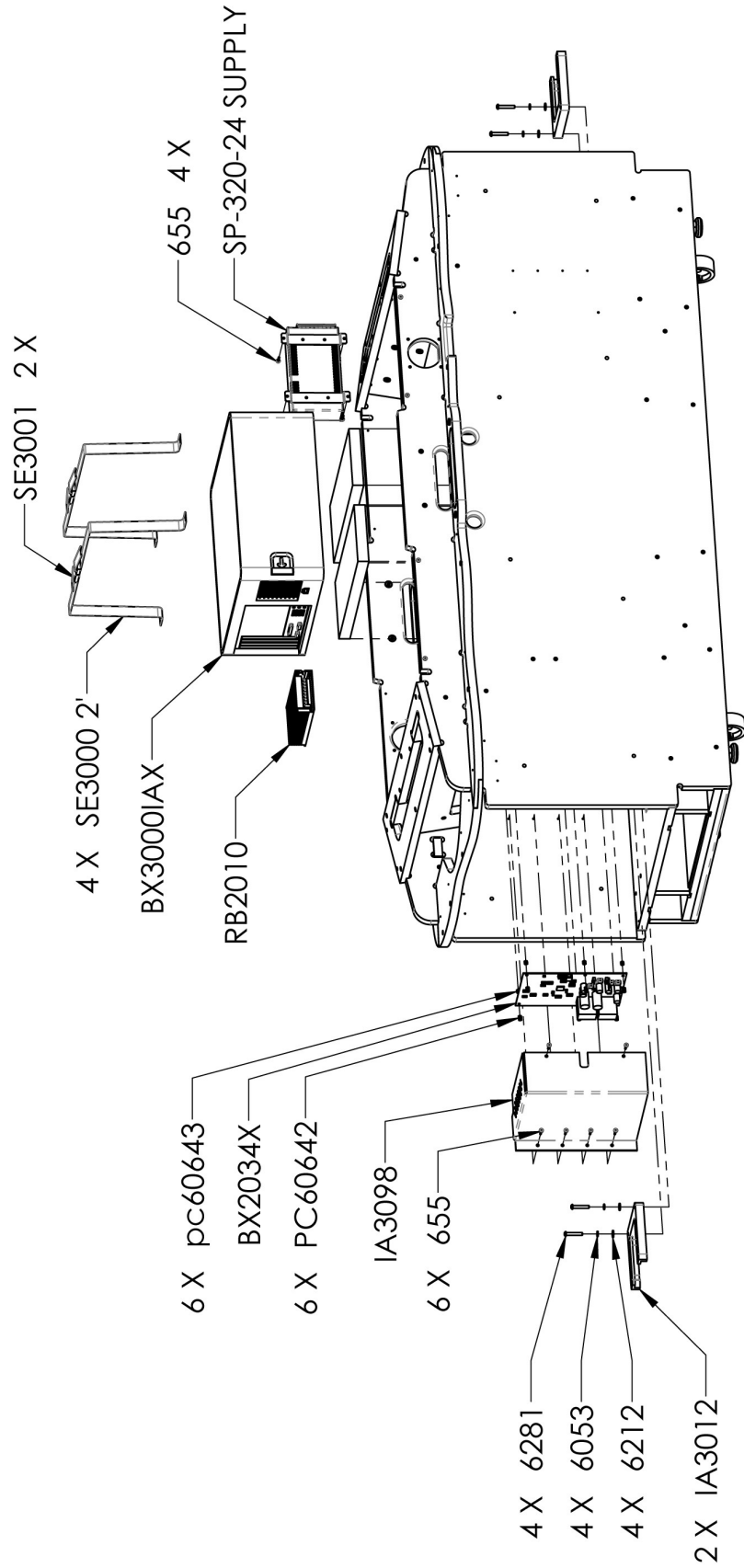
Acorn Assemblies

It is important when working with the acorns that the proper washers are used in the correct places as they protect the bearings from being damaged over time when continually being hit with the mallet.



Acorn Assemblies





Spares:

AR2007	Speaker (6x9)
E00382	Bulb CF 27W
IA7030	Scrat marquee top
MON22LG	Marquee monitor 22" LG wide DVI
BX2000IAX	Ice Age computer w/power adaptor
BX2034X	Rio I/O board
E00474	DVI-D M/M 6' cable
E00599	6' USB A/B cable
E00613	HD15 VGA to 2 HD15 VGA adaptor (for marquee)
5014	45 lock
HH5005CL	Ticket Dispenser
IA1012-P802	Coin funnel
IA1053	Acorn magnet
IA1066	Upper spring
IA1067	Lower spring
IA2010	+12vdc 10 amp power supply
IA2014	Dongle
IA2039X	Hall effect sensor (hit sensor). Dips determine player.
IA2364X	DC fan assembly
IA2090X	Restore Disk for Ice Age
IA3028	Monitor cover glass
IA4010	Mallet
MON42LCD	42" LCD monitor
PH2007X	6 Amp power mod
E00418IAAX	Crack LED lighting strip
E00418IAX	Under Snow Lighting
E004141IAX	Blue Acorn LED strips
CC3012	Bottom Coin drawer

Graphics

IA7000	Side decal Left
IA7001	Side Decal Right
IA7004	Playfield Panel
IA7005	Coin Door Decal
IA7006	Cash Box Door Decal
IA7007	Coin Mech Plate Decal
IA7030	Scrat (Squirrel)
IA7036	Inside Letter "A"



WARRANTY POLICY

I.C.E. Inc warrants all components in new machines to be free of defects in materials and workmanship for the period listed below:

- 180 days on Main PCB's, Computers & Motors
- 1 year on all LCD monitor panels
- 90 days on all other electronic and mechanical components
- 30 days on all I.C.E. repairs and parts purchases

I.C.E. Inc shall not be obligated to furnish a warranty request under the following conditions:

- Equipment or parts have failed through normal wear and tear
- Equipment has been subjected to unwarranted stress, abuse or neglect
- Equipment has been damaged as a result of arbitrary repair/modification

Products will only be covered under warranty by obtaining an I.C.E. authorized RMA #. To obtain an RMA # please provide I.C.E. tech support with the game serial # or original I.C.E. invoice # and a detailed description of the failure or fault symptoms.

I.C.E. Inc will assume no liability whatsoever for costs associated with labor or travel time to replace defective parts. All defective warranty covered components will be replaced with new or factory refurbished components equal to OEM specifications.

I.C.E. Inc will cover domestic UPS ground, or comparable shipping costs during the warranty period. International or expedited shipments are available for an additional charge. To obtain credit defective parts must be returned to I.C.E. Inc, at the customer's expense, within 30 days. After 30 days a 15% re-stocking fee will apply to all returns.

ICE distributors are independent, privately owned and operated. In their judgment, they may sell parts and/or accessories other than those manufactured by I.C.E. Inc. We cannot be responsible for the quality, suitability or safety of any non-I.C.E. part or modification (including labor) that is performed by such a distributor.

